FOLD HERE →

150403

LICENCE NO.: | WELL NAME AND NO.:

OPERATOR: | CONTRACTOR:

SURFACE LOCATION: | UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H2S Signs Posted (if required) — Initial / Initial
(4) Well Licensee & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR | MONTH | DAY

RIG NO.

FUEL @ 8:00

RIG | BOILER

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

WEATHER

TEMPERATURE °C
CURRENT CONDITIONS
WIND DIRECTION
ROAD

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME - HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.																									
DAY																									
EVE.																									
TOTAL																									

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP
MIDDLE | MIDDLE
BOTTOM | BOTTOM

RENTALS/SERVICES — MORN. / DAY / EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

July 12/2000
Attempt to Move Rig
To Lake.
Cancelled Due to Rain.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

July 13/00
Cancelled Rig Move
due to Rain
Send hands Home.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.
SIZE (mm)
IADC CODE
MFG.
TYPE
SERIAL NO.
JETS (mm)
DEPTH OUT (m)
DEPTH IN (m)
TOTAL METRES DRILLED (m)
TOTAL HOURS RUN

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

July 13 - Aug 9/00

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150401

LICENCE NO.: | WELL NAME AND NO.:

OPERATOR: | CONTRACTOR:

SURFACE LOCATION: | UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	CPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR | MONTH | DAY

RIG NO.

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.																								
	DAY																								
	EVE.																								
	TOTAL																								

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES

	MORN.	DAY	EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC | 1000 daN

WT. OF STRING | 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Unload Rig at Ft. Liard.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC | 1000 daN

WT. OF STRING | 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

July 22/2000

Un Load Rig Ft. Liard.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC | 1000 daN

WT. OF STRING | 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150405

LICENCE NO.:

WELL NAME AND NO.: CDN FOREST et. (NORTH LIARD C-31

OPERATOR:

CONTRACTOR:

SURFACE LOCATION:

UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Telling

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR | MONTH | DAY

RIG NO.

FUEL @ 8:00

RIG | BOILER

WEATHER

TEMPERATURE °C

CURRENT CONDITIONS

WIND DIRECTION

ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.																								
	DAY																								
	EVE.																								
	TOTAL																								

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES — MORN. | DAY | EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

off Load Rig at Staging Site.

July 23, 2000

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

July 24/00

Off Load Rig at Staging Site.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

July 25/00

Off Load Rig at Staging site.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150406

LICENCE NO.:

WELL NAME AND NO.: CDN FOREST et al NORTH LANROC 3-1

OPERATOR: Canadian Forest Oil

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION:

UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Halbig

SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lenk

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 MONTH 07 DAY 26

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.																					Drift on hand			
	DAY																					12 July 26, 2000			
	EVE.																					12 July 27, 2000			
	TOTAL																					12 July 28, 2000			

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES — MORN | DAY | EVE

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO. | BIT | O.D. mm | LENGTH

D.P. | STANDS

D.P. | SINGLES

KELLYDOWN

TOTAL

WT. OF DC (1000 daN)

WT. OF STRING (1000 daN)

BIT RECORD

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	22	Travel To Fort Liard.
				Pick up Crew Truck & D6H Cat air
				Travel To Rig Site, Held Safety meeting
				Clean Rig & unload Trucks
				Wait on Lease.
				July 26, 2000

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Rig move	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO. | BIT | O.D. mm | LENGTH

D.P. | STANDS

D.P. | SINGLES

KELLYDOWN

TOTAL

WT. OF DC (1000 daN)

WT. OF STRING (1000 daN)

BIT RECORD

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	22	Unload Trucks, Clean Rig
				Ready Rig For move To Lease & Rig up.
				Check Crown Bolts, Change Boot on Table
				Grease Draw Works, Crown Shives
				Tugger line Shives, Tong Shives.
				Wait on lease.
				July 27, 2000.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO. | BIT | O.D. mm | LENGTH

D.P. | STANDS

D.P. | SINGLES

KELLYDOWN

TOTAL

WT. OF DC (1000 daN)

WT. OF STRING (1000 daN)

BIT RECORD

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	22	Wait on Lease
				Repair hydraulic Tank
				Cut open Building doors.
				July 28, 2000

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

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150407

LICENCE NO.: | WELL NAME AND NO.: CDN FOREST et al North Lined C-21

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: | UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 00 | MONTH 04 | DAY 24

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.																										
DAY																										
EVE.																										
TOTAL																										

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	1	move rig onto Lease Spot Sub mattins, Spot & Pin Sub Spot B.O.P.'s, unload pipe & collars. Rig move Stopped Due To Rain

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
				Wait on Weather For Rig move Due To Rain

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150408

LICENCE NO.: | WELL NAME AND NO.: CDN Forest et al North Fiard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: | UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Pethers | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 07 | DAY 30

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.																								
	DAY																								
	EVE.																								
	TOTAL																								

TOTALS

SHALE SHAKER(S): NO. | TYPE | SCREENS CHANGED ☐ YES ☐ NO | TOP | TOP | MIDDLE | MIDDLE | BOTTOM | BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)
HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Doug Pethers

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	24:00	16	1	Put in Sub spreaders, Put up Drawworks Put up Doghouse. Spot matting and spot Buildings. Pin Derrick

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)
HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	2400	16	1	Pin Derrick, spot matting Spot Buildings

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)
HOURS RUN	INTAKE DENSITY (kg/m)	OVERFLOW DENSITY (kg/m)	UNDERFLOW DENSITY (kg/m)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

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150409

LICENCE NO.:

WELL NAME AND NO.: CDN Forest et (Northland C-31

OPERATOR: Canadian Forest Oil

CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION:

UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 08 MONTH 07 DAY 31

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.																									
DAY																									
EVE.																									
TOTAL																									

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1800	2200	14	1	string lines to Derrick
				String Blocks, Rig up mud Tanks

NOTES Held Safety Meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	22:00	14	1	Spot Fuel Tanks and SCR.
				Plug in Power Cords.
				Spot and Hook up Suitcases.
				Hook up Fuel lines, Water lines, Air lines.
				Hook up hydraulic lines.
				Hook up Drawworks Blower line.

NOTES Held Safety meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Rig move	

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150410

LICENCE NO.:

WELL NAME AND NO.: Canadian Forest Etah North Ward C-81

OPERATOR: Canadian Forest Oil

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION:

UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Colby Pitt

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 80 MONTH 05 DAY 01

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.																								
	DAY																								
	EVE.																								
	TOTAL																								

TOTALS

SHALE SHAKER(S): NO. | TYPE; SCREENS CHANGED ☐ YES ☐ NO; TOP | TOP; MIDDLE | MIDDLE; BOTTOM | BOTTOM

RENTALS/SERVICES | MORN. | DAY | EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.; SIZE (mm); IADC CODE; MFG.; TYPE; SERIAL NO.; JETS (mm); DEPTH OUT (m); DEPTH IN (m); TOTAL METRES DRILLED (m); TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME; DENSITY kg/m³; FUNNEL VIS. - (S/L); W.L. (cm³); pH

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY: DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE: Ken Tebb

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	16:00	8	1	Put clamps on derrick for Torque Tube. Inspect Derrick & Raise. Rig in Floor plates on floor & Hook up winch lines

NOTES ✓ Brake linkage, Deadline Anchor, Fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.; SIZE (mm); IADC CODE; MFG.; TYPE; SERIAL NO.; JETS (mm); DEPTH OUT (m); DEPTH IN (m); TOTAL METRES DRILLED (m); TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME; DENSITY kg/m³; FUNNEL VIS. - (S/L); W.L. (cm³); pH

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY: DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	24:00	16	1	Start Generators, Spool line on Drum, inspect & Raise Derrick @ 13:30 hrs. Plug cords For Top Drive SCR Rig up Floor. Rig up Torque Tube For TOP Drive.

NOTES ✓ Brakes & linkage, ✓ Deadline Anchor & Fastline Clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.; SIZE (mm); IADC CODE; MFG.; TYPE; SERIAL NO.; JETS (mm); DEPTH OUT (m); DEPTH IN (m); TOTAL METRES DRILLED (m); TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME; DENSITY kg/m³; FUNNEL VIS. - (S/L); W.L. (cm³); pH

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY: DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150411

LICENCE NO.:	WELL NAME AND NO.: Canadian Forest et al North Laird C-31
OPERATOR: Canadian Forest Oil	CONTRACTOR: Akita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Holtby	SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Leach

DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR	MONTH	DAY
80	08	02

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.	8																									
DAY	8																									
EVE.	8																									
TOTAL	24																									

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0500	5	1	Rig up Torque Tube For Top Drive
0500	0800	3	1	Pick up Top Drive Too Floor & Rig up
				Load pump #1

NOTES √ Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	83 SX.
Soda Ash	1 SX.
Pot. Sulph.	56 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152			

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	16:00	8	1	RIG UP TOP Drive, Put on Torque bushing
				Pin Top Drive, String Cables
				Weld Diverter Flange onto Conductor
				mix Spud mud

NOTES √ Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph	56 SX
Drispac-R	2 SX
Sod. Sulf.	2 SX
Caustic	2 pails

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	2400		1	RIG UP TOP Drive.
				Hook up Hydraulics & Power lines
				on TOP Drive

NOTES √ Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150412

LICENCE NO.	WELL NAME AND NO.
1902	Canadian Forest Etal North Laird C-31
OPERATOR	**CONTRACTOR**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION	**UNIQUE ID.**
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
	Dave Lamb

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
00	05	05

RIG NO. 58

FUEL @ 8:00

RIG 170 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.	6													2 8										
	DAY																								
	EVE.																								
	TOTAL																								

TOTALS

SHALE SHAKER(S)

NO. TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS/SERVICES

	MORN.	DAY	EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
00:00	06:00	6	1
06:00	08:00	2	14

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Rig up power cords to Top Drive
Put turnbuckles on Torque Tube
Put on Rotary chain guard
NIPPLE UP DIVERTER

NOTES ✓ deadline Anchor, Fastline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	16:00	8	14

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Nipple up Diverter
Hooded Pump #2 with Porcelain Liners

NOTES ✓ Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
D.P.	STANDS		m
D.P.	SINGLES		m
KELLY DOWN			m
TOTAL			m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aksonic 110	1 SX
Caustic	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	1800	2	1
1800	2400	5	

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NIPPLE UP DIVERTER
CONTINUE TO RIG TESCO.

NOTES FASTLINE CLAMP - DEADLINE ANCHOR - BRAKE LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

FOLD HERE →

150413

LICENCE NO.: 1900

WELL NAME AND NO.: Canadian Forest Otah North Hearl C-31

OPERATOR: Canadian Forest Oil

CONTRACTOR: AKITA Drilling LTD

SURFACE LOCATION:

UNIQUE ID.:

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 06 MONTH 08 DAY 04

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
							F-1000	Emsco	254
							F-1000	Emsco	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	PRESPUD				
MORN.	8																									
DAY	2½	3¼				13¼									¼						¼					
EVE.	3½	3½			3	1	¼			¼																
TOTAL	10½	6¾			3	23¾	¼			¼					¼						¼					

TOTALS 8

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLO

SCREENS CHANGED ☐ YES ☐ NO

TOP	110	TOP	110
MIDDLE	110	MIDDLE	110
BOTTOM	110	BOTTOM	110

RENTALS/SERVICES

	MORN	DAY	EVE
Totem mT-326593			
Accum mJ-5496			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	06:30
DENSITY kg/m³	1050
FUNNEL VIS. - (S/L)	42.
W.L. (cm³)	
pH	10.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
StarPak Lignite	20 SKS 1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	08:00	8	1	Rig up Top Drive, Put on Kelly hose measure BHA, Lengthen S-Pipe For Kelly hose

NOTES √ Fastline Clamp, Deadline Anchor, Brakes & linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Motor		7.87 m
	Float Sub		.63 m
	Mule Shoe		.61 m
	NMDC		9.45 m
2	6¾ DC		19.13 m
	XO		.97 m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		38.27 m
	TOTAL		m
WT. OF DC			5000 1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	222
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF 863
JETS (mm)	3X18
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	14:00	18:00
DENSITY kg/m³	1060	1060
FUNNEL VIS. - (S/L)	37	35
W.L. (cm³)	11.0	11.3
pH	11.7	10.4
P.V. / Y.P.	96.7	41.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulfite	5 SKS
Carimex	5 Pails
Alkamer HO	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
0	38 m	D	31	4-5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5000	152	70		

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Leo Burdon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1030	2½	1	Rig up Top Drive & Rig Floor
1030	1130	1	6	Make Pilot BHA
1130	1145	¼	15	Test Diverter Function
1145	1200	¼	22	Prespud Meeting
1200	1515	3½	2	Drill Hole 0m - 38m
1515	1600	¾	6	POH For Plugged Jets.

NOTES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Motor		7.87 m
	Float Sub		.63 m
	Mule Shoe		.61 m
	NMDC		9.43 m
3	171 DC		28.67 m
1	Jar		5.61 m
1	171 DC		9.55 m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	222
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF 863
JETS (mm)	3X18
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	61
TOTAL HOURS RUN	6¾

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1060	1065	1060
FUNNEL VIS. - (S/L)	32.	52	68
W.L. (cm³)	10.	9	9
pH	11.5	11.0	10.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
38 m	61	23	20	4-5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3700	152	100	152	

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
39 m	3/4	

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:00	1	6	R.I.H.
17:00	18:00	1	5	Wash To Bottom. Work Tight hole
18:00	19:00	1	2	Drill From 38m - 49 m
19:00	21:00	2	5	Work & Clean Tight hole.
21:00	21:15	¼	10	Survey
21:15	23:45	2½	2	Drill F/49m - 61m
23:45	24:00	¼	7	RIS

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

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150414

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Liard C-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
	Dave Tench

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
00	08	05

RIG NO. 56

FUEL @ 8:00

RIG 1.46 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
203		DC		305					
219		DC		273		8	F-1000	Emsco	254
228		DC		298	7H90	9	F-1000	Emsco	254
171		DC		171	5H90	26			
127	29.02	DP		150	4½IF	174			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
																							Flow ✓	Top Drive			
	MORN.		2½	1¼		3½		¼															½	1			
	DAY		2			6½																		1			
	EVE.		4½			2		¼			¼																
	TOTAL		9	1¼		11½		½			¼												½	1			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.C.	TmJ-326990			
8	SCREENS CHANGED ☐ YES ☒ NO	AmJ-5893			
8	TOP 110 TOP 110	Accum oil-			
8	MIDDLE 110 MIDDLE 110				
24	BOTTOM 110 BOTTOM 110				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	motor		7.87 m
1	Float Sub		.63 m
1	mule shoe		.61 m
1	NMDC		9.43 m
3	171 DC		28.67 m
1	Jar		5.61 m
2	171 DC		19.11 m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		8.19 m
	TOTAL		64.00 m
WT. OF DC			16 1000 daN
WT. OF STRING			31 1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	222
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF863
JETS (mm)	3X18
DEPTH OUT (m)	-
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	64
TOTAL HOURS RUN	9¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	03:00	05:00	07:00
DENSITY kg/m³	1070	1060	1060
FUNNEL VIS. - (S/L)	87	120	120
W.L. (cm³)	11.	10.5	9
pH	9.5	9.	9.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	109sx
Soda Ash	2.5t
Lignite	1sk
Alcomer	2.5x
Potassium Sulph	56sx
Sawdust	25sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	D&D RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
61	64	3	20	4-5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3700	152	100	152	

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:45	1¾	2	Drill F/61m - 63m, Work Torque Free hole
01:45	02:00	¼	22	Lost 2m³, Flow ✓, minor losses, mix sawdust
02:00	02:15	¼	2	Drill F/63m - 63.5m
02:15	02:30	¼	22	Lossing circ, motor loss - 10 m³, Flow ✓
02:30	04:30	2	5	Circulate, mix & Build volume, raise Vis To 120
04:30	04:45	¼	7	TRIS
04:45	06:00	1¼	3	Work Pipe Ream 5m To bottom
06:00	06:30	½	2	Drill F/63.5m - 64m
06:30	08:00	1½	5	Condition mud - mud going over shakers due To Alcomer Treatment.

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor.
Brakes & linkage ✓, ✓ Fire extinguishers & Eye wash Stations.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	motor		7.87 m
1	FLOAT SUB		.63 m
1	MULE SHOE		.61 m
1	NMDC		9.43 m
3	171 DC		28.67 m
1	JAR		5.61 m
3	171 DC		28.15 m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		1.22 m
	TOTAL		80.00 m
WT. OF DC			1000 daN
WT. OF STRING			38.000 1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	222
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF863
JETS (mm)	3X18
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	80
TOTAL HOURS RUN	11¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	90,000 MAX UP
TORQUE AT BOTTOM	8000 Ft/lbs
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	10:00	13:00	18:00
DENSITY kg/m³	1065	1070	1080
FUNNEL VIS. - (S/L)	59	97	110
W.L. (cm³)			
pH	8.0	9.0	9.5
P.V. T.Y.			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot-Sulph.	168 5x5
Gel	120 5x5
Lignite	3 5x5
Soda Ash	3 5x5
Coiner	4 pails
Sod. Sulfite	4 5x5
Lime	2 5x5

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1070	1060	2100

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	D&D RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
64	80	16	31	5-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6000	152	70	152	70

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
67.22	1.5	23 AZ

DRILLER SIGNATURE

Leo Duquadon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	½	5	CIRC & COND MUD MUD RING OVER
0830	0900	½	2	SHAKER DUE TO ALCOMER TREATMENT
0900	1430	5½	5	DRILL 64m - 74m
1430	1600	1½	2	CIRC & COND MUD
				DRILL 74m - 80 m

NOTES CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				THICK MUD	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	motor		7.87 m
1	Float Sub		.63 m
1	mule shoe		.61 m
1	NMDC		9.43 m
3	DC	171	28.67 m
1	Jar		5.61 m
5	DC	171	46.57 m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	- 5.64 m
Stick up	KELLY DOWN		9.19 m
	TOTAL		94.00 m
WT. OF DC			23 1000 daN
WT. OF STRING			39.000 1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	222
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF863
JETS (mm)	3X18
DEPTH OUT (m)	-
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	94
TOTAL HOURS RUN	15¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	20:30	22:30	2400
DENSITY kg/m³	1090	1085	1090
FUNNEL VIS. - (S/L)	97	130	130
W.L. (cm³)			
pH	8.5	9.0	9.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	D&D RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
80	94	14	37	4-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6200	152	70	157	70

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	¼	2	DRILL 80m - 81m
1615	1645	½	22	TOP DRIVE SER.
1645	1715	½	5	CIRC BEFORE SURVEY
1715	1730	¼	10	SURVEY @ m
1730	1815	¾	2	DRILL 81m - 82m
1815	1845	½	22	DISCONNECT COM. CYLINDERS
1845	1930	3¼	2	DRILL 82m - 84
19:30	20:30	1	5	Work & Clean hole.
20:30	22:30	2	2	Drill F/84m - 91m
22:30	23:00	½	5	Work & clean hole.
23:00	23:15	¼	7	RIS.
23:15	24:00	¾	2	Drill F/91m - 94m

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

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150415

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)
(1) Daily Walk Around Inspection
(2) Detailed Inspection Weekly (using checklist)
(3) HS Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines
(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 | MONTH 05 | DAY 06 | RIG NO. 58

FUEL @ 8:00 | RIG 134 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
171		DC			7-5/8 Reg	9	F-1000	Emsco	254
146		DP			5 1/2 IF	126			
121		DP			4 1/2 IF	174	F-1000	Emsco	354
203		DC				1			
159		DC				29			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 TO/LD BHA	24	25	26
MORN.			6 3/4			1 1/4		1/4			1/2														
DAY			3 1/4			3 1/4	1/2	1/2			1/2														
EVE			1 1/2				1 1/2																5		
TOTAL			10 3/4			4 1/2	2	3/4			1												5		

TOTALS: 8 / 8

SHALE SHAKER(S): NO. 2 | TYPE Derrick F.L.G. | SCREENS CHANGED ☐ YES ☒ NO | TOP 110 | TOP 110 | MIDDLE 110 | MIDDLE 110 | BOTTOM 110 | BOTTOM 110

RENTALS/SERVICES (MORN. / DAY / EVE.)
Tmj-327457
Amj-6360
Accum oil-.28

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	motor		7.87 m
1	Float Sub		.63 m
1	mule shoe		.61 m
1	NMDC		9.43 m
3	D.C.	171	28.67 m
1	Jar		5.61 m
6	D.C.	171	56.13 m
1	X10		1.41 m
		BHA:	110.66 m
	D.P.	STANDS	19.29 m
2	D.P.	SINGLES	10.51 m
	KELLY DOWN		2.10 m
	TOTAL		132.00 m
WT. OF DC			13 1000 daN
WT. OF STRING			126 000 1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	222.9
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF863
JETS (mm)	3X18
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	132
TOTAL HOURS RUN	21 3/4

CUTTING STRUCTURE: T | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1080	1090	1090
FUNNEL VIS. - (S/L)	110	145	140
W.L. (cm³)			
pH	9.5	9.0	8.0
P.V.T m³	24.7	27.2	29.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	30sx
Soda Ash	15k.
Sodium Silicate	45x
Aquagel	56sx
Carinox	4 pails
Caustic	2sx
Lignite	15k

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DIAM. RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
94	132	38	37	5-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6950	152	70	152	70

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
85	1 1/2	45 Az
114	1	43 Az

DRILLER SIGNATURE: Gerry Pahuk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:45	3/4	2	Drill 222 mm hole F/94m-99m
00:45	01:00	1/4	7	RIS Service Top Drive
01:00	01:30	1/2	5	Circ & clean hole For survey
01:30	01:45	1/4	10	Survey @ 85m
01:45	05:45	4	2	Drill F/99m-128m
05:45	06:30	3/4	5	Work & clean hole
06:30	06:45	1/4	10	Survey @ 114m
06:45	08:00	1 1/4	2	Drill F/128m-132m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & linkage.

BOILER: HRS. RAN | ph | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC | M.A.C.P.
0

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
	MOTOR		7.87 m
	FLOAT SUB		.63 m
	MULE SHOE		.61 m
	NMDC		9.43 m
3	DC	171	28.67 m
	JAR		5.61 m
6	DC	171	56.13 m
	XO		1.41 m
2	D.P.	STANDS	57.22 m
2	D.P.	SINGLES	9.45 m
	KELLY DOWN		2.72 m
	TOTAL		190.00 m
WT. OF DC			1000 daN
WT. OF STRING			39000 1000 daN

BIT RECORD

BIT NO.	1A
SIZE (mm)	215.9
IADC CODE	
MFG.	HW
TYPE	J7
SERIAL NO.	CF863
JETS (mm)	3x18
DEPTH OUT (m)	190
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	190
TOTAL HOURS RUN	25

CUTTING STRUCTURE: T 8 | T0 3 | MDC FC | LOC A | B F | Gage 4 | ODC NO | Reason Pulled TD | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	8:00	13:30
DENSITY kg/m³	1090	1090
FUNNEL VIS. - (S/L)	78	54
W.L. (cm³)		
pH	8.0	9.0
P.V.T	28.0	30.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	143 sxs
Soda Ash	4 sxs
M.I. Sulph	56 sxs
Staypar	11 sxs
Carinox	2 pails
Sod. Sulf.	2 sxs
Caustic	1 sx
Lignite	45 xs

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DIAM. RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
132	190	38	31	5/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6000	152	70	152	70

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
142.58	1.5	37 Az
171.69	.75	28 Az

DRILLER SIGNATURE: Gerry Pahuk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0900	1	2	DRILL 132m-156m
0900	0915	1/4	5	CIRC PRIOR TO SURVEY
0915	0930	1/4	10	SURV-142.58m
0930	1000	1/2	2	DRILL 156m-166m
1000	1030	1/2	7	SERV-TOP DRIVE
1030	1215	1 1/2	2	DRILL 166m-190m
1215	1300	3/4	5	CIRC & COND HOLE
1300	1315	1/4	10	SURV 171.69m.
1315	1530	2 1/4	5	CIRC & COND
1530	1600	1/2	6	POOH PILOT BIT

NOTES: √Check COM/SAFER-FASTLINE CLAMP-DEADMAN ANCHOR.

BOILER: HRS. RAN | ph | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC | M.A.C.P.
Pick up 381 mm DC

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.56 m
1	B/S		.72 m
1	D.C.	381	9.80 m
1	X/O		1.05 m
1	X/O		1.38 m
1	X/O		1.41 m
1	HWDP		9.09 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
Stabs	KELLY DOWN		7.01 m
	TOTAL		17.50 m
WT. OF DC			1000 daN
WT. OF STRING			20 1000 daN

BIT RECORD

BIT NO.	2A
SIZE (mm)	660
IADC CODE	
MFG.	OL Hughes
TYPE	R3
SERIAL NO.	BB895
JETS (mm)	20 15, 15, 15
DEPTH OUT (m)	—
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	17
TOTAL HOURS RUN	1 1/2

CUTTING STRUCTURE: T | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	24:00
DENSITY kg/m³	1080
FUNNEL VIS. - (S/L)	180
W.L. (cm³)	
pH	11.0
P.V.T	23.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DIAM. RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
0	17	17	60	5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
680	152	85	152	

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gerry Pahuk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1730	1 1/2	6	TOOH PILOT BIT
1730				PICK UP FIRST 381 mm COLLAR-BIT
	22:30	5	22	make up 15" BHA.
22:30	24:00	1 1/2	2	open hole up TO 660 mm From 0m-17m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor Brakes & linkage.

BOILER: HRS. RAN | ph | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC | M.A.C.P.
0

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150416

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Etal North Liard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 08 | DAY 07 | RIG NO. 58

FUEL @ 8:00 | RIG 2.04 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
381		DC	.71	381	6⅝ REG	2			
328		DC	.76	328	7H90	9	F-1000	Emsco	254
127		HW		165	4½ IF	17	F-1000	Emsco	254
178		DC	.62	178	5H90	26			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		5					1/2															P/U 15" BHA				
DAY		7½					½															2½				
EVE.		3½			4¼					¼																
TOTAL		16			4¼		1			¼												2½				

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.C.		TmJ-327679			
8	SCREENS CHANGED ☐ YES ☐ NO		AmJ-6582			
8	TOP 140	TOP 84	Accum oil-.28			
8	MIDDLE 110	MIDDLE 84				
24	BOTTOM 110	BOTTOM 84				

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.56 m
1	B/S		.72 m
2	DC	381	18.78 m
1	X/O		1.05 m
1	NMDC		9.32 m
1	X/O		1.38 m
1	X/O		1.41 m
1	HWDP		9.09 m
			m
	TOTAL		42.31 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
Stuck up	KELLY DOWN		8.31 m
	TOTAL		34.00 m
WT. OF DC			1000 daN
WT. OF STRING			30 1000 daN

BIT RECORD

BIT NO.	2A
SIZE (mm)	660
IADC CODE	
MFG.	HUGHES
TYPE	R3
SERIAL NO.	BB895
JETS (mm)	15.9, 17.5, 19
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	17
TOTAL HOURS RUN	6½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:30
DENSITY kg/m³	1090	1090
FUNNEL VIS. - (S/L)	140	135
W.L. (cm³)		
pH	11	11
PVT	32.0	33.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulph	25x
Corinox	2 pails
Pot. Sulph	49 sx
Starpac	25x

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
17	34	17	60	5/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
840	152	110	152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:45	1¾	2	Drill 660mm hole F/17m-23m
01:45	02:15	½	7	RIS, Draw Works & TOP Drive
02:15	04:45	2½	22	Change over Tongs, etc, Pick up 15" D.C.
04:45	08:00	3¼	2	Drill F/23m-34m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held Safety meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				P/U 15" D.C.'s	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	B/S		.72 m
2	DC	381	18.78 m
	X/O		1.05 m
1	NMDC		9.32 m
	JAR		5.18 m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		.30 m
	TOTAL		63.00 m
WT. OF DC			43,000 1000 daN
WT. OF STRING			43,000 1000 daN

BIT RECORD

BIT NO.	2A
SIZE (mm)	660
IADC CODE	
MFG.	HWT
TYPE	R3
SERIAL NO.	BB895
JETS (mm)	15.9, 17.5, 19
DEPTH OUT (m)	—
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	63
TOTAL HOURS RUN	14

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:30	13:30	15:00
DENSITY kg/m³	1070	1090	1090
FUNNEL VIS. - (S/L)	70	140	140
W.L. (cm³)		12.2	7.5
pH	10.0	10.0	10.0
P.V.T m³	39.0	36.8	37.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulf	2 sxs
Corinox	2 pails
Drispac	4 sxs
Pot. Salp	56 sxs

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
34	63m	D	100	5/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3800	152	100	152	100

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dan Swanson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	14:15	6¼	2	Drill 34m-47m
14:15	14:45	½	7	Top Drive Service
14:45	16:00	1¼	2	Drill 47m-63m

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			43000	MAKEup DC's	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.56 m
1	BIT SUB		.72 m
2	D.C.	381	18.78 m
1	X/O		1.05 m
1	NMDC		9.32 m
1	Jar		5.18 m
3	D.C.	228	27.69 m
1	X/O		1.38 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA=	93.13 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
Sticky	KELLY DOWN		17.13 m
	TOTAL		76.00 m
WT. OF DC			1000 daN
WT. OF STRING		45	1000 daN

BIT RECORD

BIT NO.	2A
SIZE (mm)	660
IADC CODE	
MFG.	HWT
TYPE	R3
SERIAL NO.	BB895
JETS (mm)	15.9, 17.5, 19
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	76
TOTAL HOURS RUN	17½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	17:30	2200	24:00
DENSITY kg/m³	1080	1075	1070
FUNNEL VIS. - (S/L)	75	110	95
W.L. (cm³)	8.0	8.3	13.
pH	10.0	10	10
P.V.T m³	38.0	53.1	51.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
63	76	13	100	5/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5000	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	¼	2	Drill 63m-65m
1615	1800	1¾	5	Circ & Clean & Recland To BTM
1800	1815	¼	10	Survey
1815	19:30	1¼	2	Drill 65m-73m
19:30	20:15	¾	5	Work & Clean Tight hole.
20:15	21:45	1½	2	Drill F/73m-75m
21:45	23:30	1¾	5	Work & clean Tight hole.
23:30	24:00	½	2	Drill F/75m-76m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			100 000 DaN		

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150417

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Btat North Hard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 08 | DAY 08

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
203		DC	71	381	6⅝ REG				
228		DC	76	228	7⅝ REG	9	F-1000	Emsco	254
178		DC	72	178	5½ REG	26	F-1000	Emsco	254
127		HW	76	159	4½ IF	17			
127		E2	108	156	"	174			

TIME-HRS

CODE NO.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
OPER.																						Break Contact				
MORN.		6			1		½															½				
DAY		7¼			¼	¼				¼																
EVE.		3¼			½	3¼	½			½																
TOTAL		16½			1¾	3¼	1			1¼												1/2				

TOTALS	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.G.	TmJ-327738			
8	SCREENS CHANGED ☐ YES ☒ NO	A mJ-6641			
8	TOP 140 TOP 84	Accumulk-32			
8	MIDDLE 110 MIDDLE 84				
24	BOTTOM 110 BOTTOM 84				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.56 m
1	Bit Sub		.72 m
2	DC	381	18.78 m
1	X10	269	1.05 m
1	NMDC	224	9.32 m
1	Jar	225	5.18 m
3	DC	228	27.69 m
1	X10		1.39 m
3	DC	178	28.67 m
1	X10		1.41 m
3	HWDP		27.04 m
	D.P. STANDS		m
	D.P. SINGLES		m
Stickup	KELLY DOWN		26.80 m
	TOTAL		95.00 m
WT. OF DC			1000 daN
WT. OF STRING		45	1000 daN

BIT RECORD

BIT NO.	2A
SIZE (mm)	660
IADC CODE	
MFG.	HWT
TYPE	R3
SERIAL NO.	BB895
JETS (mm)	15.9, 17.5, 19
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	95
TOTAL HOURS RUN	23½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1070	1075	1080
FUNNEL VIS. - (S/L)	140	110	125
W.L. (cm³)	13	15	15
pH	9.5	9.5	9.0
PVT m³	56.9	58.0	57.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potass Sulph.	56 sx
Carbonox	2 pails
Sodium Sulph.	25 x
STARPAC	20 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DP-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
76	95	19	110	5-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5000	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: George Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	05:00	5	2	Drill 660mm hole F/76m-92m
05:00	06:00	1	5	Work & Clean hole.
06:00	06:30	½	7	R/S Top Drive & Drawworks.
06:30	07:00	½	22	make connection, Try To break Tot Joints
07:00	08:00	1	2	Drill F/92m-95m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			56 m
	Bit Sub		.72 m
2	DC	381	18.78 m
	X10	269	1.05 m
1	NMDC	224	9.32 m
1	JAR	225	5.18 m
3	DC	228	27.69 m
	X10		1.38 m
3	DC	178	28.67 m
	X10		1.41 m
3	HWDP		27.04 m
	D.P. STANDS		m
	D.P. SINGLES		m
	KELLY DOWN		4.80 m
	TOTAL		117 m
WT. OF DC			1000 daN
WT. OF STRING		45000	1000 daN

BIT RECORD

BIT NO.	2A
SIZE (mm)	660
IADC CODE	
MFG.	HWT
TYPE	R3
SERIAL NO.	BB895
JETS (mm)	15.9 17.5 19
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	117
TOTAL HOURS RUN	30.75

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	11:30	15:00
DENSITY kg/m³	1110	1108	1110
FUNNEL VIS. - (S/L)	124	116	200
W.L. (cm³)	16.0	16.0	
pH	8.5	8.0	7.1
PVT m³	57.0	56.6	56.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod Sulfite	3 sxs
Carbonox	2 pails
Lime	1 sxs
Pot. Sulph.	5 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DP-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
95	117	22	120	10/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
4000	152	100	152	100

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
71	.25	.336 AZ

DRILLER SIGNATURE: Les Bullyaon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0815	¼	6	Pick up 1STD DC
0815	0915	1	2	DRILL 95m - 96m
0915	0930	¼	10	SURVEY 71m
0930	1545	6½	2	DRILL 96m - 116m.
1545	1600	¼	5	CIRC BEFORE SURVEY

NOTES: Check CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				CONNECTIONS	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.56 m
1	B/S	269	.72 m
2	DC	381	18.78 m
1	X10	269	1.05 m
1	NMDC	224	9.32 m
1	Jar	225	5.18 m
3	DC	228	27.69 m
1	X10	224	1.38 m
9	DC	178	84.80 m
1	X10		1.41 m
3	HWDP		27.04 m
	D.P. STANDS	1	16.93 m
	D.P. SINGLES		m
Stickup	KELLY DOWN		- 16.93 m
	TOTAL		161.00 m
WT. OF DC			1000 daN
WT. OF STRING		48000	1000 daN

BIT RECORD

BIT NO.	2A	3A
SIZE (mm)	660	660
IADC CODE		1 3 1
MFG.	HWT	Smith
TYPE	R3	DGJ
SERIAL NO.	BB895	KW0853
JETS (mm)	15.9 17.5 19	19 19 19
DEPTH OUT (m)	117	
DEPTH IN (m)	0	117
TOTAL METRES DRILLED (m)	117	44
TOTAL HOURS RUN	30.75	3¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

6 | 6 | WT | A | 6 | 1 | 0 | RPM | 30

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1110	1100	1100
FUNNEL VIS. - (S/L)	200	110	110
W.L. (cm³)			
pH	9.0	9.0	9.0
PVT m³	69.2	54.0	49.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DP-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
117	161	44	120	5-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6000	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
MD 88	½	58 AZ
116	½	217 AZ

DRILLER SIGNATURE: Barry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	¼	10	SURVEY @ 112m
1615	1815	2	6	POH FOR BIT
1815	1845	½	6	CHANGE BIT
1845	19:30	¾	6	RIH WITH NEW BIT
19:30	21:45	2¼	2	Drill 660mm hole F/117m-142m
21:45	22:15	½	5	Work & Clean hole before survey
22:15	22:30	¼	10	Survey
22:30	23:00	½	2	Drill F/142m-150m
23:00	23:30	½	7	R/S, TOP DRIVE
23:30	24:00	½	2	Drill F/150m-161m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Connections	

FOLD HERE →

150418

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest oil | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) *HPS Signs Posted (if required)*	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 MONTH 08 DAY 09

RIG NO. 58

FUEL @ 8:00

RIG 1.59 BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
381		DC	77	240	6⅝ REG	9	F-1000	Emsco	254
228		DC	76	223	4½ IF	29	F-1000	Emsco	254
178		DC	73	178	5440	17			
127		HW	76	127	4½ IF	174			
127		E75	108	156					

TIME-HRS

CODE NO.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
OPER.																										
MORN.		2			3¼	3	½			¼																
DAY		1			1½	5¼				¼																
EVE.						2½	¼					5									¼					
TOTAL		3			3¾	10¾	¾			¾		5									¼					

TOTALS

8	
9	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE Derrick F.L.G.

SCREENS CHANGED ☐ YES ☒ NO

TOP		TOP	
MIDDLE	110	MIDDLE	84
BOTTOM	110	BOTTOM	84

RENTALS/SERVICES

TMJ-327854

AMJ-6757

Accum oil - .32

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1			.56
1	B15	269	.72
2	DC	381	18.78
1	X10	269	1.05
1	NMDC	224	9.32
1	Jar	225	5.18
3	DC	228	27.69
1	X10	224	1.38
9	DC	178	84.80
1	X10		1.41
9	HWDP		27.09
		BHA=	177.93
	D.P.	STANDS	
1	D.P.	SINGLES	9.75
Stickup KELLY DOWN			.51
	TOTAL		187.17
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	49000

BIT RECORD

BIT NO.	3A
SIZE (mm)	660
IADC CODE	131
MFG.	Smith
TYPE	DGJ
SERIAL NO.	KW0853
JETS (mm)	15.9, 17.5, 19
DEPTH OUT (m)	
DEPTH IN (m)	117
TOTAL METRES DRILLED (m)	70
TOTAL HOURS RUN	5¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	0400
DENSITY kg/m³	1110	1090
FUNNEL VIS. - (S/L)	110	95
W.L. (cm³)		
pH	9.0	8.5
PVT	33.8	34.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	78 SX
Soda Ash	3 SX
Lignite	2 SX.
Lime	1 SK.

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
161	187	26	120	5-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5000	152	100	152	100

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
144	½	11 AZ

DRILLER SIGNATURE Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:30	½	2	Drill 660 mm hole F/ 161m - 170 m
00:30	00:45	¼	5	Circulate hole clean before survey
00:45	01:00	¼	10	Survey @ 144 m
01:00	02:30	1½	2	Drill F/ 170m - 187m
02:30	03:00	½	7	R/S, Top Drive & Drawworks
03:00	05:00	2	5	Circulate hole clean, Build Volume To T.I.P.
05:00	08:00	3	6	P.O.O.H., Strap out.
				Strap - 187.04
				Tally - 187.17
				D.F.F. .13

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	5/5	269	.72
2	DC	381	18.78
	X10	269	1.05
	NMDC	224	9.32
	JAR	225	5.18
3	DC	228	27.69
	X10	224	1.38
9	DC	178	84.30
	X10		1.41
9	HWDP		27.09
	D.P.	STANDS	
2	D.P.	SINGLES	19.44
	KELLY DOWN		6.87
	TOTAL		190
WT. OF DC		1000 daN	58 600
WT. OF STRING		1000 daN	59000

BIT RECORD

BIT NO.	3A
SIZE (mm)	660
IADC CODE	131
MFG.	SMITH
TYPE	DGJ
SERIAL NO.	KW0853
JETS (mm)	15.9 11.5 19
DEPTH OUT (m)	
DEPTH IN (m)	117
TOTAL METRES DRILLED (m)	73
TOTAL HOURS RUN	6¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

2 | 2 | 2 | | 2 | 5 | | TD | 11.7

HOLE CONDITION

HOLE DRAG	NO DRAG
TORQUE AT BOTTOM	1-3000 F/lbs
FILL ON BOTTOM (m)	No Fill

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	16:00
DENSITY kg/m³	1120	1100
FUNNEL VIS. - (S/L)	88	113
W.L. (cm³)		
pH	8.5	8.5
PVT	40.0	36.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
187	190	3	120	5-6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7800	152	100	152	100

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
182.16	.5	86 AZ

DRILLER SIGNATURE Leo Bourgeois

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	½	6	R/A To 187m No Fill
0830	0930	1	2	Drill 187m - 190. m
0930	1030	1	5	Circ Before Trip To Survey
1030	1145	1¼	6	P.O.O.H.
1145	1300	1¼	6	Change around BHA
1300	1515	2¼	6	RIH Model on Bottom
1515	1535	½	5	Circ Before Survey
1535	1600	¼	10	Survey.

NOTES √Crown Saver - Fastline Clamp - Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				TRIPPING	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC		1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
190				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1730	1½	6	Pooh Survey Assembly & Break Down Bit - Bit Sub - X/05
1730	1830	1	6	Clean Floor & Pick up Drag Pipes
1830	20:30	2	12	Pick up Power Tongs & Equip.
20:30	20:45	¼	21	Held Safety meeting
20:45	23:45	3	12	Pick up 508 mm Casing
23:45	24:00	¼	7	R/S

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
3				Run Casing	

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150419

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lloyd C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 MONTH 08 DAY 10

RIG NO. 58

FUEL @ 8:00

RIG 1.42 BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
241		DC	71	240	6⅝ Reg	9	F-1000	EMSCO	254
203		DC	76	223	7H90	26	F-1000	EMSCO	254
178		DC	73	178	5½FH	17			
127		HW	76	159	4½IF	174			
127		S-135	108	156					

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Cement with Crew	24	25	26
MORN.						1		¼					4¾										2			
DAY							1¾						1	6¾	1											
EVE.															¾											
TOTAL						1	1¾	¼					5¾	6¾	1¾								2			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.C.	T mud tk 173	327	462	
8	SCREENS CHANGED ☐ YES ☐ NO	1 mud tk 504 4½	6865		
8	TOP / TOP	Accum oil - 32			
8	MIDDLE / MIDDLE				
24	BOTTOM / BOTTOM				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m

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150420

LICENCE NO.	WELL NAME AND NO.
1900	CANADIAN FOREST ETAL NORTH LIARD C-31
OPERATOR	**CONTRACTOR**
CANADIAN FOREST OIL	AKITA DRILLING LTD
SURFACE LOCATION	**UNIQUE ID**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H2S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 80 MONTH 08 DAY 17

RIG NO. 53

FUEL @ 8:00

RIG 134 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
508					15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DC	76	177	3½ IF	9	F1000	EMSCO	254
178		DC	72	177	3½ REG	26			
171		HWDP	76	159	4½ IF	17	F1000	EMSCO	254
127		DP	108	156	4½ IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Drill out shoe, LD BIT BACKUP, 17½" TRIPPING TOOLS	24	25	26
MORN.			7¼				3	½							3½							1½				
DAY			¾			½	1¼	¼														¼	¾	1½	2¾	
EVE.			5¾				1				1¼															
TOTAL			6¼			½	5¼	½			1¼				3½							¼	2¼	1½	2¾	

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE DERRICK F.L.C.		TMS 328031			
8	SCREENS CHANGED ☐ YES ☐ NO		AMS 6940			
8	TOP #1 140	TOP #2 84	Accumoil .32			
8	MIDDLE 140	MIDDLE 84				
24	BOTTOM 140	BOTTOM 84				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			4.2 m
	BIT SUB	232	.52 m
	MONEL	224	9.32 m
2	9¼	228	18.67 m
1	X/O	224	1.38 m
9	6¾	178	84.80 m
	X/O		1.41 m
3	HWDP		27.04 m
			m
			m
			m
1	D.P.	STANDS	28.55 m
	D.P.	SINGLES	9.75 m
	KELLY DOWN		8.25 m
	TOTAL		190.11 m
WT. OF DC	42000	1000 daN	
WT. OF STRING	42500	1000 daN	

BIT RECORD

BIT NO.	1B
SIZE (mm)	444
IADC CODE	1 1 5
MFG.	SECURITY
TYPE	S53J5G
SERIAL NO.	RR6056
JETS (mm)	3 X 17.46
DEPTH OUT (m)	
DEPTH IN (m)	190
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG	—
TORQUE AT BOTTOM	—
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pencel 228	35x2
Pot. Sulph.	168 SKS
Zeta PAC	10 SKS
DRISPAC	5 SKS
Gel	25 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
190			40	15 to 20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
4000	152	90	152	80

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Les Burgoon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0330	3½	14	NIPPLE UP DIVERTOR TO 20" CASING
0330	0630	3	6	RIG TO RIH 17" BIT
0630	0800	1½	2	DRILL 20" CASING SHOE
				PRESSURE TEST DIVERTOR TO 1000 KPA

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN - BRAKES - LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				NIPPLE UP DIVERTER	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.42 m
1	MOTOR		9.52 m
1	X/O SUB		.34 m
1	Flt sub		.76 m
1	orient sub		.63 m
1	MONEL		9.32 m
2	226 DC		18.67 m
1	JAR		5.18 m
½	X/O		1.38 m
1	171 DC		5.48 m
3	X/O HWDP		1.41 m
	BHA		27.04 m
			159.47 m
2	D.P.	STANDS	27.53 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		23.00 m
	TOTAL		192 m
WT. OF DC	45000	1000 daN	
WT. OF STRING	47000	1000 daN	

BIT RECORD

BIT NO.	1B
SIZE (mm)	444
IADC CODE	1 1 5
MFG.	SECURITY
TYPE	S53J5G
SERIAL NO.	RR6056
JETS (mm)	3X17.4
DEPTH OUT (m)	
DEPTH IN (m)	190
TOTAL METRES DRILLED (m)	2
TOTAL HOURS RUN	¾

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG	—
TORQUE AT BOTTOM	—
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:00
DENSITY kg/m³	1050
FUNNEL VIS. - (S/L)	38
W.L. (cm³)	
pH	7.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pencel 228	1
Sulfite	4 SK
CORNOX	4 Pail
Lime	1 SK
Alcomello	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
2	1050	1040	1640
	cont #2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
2	1050	1035	1720

METRES DRILLED

FROM	TO	DRLG RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
190	192	2	60	200

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
4600	152	100	152	100

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Glen Kuhl

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:45	¾	22	DRILL OUT 20" CASING SHOE
08:45	09:30	¾	2	DRILL 190m - 192m
09:30	10:00	½	5	CIRC & CLEAN HOLE
10:00	11:15	1¼	6	POOH FOR BHA
11:15	12:45	1½	23	WELD STEEL PLATE ON 67mm OF BIT BREAKER
12:45	13:00	¼	21	HELD SAFETY MEETING ON WORKING FLOOR
13:00	13:15	¼	7	L/S TOP DRIVE & DRAWWORKS SERVICE
13:15	16:00	2¾	24	P/U MUD MOTOR & MWD BHA ORIENT TOOLS

NOTES: ✓ Crown Saver, Fastline clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Working Floor	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			42 m
	MOTOR		9.52 m
	X/O SUB		.34 m
	FLOAT SUB		.76 m
	ORIENT SUB		.63 m
	MONEL		9.32 m
2	226		18.67 m
1	JAR		5.18 m
9	171		84.80 m
3	X/O HWDP		1.41 m
	BHA		159.47 m
			m
2	D.P.	STANDS	86.89 m
	D.P.	SINGLES	m
	KELLY DOWN		17.30 m
	TOTAL		229.00 m
WT. OF DC	45000	1000 daN	
WT. OF STRING	47000	1000 daN	

BIT RECORD

BIT NO.	1B
SIZE (mm)	444
IADC CODE	1 1 5
MFG.	SEC.
TYPE	S53J5G
SERIAL NO.	RR6056
JETS (mm)	3X17.4
DEPTH OUT (m)	
DEPTH IN (m)	190
TOTAL METRES DRILLED (m)	39
TOTAL HOURS RUN	6½

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:00	22:30
DENSITY kg/m³	1050	1070	1070
FUNNEL VIS. - (S/L)	45	40	40
W.L. (cm³)	14.0	16.0	16.8
pH	10.0	9.5	9.5
PHPA	80.9	66.5	58.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
CORNOX	5 PAILS
Sod. Sulfite	5 SK
C-FL	19 SKS
Lignite	1 SK
PHPA Solid	56 SKS
LIME	1 SK
ALCOMELLO	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1070	1080	1910
	cont #2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1040	1060	1860

METRES DRILLED

FROM	TO	DRLG RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
192	229	37	30	15 to 20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7500	152	116	152	110

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
201	.5	300AZ
210	.6	339AZ

DRILLER SIGNATURE

Les Burgoon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1700	1	6	RIH W/MUD MOTOR
1700	1845	1¾	2	DIR. DRILL F/192m - 217m
1845	1930	¾	10	SURVEY
1930	2100	1½	2	DIRECTIONAL DRILL 217m - 226m
2100	2130	½	10	SURVEY
2130	2400	2½	2	DRILL 226m 229m

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				SCRUBBING	

FOLD HERE →

149281

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING, LTD

SURFACE LOCATION: 300 C31 6040 12330-0 | UNIQUE ID.: 300 C31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection Weekly (using checklist) — Initial / Initial
(3) HPS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 07 | DAY 12 | RIG NO. 56 | FUEL @ 8:00 | PAS 115 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
508					15	190	5	190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228			76	223	7 5/8 REG	9			
178		DC	72	178	6 5/8 REG	30			
127		DP SWAP	76	159	4 1/2 IF	67	FLOOD	EMSCO	254
127		G2	78	150	4 1/2 IF	174	(1000)	GOSCO	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26	TOTALS
	MORN.		1 1/2			1/4	5 1/2				1/2										1/4						8
	DAY		6 3/4					1/4			1/2										1/2						8
	EVE.		6 1/4								1										1/2						8
	TOTAL		13 1/4			1/4	5 1/2	1/4			2										1 1/4						24

SHALE SHAKER(S)

NO. 2 | TYPE DERRICK FLC
SCREENS CHANGED ☐ YES ☒ NO
TOP 140 | TOP 89
MIDDLE 140 | MIDDLE 84
BOTTOM 140 | BOTTOM 84

RENTALS/SERVICES

	MORN	DAY	EVE
TMS 328037			
AMS 69740			
ACCUM OIL 32			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT / O.D. mm	LENGTH
	BIT	0.42 m
	MOTOR	9.94 m
	MWD	0.69 m
	MONEL	9.43 m
	MONEL	4.32 m
	9" DC	9.43 m
	STAB SUB	3.86 m
	9" DC	9.24 m
	STAB	1.37 m
4	7 3/4 DC	84.90 m
3	HWDP	29.04 m
3	D.P. STANDS	86.69 m
	D.P. SINGLES	m
	KELLYDOWN	29.60 m
	TOTAL	330.0 m

Stuck Up

WT. OF DC 47000 (1000 daN)
WT. OF STRING 50000 (1000 daN)

BIT RECORD

BIT NO.	2B
SIZE (mm)	444
IADC CODE	
MFG.	REED
TYPE	MS51AM
SERIAL NO.	TC1064
JETS (mm)	3x17.46
DEPTH OUT (m)	
DEPTH IN (m)	229
TOTAL METRES DRILLED (m)	1
TOTAL HOURS RUN	3/4

CUTTING STRUCTURE: T | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.
5 | 5 | WT | AL | 2 | I | NO | PR | 59

HOLE CONDITION

HOLE DRAG —
TORQUE AT BOTTOM —
FILL ON BOTTOM (m) NIL

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	00:00	06:30	
DENSITY kg/m³	1070	1070	
FUNNEL VIS. - (S/L)	42	45	
W.L. (cm³)	22.0		
pH	10.0	9.5	
P.V./Y.P.	59.3	57.9	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
KCl Sulfa	56 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1070	1070	1190

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1070	1055	1193

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
229	230	1	35	4000

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
13400	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Les Burgess

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0045	3/4	2	DRILL (DR) 229 m - 229.6m
0045	0615	5 1/2	6	POOH FOR BIT CHANGE & BHA CHANGE
0615	0630	1/4	5	CIRC
0630	0700	1/2	10	SURVEY TEST
0700	07:45	3/4	2	DRILL 229m - 230m
7:45	8:00	1/4	20	SURVEY/ORIENT TOOL FACE
				WT BELOW - 20,000

NOTES: CAC OK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				SAFETY BELTS	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT / O.D. mm	LENGTH
1	BIT	0.42 m
1	MOTOR	9.52 m
1	MWD	0.76 m
1	Les Sub	0.69 m
1	MONEL	9.43 m
1	MONEL	4.32 m
1	228 DC	9.43 m
1	STAB	3.86 m
1	228 DC	9.24 m
1	STAB	1.37 m
1	9" DC	1.50 m
9	171 DC	84.80 m
3	HWDP	27.04 m
	BHA	172.91 m
4	D.P. STANDS	114.99 m
	D.P. SINGLES	m
	KELLYDOWN	18.90 m
	TOTAL	269.0 m

Stuck UP

WT. OF DC 47000 (1000 daN)
WT. OF STRING 52000 (1000 daN)

BIT RECORD

BIT NO.	2B
SIZE (mm)	444
IADC CODE	
MFG.	REED
TYPE	MS51AM
SERIAL NO.	TC1064
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	229
TOTAL METRES DRILLED (m)	40
TOTAL HOURS RUN	1 1/2

CUTTING STRUCTURE: T | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG —
TORQUE AT BOTTOM 2-5000 FT LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED			
TIME	08:30	12:00	15:00
DENSITY kg/m³	1045	1060	1080
FUNNEL VIS. - (S/L)	45	49	70
W.L. (cm³)	30.0	32.0	23.0
pH	9.5	9.5	9.0
P.V./Y.P.	53.9	59.2	54.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sulfite	2 SX
Corinox	2 pails
Alkaterge	2 SX
Starpac	4 SX
Drispac	1 SX
Lime	1 SX
Pot sulfate	56 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1060	1070	1120

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1060	1050	1120

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
230	269	39	30	4 1000

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9600	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
223	.3	36 E/TRUE
242.6	.6	358.2 deg
252.0	.6	19.6 AZ

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
8:00	10:30	2 1/2	2	DRILL 230m - 240m
10:30	10:45	1/4	20	SURVEY & ORIENT TOOL FACE
10:45	12:15	1 1/2	2	DRILL 240m - 249m
12:15	12:30	1/4	20	SURVEY & ORIENT TOOL FACE
12:30	13:30	1	2	DRILL 249m - 258m
13:30	13:45	1/4	7	RIG TOP DRIVE SWIVEL
13:45	14:00	1/4	2	DRILL 258m - 259m
14:00	14:15	1/4	10	SURVEY @ 242.6 m
14:15	15:45	1 1/2	2	DRILL 259m - 268m
15:45	16:00	1/4	10	SURVEY @ 252 m

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADLINE CLAMP

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT / O.D. mm	LENGTH
	BIT	0.42 m
	MOTOR	9.52 m
	MWD	0.76 m
	Les Sub	0.69 m
	MONEL	9.43 m
	MONEL	4.32 m
	228 DC	9.43 m
	STAB	3.86 m
	228 DC	9.24 m
	STAB	1.37 m
	9" DC	1.50 m
9	171 DC	84.80 m
3	HWDP	27.04 m
	BHA	172.91 m
5	D.P. STANDS	149.16 m
	D.P. SINGLES	m
	KELLYDOWN	20.97 m
	TOTAL	297 m

WT. OF DC 47000 (1000 daN)
WT. OF STRING 52000 (1000 daN)

BIT RECORD

BIT NO.	2B
SIZE (mm)	444
IADC CODE	
MFG.	REED
TYPE	MS51AM
SERIAL NO.	TC1064
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	229
TOTAL METRES DRILLED (m)	68
TOTAL HOURS RUN	19

CUTTING STRUCTURE: T | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	17:00	20:00	22:00
DENSITY kg/m³	1065	1070	1080
FUNNEL VIS. - (S/L)	45	45	48
W.L. (cm³)		23.0	25.0
pH	9.0	8.0	9.0
P.V./Y.P.		55.2	62.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkaline 110	1 SX
Corinox	4 pails
Sod. Sulfite	4 SXS
LIME	2 SXS
Pot. Sulph.	1 1/2 SXS
Soda Ash	1 SX
GEL	38 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
269	297	28	0	2-10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9600	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
261.5	2.0	356.1 m
270.9	.9	287 AZ
294	.9	290 AZ

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:45	3/4	2	DRILL 269m - 278m
16:45	17:00	1/4	10	SURVEY @ 261.5
17:00	17:30	1/2	20	ORIENT TOOL & CLEAN SCREEN
17:30	18:30	1	2	DRILL 278m - 287m
18:30	19:00	1/2	10	SURVEY @ 270.9
19:00	22:00	3	2	DRILL 287m - 294m
22:00	22:15	1/4	10	SURVEY
22:15	24:00	1 3/4	2	DRILL 294m - 297m

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				HOUSEKEEPING	

FOLD HERE →

149282

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL HARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040 12330-0 | UNIQUE ID.: 300 C31 6040 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) HS Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 2000 | MONTH 08 | DAY 15 | RIG NO. 58

FUEL @ 8:00 — RIG | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508					15	190		190

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	203				273	6 5/8 REG	9			
	178				228	5 1/2 FH	24	F 1000	EMSCO	254
	127		HWDP		159	4 1/2 IF	17	F 1000	EMSCO	254
	127		DP		156	4 1/2 IF	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Handle Tools	BIT			
MORN.		7 1/4					1/4			1/4																
DAY		5 1/4			3/4	3/4	1/4			1																
EVE.						3																2	3			
TOTAL		12 3/4			3/4	3 3/4	1/3			1 1/4												2	3			

TOTALS

8	SHALE SHAKER(S) NO. 2	TYPE DERRICK	FLC
8	SCREENS CHANGED ☐ YES ☑ NO		
8	TOP 140	TOP 84	
8	MIDDLE 140	MIDDLE 84	
27	BOTTOM 140	BOTTOM 84	

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMS 32 3329			
AMS 7242			
ACCUM OIL 32			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.42 m
	MOTOR X/O		7.57 m
	FLOAT SUB		1.19 m
	RES SUB		9.13 m
	MONEL	MWD	9.32 m
	MONEL		9.43 m
	228 DC		3.66 m
	STAB		1.34 m
	4 1/2 DC		5.16 m
	X/O		1.38 m
	178 DC		84.80 m
	X/O		1.41 m
	3 HWDP		27.64 m
	BHA		172.91 m
6	D.P.	STANDS	172.45 m
	D.P.	SINGLES	m
	KELLY DOWN		9.36 m
	TOTAL		336. m

WT. OF DC 47000 1000 daN | WT. OF STRING 52000 1000 daN

BIT RECORD

BIT NO.	2B
SIZE (mm)	444
IADC CODE	
MFG.	REED
TYPE	MS51AM
SERIAL NO.	TC 1064
JETS (mm)	3X17.5
DEPTH OUT (m)	336
DEPTH IN (m)	229
TOTAL METRES DRILLED (m)	107
TOTAL HOURS RUN	26 1/4

CUTTING STRUCTURE: T_i 2 | T_o 2 | MDC CT | LOC M2 | B E | Gage I | ODC | Reason Pulled TD | Total Run m/hr. 4N 31A 4

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM 1-300 FT LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	0:900	12:00 / 15:00
DENSITY kg/m³	1070	1060 / 1060
FUNNEL VIS. - (S/L)	49	48 / 55
W.L. (cm³)	24.0	250 / 25.0
pH	9.0	9.0 / 9.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
PotSulphate	28 SX
Corinox	4 pails
SolSulfite	4 SX
Alcomer 110	1 SX
SodaAsh	1 SX
Gel	34

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN 8 | 1060 | 1040 | 1680

cont B2

CENTRIFUGE: HOURS RUN 8 | 1060 | 1050 | 1620

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
307	336	29	30	15

CIRCULATION PRESSURE (kPa) 6400 | PUMP NO. 1: LINER SIZE (mm) 152, S.P.M. 116 | PUMP NO. 2: LINER SIZE (mm) 152, S.P.M. 116

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
300.07	2.1	312.7 AZ
309.5	3.	317.1 AZ
319.2	3.3	315.9 AZ

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	10:15	2 1/4	2	DRILL 307m - 316m
10:15	10:30	1/4	7	RIG SERVICE TOP DRIVE & SWIVEL
10:30	10:45	1/4	10	SURVEY MISRUN
10:45	11:15	1/2	2	DRILL 316m - 317m
11:15	11:30	1/4	10	SURVEY @ 300m
11:30	12:45	1 1/4	2	DRILL 317m - 327m
12:45	13:00	1/4	10	SURVEY @ 309.5 m
13:00	14:15	1 1/4	2	DRILL 327m - 336m
14:15	14:30	1/4	10	SURVEY @ 319m
14:30	15:15	3/4	5	CIRC. HOLE CLEAN
15:15	16:00	3/4	6	P.T.C.M. FOR BIT & BHA

NOTES: MISRUN SURVEY, FASTLINE CLAMP, DEADLINE ANCHOR

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR		7.61 m
	4/5		3.4 m
	FLOAT SUB		1.19 m
	RES SUB		9.13 m
	MWD		9.43 m
	3 DC		5.66 m
	228 DC		3.66 m
2	STAB		1.34 m
9	178 DC		84.80 m
3	X/O		1.41 m
	3 HWDP		27.64 m
	BHA		186.91 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC | WT. OF STRING

BIT RECORD

BIT NO.	3B
SIZE (mm)	444
IADC CODE	
MFG.	SECURITY
TYPE	S61117
SERIAL NO.	5984429
JETS (mm)	10X12.5
DEPTH OUT (m)	
DEPTH IN (m)	336
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
336				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm) 152, S.P.M. | PUMP NO. 2: LINER SIZE (mm) 152, S.P.M.

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	18:00	2	6	P.T.C.M.
18:00	19:00	1	22	Lay Down Motor Change out BHA
19:00	22:00	3	23	MAKE UP BIT
22:00	23:00	1	22	RIH Monel ATTEMP TO SET MOTOR
23:00	24:00	1	6	RIH BHA.

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				TRIPS	

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149284

LICENCE NO.: 1500 | WELL NAME AND NO.: CANADIAN FOREST ETAL LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING CO

SURFACE LOCATION: 30-C 31 6040 12330-0 | UNIQUE ID.: 300 C 31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Neal Gray Town Area Supt. | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Rudolph

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) HPS Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR: 2000 | MONTH: 08 | DAY: 24 | RIG NO.: 58

FUEL @ 8:00 — RIG: 140 | BOILER:

WEATHER — TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508					15	190		190

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	203		S		229	6 5/8 REG	7			
	171		S		178	5 1/2 FH	96	F 1000	EMSCO	356
	127		HWDP		139	4 1/2 IF	17	F 1000	EMSCO	356
	127		DP		136	4 1/2 IF	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Pick Up Valves	Check Bit			
MORN.		3	1/2			3				1/2																
DAY		5 3/4					1/4			1/4												1/4				
EVE.		2 1/2				3 1/2	1 1/4																1/4			
TOTAL		11 1/4	1/2			6 1/2				3/4												1/4	1/4			

TOTALS

SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
NO. 2 TYPE: DERRICK FLO				
SCREENS CHANGED ☐ YES ☑ NO	TMS 328799.			
TOP 84 TOP 84	AMD 7702			
MIDDLE 84 MIDDLE 84	ACCUM OIL .37			
BOTTOM 84 BOTTOM 84				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR	197	7.45 m
	XO		.76 m
	FLOAT SUB		.76 m
	NEAR SUB		1.69 m
A	2 DC		18.69 m
	2 DC		37.14 m
	2 DC		55.59 m
	JARS		64.05 m
	2 DC		73.50 m
9	4 DC		82.95 m
3	HWDP		270.09 m
			188.89 m
			m
6	D.P.	STANDS	172.45 m
	D.P.	SINGLES	m
	KELLY DOWN		10.34 m
	TOTAL		351.68 m
WT. OF DC	52000	1000 daN	
WT. OF STRING	59000	1000 daN	

BIT RECORD

BIT NO.	3B
SIZE (mm)	444
IADC CODE	PDC
MFG.	SECURITY
TYPE	FM 1117
SERIAL NO.	5964929
JETS (mm)	16 x 17.5
DEPTH OUT (m)	
DEPTH IN (m)	336
TOTAL METRES DRILLED (m)	15
TOTAL HOURS RUN	3

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	05:30
DENSITY kg/m³	1070
FUNNEL VIS. - (S/L)	46
W.L. (cm³)	
pH	8.0
P.V. / Tm³	104.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph.	28 SKS
Alcomer 1	5 x.
Cosmo 3	pails
Sod. Sulfite	2 SKS
Lime	2 SKS

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'G RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
336	351		33	10/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6970	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Les Burgess

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0300	3	6	RIH To 300m
0300	0330	1/2	3	REAM 300m - 336m
0330	0430	1	10	TRY To SURVEY
0430	0730	3	2	DRILL 336m - 351m
0730	0800	1/2	10	SURVEY

WT BELOW JARS 39,000.

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES - LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				MUD ADDITIVES	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		7.01 m
1	XO		.74 m
1	FLOAT SUB		.76 m
1	NEAR SUB		.69 m
1	MONEL	NMDP	9.43 m
1	MONEL		9.33 m
1	2 DC		37.65 m
1	2 DC		9.39 m
1	JARS		9.18 m
2	2 DC		18.41 m
1	XO		1.38 m
9	4 DC		84.57 m
3	HWDP		27.94 m
		DHA	188.89 m
7	D.P.	STANDS	201.36 m
	D.P.	SINGLES	m
	KELLY DOWN		.75 m
	TOTAL		391 m
WT. OF DC	52000	1000 daN	
WT. OF STRING	59000	1000 daN	

BIT RECORD

BIT NO.	3B
SIZE (mm)	444
IADC CODE	115
MFG.	SEC.
TYPE	FM 1117
SERIAL NO.	5964929
JETS (mm)	10 x 17.5
DEPTH OUT (m)	
DEPTH IN (m)	336
TOTAL METRES DRILLED (m)	55
TOTAL HOURS RUN	8.34

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 2-5000 | TORQUE AT BOTTOM: 2-10000 FT LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1070	1070	1070
FUNNEL VIS. - (S/L)	50	62	64
W.L. (cm³)	22.0	18.0	20.0
pH	9.0	10.0	9.5
P.V.	6.20	65.5	57.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
K/Sulfate	56 SK
Lime	2 SX
Sod Sulfite	2 SX
Conex	2 Pails
Alcomer 110	1 SX
Gel	22 SX
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1070	1040	1030
	Cent #2		
8	1070	1050	1310

METRES DRILLED

FROM	TO	DR'G RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
351	391	40	15	7/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6600	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
335.9	3.2	312.7 AZ
356.89	4.0	320 AZ

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0900	1	2	DRILL 351m - 361m
0900	0915	1/4	7	R/S TOP DRIVE & DRAWWORKS
0915	0930	1/4	10	SURVEY @ 336m
0930	1045	1 1/4	2	DRILL 361m - 381m GET SURVEY
1045	1115	1/2	10	TRY TO SURVEY WITH MWD (MISRUN)
1115	1200	3/4	2	DRILL HOLE DEPTH CORRECTION 386m
1200	1230	1/2	10	MISRUN SURVEY WITH MWD
1230	1300	1/2	2	DRILL 370m - 379m
1300	1330	1/2	10	SURVEY @ 336.89m Single shot
1330	1345	1/4	22	FUNCTION TEST TOP VALVES ON MUDS
1345	1600	2 1/4	2	DRILL 379m - 391m

NOTES: FUNCTIONED POP VALVES.

✓ CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				STOP CARDS	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR		7.45 m
	XO		.76 m
	FLOAT SUB		.76 m
	NEAR SUB		.69 m
	MONEL	NMDP	9.43 m
	MONEL		9.33 m
	2 DC		37.65 m
	2 DC		9.39 m
	JARS		9.18 m
	2 DC		18.41 m
	XO		1.38 m
9	4 DC		84.57 m
3	HWDP		27.94 m
		DHA	188.89 m
7	D.P.	STANDS	201.36 m
	D.P.	SINGLES	m
	KELLY DOWN		4.75 m
	TOTAL		395 m
WT. OF DC	52000	1000 daN	
WT. OF STRING	59000	1000 daN	

BIT RECORD

BIT NO.	3B
SIZE (mm)	444
IADC CODE	115
MFG.	SEC.
TYPE	FM 1117
SERIAL NO.	5964929
JETS (mm)	10 x 17.5
DEPTH OUT (m)	395
DEPTH IN (m)	336
TOTAL METRES DRILLED (m)	59
TOTAL HOURS RUN	11.74

CUTTING STRUCTURE: T1: 1 | T2: 1 | MDC | LOC: A | B: X | Gage: I | ODC | Reason Pulled: PR | Total Run m/hr.: 5.24

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00
DENSITY kg/m³	1070
FUNNEL VIS. - (S/L)	62
W.L. (cm³)	20.0
pH	9.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'G RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
391	395	4	18	7/8

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6650	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1 1/4	2	DRILL 391m - 393m
1715	1730	1/4	7	R/S SERVICE TOP DRIVE
1730	1845	1/4	2	DRILL 393m - 395m
1845	2115	2 1/2	6	T.O.O.H. FOR MWD
2115	2130	1/4	23	CHECK BIT
2130	2300	1 1/2	7	SERVICE TOP DRIVE
2300	2400	1	6	LAY OUT 11" MOTOR.

NOTES: ✓ CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES - LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

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149285

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040 12330-0 | UNIQUE ID.: 300 C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH OCT | DAY 13

RIG NO. 58

FUEL @ 8:00

RIG 144 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508					15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228				273	7⅝ H90	3			
178				228	5½ H90	36	F1000	EMSCO	350
127		HWDP	159	159	4½ IF	17	F1000	EMSCO	250
127		DP	156	156	4½ IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Tool Test	24 Howard Jars	25	26
MORN.			2				1¾	¼			¼												¼	3½		
DAY			6½					¼			1¾															
EVE.			7								1															
TOTAL			15½				1¾	½			3½						¼						¼	3½		

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE DERRICK PLE				
8	SCREENS CHANGED ☐ YES ☐ NO	TMS 329160			
8	TOP FA TOP 84	AMS 8063			
8	MIDDLE FA MIDDLE 84	ACCUM OIL 32			
24	BOTTOM FA BOTTOM 84				

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		42 m
	MOTOR		9.52 m
	XO		34 m
	RESUB		69 m
	FLOAT SUB		76 m
	MONEL		9.23 m
	MONEL		9.43 m
	3½ DC		9.30 m
2	3½ DC		18.73 m
9	4½ DC		84.40 m
3	HWDP		94.41 m
			391.37 m
7	D.P.	STANDS	201.36 m
	D.P.	SINGLES	m
	KELLY DOWN		5.27 m
	TOTAL		398 m
WT. OF DC	52000	1000 daN	
WT. OF STRING	59000	1000 daN	

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75JSL
SERIAL NO.	RR6973
JETS (mm)	1-17.4 2-12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	3
TOTAL HOURS RUN	2

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	38 SX
Soda Ash	1 SX
Polysulphide	56 SX
Lime	1 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
395	398	3	30	2-4

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9780	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
381	4.1	317.1

DRILLER SIGNATURE: Leo Burgoyne

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	23	CHANGE OUT MOTORS
0200	0330	1½	23	SET MOTOR + TOOL.
0330	0445	1¼	6	RIH WITH BIT + 9" MOTOR
0445	0500	¼	23	SHANOW TEST TOOL. 200 m
0500	0530	½	6	RIH 200 - 396m NO FILL
0530	0545	¼	10	SURVEY BEFORE DRILLING
0545	0600	¼	7	RIG SERV
0600	0800	2	2	DRILL 395m - 398m
				W/ BALCO JARS 36000

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				TRIPPING	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		42 m
1	XO		.34 m
1	Float Sub		6.49 m
2	Monel		18.75 m
1	228 DC		9.43 m
1	3½		3.00 m
1	228 DC		9.34 m
1	JARS		5.18 m
2	228 DC		18.46 m
9	HWDP		84.50 m
1	XO		1.41 m
3	HWDP	BHA	191.37 m
9	D.P.	STANDS	259.29 m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	52000	1000 daN	
WT. OF STRING	54000	1000 daN	

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75JSL
SERIAL NO.	RR6973
JETS (mm)	1-17.4 2-12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	56
TOTAL HOURS RUN	6½

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:30	12:00	15:00
DENSITY kg/m³	1075	1090	1095
FUNNEL VIS. - (S/L)	67	70	78
W.L. (cm³)	30.0	16.0	16.0
pH	9.0	9.5	9.0
PVT. m³	61.3	59.2	57.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potsulfate	56 SX
Drispac	2 SX
Starpac	8 SX
Lime	3 SX
Aluminex 110	2 SX
Corinox	3 pail
Sodsulfite	3 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

8 | 1075 | 1030 | 1090

CENT #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

8 | 1075 | 1090 | 1050

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
398	451	53	30	1½0

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9900	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
386.16	4.4	312.5
393.91	4.8	313.6
403.14	5.4	314.7
413.5	2.7	336.3
422.4	2.6	330.4
432.5	6.9	343.3

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0845	2½	2	DRILL 398m - 402m
0845	0900	¼	10	SURVEY @ 386.16 m
0900	1015	1¼	2	DRILL 402m - 410m
1015	1030	¼	10	SURVEY @ 393.91m
1030	1145	1¼	2	DRILL 410m - 420m
1145	1200	¼	10	SURVEY @ 403.14 m
1200	1245	¾	2	DRILL 420m - 430m
1245	1300	¼	10	SURVEY @ 413.5m
1300	1415	1¼	2	DRILL 430m - 439m
1415	1430	¼	7	R/S SERVICE TOP DRIVE
1430	1545	1¼	2	DRILL 439m - 451m
1545	1600	¼	10	SURVEY @ 432.5m

NOTES: CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR		9.52 m
	FLT. SUB		76 m
	RES SUB		69 m
2	MONEL		18.75 m
	228 DC		9.43 m
	3½		3.00 m
2	228 DC		18.68 m
9	178 DC		84.50 m
3	HWDP		94.41 m
			391.37 m
10	D.P.	STANDS	287.78 m
1	D.P.	SINGLES	8.98 m
	KELLY DOWN		3.87 m
	TOTAL		492 m
WT. OF DC	52000	1000 daN	
WT. OF STRING	59000	1000 daN	

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75JSL
SERIAL NO.	RR6973
JETS (mm)	1-17.4 2-12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	93
TOTAL HOURS RUN	15½

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:30	22:30
DENSITY kg/m³	1090	1100	1100
FUNNEL VIS. - (S/L)	69	65	110
W.L. (cm³)	17.5	21.5	19.0
pH	9.5	9.5	9.0
PVT.	63.6	62.2	64.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
LIME	2 SXS
Sod. Sulfite	3 SXS
Corinox	3 PAILS
Starpak	10 SXS
Drispac	2 SXS
Aluminex	1 SX
BARITE	10 SXS

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
451	492	41	30	2½1

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11610	152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
442.1	7.5	352.9
451.A	7.9	359.3
461	7.3	10.2
470	7.1	17.4

DRILLER SIGNATURE: Leo Burgoyne

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	2	DRILL 451m - 459m
1715	1730	¼	10	SURVEY @ 442.1
1730	1830	1	2	DRILL 459m - 468m
1830	1845	¼	10	SURVEY @ 451
1845	2015	1½	2	DRILL 468m - 476m
2015	2030	¼	10	SURVEY 468m
2030	2115	¾	2	DRILL 476m - 486m
2115	2130	¼	10	SURVEY 470m
2130	2400	2½	2	DRILL 486m - 492m

NOTES: CHECK CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR, BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

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149286

LICENCE NO.	WELL NAME AND NO.
1900	CANADIAN FOREST ETAL LIARD C-31
OPERATOR	**CONTRACTOR**
CANADIAN FOREST OIL	AKITA DRILLING LTD
SURFACE LOCATION	**UNIQUE ID.**
300 C-31 6040 12330-0	300 C-31 6040 12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
Norm McKay	Lee Kurtz

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) HPS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 04 | DAY 10
RIG NO. 58
FUEL @ 8:00
RIG 105 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
508		154.9		K-55	15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	174.84	DC		254	6 5/8 REG	36	F1000	EMSCO	250
127	74.35	NC50		159	4 1/2 IF	17	F1000	EMSCO	250
127	58.62	DP E2		156	4 1/2 IF	174			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22 SERVICE TOP DRIVE	23	24	25	26
	MORN.		6 1/4					1/4	1/2		3/4																
	DAY		7					1/4			3/4																
	EVE.		6 1/4								3/4												1				
	TOTAL		19 1/2					1/2	1/2		2 1/2												1				

TOTALS

8	NO. 2 TYPE DERRICK	FLC	
8	SCREENS CHANGED X YES NO		
8	TOP X 89	TOP X 84	
8	MIDDLE 84	MIDDLE 84	
24	BOTTOM 84	BOTTOM 84	

SHALE SHAKER(S)

RENTALS/SERVICES (MORN. / DAY / EVE.)

1 m3 324359
AMS 8262
ACCUM OIL .30

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.52 m
	MOTOR		9.52 m
	XO		0.34 m
	FLOAT SUB		0.78 m
	NMDC		9.47 m
2	MONEL		18.43 m
	DC		3.43 m
	STAB		4.39 m
	DC		9.08 m
2	STAB		4.40 m
9	DC		84.08 m
3	XO		0.91 m
	HWDP		27.00 m
	DHA		191.37 m
			m
11	D.P.	STANDS	316.03 m
1	D.P.	SINGLES	9.75 m
	KELLY DOWN		7.66 m
	TOTAL		525 m
WT. OF DC	52 000	1000 daN	
WT. OF STRING	61 000	1000 daN	

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75JSL
SERIAL NO.	RR6973
JETS (mm)	1 X 17.4 2 X 12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	121
TOTAL HOURS RUN	22

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE	☐ WATER BASED	☐ OIL BASED
TIME	00:30	03:30
DENSITY kg/m³	1100	1110
FUNNEL VIS. - (S/L)	115	85
W.L. (cm³)	15.0	15.0
pH	9.0	10.0
P.V.T.	67.1	65.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot Sulph.	112 SKS
Lime	4 SKS
Gel	9 SKS
Alcomer	1 SKS

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN 8 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN 8 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
492	525	23	0-30	2/21

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11200	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
479.5	7.1	27.6
489.2	6.9	27.1
498.7	6.7	33.5

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000	0130	1 1/2	2
0130	0145	1/4	10
0145	0215	1/2	2
0215	2 45	1/2	8
0245	0300	1/4	4
0300	0430	1 1/2	2
0430	0445	1/4	10
0445	0545	1	2
0545	0600	1/4	10
0600	0800	2	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 492m - 496m
SURVEY
DRILL 496m - 498m
CHANGE HEAD NO 2 PUMP.
RIG SERVICE (DOORS)
DRILL 498m - 506m
SURVEY
DRILL 506m - 515 m
SURVEY
DRILL 515m - 525m.

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				BOARDS IN DERRICK	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		0.52 m
1	MOTOR		9.52 m
1	XO		0.34 m
1	FLOAT SUB		0.78 m
1	NMDC		9.47 m
2	MONEL		18.43 m
1	DC		3.43 m
1	STAB		4.39 m
1	DC		9.08 m
1	STAB		4.40 m
9	DC		84.08 m
1	XO		0.91 m
3	HWDP		27.04 m
	DHA		191.37 m
			m
12	D.P.	STANDS	344.76 m
X	D.P.	SINGLES	9.16 m
	KELLY DOWN		7.71 m
	TOTAL		553 m
WT. OF DC	52000	1000 daN	
WT. OF STRING	61000	1000 daN	

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75JSL
SERIAL NO.	RR6973
JETS (mm)	1X17.4 2X12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	159
TOTAL HOURS RUN	29

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG —
TORQUE AT BOTTOM 5 - 6000 FT LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE	☑ WATER BASED	☐ OIL BASED
TIME	09:00	12:00	15:00
DENSITY kg/m³	1110	1110	1110
FUNNEL VIS. - (S/L)	71	64	62
W.L. (cm³)	20.0	20.0	25.0
pH	10.0	9.5	9.5
P.V.T.	64.6	61.7	60.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer 110	1 SX
Corrosex	3 pails
Sod Sulfite	3 SX
Pot Sulfite	56 SX
Lime	1 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN 8 | INTAKE DENSITY (kg/m³) 1110 | OVERFLOW DENSITY (kg/m³) 1090 | UNDERFLOW DENSITY (kg/m³) 1110

HOURS RUN 8 | INTAKE DENSITY (kg/m³) 1110 | OVERFLOW DENSITY (kg/m³) 1090 | UNDERFLOW DENSITY (kg/m³) 1110

DAY TOUR

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
525	553	28	30	3/22

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10600	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
508.5	6.9	35.7
518.2	6.5	42.0
527.5	6.3	42.2

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0600	0915	3 1/4	2
0915	0930	1/4	10
0930	1115	1 3/4	2
1115	1130	1/4	7
1130	1145	1/4	10
1145	1400	2 1/4	2
1400	1415	1/4	10
1415	1600	1 3/4	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 520 - 525m
SURVEY
DRILL 525m - 535m
R/S & SERVICE TOP DRIVE
SURVEY
DRILL 535m - 549m
SURVEY
DRILL 544m - 553m

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Completion Training	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.52 m
	MOTOR		4.52 m
	XO		0.34 m
	FLOAT SUB		0.78 m
	NMDC		9.47 m
2	MONEL		18.43 m
	DC		3.43 m
	STAB		4.39 m
	DC		9.08 m
2	STAB		4.40 m
9	DC		84.08 m
1	XO		0.91 m
3	HWDP		27.04 m
			m
13	D.P.	STANDS	373.23 m
	D.P.	SINGLES	1.53 m
	KELLY DOWN		1.13 m
	TOTAL		583 m
WT. OF DC	52 000	1000 daN	
WT. OF STRING	61000	1000 daN	

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75JSL
SERIAL NO.	RR6973
JETS (mm)	1X17.4 2X12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	188
TOTAL HOURS RUN	35 1/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE	☐ WATER BASED	☐ OIL BASED
TIME	18:00	20:00	22:30
DENSITY kg/m³	1110	1120	1120
FUNNEL VIS. - (S/L)	62	62	118
W.L. (cm³)	28.0	30.0	25
pH	9.5	9.0	10.0
P.V.T.	61.4	61.0	59.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
553	583	30	30	3/22

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10600	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
536.7	6.0	39.7
546.8	6.1	39.0
556.4	6.3	37.4

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	1700	1	22
1700	1715	1/4	2
1715	1730	1/4	10
1730	1930	2	2
1930	1945	1/4	10
1945	2130	1 3/4	2
2130	2145	1/4	10
2145	2400	2 1/4	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

CHANGE OIL Fitting inside TOP Drive
DRILL 553m - 554m
SURVEY
DRILL 554m - 563m
SURVEY
DRILL 563m - 573m
SURVEY
DRILL 573m - 583m

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				ENVIRO REPORT	

FOLD HERE →

149287

LICENCE NO.: 1900

WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL

CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040 12330-0

UNIQUE ID.: 300 C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 08 | DAY 07

RIG NO. 58

FUEL @ 8:00

RIG 91 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	509					15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
254		E		323	6⅝ REG	3			
178		X		178	3½ IF	26	F 1000	EMSCO	250
127		G-105		159	4½ IF	17	F 1000	EMSCO	250
127		DP E2		156	4½ IF	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Handle Tools	Clean Pump	Test MWD		
MORN.		5¼			3¼		1¼			1																
DAY						3	1¼															4¾				
EVE.		2½	1½		½	2¾	¼			¼														¼		
TOTAL		8¼			3¾	5¾	2¾			1¼												4¾	¼	¼		

TOTALS

	8
	8
	8
	24

SHALE SHAKER(S)

NO.	TYPE
2	DERRICK FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP	84	TOP	84
MIDDLE	84	MIDDLE	84
BOTTOM	84	BOTTOM	84

RENTALS/SERVICES

	MORN	DAY	EVE
TMS 330076			
AMS 3645			
Accum. .30			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	motor		42 m
	NB		9.52 m
	FLOAT SUB		.76 m
2	NMDC		18.75 m
	DC	228	9.43 m
	SHOCK SUB		3.85 m
	DC	228	9.16 m
	XO		1.37 m
3	DC	228	18.64 m
	XO		1.38 m
9	DC	171	84.60 m
	XO		1.41 m
3	HWDP		27.04 m
14	D.P.	STANDS	412.74 m
1	D.P.	SINGLES	9.25 m
	KELLY DOWN		0.00 m
	TOTAL		618 m
WT. OF DC			52000 1000 daN
WT. OF STRING			62000 1000 daN

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75ISL
SERIAL NO.	RR6973
JETS (mm)	14x12.7 2x12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	223
TOTAL HOURS RUN	41¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	01:30	04:00	06:00
DENSITY kg/m³	1130	1130	
FUNNEL VIS. - (S/L)	72	62	
W.L. (cm³)	25.0	25.0	
pH	10.0	9.5	
P.V.T.m³	60.2	60.4	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulfite	3 SKS
Carbon	3 pails
Aktoner	2 SKS
Lime	3 SKS
Pot. Sulph	112 SKS
Drispac	1 SK
Starpak	2 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD PM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
583	612	29	30	20/22

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12260	152	110	152	110

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
566.1	6.6	38.6
575.7	6.9	44.4
685.3	7.3	46.2
595	7.7	45.5

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0015	¼	10	Survey
0015	0200	1¾	2	Drill 583m-592m
0200	0215	¼	10	Survey
0215	0230	¼	24	Clean out No 1 Pump of Broken Spring
0230	0245	¼	4	Rig Service (Dwks)
0245	0445	2	2	Drill 592m - 602m
0445	0500	¼	10	Survey
0500	0700	2	2	Drill 602m - 612m
0700	0715	¼	10	Survey
0715	0800	¾	5	~~Pull 612-604m~~ Circ BTMS up

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Safety Mtg	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)	TRIP	
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	48 SX
Polyaxide	Box 1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1190	1610	1000

METRES DRILLED

FROM	TO	DRD PM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
612				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11400	152	110	152	110

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	1100	5	6	T.O.O.H. FOR MOTOR (STRAP OUT)
1100	1200	1	22	Lay Down Restrictor Sub
1200	1215	¼	7	R/S Service Top Drive (Change DHE)
1215	1400	1¾	22	L/D 228mm Motor & P/U 250mm Motor
1400	1600	2	22	P/U BHA & Work on MWD

PIPE TALLY = 631.33 m
STRAP OUT = 631.27 m
DIFF. = .06

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	motor		7.01 m
1	NB		.34 m
1	RESTRICTOR SUB		.52 m
1	FLOAT SUB		.76 m
2	NMDC		18.75 m
1	DC	228	9.43 m
1	SHOCK SUB		3.85 m
1	DC	228	9.16 m
2	DC	228	5.18 m
1	XO		18.64 m
9	DC	171	1.38 m
1	XO		84.60 m
3	HWDP		1.41 m
15	D.P.	STANDS	27.04 m
	D.P.	SINGLES	470.97 m
	KELLY DOWN		0.21 m
	TOTAL		620 m
WT. OF DC			23000 1000 daN
WT. OF STRING			32000 1000 daN

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75ISL
SERIAL NO.	RR6973
JETS (mm)	14x12x12x12
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	225
TOTAL HOURS RUN	43¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	2-30000
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	21:30	24:00
DENSITY kg/m³	1140	1140
FUNNEL VIS. - (S/L)	53	72
W.L. (cm³)		15
pH	9.0	9.5
PVT	47.1	51.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Drispac	2 SX
Starpac	4 SX
Carbox	1 SX
Lime	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			
	CENTRI 2		
8			

METRES DRILLED

FROM	TO	DRD PM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
612	620	8	30	20/25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10000	152	110	152	110

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
603.5	8.1	51.0 NE

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:00	1	6	R.I.H.
17:00	17:15	¼	25	Test M.W.D.
17:15	18:15	1	6	R.I.H. to 300m
18:15	19:15	1	3	Ream F/300m-350m
19:15	19:45	½	2	R/S Top Drive.
19:45	20:00	¼	6	R.I.H. F/350m-365m
20:00	20:30	½	3	Ream F/565m-580m
20:30	21:00	½	6	R.I.H F/580m-609m
21:00	21:30	½	5	Wash to Bottom, Survey with M.W.D.
21:30	23:15	1¾	2	Drill 444mm hole F/612m-618m
2315	2330	¼	10	Survey
2330	2400	½	2	Drill 618m - 620m

NOTES: ✓ Fastline Clamp, Deadline Anchor, Crown Saver.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

FOLD HERE →

149288

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ET AL LINRD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040 12330-0 | UNIQUE ID.: 300C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauck.

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 08 | DAY 16 | RIG NO. 5B

FUEL @ 8:00 RIG .68 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
406		139.9		K-55	15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
203		DC	75	203	7 5/8 REG	9	F-1000	EMSCO	254
178	135.04	DC	57	178	6 5/8 REG	24			
127	74.25	HWDP	76	159	4½ IF	17	F-1000	EMSCO	254
127	29.02	ER	108	156	4½ IF	174			

TIME-HRS

CODE NO.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22 Change Screens	23	24	25	26
OPER.																										
MORN.		5½								¾												1h				
DAY		6					¼	1¼		¼																
EVE.		7					¼			¾																
TOTAL		18½					½	1¼		2												¼				

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE DERRICK FLO	TMJ 350332			
8	SCREENS CHANGED ☒ YES ☐ NO	TMJ 3701			
8	TOP 84 TOP 175	Accum Oil .32			
8	MIDDLE 84 MIDDLE 84				
24	BOTTOM 84 BOTTOM 84				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		.42 m
1	X/O		7.01 m
1	Rest Sub		.34 m
1	Float Sub		.76 m
2	NMDC		18.75 m
1	228 DC		9.43 m
1	SS		3.05 m
1	228 DC		9.16 m
1	JAR		5.18 m
2	228 DC		18.64 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	188.86 m
16	D.P.	STANDS	m
XX	D.P.	SINGLES	447.86 m
	KELLY DOWN		8.22 m
	TOTAL		647.00 m
WT. OF DC		23000	1000 daN
WT. OF STRING		52000	1000 daN

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75ISL
SERIAL NO.	RR6973
JETS (mm)	17½ 2x12.7
DEPTH OUT (m)	-
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	252
TOTAL HOURS RUN	49

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓

TORQUE AT BOTTOM 6000-8000 FT/LB

FILL ON BOTTOM (m) -

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	74	64	61
W.L. (cm³)	15.0	17.0	19.0
pH	9.5	9.0	9.5
PVT m3	52.3	54.4	54.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Corinox	2 pails
SodSulfite	2 sx
Aldacide 110	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

Cent #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

MORNING TOUR

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
620	647	27	30	7½

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10000	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
613.2	8.2	51.0 Az
622.9	8.3	49.0 Az
634.7	7.9	51.0 Az

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	2	DRILL 620m - 628m
0200	0215	¼	10	SURVEY
0215	0430	2¼	2	DRILL 628m - 637m
0430	0445	¼	10	SURVEY
0445	0645	2	2	DRILL 637m - 646m
0645	0700	¼	22	CHANGE SHAKER SCREENS
0700	0715	¼	2	DRILL 646 - 647m.
0715	0730	¼	10	Survey
0730	0800	½	8	Work on Pump #2

NOTES: V-Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				making connections	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		.42 m
1	X/O		7.01 m
1	Rest Sub		.34 m
1	Float Sub		.76 m
2	NMDC		18.75 m
1	228 DC		9.43 m
1	SS		3.05 m
1	228 DC		9.16 m
1	JAR		5.18 m
2	228 DC		18.64 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA:	188.86 m
16	D.P.	STANDS	m
XX	D.P.	SINGLES	478.60 m
	KELLY DOWN		5.54 m
	TOTAL		673.00 m
WT. OF DC		23000	1000 daN
WT. OF STRING		54000	1000 daN

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75ISL
SERIAL NO.	RR6973
JETS (mm)	17½ 2x12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	278
TOTAL HOURS RUN	55

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓

TORQUE AT BOTTOM 6000-8000 FT/LB

FILL ON BOTTOM (m) -

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	10:00	12:00	15:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	60	80	93
W.L. (cm³)	26	26	17
pH	8.5	9.0	9.0
PVT	53.6	55.1	61.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Corinox	3 pails
Sodium Sulfite	3 SX
Aldacide 110	2 SX
Caustic	2 SX
Lime	2 SX
Starpac	8 SX
Drispac	4 SX
Lignite	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

DAY TOUR

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
647	673	26	30	30 25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10100	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
641.6	8.0	50.1 Az
651.3	8.1	48.7 Az

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:15	1¼	8	Work on Pump #2
09:15	15:15	6	2	Drill 444 mm hole f/647m-673m
15:15	15:30	¼	7	RS.
15:30	1600	½	10	Total Survey Time.

NOTES: V-Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			600 00	making connections.	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		.42 m
1	X/O		7.01 m
1	Rest Sub		.34 m
1	Float Sub		.76 m
8	NMDC		15.72 m
1	228 DC		9.43 m
1	SS		3.05 m
1	228 DC		9.16 m
1	JAR		5.18 m
2	228 DC		18.64 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	188.86 m
17	D.P.	STANDS	m
XX	D.P.	SINGLES	507.01 m
	KELLY DOWN		1.13 m
	TOTAL		697 m
WT. OF DC		23000	1000 daN
WT. OF STRING		54000	1000 daN

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	SMITH
TYPE	75ISL
SERIAL NO.	RR6973
JETS (mm)	17½ 2x12.7
DEPTH OUT (m)	
DEPTH IN (m)	395
TOTAL METRES DRILLED (m)	302
TOTAL HOURS RUN	62

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓

TORQUE AT BOTTOM 6000-8000 FT/LBS

FILL ON BOTTOM (m) -

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	20:30	24:00
DENSITY kg/m³	1145	1140	1135
FUNNEL VIS. - (S/L)	80	75	75
W.L. (cm³)	15	15	14.0
pH	9.0	9.5	10.0
PVT	68.8	68.8	68.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Corinox	1 Pail
Lime	2 SX
SodSulfite	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1080	

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
	1140	1080	

EVENING TOUR

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
673	697	24	30	25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10150	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
661.0	7.7	50.2 Az
670.3	7.6	48.5 Az
680.0	7.0	50.4 Az

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	2000	4	2	Drill 444 mm Hole f/673m - 685m
2000	2015	¼	7	R/S & SERVICE TOP DRIVE
2015	2315	3	2	DRILL 685m - 697m
2315	2400	¾	10	TOTAL SURVEY TIME

NOTES: V-Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Transferring Fuel	

EVENING TOUR

FOLD HERE →

149289

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Etal North Island C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Alta Drilling LTD

SURFACE LOCATION: 300 C-31 60 40 12330-0 | UNIQUE ID.: 300 C-31 60 40 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Tweet

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH OCT | DAY 19 | RIG NO. 58

FUEL @ 8:00 | RIG 1.72 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508		139.9		K-55	15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
203	178.84	NC	75	203	6 5/8 REG	9	F-1000	Emsco	254
178	174.84	NC	57	178	6 5/8 REG	96			
159	74.35	NC	76	159	4 1/2 IF	11	F-1000	Emsco	254
127	89.02	EH	108	156	6 5/8	17A			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.		2 1/2			2 3/4	3 3/4																Handle Tools				
	DAY					1 1/4	2 1/2	1/4			1/4	3 1/4											1/2				
	EVE.					1 1/2	1 3/4	1/4				4 1/2															
	TOTAL		0 1/2			5 1/2	7	1/2			1/4	7 3/4											1/2				

TOTALS	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
2	NO. TYPE: DERRICK FLC	TMJ 351540			
8	SCREENS CHANGED: ☒ YES ☐ NO	MWD 5109			
8	TOP 175 TOP 175	Mean Dia .32			
8	MIDDLE 84 MIDDLE 84				
24	BOTTOM 84 BOTTOM 84				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT	WATER	.42 m
1	Float Sub		7.51 m
1	Float Sub		.54 m
2	NMDC		18.69 m
1	228 DC		9.75 m
1	228 DC		9.42 m
1	203 DC		3.85 m
1	JAR		9.16 m
2	228 DC		18.69 m
1	X/O		1.38 m
9	178 DC		84.50 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	188.86 m
18	D.P.	STANDS	516.77 m
	D.P.	SINGLES	m
	KELLY DOWN		5.34 m
	TOTAL		711 m
WT. OF DC			23000 1000 daN
WT. OF STRING			54500 1000 daN

BIT RECORD

BIT NO.	4B
SIZE (mm)	444
IADC CODE	
MFG.	Smith
TYPE	FSISL
SERIAL NO.	KR6973
JETS (mm)	17.4/3x19.7
DEPTH OUT (m)	
DEPTH IN (m)	315
TOTAL METRES DRILLED (m)	396
TOTAL HOURS RUN	24 1/2

CUTTING STRUCTURE: T, T0, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5000↑ 6000↓

TORQUE AT BOTTOM: 6000-6500 FT LBS

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	06:30
DENSITY kg/m³	1140	1150
FUNNEL VIS. - (S/L)	75	75
W.L. (cm³)	15.0	15.5
pH	9.5	9.5
PVT m3	67.6	56.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer 110	1 SX
Corinox	2 pails
Sod Sulfite	2 SX
Hot Solvate	56 SX
lime	2 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
697	711	A	30	40/45

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10200	152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Trip Record		
Cal - 2.05m³		
Meas 3.02m³		
Diff .97m³		

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000	0115	1 1/4	2
0115	0215	1	5
0215	0500	2 3/4	6
0500	0515	1/4	5
0515	0630	1 1/4	2
0630	0800	1 1/2	5

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Drill 697m - 703m
CIRC. BTMS-UP & CLEAN HOLE
18 Std. WIPER TRIP STRAP OUT Flow↓
Brk. Circ. WASH F 697 - 703m
DRILL 703m - 711m
CIRC. & Cond mud
Drill Pipe Tally 50.70
Stkg 516.77
Diff = 0.53
TIGHT SPOT @ 645m
HIT GRIME @ 696

NOTES: √Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8				Tripping	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T0, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG:

TORQUE AT BOTTOM:

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	Trip Record
DENSITY kg/m³	meas 11.11
FUNNEL VIS. - (S/L)	Cal 3.00
W.L. (cm³)	Diff 4.11
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
696	7.6	55.2 Az
689	7.3	53.9 Az

DRILLER SIGNATURE: Barry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	09:15	1 1/4	5
09:15	09:30	1/4	10
09:30	12:00	2 1/2	6
12:00	12:30	1/2	22
12:30	12:45	1/4	7
12:45	14:00	1 1/4	11
14:00	16:00	2	11

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Circulate & condition mud.
Survey @ 696m & 689m
P.O.O.H. Flow↓ @ 10 stds, AW.B.P. OUT OF HOLE
Break down Subs & motor, lay down motor.
R/S
R.U. up loggers, make up Tools
Run In with Logging Tools, Run #1 - Sonic, AIT, Caliper
Changed oil in Drawworks
Serviced Pump

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.42 m
1	Bit Sub		.82 m
2	NMDC		18.75 m
2	228 DC		18.69 m
1	JAR		9.18 m
2	228 DC		18.69 m
1	X/O		1.38 m
9	178 DC		84.50 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	177.06 m
18	D.P.	STANDS	m
XX	D.P.	SINGLES	535.59 m
Stick up	KELLY DOWN		1.15 m
	TOTAL		711 m
WT. OF DC			20000 1000 daN
WT. OF STRING			48000 1000 daN

BIT RECORD

BIT NO.	RR 4B
SIZE (mm)	444
IADC CODE	
MFG.	Smith
TYPE	FSISL
SERIAL NO.	KR6973
JETS (mm)	2x19.7/1x15
DEPTH OUT (m)	
DEPTH IN (m)	711
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T0, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5000 - 10000

TORQUE AT BOTTOM: 6000 - 7000 FT lbs

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	22:30
DENSITY kg/m³	1150
FUNNEL VIS. - (S/L)	83
W.L. (cm³)	18.5
pH	9.5
PVT	51.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711			15	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6000	152	100	152	100

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
16:00	16:45	3/4	11
16:45	1945	3	11
1945	2130	1 3/4	6
2130	2300	1 1/2	5
2300	2315	1/4	7
2315	2400	3/4	11

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Pull out Log #1 - Sonic, AIT, Caliper.
Change Tools.
Run In Hole with Log #2 - Sonic - AIT - Caliper.
Pull out Logs & Rig out Loggers
MAKE UP BHA & R.I.H. To 706m
BRK. Circ @ 703m wash to 711m
Circ & Cond. Hole
K/S
Rig In Loggers & Run Gyro Survey

NOTES: √Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Run in Hole	

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149290

LICENCE NO.: 1966 | WELL NAME AND NO.: Canadian Forest et al North Laid c-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 B-31 (AO 12330-0 | UNIQUE ID.: 300 C-31 (AO 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HPS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 08 | DAY 20

RIG NO.: 58

FUEL @ 8:00

RIG: 58 | BOILER:

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
SCR		159.9		K-55	15	190		190

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	174.24	DS	75	203	7¾ H90	26	F-1000	EMSCO	254
178	108.57	DS	57	178	5½ H90	19	F-1000	EMSCO	254
127	74.35	HW	76	168	4½ IF	174			
127	29.02	E2	108	156					

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Lay Down Drill Collars W/O Pipe Cats	24	25	26
	MORN.					½	2½	¼				1¾											3			
	DAY												¾										1¼	6		
	EVE.												1¾									½				
	TOTAL					½	2½	¼				1¾	2½									½	4¼	6		

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick FLC	Tmt 331966			
8	SCREENS CHANGED ☐ YES ☑ NO	AMJ 5535			
8	TOP 175 TOP 175	Mum Oil - 32			
8	MIDDLE 84 MIDDLE 84				
24	BOTTOM 84 BOTTOM 84				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC | 1000 daN

WT. OF STRING | 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

TRIP Record
Call t-.27 m³
Meas 6.89 m³
Diff .66 m³

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARite	42 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3400	152	80	152	80

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0145	1¾	11	Run Gyro Survey
0145	0215	½	5	Circ. & Circulate
0215	0445	2¾	6	Pooh. Flow 0.5, HW & out of Hole
0445	0500	¼	7	R/S
0500	08:00	3	22	Lay Down 12 3/8 DC & Rig up to Lay Down 3 1/2 DC

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Lay Down DC	

DAY TOUR

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	14:00	6	23	Wait on Picker To Lay Down 15" DC.
				Lay Down 15" Tools, Rig up Power Tongs.
14:00	15:15	1¼	22	Lay Down 15" Collars
15:15	16:00	¾	12	Rig To Run 13 3/8 Casing.

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Running Casing.	

EVENING TOUR

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:30	½	12	Rig To Run 13 3/8 casing
16:30	16:45	¼	21	Held Safety meeting.
16:45			17	make up shoe & weld on, make up Float
	1900	2¼		Run Casing.
1900	1915	¼	21	HELD SAFETY MEETING AT CREW CHANGE
1915	2330	4¼	12	RUN CASING
2330	2400	½	12	Rig out Power Tongs & Lay Down Truck

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					

FOLD HERE →

149291

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al Keith Field C-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300 C-31 6090 12330-0	300 C-31 6090 12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
	Dave Lauer

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
2000	08	22

RIG NO. 58

FUEL @ 8:00

RIG 1.74 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508		139.9		K-55	15	190		190
	339.7	315.34	101.2	BT&C	K55	55	711.20	710	611

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	220		DC	75	250	TMP	9	F-1600	Emsco	254
	178	174.84	DC	57	178	5H90	26	F-1600	Emsco	254
	177	74.35	HW	76	159	4½IF	17			
	147	29.02	E2	108	138	2	179			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22 Clean Cement	23 Cut Casing Weld Bowl	24	25	26
	MORN.					½	½																				
	DAY					¾	2½						3½									¼	1					
	EVE.														1½									5½			
	TOTAL					¾	6						3½	1	1½							¼	1	5½				

TOTALS

NO.	8
	8
	8
	5
	24

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☐ NO

TOP		TOP	
	175		175
MIDDLE	84	MIDDLE	84
BOTTOM	84	BOTTOM	84

RENTALS/SERVICES

	MORN	DAY	EVE
TMT 33201			
MMT 5770			
Premium Oil .32			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Stinger	.23	m
24	D.P.	STANDS	m
X	D.P.	SINGLES	698.78 m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	RAN 55 JTS 339.7 mm Casing
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
1700	152	80	152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Dave Lauer

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0300	3	5	BRK. CIRC & WASH 5m TO 137mm.
0300	0630	3½	6	RUN DP in Casing to Cement
0630	0800	1½	5	Circ. Casing through Cement Head
				RAN 55 JOINTS of 339.7mm 101.2 Kg/m, K55 BT&C CASING. TOTAL LENGTH of 711.20m. LANDED @ 710m KB. FRONT @ 697m KB.
				CEMENT w/ 105 TONNES 0:1:0 CLASS G + 1.5% CFR-3 + 3% LTR. BUMP PLUG w/ 3000 kPa OVER CIRC PRESS PLUG DOWN AND HOLDING @ 11:40 HRS. 08/21/00 1½m³ GOOD CEMENT RETURNS.

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Drilling Pipe	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
CelloFlake	20 SX
Barite	240

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Reseh				
1700	152	80	152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Gerry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:45	¾	5	Circulate Casing Through Cement Head.
08:45	09:00	¼	21	Held Safety meeting with Cementers
09:00	12:00	3	12	Cement 13⅜ Casing, Plug down @ 11:40 hrs.
12:00	12:30	½	12	Rig out Cementers, Break down cement head.
12:30	15:00	2½	6	Pull Pipe out of Casing, Break off Stinger.
15:00	16:00	1	22	Prepare To Lift Diverter, Clean Cement From Diverter., Lift Diverter

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Cement Casing	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:00	1	13	W.O.C.
17:00	17:30	½	23	Cut Casing.
17:30	19:00	1½	14	Nipple down Diverter
1900	2400	5	23	FINISH CUT ON CASING & WELD BOWL

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Nipple up	

FOLD HERE →

149292

LICENCE NO.: 1960 | WELL NAME AND NO.: Canadian Forest et al North Laird c-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 c-31 6040 12330-0 | UNIQUE ID.: 300 c-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial DT
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial JL
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 05 | DAY 22 | RIG NO. 56

FUEL @ 8:00: RIG 1.65 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508		177.9		H-55	15	190		190
	339.7	315.34	101.2	BTEC	K55	55	711.20	710	711

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DX	73	228	7NC50				
178	174.64	DX	57	178	5 1/2 FH	96	F-1000	Emsco	254
127	74.35	HW	76	159	4 1/2 IF	19	F-1000	Emsco	254
127	99.02	E2	108	156	4 1/2 IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.															7¼							Well Bowl 3/4			
DAY															7										
EVE.															½	7¼									
TOTAL															14½	7¼						3/4			

TOTALS	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick FLC	TMS 332218			
8	SCREENS CHANGED X YES ☐ NO	AMJ 5767			
8	TOP 175 TOP 140	Aerum Oil .37			
8	MIDDLE 175 MIDDLE 140				
2A	BOTTOM 175 BOTTOM 140				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC 1000 daN | WT. OF STRING 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dan Rabuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:45	3/4	23	Well Bowl & Pressure Test 7000 10 min.
00:45	03:00	7¼	14	NIPPLE UP B.O.P.'s

NOTES: √Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC 1000 daN | WT. OF STRING 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dan Rabuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	15:00	7	14	Nipple up B.O.P.'s
15:00	16:00	1	15	Pressure Test manifold valves 1500 kPa Low, 13000 kPa High, 10 min each.
				Pumped 3.5 m³ of 1761 kg/m³ Gel mud to Fill Annulus
				5 Tons of 1.0 to 3% Calc.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		

WT. OF DC 1000 daN | WT. OF STRING 1000 daN

BIT RECORD

BIT NO. | SIZE (mm) | IADC CODE | MFG. | TYPE | SERIAL NO. | JETS (mm) | DEPTH OUT (m) | DEPTH IN (m) | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Dan Rabuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00				Pressure test manifold valves, Choke lines, Blind Rams & Bottom Kill Line
				10 min Low @ 1500 kPa
	2330	7½	15	10 min High @ 13000 kPa
2330	2400	½	14	Take off Flow nipple To Fix

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Nipple up	

EVENING TOUR

FOLD HERE →

149293

LICENCE NO.: 0

WELL NAME AND NO.: Canadian Forest et al North Laird C-31

OPERATOR: Canadian Forest Oil

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 C-31 6040 12330-0

UNIQUE ID.: 300 C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H_2S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flareless & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 08 | DAY 23

RIG NO.: 58

FUEL @ 8:00

RIG: 1.52 | BOILER:

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	508		89.9		K-55	15	150		150
	339.7	315.34	101.2	BTEC	K55	55	711.20	6.47	711

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
240		EE	73	178	7 5/8 REG	4			
178	179.41	EE	67	178	6 5/8 REG	26	F-1000	EMSCO	254
127	74.35	HW	76	149	4 1/2 IF	17	F-1000	EMSCO	254
127	27.09	E2	108	156	4 1/2 IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Rig Repair Parking	24 Drill out	25 Test Casing, Circ B.T.	26 BOP Drill	TOTALS
	MORN.						1/4	1/4								5							1				8
	DAY		17				1	1/4																3 1/2	1 1/4		8
	EVE.		1			1/2	4 1/4									1/4										3/4	6
	TOTAL		2 3/4			1/2	7	1/4								6 1/4							1	3 1/2	1 1/4	3/4	24

	26
	3/4
	1/4

SHALE SHAKER(S)

NO. 2 | TYPE: DERRICK FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP	175	TOP	140
MIDDLE	175	MIDDLE	140
BOTTOM	175	BOTTOM	140

RENTALS/SERVICES

TMJ 3336 61

AMJ 6630

Accum Oil . 37

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.28 m
2	NMDC		15.75 m
1	228 DC		9.30 m
1	JAR		5.18 m
3	228 DC		27.93 m
1	X/O		1.38 m
9	178 DC		84.90 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		176.91 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	1C
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	J+L
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x18.0 1x17.5
DEPTH OUT (m)	
DEPTH IN (m)	711
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot Sulfite	56 SX
Desco	3
Sulfamic A	
Bicarb	
Alcomer 903	SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000			15
	0500	5	15
0500	0600	1	22
0600	0615	1/4	7
0615	0650	1/4	6

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

PRESSURE TEST BOP, Five RAMS

10 min. Low 1500 KPA 10 min High 13000 KPA

TOP PIPE RAMS & TOP KILL LINE

10 min Low @ 1500 KPA 10 min High @ 13000 KPA

ANNULAR, Stabbing Valve, & Kelly cock

Ivy Stall wear Bushing

RIG Function Blind & 7 SEC/CS

Make up BHA & RIH

NOTES: Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				TIGHTNESS TEST	

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.28 m
2	NMDC		19.75 m
1	228 DC		9.30 m
1	JAR		5.18 m
3	228 DC		27.93 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA=		176.91 m
18	D.P.	STANDS	m
XX	D.P.	SINGLES	535.92 m
	KELLY DOWN		.17 m
	TOTAL		713.00 m
WT. OF DC			1000 daN
WT. OF STRING			52000 1000 daN

BIT RECORD

BIT NO.	1C
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	J+L Hughes
TYPE	ATJ-15
SERIAL NO.	R57EN
JETS (mm)	2x19.0 1x17.5
DEPTH OUT (m)	713
DEPTH IN (m)	711
TOTAL METRES DRILLED (m)	2
TOTAL HOURS RUN	1 3/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM 5-7000 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	10:30	2:30
DENSITY kg/m³	1080	1095
FUNNEL VIS. - (S/L)	45	58
W.L. (cm³)		
pH	12.	12.
PVT	622	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sulfamic Acid	6 SX
Sod. Bicarb	5 SX
Alcomer	1 SK.

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
711	713	2	60	5/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
4400	152	80	152	80

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	09:00	1	6
09:00	09:15	1/4	7
09:15	11:45	2 1/4	23
11:45	13:00	1 1/4	24
13:00	14:15	1 1/4	23
14:15	16:00	1 3/4	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

R.I.H., Tagged Cement @ 694 m

RIG Function upper Pipe Rams 6 Sec/ck.

Drill out Float, Drill To 705 m

Pressure Test Casing, 1500 Low - 13000 High Kmin

Drill out Cement & Shoe, Shoe @ 710.20 m

Drill 311 mm hole F/711 m - 713 m

√SCBA's & Fire extinguishers

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Function Remote choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				BOP Drill	5329 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.28 m
1	NMDC		.84 m
2	NMDC		16.75 m
1	228 DC		9.30 m
1	JAR		5.18 m
3	228 DC		27.93 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		176.91 m
19	D.P.	STANDS	545.35 m
	D.P.	SINGLES	m
Stick Up	KELLY DOWN		.27 m
	TOTAL		713 m
WT. OF DC			21000 1000 daN
WT. OF STRING			520000 1000 daN

BIT RECORD

BIT NO.	1C
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	J+L Hughes
TYPE	ATJ-15
SERIAL NO.	R57EN
JETS (mm)	2x19.0 1x17.5
DEPTH OUT (m)	722
DEPTH IN (m)	711
TOTAL METRES DRILLED (m)	11
TOTAL HOURS RUN	2 3/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM 6-10000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:30
DENSITY kg/m³	1080
FUNNEL VIS. - (S/L)	43
W.L. (cm³)	30.0
pH	12.0
PVT	561

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Bicarb	1 SX
Sulfamic A	1 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
713	722	9	60	8/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
4200	152	90	152	90

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
TRIP RECORD		
CAL =	6.35 m³	
MEA =	6.53 m³	
DIFF =	.48 m³	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
16:00	16:15	1/4	26
16:15	16:45	1/2	23
16:45	18:15	1 1/2	6
18:15	18:30	1/4	23
18:30	1945	1 1/4	6
1945	2045	1	2
2045	2115	1/2	5
2115	2230	1 1/4	15
2230	2460	1 1/2	6

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

B.O.P. Drill, Well Secure 1 min.

Try To unball B.I.T.

P.O.O.H.

Clean & Inspect B.I.T. B.I.T Balled From Junk.

R.I.H. with same B.I.T.

DRILL 713m - 722 m

Circ Bottom - UP

Leak off TEST & Accum. TEST

POOH Brk Bit Flow/OS HWDP out Hole

NOTES: √Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				BOP Drill	

EVENING TOUR

FOLD HERE →

149294

LICENCE NO.: 13000 | WELL NAME AND NO.: Canadian Forest et al North Lwld C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C-31-6040-12330-0 | UNIQUE ID.: 300C-31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Jamieson

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HFS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flexibles & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2008 | MONTH 08 | DAY 29 | RIG NO. 56

FUEL @ 8:00: RIG 1.36 | BOILER

	LAST CASING	TUBING	OR LINER
O.D. (mm)	508		339.7
MIN. I.D. (mm)			315.34
kg/m	138.9		101.2
MAKE			BTEC
GRADE	K55		K55
NO. OF JOINTS	15		55
TOTAL(m) LENGTH	190		711.20
KB. TO CSG HEAD (m)			7.10
SET AT (m)	190		711

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (in/m)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228.6		DC	76	285	6 5/8 REG	9			
178	179.64	DC	57	175	5 1/2 FH	76	F-1600	EMSCO	254
127	74.35	HW	76	159	4 1/2 IF	17	F-1000	EMSCO	254
127	27.09	E2	108	156		17A			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Handle Tool/BOP Drill	24	25	26
	MORN.		1 1/2				1 1/2	1/4		3/4											2 1/4		1 1/2	1/4		
	DAY		4 3/4					1/2	2	3/4																
	EVE.		6 3/4							1 1/4																
	TOTAL		13				1 1/2	3/4	2	2 3/4											2 1/4		1 1/2	1/4		

TOTALS: 8 | 8 | 8 | 21

SHALE SHAKER(S): NO. 2 | TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☒ NO

	TOP	TOP	MIDDLE	MIDDLE	BOTTOM	BOTTOM
	175	140	175	140	175	140

RENTALS/SERVICES

	MORN	DAY	EVE
THNJ - 333553			
A.M.J. - 7122			
Accum Oil .36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.37 m
1	MOTOR		9.47 m
1	Float Sub		.76 m
1	Kest Sub		.62 m
1	NM DC		16.75 m
1	228 DC		9.43 m
1	S/Sub		3.65 m
1	228 DC		9.34 m
1	SAR		5.18 m
2	228 DC		18.59 m
1	X/O		1.36 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	190.79 m
19	D.P.	STANDS	545.35 m
	D.P.	SINGLES	m
	KELLY DOWN		.86 m
	TOTAL		737.00 m
WT. OF DC		28,000	1000 daN
WT. OF STRING		53,000	1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	15
TOTAL HOURS RUN	1 1/2

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	06:30		0730
DENSITY kg/m³	1080		1075
FUNNEL VIS. - (S/L)	40		48
W.L. (cm³)	350		
pH	12.0		12.0
PVT	51.7		51.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	28 SX
Drispac	1 SX
Starpac	2 SX
Gel	2 SX
Bicarb	2 SX
Sulfate	1 SX
Sawdust	25 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DIA. OF RUN CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
722	737	15	20+ motor	9/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8600	152	90	152	90

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
718	7.5	51.5

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0130	1 1/2	22	T/O MOTOR CHANGE SLEEVES SET MOTOR
0130				MWD SET & ORIENT RESET SUB
	0330	2	20	ORIENT MOTOR TO MWD
0330	0500	1 1/2	6	R I H W/MOTOR
0500	0515	1/4	23	BOP Drill While Tripping Secure 1 min.
0515	0530	1/4	7	R/S FUNCTION TOP PIPE 8 sec ok
0530	0545	1/4	20	Work on getting survey signal
0545	0715	1 1/2	2	Drill 722m - 737m
0715	08:00	3/4	10	Total Survey Time.

NOTES: ✓Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Work Drill Tripping	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.37 m
1	MOTOR		9.37 m
1	Float Sub		.76 m
1	Kest Sub		.62 m
2	NM DC		18.75 m
1	Shock Sub		3.85 m
1	228 DC		9.34 m
1	SAR		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA=	190.79 m
20	D.P.	STANDS	574.32 m
—	D.P.	SINGLES	— m
	KELLY DOWN		2.89 m
	TOTAL		768.00 m
WT. OF DC		28000	1000 daN
WT. OF STRING		55000	1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	46
TOTAL HOURS RUN	8 1/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5000↑ 3000↓ DAN
TORQUE AT BOTTOM	10000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	07:00	13:30	
DENSITY kg/m³	1085	1080	
FUNNEL VIS. - (S/L)	60	57	
W.L. (cm³)	27	21	
pH	11	11	
PVT	52.1	53.1	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Akomer	1 SK
Drispac	2 SX
Starpac	4 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DIA. OF RUN CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
737	768	31	20+ motor	9/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9500	152	105	152	105

Swaco **REDUCED PUMP SPEED**: 3000 @ 70 @ 764m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
728	7.5	53.9
739	6.9	57.6
748	6.2	62.7

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	10:45	2 3/4	2	Drill 311mm Hole F/737m - 751m
10:45	12:45	2	8	Weld hole in Mud line.
12:45	14:30	1 3/4	2	Drill F/751m - 765
14:30	15:00	1/2	7	R/S, Function Annular 19 sec, C/S, ✓RSPD.
15:00	15:15	1/4	2	Drill F/766m - 768m
15:15	16:00	3/4	10	Total Survey Time

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage, Function Remote choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			61000		5329 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		.37 m
	Float Sub		.76 m
	Kest Sub		9.75 m
	Shock Sub		3.85 m
	228 DC		9.34 m
	SAR		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	190.79 m
21	D.P.	STANDS	m
XX	D.P.	SINGLES	621.76 m
	KELLY DOWN		6.45 m
	TOTAL		819.00 m
WT. OF DC		28000	1000 daN
WT. OF STRING		56000	1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	97
TOTAL HOURS RUN	13

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5000↑ 3000↓ DAN
TORQUE AT BOTTOM	8000 FT/LB
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	16:30	20:30	22:30
DENSITY kg/m³	1085	1090	1100
FUNNEL VIS. - (S/L)	51	47	45
W.L. (cm³)	13.0	13.5	13.0
pH	11.0	10.5	10.5
P.V.T.	58.2	58.8	54.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph	18 SKS
Sod. Sulfite	6 SKS
Corinox	6 pails

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

#1 CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

8	1100	1040	1720
#2			
	1100	1090	1470

METRES DRILLED

FROM	TO	DIA. OF RUN CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
768	819	51	80→ 100	9/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9700	152	105	152	105

REDUCED PUMP SPEED: 3000 @ 70 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
757	5.8	67.8
766	5.1	77.8
776	4.3	86.3
785	3.3	94.4
795	3.5	92.8

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:45	3/4	2	Drill 311mm Hole F/768m - 774m
16:45	17:00	1/4	10	Survey
17:00	18:15	1 1/4	2	Drill 774m - 783m
18:15	18:30	1/4	10	Survey
18:30	23:15	4 3/4	2	Drill 783m - 819m
23:15	24:00	3/4	10	Survey Time.
				Held BOP Drill - Well Secure 70sec
				Held BOP Discussion.

NOTES: ✓Check Crownsaver - Fastline Clamp - Deadman Anchor Brakes + Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Scrapers, Pinch	5189 KPA

FOLD HERE →

149295

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Liard C-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS — OPR. — R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
00	08	25

RIG NO. 58

FUEL @ 8:00

RIG 1.08 BOILER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	339.7	315.34	101.2	BT&C	K55	55	711.20	6.47	710
TUBING OR LINER									

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178	DC	57	178	5H90	26	F-1000	Emsco	254
178	74.84	DC	57	178	5H90	26	F-1000	Emsco	254
127	74.35	HW	76	159	4½ IF	17	F-1000	Emsco	254
127	29.02	E2	108	156	11	174			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.		6½					¼			1¼																
	DAY		6¼					½			1¼																
	EVE.		6¾								1¼																
	TOTAL		19¾					¾			3¾																

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.M.G.	T mJ-333917			
8	SCREENS CHANGED ☐ YES ☐ NO	A mJ-7486			
8	TOP #1 140 TOP #2 175	Accum oil - 35			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.37 m
1	MOTOR		9.27 m
1	Float Sub		.76 m
1	Rss sub		.68 m
2	NMDC		18.75 m
1	DC 228		9.43 m
1	Stock		3.85 m
1	DC 228		9.34 m
1	Jar		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA=	190.79 m
23	D.P.	STANDS	m
X	D.P.	SINGLES	669.98 m
	KELLY DOWN		5.23 m
	TOTAL		866.00 m
WT. OF DC			28000 1000 daN
WT. OF STRING			57000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7x14.3
DEPTH OUT (m)	-
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	144
TOTAL HOURS RUN	19½

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓ DAN

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m) -

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME	00:00	03:00	06:00
DENSITY kg/m³	1100	1090	1085
FUNNEL VIS. - (S/L)	44	42	51
W.L. (cm³)	13.0	14.0	14.0
pH	9.5	9.5	9.6
PVT m³	59.2	50.9	54.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph	56 sx
Alcomer	1 sk.
Vercol	2 sk.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1085	1070	1860

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1085	1070	1860

METRES DRILLED

FROM	TO	DP-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
819	866	47	70 SLIDE 30/75	10/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10400	152	105	152	105

REDUCED PUMP SPEED

1700 @ 821m @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
804	2.9	96.7
814	2.7	99.6
824	2.4	87.8
834	2.3	94.9
843	1.9	92.8

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:30	½	2	Drill 311mm Hole F/819m-821m
00:30	00:45	¼	7	R/S. Function Bottom Pipe Rams 6sec/U3 ✓ASP
00:45	06:45	6	2	Drill F/821m-866m
06:45	08:00	1¼	10	TOTAL Survey Time

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Function Remote choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	62000 DAN	Housekeeping	5189 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		.37 m
	Motor		9.27 m
	Float Sub		.76 m
	RSS Sub		.68 m
2	NMDC		18.75 m
1	DC 228		9.43 m
1	Stock		3.85 m
1	DC 228		9.34 m
1	Jar		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		190.79 m
25	D.P.	STANDS	718.27 m
2	D.P.	SINGLES	17.44 m
	KELLY DOWN		7.50 m
	TOTAL		936.00 m
WT. OF DC			28000 1000 daN
WT. OF STRING			58000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7x14.3
DEPTH OUT (m)	
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	214
TOTAL HOURS RUN	25¾

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓

TORQUE AT BOTTOM 6-8400 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE	☐ WATER BASED	☐ OIL BASED	
TIME	09:00	14:00	16:30
DENSITY kg/m³	1110	1130	1130
FUNNEL VIS. - (S/L)	48	55	52
W.L. (cm³)	24.0	15.0	15.5
pH	10.0	10.0	10.0
PVT m³	52.0	52.7	52.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkaplex	1 sx
Enviro	1 sx
Corrinox	3 pails
Sod. Sulfit	3 sxs
Pot. Sulph	168 sx GEL 15
Alcomer 110	2 sx
STARPAK	2 sx
Dispac	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

#1 CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1130	1120	1860
#2			
12	1130	1120	1860

METRES DRILLED

FROM	TO	DP-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
866	936	70	70/75	10/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10400	152	105	152	105

REDUCED PUMP SPEED

3500 @ 70 @ 87m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
853	1.9	80.7
862.8	2.0	80.1
872.6	2.1	82.1
892.0	2.0	94.5
901.4	2.4	100.2

DRILLER SIGNATURE

Dan Burgess

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0900	0900	1	2	Drill 866m-879m
0900	0930	½	7	R/S Serv Dwks + TSF Drive
0930	1745	8½	2	Drill 879m-936m
1745	1800	1¼	10	TOTAL Surveys

NOTES CHECK CROWN SAVER - FASTLINE CLAMP - DEADLINE ANCHOR - BRAKE LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-		FALL ARREST LINES	5259

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.37 m
1	MOTOR		9.27 m
1	Float Sub		.76 m
1	Rss Sub		.68 m
2	NMDC		18.75 m
1	228 DC		9.43 m
1	Stock		3.85 m
1	228 DC		9.34 m
1	Jar		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA=		190.79 m
27	D.P.	STANDS	m
XX	D.P.	SINGLES	794.99 m
	KELLY DOWN		— m
	TOTAL		985.78 m
WT. OF DC			28000 1000 daN
WT. OF STRING			60000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7x14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	263
TOTAL HOURS RUN	32½

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 3000↓

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE	☐ WATER BASED	☐ OIL BASED	
TIME	18:00	21:00	23:30
DENSITY kg/m³	1130	1120	1110
FUNNEL VIS. - (S/L)	47	46	48
W.L. (cm³)	16.5	26.	20
pH	10.0	10.0	9.5
PVT m³	59.3	54.5	55.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1120	1104	1760
4	1120	1110	1810

METRES DRILLED

FROM	TO	DP-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
936	985	49	20 + MTR 70 MTR=75	10/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10400	152	105	152	105

REDUCED PUMP SPEED

3500 @ 936.1 @ 10

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
921.2	2.5	87.7
930.5	2.3	93.1
940	2.4	93.1
949	2.2	76.6
968	2.5	63.8

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	22:45	6¾	2	Drill 936m-985m
22:45	24:00	1¼	10	TOTAL Survey Time.

23m³ mud - stripped
3m³ mud - Premix added to Active

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	8	—	63000		5056 KPA

FOLD HERE →

149296

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Stur North Lloyd C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Fuch

DAILY CHECKS (OPR. Initial / R.M. Initial)

	OPR.	R.M.
(1) Daily Walk Around Inspection		
(2) Detailed Inspection-Weekly (using checklist)		
(3) HPS Signs Posted (if required)		
(4) Well License & Stick Diagram Posted		
(5) Flare Lines Staked		
(6) BOP Drills Performed		
(7) Visually Inspect BOP's - Flarelines & Degasser Lines		
(1) Rig Site Health and Safety Meeting (one/crew/month)		
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		
(3) Mast Inspection Before Raising or Lowering		
(4) Crown Saver Checked		
(5) Motor Kills checked		

YEAR 88 | MONTH 08 | DAY 26 | RIG NO. 58

FUEL @ 8:00 | RIG 72 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BT&C	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	178	DC	71	228	7&4Q	9			
	178	174.84	DC	57	178	5½Q	26	F-1000	EMSCO	254
	127	74.35	HW	76	159	4½IF	17	F-1000	EMSCO	254
	127	29.02	E2	108	156	4½IF	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG-UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN		6¾					¼			1																
DAY		7¼								3/4																
EVE.		3¾	½		3/4	13¾	¼			½										½						
TOTAL		17¾	½		3/4	13¾	½			2¼										½						

TOTALS

8	SHALE SHAKER(S) NO. 2 TYPE	Derrick	F.L.C.
8	SCREENS CHANGED ☐ YES ☒ NO	#1	#2
8	TOP	140	175
8	MIDDLE	140	175
24	BOTTOM	140	175

RENTALS/SERVICES

	MORN.	DAY	EVE.
TmJ-334735			
AmJ-8304			
Accum oil-.34			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			9.27 m
1	MOTOR		.76 m
1	FLOAT SUB		.68
1	RSTAB		1.87 m
2	NMDC		2.43
1	228 DC		2.86 m
1	SHOCK		
1	228 DC		9.34
1	JAR		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA=	190.79 m
30	D.P.	STANDS	m
X	D.P.	SINGLES	870.79 m
	KELLY DOWN		m
	TOTAL		1061.58 m
WT. OF DC		28000	1000 daN
WT. OF STRING		61000	1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	339
TOTAL HOURS RUN	39¼

CUTTING STRUCTURE: T. | T₀ | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5000↑ 3000↓ DAN
TORQUE AT BOTTOM	9000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	03:00	06:00	07:00
DENSITY kg/m³	1110	1100	1100
FUNNEL VIS. - (S/L)	45	56	50
W.L. (cm³)	21	19.0	17.0
pH	9.0	9.5	9.5
PVT m³	60.2	53.5	54.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer	2 SK.
Corinox	3 pails.
Sod. Sulfite	3 SX
Drispac	2 SX
Starpac	4 SX
Lime	2 SX
Alco	
Peccol-738	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1100	1085	1760

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1100	1190	1980

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
985	1061	76	20+ mtr	10/15
		mtr=75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10800	152	105	152	105

REDUCED PUMP SPEED: 2000 @ 70 @ 1713m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
787	2.3	70.3
998	2.4	73.3
1006	2.4	69.9
1025	2.5	81.2

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:15	3¼	2	Drill 311 mm hole F/985m - 1013m
03:15	03:30	¼	7	RIS, Function Top Pipe Rams 6 sec/cls, VRSPP
03:30	0700	3½	2	Drill F/1013m - 1061m
0700	08:00	1	10	Total Survey Time
				Dewater - 11m³ mud stripped.
				Transfer - 2m³ PREMIX Added to Active

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	67000 DAN	—	5189 m³

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			37 m
	MOTOR		9.27 m
	FLOAT SUB		.76 m
	RSTAB		1.87 m
2	NMDC		2.43
1	228 DC		2.86 m
1	SHOCK		
1	228 DC		9.34
1	JAR		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA=	190.79 m
32	D.P.	STANDS	m
X	D.P.	SINGLES	927.86 m
	KELLY DOWN		7.35 m
	TOTAL		1126.00 m
WT. OF DC		28000	1000 daN
WT. OF STRING		63000	1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	404
TOTAL HOURS RUN	50¼

CUTTING STRUCTURE: T. | T₀ | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5000↑ 5000↓ DAN
TORQUE AT BOTTOM	9000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	11:30	15:00
DENSITY kg/m³	1120	1120	1125
FUNNEL VIS. - (S/L)	54	61	48
W.L. (cm³)	15.0	12.0	14.0
pH	9.0	10.0	10.0
P.V. TR	60.0	55.8	60.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Starpak	4 SXS
Drispac	2 SXS
Gel	2 SXS
Lime	4 SXS
Pot. Sulf.	168 SXS
Alcomer 140	3 SXS
Corinox	3 pails
Sod. Sulfite	3 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12			

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1115	1105	1790

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1115	1105	1860

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1061	1108	47	25/75	10/19

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11800	152	105	152	105

REDUCED PUMP SPEED: 2000 @ 70 @ 1061

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1044	2.4	79.8
1063	1.7	78.5
1082	1.7	68.2

DRILLER SIGNATURE: Les Burgeson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	1515	7¼	2	DRILL 1061m - 1108m.
1515	1600	¾	10	TOTAL SURVEYS
				Processed 35m³ Active mud.

NOTES: CROWN SAVER - DEAD LINE ANCHOR - DEAD LINE CLAMP. BRAKE & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		CONNECTIONS	

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		9.27 m
1	FLOAT SUB		.76 m
1	RSTAB		1.87 m
2	NMDC		2.43
1	228 DC		2.86 m
1	SHOCK		
1	228 DC		9.34
1	JAR		5.18 m
2	228 DC		18.59 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA=	190.79 m
32	D.P.	STANDS	m
X	D.P.	SINGLES	927.86 m
	KELLY DOWN		7.35 m
	TOTAL		1126.00 m
WT. OF DC		28000	1000 daN
WT. OF STRING		63000	1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	404
TOTAL HOURS RUN	50¼

CUTTING STRUCTURE: T. | T₀ | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5000↑ 5000↓ DAN
TORQUE AT BOTTOM	9000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	22:00	24:00
DENSITY kg/m³	1115	1130	1130
FUNNEL VIS. - (S/L)	50	47	44
W.L. (cm³)	15.0	15.0	15.0
pH	10.5	10.5	10.5
P.V. Tm³	56.5	43.4	49.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1130	1115	1860

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1130	1115	1860

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1108	1126	18	25+ mtr	10/16
		mtr=75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11700	152	105	152	105

REDUCED PUMP SPEED: 2000 @ 70 @ 1126

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1101	1.4	82.8

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1745	1¼	2	DRILL 1108m - 1118m
1745	1800	¼	10	TRY TO SURVEY
1800	1830	½	5	CIRC BTMS UP BEFORE WIPER TRIP
1830	20:00	1½	6	TOOH FOR WIPER TRIP Pulled to 710m.
20:00	20:30	½	20	Down Link M.W.D. Tool.
20:30	20:45	¼	6	R.I.H. TO 1090m.
20:45	21:15	½	3	Ream F/1090m - 1118m
21:15	21:30	¼	5	Circulate Bottoms up.
21:30	21:45	¼	7	RIS, Function Annular 19 secs, VRSPP.
21:45	23:45	2	2	Drill F/1118m - 1126m
23:45	24:00	¼	10	Survey Time.
				Transfered 4m³ of Premix To Active.

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—	100000 DAN	mixing mud.	4980 KPA

FOLD HERE →

149297

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lavel

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 00 | MONTH 08 | DAY 27

RIG NO. 58

FUEL @ 8:00

RIG 1.92 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	339.7	315.34	104.8	BT&C	K55	55	711.20	6.47	710
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228		DC	75	228	FH90	9			
	178	174.84	DC	57	178	5H90	26	F-1000	Emsco	254
	127	74.35	HW	76	159	4½IF	17	F-1000	Emsco	254
	127	29.02	E2	108	166	4½IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			7½					¼			¼														
DAY			6¾					⅛			¾														
EVE.			7¼					¼			½														
TOTAL			21¼					1			1½														

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.G.	TmJ-335114			
8	SCREENS CHANGED ☐ YES ☒ NO	AmJ-~~14017~~ 8683			
8	TOP 140 TOP 175	Accum oil - .34			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		.37 m
1	FLOAT SUB		9.27 m
1	REST SUB		.76 m
2	NMDC		.62 m
1	228 DC		18.74 m
1	SHOCK		9.43 m
2	228 DC		3.85 m
1	XO		9.34 m
2	228 DC		3.18 m
1	XO		18.59 m
9	178 DC		1.38 m
1	XO		84.80 m
3	HWDP		1.41 m
		BHA:	27.04 m
34	D.P.	STANDS	190.79 m
—	D.P.	SINGLES	975.74 m
	KELLY DOWN		— m
	TOTAL		8.47 m
WT. OF DC		1000 daN	1775.00 m
WT. OF STRING	28000	1000 daN	
	64000	1000 daN	

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7x14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	453
TOTAL HOURS RUN	57¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 5000↓ DAN
TORQUE AT BOTTOM 11000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1130	1130	1130
FUNNEL VIS. - (S/L)	53	54	52
W.L. (cm³)	20	15.0	17.0
pH	9.0	9.5	9.5
PVT m³	58.8	66.8	65.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph.	56 SK
Sod. Sulfite	35 X
Corinox	3 pails
Lime	2 SX
Dispac	2 SX
Starpac	4 SX
Alcomer	3 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1130	1120	1200

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1130	1120	1860

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1126	1175	49	20 mtr	10/16
		mtr: 75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Recon 11800	152	105	152	105

REDUCED PUMP SPEED: 2200 @ 1166 m @ 70 SNaco

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1130	1.6	98.1

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
00:00	07:30	7½	2
07:30	07:45	¼	7
07:45	08:00	¼	10

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Drill 311mm Hole F/1126m - 1175
RS Function Bottom Pipe Rams 6 Secs, √BOP's
TOTAL SURVEY TIME.
4m³ of Premix added To Active system

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Function Remote Choke, √B.O.P's & manifold.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	70000 DAN	Scraping Paint	4980 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR		.37 m
	FLOAT SUB		9.27 m
	REST SUB		.76 m
2	NMDC		18.74 m
	228 DC		9.43 m
1	SHOCK		3.85 m
	228 DC		9.34 m
1	XO		3.18 m
2	228 DC		18.59 m
1	XO		1.38 m
9	178 DC		84.80 m
1	XO		1.41 m
3	HWDP		27.04 m
	BHA		190.79 m
35	D.P.	STANDS	1004.62 m
1	D.P.	SINGLES	9.24 m
	KELLY DOWN		9.29 m
	TOTAL		1214 m
WT. OF DC	29000	1000 daN	
WT. OF STRING	64000	1000 daN	

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7x14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	492
TOTAL HOURS RUN	64½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 5000↓
TORQUE AT BOTTOM 11000 FT/LB
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	10:00	14:00	16:00
DENSITY kg/m³	1130	1130	1130
FUNNEL VIS. - (S/L)	63	54	54
W.L. (cm³)	11.0	13.0	15.0
pH	10.0	10.5	10.5
P.V.T m³	64.3	71.0	66.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Starpak	2 SXS
Dispack	2 SXS
Gel	2 SXS
Pot. Sulph	224 SXS
Corinox	3 Pails
Sod. Sulfite	3 SXS
Alcomer	3 SXS
Peacock BB	2 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1130	1120	1860

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1130	1120	1820

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1175	1214	39	29 mtr	14/18
		mtr: 75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11800	152	105	152	105

REDUCED PUMP SPEED: 2100 @ 70 @ 1214

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1163.9	1.9	73.7
1178.4	2.3	76.8
1197.2	2.2	90.5

DRILLER SIGNATURE: Leo Bergeron

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	1430	6½	2
1430	1500	½	7
1500	1515	¼	2
1515	1600	¾	10

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1175m - 1204m
SERV TOP DRIVE
DRILL 1204m - 1214m
Surveys for SHIFT.
Processed 48m³ Active Mud
9m³ of Pre Hydrated Gel to Active.

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor - Brakes - Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		Confined Space Training	4980

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		.37 m
1	FLOAT SUB		9.27 m
1	REST SUB		.76 m
2	NMDC		18.74 m
1	228 DC		9.43 m
1	SHOCK		3.85 m
1	228 DC		9.34 m
1	XO		3.18 m
2	228 DC		18.59 m
1	XO		1.38 m
9	178 DC		84.80 m
1	XO		1.41 m
3	HWDP		27.04 m
	BHA:		190.79 m
36	D.P.	STANDS	m
XX	D.P.	SINGLES	1052.51 m
	KELLY DOWN		3.50 m
	TOTAL		1246.80 m
WT. OF DC	28000	1000 daN	
WT. OF STRING	66000	1000 daN	

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7x14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	524
TOTAL HOURS RUN	71¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 7000↑ 6000↓ DAN
TORQUE AT BOTTOM 11000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	23:00
DENSITY kg/m³	1130	1130	1130
FUNNEL VIS. - (S/L)	60	54	56
W.L. (cm³)	12.5	15	15
pH	10.5	10	10
P.V.T m³	64.1	68.3	71.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1130	1120	1860

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1130	1120	1820

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1214m	1246	32	30 mtr	10/18
		mtr: 75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Recon 11800	152	105	152	105

Swaco REDUCED PUMP SPEED: 2100 @ 70 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1226	2.3	85.1

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	19:15	3¼	2
19:15	19:30	¼	7
19:30	23:30	4	2
23:30	24:00	½	10

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

~~Survey~~ DRILL 1214m - 1223m
RIS Function Annular 19 secs
Drill 311mm hole F/1223m - 1246m
TOTAL Survey Time
4m³ of Premix added To Active.

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held Competency Training meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	80000 DAN	Picking up Pipe	4980 KPA

149298

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LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al NORTHBIRD C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300-C31-6040-12330/0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 08 | MONTH 08 | DAY 28

RIG NO. 58

FUEL @ 8:00

RIG 1.54 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BT&C	K55	55	711.80	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178	DC	57	178	5H90	26	F-1000	Emsco	254
178	127	HW	76	159	4½ IF	17	F-1000	Emsco	254
127	29.02	E2	108	156	4½ IF	174			

TIME-HRS

CODE NO.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
OPER.																										
MORN.		6½					½	1																		
DAY		6¾					½			3/4																
EVE.		7½								½																
TOTAL		20¾					1	1		1¼																

TOTALS

8	DERRICK	F.L.C.	
8	SCREENS CHANGED	☐ YES ☑ NO	
8	TOP 140	TOP 175	
8	MIDDLE 140	MIDDLE 175	
24	BOTTOM 140	BOTTOM 175	

SHALE SHAKER(S)

NO.	TYPE
#1	
#2	

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ-335562			
AMJ-9135			
Accum oil - 34			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.37 m
1	MOTOR		9.27 m
1	Float Sub		.76 m
1	Rest Sub		.62
2	NMDC		18.75 m
1	228DC		9.43
1	Shock		3.85 m
1	MBSC		9.34
1	Jar		5.18 m
2	228DC		18.59 m
1	X10		1.38 m
9	178DC		84.80 m
1	X10		1.41 m
3	HWDP		27.04 m
		BHA=	190.79 m
37	D.P.	STANDS	m
X	D.P.	SINGLES	1071.99 m
	KELLY DOWN		5.22 m
	TOTAL		1268.00 m
WT. OF DC			28000 1000 daN
WT. OF STRING			66000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	546
TOTAL HOURS RUN	78¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	8000↑ 6000↓ DAN
TORQUE AT BOTTOM	11000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

	02:00	04:00	06:00
TIME			
DENSITY kg/m³	1130	1130	1130
FUNNEL VIS. - (S/L)	74	68	64
W.L. (cm³)	16	15	15
pH	10	10	10
PVT m³	74.2	74.6	76.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aconex	2 sx.
Lime	2 sx.
Cosinox	3 pails
Sod. Sulph.	3 sx
Drispac	3 sx.
Starpac	6 sx.
Soda Ash	1 sk.
Gel	275K

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CentriFuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1246	1268	22	20+ m/HR	15/20
		m/HR = 75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12500	152	105	152	105

REDUCED PUMP SPEED: 2800 @ 70 @ 1260m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1245	2.0	75.9

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
00:00	04:15	4¼	2
04:15	04:45	½	7
04:15	06:00	1½	2
06:00	07:00	1	8
07:00	08:00	1	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Drill 311 mm Hole F/1246m - 1262m
RS, Function Top Pipe Rams, 6 Secs VBSR
Drill F/1262m - 1264m
Change O-Ring in Stand Pipe union.
Drill F/1264m - 1268m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage Function Remote choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	76000 DAN	Refueling, Electrical	4980 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.37 m
	MOTOR		9.27 m
	Float Sub		.76 m
	Rest Sub		.62
2	NMDC		18.75 m
	228DC		9.43
	Shock		3.85 m
	228DC		9.34
	Jar		5.18 m
2	228DC		18.59 m
1	X10		1.38 m
9	178DC		84.80 m
1	X10		1.41 m
3	HWDP		27.04 m
	BHA		190.79 m
39	D.P.	STANDS	1120.09 m
	D.P.	SINGLES	19.73 m
	KELLY DOWN		2.39 m
	TOTAL		1323 m
WT. OF DC			28000 1000 daN
WT. OF STRING			67000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	601
TOTAL HOURS RUN	85

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	8000↑ 6000↓
TORQUE AT BOTTOM	11000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

	08:30	13:00	15:00
TIME			
DENSITY kg/m³	1130	1130	1135
FUNNEL VIS. - (S/L)	~~13.0~~ 57	57	65
W.L. (cm³)	13.0	10.5	11.0
pH	10.5	10.0	10.0
P.V.T m³	77.3	74.6	68.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Cosinox	3 pails
Sod. Sulfite	3 sxs
Aconex	3 sxs
Drispac	3 sxs
STARPAK	6 sxs
GEL	3 sxs
LIME	2 sxs
Chemicide	1 PAIL

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1135	1125	1860

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1135	1125	1860

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1268	1323	55	20+ m/HR	15/20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11800	152	105	152	105

REDUCED PUMP SPEED: 2700 @ 1282m @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1265	2.6	72.6
1284	3.0	72.6
1303	3.0	73.6

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	14:15	6¼	2
14:15	15:15	1	7
15:15	1600	¾	10

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1268m - 1323m
TOP DRIVE SERVICE
SURVEYS FOR TOUR.

Processed 23m³ Active Mud
Added 6m³ Prehydrated Gel to Active

NOTES: CHECK FASTLINE CLAMP, DEADMAN ANCHOR, BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		SAFETY GLASSES	4980

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.37 m
1	MOTOR		9.27 m
1	Float Sub		.76 m
1	Rest Sub		.62
2	NMDC		18.75 m
1	DC	228	9.43
1	Shock		3.85 m
1	DC	228	9.34
1	Jar		5.18 m
2	DC	228	18.59 m
1	X10		1.38 m
9	178 DC		84.80 m
1	X10		1.41 m
9	HWDP		27.04 m
		BHA=	190.79 m
40	D.P.	STANDS	m
XX	D.P.	SINGLES	1167.41 m
	KELLY DOWN		.80 m
	TOTAL		1359.00 m
WT. OF DC			28000 1000 daN
WT. OF STRING			69000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM 2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	637
TOTAL HOURS RUN	92½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	8000↑ 8000↓
TORQUE AT BOTTOM	11000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

	17:00	21:00	24:00
TIME			
DENSITY kg/m³	1135	1120	1115
FUNNEL VIS. - (S/L)	70	67	60
W.L. (cm³)	10.0	12.	12.5
pH	10.5	10	9.5
P.V.T m³	74.0	66.2	59.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Percol	1 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1120	1110	1360

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1120	1110	1360

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1323	1359	36	20+ m/HR	15/20
		m/HR = 75		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11700	152	105	152	105

REDUCED PUMP SPEED: 2700 @ @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1332	3.4	78.4
1341	4.1	77.7

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	23:30	7½	2
23:30	24:00	½	10

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1323m - 1359m
TOTAL SURVEY TIME.

Transfered 22m³ of mud for STRIPPING.
1.5m³ - Premix Transferd TO Active.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	77000 DAN	Ear Protection	4980 KPA

FOLD HERE →

149299

LICENCE NO.: 1800 | WELL NAME AND NO.: Canadian Forest et al North Hard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. Initial / R.M. Initial)

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Panelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR: 00 | MONTH: 08 | DAY: 29

RIG NO.: 58

FUEL @ 8:00

RIG: 1.20 | BOILER:

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	178	DC	75	228	6⅝ H90	26	F-1000	Emsco	254
	178	174.84	DC	57	178	5 H90	26	F-1000	Emsco	254
	127	74.35	HW	76	159	4½ IF	17	F-1000	Emsco	254
	127	29.02	E2	108	156	4½ IF	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		7¼					½			¼																
DAY		7					½			½																
EVE.		7¼								¾																
TOTAL		21¾					1			1¾																

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 DERRICK F.E.C.	TMJ-335950			
8	SCREENS CHANGED ☐ YES ☒ NO	AMJ-9519			
8	TOP #1 140 TOP #2 175	Accumoil-.34			
24	MIDDLE 140 MIDDLE 175				
	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		0.37 / 0.27 m
1	MOTOR		.76 m
1	Float Sub		
1	Rest Sub		.62
2	NMDC		18.75 m
1	DC Shock	228	9.45 / 3.85 m
1	DC Jar	228	9.34 / 5.18 m
2	DC	228	18.59 m
1	X/O		1.38 m
9	DC	178	84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA =		190.79 m
41	D.P.	STANDS	m
XX	D.P.	SINGLES	1196.44 m
	KELLY DOWN		8.77 m
	TOTAL		1396.00 m
WT. OF DC	28000	1000 daN	
WT. OF STRING	70000	1000 daN	

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM-2763
SERIAL NO.	5984892
JETS (mm)	7X14.3
DEPTH OUT (m)	
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	674
TOTAL HOURS RUN	99¾

CUTTING STRUCTURE: T_1 T_0 MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 7000 ↑ 7000 ↓
TORQUE AT BOTTOM: 11000 FT/LB
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1120	1120	1120
FUNNEL VIS. - (S/L)	70	73	70
W.L. (cm³)	12	12	10.5
pH	10.0	10.0	10.0
PVT m³	65.8	72.7	76.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium Sulph.	112 sx
Corinox	3 pails
Sod. Sulfite	3 sx.
Alcomer	2 sx.
Drispac	3 sx
Starpac	6 sx.
Lime	2 sx.
Chemcide	1 pail

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1120	1110	1860

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1120	1110	1830

METRES DRILLED

FROM	TO	DRILLED RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1359	1396	37	20 ↑ 70 ↓ RPM = 75	10/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11700	152	105	152	105

REDUCED PUMP SPEED

3000 @ 70 @ 1377m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1360	4.3	68.3

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	04:00	4	2	Drill 311mm Hole F/1359m - 1377m.
04:00	04:30	½	7	R/S. Function Bottom Pipe Rams 6 Secs/Ch, 1 RSPR
04:30	07:45	3¼	2	Drill F/1377m - 1396m
07:45	08:00	¼	10	Total Survey Time.

8 m³ of Premix Added to Active.

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held environmental meeting, Function Remote choke.

DRILLER SIGNATURE: Gary Patrick

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	77000 DAN	Disp. Fit. Body and Ditch Injury	5050 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		37 m
1	MOTOR		12 m
2	FLOAT SUB		46 m
1	REST SUB		62 m
2	NMDC		18.75 m
1	DC SHOCK	228	9.45 m
1	DC JAR	228	9.34 m
2	DC	228	18.59 m
1	X/O		1.38 m
9	DC	178	84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA =		190.79 m
43	D.P.	STANDS	1398.46 m
	D.P.	SINGLES	m
	KELLY DOWN		3.37 m
	TOTAL		1431 m
WT. OF DC	28000	1000 daN	
WT. OF STRING	71000	1000 daN	

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM2763
SERIAL NO.	5984892
JETS (mm)	7X14.3
DEPTH OUT (m)	
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	709
TOTAL HOURS RUN	106¾

CUTTING STRUCTURE: T_1 T_0 MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 7000 ↑ 7000 ↓
TORQUE AT BOTTOM: 11000 FT/LB
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE: ☐ WATER BASED ☐ OIL BASED

TIME	08:00	14:00	16:00
DENSITY kg/m³	1135	1130	1130
FUNNEL VIS. - (S/L)	67	63	66
W.L. (cm³)	10.0	11.0 ~~7.5~~	10.5
pH	10.0	9.5	10.0
P.V. Tm³	67.4	68.2	76.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer	3 sxs
Chemcide	1 PAIL
Soda Ash	2 sxs
Pot. Sulph	112 sxs
Drispac	3 sxs
Starpak	6 sxs
Gel	35 sxs
Cornox	3 Pails

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
13	1170	1120	1860

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
13	1170	1120	1810

METRES DRILLED

FROM	TO	DRILLED RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1396	1431	35	25 ↑ 70 ↓ RPM = 95	7/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11700	152	105	152	105

REDUCED PUMP SPEED

3000 @ 70 @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1377.8	4.4	71.0
1398.7	4.8	73.6

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	15:00	7	2	Drill 1396m - 1431m
15:00	15:30	½	7	Top Drive Service
15:30	16:00	½	10	Total Survey's

Processed 27m³ Active Mud Pumped 8m³ Prehydrated Gel

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

DRILLER SIGNATURE: Gary Patrick

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	-	-			5050

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		37 m
1	MOTOR		9.27 / .76 m
1	Float Sub		
1	Rest Sub		.62
2	NMDC		18.75 m
1	DC Shock	228	9.45 / 3.85 m
1	DC Jar	228	9.34 / 5.18 m
2	D.C.	228	18.59 m
1	X/O		1.38 m
9	DC	178	84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA =		190.79 m
44	D.P.	STANDS	1269.46 m
—	D.P.	SINGLES	— m
	KELLY DOWN		— m
	TOTAL		1454.25 m
WT. OF DC	28000	1000 daN	
WT. OF STRING	72000	1000 daN	

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM2763
SERIAL NO.	5984892
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	732
TOTAL HOURS RUN	114

CUTTING STRUCTURE: T_1 T_0 MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 8000 ↑ - 8000 ↓ DW
TORQUE AT BOTTOM: 8000 ↑ 8000 ↓ 12000
FILL ON BOTTOM (m): —

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME	18:30	21:00	24:00
DENSITY kg/m³	1130	1125	1120
FUNNEL VIS. - (S/L)	71	74	78
W.L. (cm³)	11.0	11.5	9.5
pH	10.5	10	10
P.V. Tm³	83.8	72.4	62.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulfite	3 sxs
Lime	4 sxs
Peroxide	3 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1120	1110	1850

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1120	1110	1810

METRES DRILLED

FROM	TO	DRILLED RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1431	1454	23	20 ↑ 70 ↓ RPM = 75	8/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11300	152	105	152	105

REDUCED PUMP SPEED

3000 @ 70 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1418.2	4.4	74.9
1427	4.1	79.8
1437	3.7	82.8

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	23:15	7¼	2	Drill 1431m - 1454m
23:15	24:00	¾	10	Total Survey Time

Greased Crown & Blocks

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held Camp Fire Drill, Function Remote choke, √ B.O.P's, Diverter.

DRILLER SIGNATURE: Gary Patrick

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—	80000 DAN		5050 KPA

FOLD HERE →

149300

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest ETAL North Field C31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 08 | DAY 30 | RIG NO. 58

FUEL @ 8:00

RIG 1.50 | BOILER

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.94	101.20	BT&C	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	174.84	DC	57	178	5½ H90	26	F-1000	EMSCO	254
	127	74.35	HW	76	159	4½ IF	17	F-1000	EMSCO	254
	127	29.03	E2	108	156	4½ IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.		7					¼			¾											Work Light 5/8	BOP drill	Handle Tools		
	DAY					¾	11½															4			
	EVE.					¾	5¼	¼										1/4			3¾				
	TOTAL		7			¾	17	½			¾							1/4			3¾	4			

TOTALS

8	DERRICK F.L.C.
8	SCREENS CHANGED ☐ YES ☒ NO
8	TOP 140 TOP 175
8	MIDDLE 140 MIDDLE 175
24	BOTTOM 140 BOTTOM 175

SHALE SHAKER(S)

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ-331221			
AMJ-10790			
Accumoil-.34			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		9.27 m
1	FLOAT SUB		.76 m
2	NMDC		18.75 m
1	DC SHOCK	228	9.45 3.85 m
1	DC JAR	228	9.34 5.18 m
2	DC	228	18.59 m
1	X/O		1.38 m
9	DC	178	84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA =	190.79 m
44	D.P.	STANDS	1282.96 m
XX	D.P.	SINGLES	m
	KELLY DOWN		1.25 m
	TOTAL		1475.00 m
WT. OF DC			28000 1000 daN
WT. OF STRING			73000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM-2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	753
TOTAL HOURS RUN	121

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	8000 ↑ 8000 ↓ DAN
TORQUE AT BOTTOM	12000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1120	1115	1115
FUNNEL VIS. - (S/L)	70	64	74
W.L. (cm³)	10.0	10.0	
pH	10.0	10.0	11.0
PVT m3	67.4	71.2	76.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	35 sx
Starch	1 sx
Fracotrol	1 sx
Formaldehyde	2 sx
Gel	57 sx
Alcomer	3 sx
Sod. Sulfite	3 sx.
Corinox	3 pails.
Chemside	1 Pail
Lime	3 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1115	1105	1850

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1115	1105	1810

METRES DRILLED

FROM	TO	DR.O RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1454	1475	21	20 m/hr	10/15
			m/hr :75	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11500	152	105	152	105

REDUCED PUMP SPEED

3000 @ 1464 m @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1437	3.7	82.8
1447	3.4	84.5
1456.7	3.7	

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:30	3½	2	Drill 311mm Hole F/1454m-1464
03:30	03:45	¼	7	RIS Function TOP Pipe Rams 6 sec Ck's √RSPR
03:45	07:15	3½	2	Drill F/1464m-1475m
07:15	08:00	¾	10	Total Survey Time.

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held watch dog meeting

DRILLER SIGNATURE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	85000 DAN	Tripping D.C.'s	5050m

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR		9.27 m
	FLOAT SUB		.76 m
2	NMDC	228	18.75 m
1	DC SHOCK	228	9.45 3.85 m
1	DC JAR	228	9.34 5.18 m
8	DC	228	18.59 m
9	X/O	178	1.38 m
3	HWDP		84.80 m
			27.04 m
			190.79 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			28000 1000 daN
WT. OF STRING			73000 1000 daN

BIT RECORD

BIT NO.	2C
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	1474
DEPTH IN (m)	722
TOTAL METRES DRILLED (m)	752
TOTAL HOURS RUN	121

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
2	1	CT	N	X	IN	BT		

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	30 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR.O RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11500	122	105	152	105

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0100	0145	¾	5	Circ Bttms up - Pump Pill
0145	1200	3¼	6	Circ & Reverse Ream out of Hole To 1177m
1200	1600	4	22	Work Tight From 1177m To 1089m

NOTES Check Crown Saver Fastline Clamp - Deadline Anchor Brakes Linkage

DRILLER SIGNATURE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Trippin's	3050

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.34 m
1	BIT Sub		.84 m
1	228 DC		9.43 m
1	3PT Reamer		2.49 m
1	228 DC		9.24 m
1	Scraper		3.06 m
1	228 DC		9.43 m
1	Jar		5.64 m
1	228 DC		9.02 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA =	168.12 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	WB3PD
JETS (mm)	3X15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T1	T0	MDC	LOG	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR.O RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	19:00	3	6	P.O.O.H.
19:00	19:15	¼	23	B.O.T. Drill Well Secure in 1 min.
19:15	20:00	¾	6	P.O.O.H., Lay down
20:00	22:00	2	24	Lay down Tools
22:00	22:15	¼	7	RIS Function Blind Rams. 6 sec/cks.
22:15	23:00	¾	24	Measure Tools For Reaming B.H.A.
23:00	24:00	1	24	Make UP Reaming B.H.A.

STRAP - 1302.37 - TALLY 1301.83 = DIFF .54

NOTES √Crown Saver, Fastline Clamp Deadline Anchor.

DRILLER SIGNATURE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					5050

FOLD HERE →

149301

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Liard C31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
00	05	31

RIG NO.: 58

FUEL @ 8:00

RIG: 1.30 BOILER:

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	107.20	BT&C	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228		DC	76	228	5½ FH	6			
	178	174.84	DC	57	178	5½ FH	26	F-1000	Emsco	254
	127	74.35	HW	76	127	4½ IF	17	F-1000	Emsco	254
	127	29.08	E2	108	127	4½ IF	174			

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22	23	24	25	26
	MORN.			4¾			1½	¼		1																
	DAY			8																						
	EVE.			8																						
	TOTAL			24¾			1½	¼		1																

TOTALS: 8 / 8 / 8 / 24

SHALE SHAKER(S): NO. 2 TYPE Derrick F.L.G.; SCREENS CHANGED ☐ YES ☐ NO; TOP #1 / TOP #2; MIDDLE / MIDDLE; BOTTOM / BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ-338141			
AMJ-847			
Accumoib-.34			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	Bit Sub	228	9.43 m
1	Reamer		2.49
1	D.C.	228	9.34 m
1	Reamer		2.06 m
1	DC Jar	228	9.43 m
1	DC	228	5.64 m
1	X/O		9.02 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA =	163.12 m
32	D.P.	STANDS	918.10 m
-	D.P.	SINGLES	- m
	KELLY DOWN		- m
	TOTAL		1081.22 m
WT. OF DC		25000	1000 daN
WT. OF STRING		58000	1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	W83PD
JETS (mm)	3X15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474 / 1043
TOTAL METRES DRILLED (m)	38 R
TOTAL HOURS RUN	4¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 5000↓ DAN

TORQUE AT BOTTOM 5000 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	04:00	06:30
DENSITY kg/m³		1125
FUNNEL VIS. - (S/L)		78
W.L. (cm³)		
pH		10
PVT m³		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1020	1110	1850

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1020	1110	1800

METRES DRILLED

FROM	TO	DRD / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474			50/60	2/5
1043	1081	R	50/60	2/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7800	152	105	152	105

REDUCED PUMP SPEED: 2200 @ 70 @ 1043m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Peters

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
00:00	01:45	1¾	6
01:45	02:00	¼	7
02:00	03:00	1	9
03:00	03:45	¾	6
03:45	08:00	4¼	3

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

00:00 01:45 1¾ 6 R.I.H. To 680m, Flow✓
01:45 02:00 ¼ 7 RIS, Function Remote choke.
02:00 03:00 1 9 Slip & cut 20m of Drill line, ✓ Crown Saver.
03:00 03:45 ¾ 6 R.I.H. To 1043m, Flow✓
03:45 08:00 4¼ 3 Ream From 1043m - 1081m

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	65000 DAN		

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.34 m
	Bit Sub	228	9.43 m
	Reamer		2.49
	D.C.	228	9.34 m
	Reamer		2.06 m
	DC Jar	228	9.43 m
	DC	228	5.64 m
	X/O		9.02 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	163.12 m
31	D.P.	STANDS	775.72 m
	D.P.	SINGLES	m
	KELLY DOWN		22.86 m
	TOTAL		1116 m
WT. OF DC		25000	1000 daN
WT. OF STRING		58000	1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	W83PD
JETS (mm)	3X15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	73 R
TOTAL HOURS RUN	12¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 5000↓

TORQUE AT BOTTOM 5000 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	12:30	15:00
DENSITY kg/m³	1135	1135	1135
FUNNEL VIS. - (S/L)	65	110	97
W.L. (cm³)	10.0	12.0	12.0
pH	7.0	10.5	10.5
PVT m³	50.2	52.0	58.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod. Sulfite	3 SXS
Carmox	3 Pails
Lime	4 SXS
Chemicide	1 Pail
Pot. Sulph	112 SXS
Starchek	2 SXS
Barapac	1 SX
Gel	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1135	1135	1860

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1135	1135	1810

METRES DRILLED

FROM	TO	DRD / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				
1081	1116	R	50/60	2/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7600	152	105	152	105

REDUCED PUMP SPEED: 2200 @ 70 @ 1043m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Peters

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	1600	8	3

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

0800 1600 8 3 Ream 1081m - 1116m.

NOTES ✓ Hook Crown Saver - Fast line Clamp Dead line Anchor Brakes + Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				Reaming	

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub		.34 m
1	228 DC		9.43 m
1	Reamer		2.49
1	228 DC		9.34 m
1	Reamer		2.06 m
1	228 DC		9.43 m
1	Jar		5.64 m
1	228 DC		9.02 m
1	X/O		1.38 m
9	178 DC		84.80 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA	163.12 m
36	D.P.	STANDS	1053.16 m
	D.P.	SINGLES	m
	KELLY DOWN		5.28 m
	TOTAL		1191 m
WT. OF DC		25000	1000 daN
WT. OF STRING		60000	1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	W83PD
JETS (mm)	3X15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000↑ 5000↓

TORQUE AT BOTTOM 5-8000 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	
DENSITY kg/m³	1125	1130	
FUNNEL VIS. - (S/L)	72	92	
W.L. (cm³)	11.0	11.5	
pH	9.5	10.0	
PVT m³	61.6	62.4	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aluminate 110	2 SX
Pot. Sulph	112 SX
Caustic	1 SX
Starchek	2 SX
Lime	1 SX
Chemicide	1 Pail

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1130	1120	1810

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1130	1125	1800

METRES DRILLED

FROM	TO	DRD / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				
1116			60/65	3/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7100	152	100	152	100

REDUCED PUMP SPEED: 2400 @ 60 @ 1159m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	2400	8	3

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

1600 2400 8 3 Ream 1116m - 1191m

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					4980 kPa

FOLD HERE →

149302

LICENCE NO.: 1960 | WELL NAME AND NO.: CANADIAN FOREST ET AL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300-C31 60N 12330-0 | UNIQUE ID.: 300 C31 60N 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Kelly | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [illegible]

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) HS Signs Posted (if required)
(4) Well License & Stck Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 | MONTH 09 | DAY 04 | RIG NO. 58

FUEL @ 8:00 — RIG 1.05 | BOILER

WEATHER — TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.24	106.24	STC	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	174.84	DC	57	178	5½FH	36	F 1000	EMSCO	254
	127	74.35	HW	76	156	4½IF	17	F 1000	EMSCO	254
	127	29.02	E2	108	156	4½IF	124			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.			8																							
DAY			7¾				¼																			
EVE.			7¾				¼																			
TOTAL			23¾				½																			

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN.	DAY	EVE
8	NO. 2 TYPE DERRICK	FLC	TDS - 377778			
8	SCREENS CHANGED ☐ YES ☑ NO		DMS - 1476			
8	TOP 145	TOP 140	Accum out - .34			
8	MIDDLE 175	MIDDLE 140				
24	BOTTOM 175	BOTTOM 140				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	DP SUB		34
	BC	228	9.48
	REAMER	228	2.34
	DP SUB	228	2.95
	REAMER	228	2.92
	BC	228	2.40
9	DC	178	84.60
	MWD		4.34
			163.12

36	D.P.	STANDS	1033.16 m
1	D.P.	SINGLES	9.75 m
	KELLY DOWN		6.03 m
	TOTAL		1200 m
WT. OF DC		25700	1000 daN
WT. OF STRING		60000	1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	W83PD
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	00:30	03:00	04:30
DENSITY kg/m³	1140	1145	1145
FUNNEL VIS. - (S/L)	71	100	85
W.L. (cm³)	12.5	11.0	10.5
pH	10.0	11.0	11.5
P.V./T.Y.	13.8	69.3	75.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Akomer	2 SKS
Drispac	1 SX
Starpak	2 SKS
Gel	11 SKS
Chemside	1 Pail
Caimax	3 Pails
Sod. Sulf.	3 SKS
Lime	2 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

METRES DRILLED

FROM	TO	DRLD RM R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				
1491	1500	R	30/60	2/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9000	152	100	152	100

REDUCED PUMP SPEED

2500 @ 79% @ 70

DEVIATION SURVEY

DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000	0800	8	3

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

REAM 1491m - 1500 m

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR - BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	–	–	120,000	SERVICING THDT	4911

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	DP SUB		34.44
1	DC SUB		2.95
1	REAMER		2.34
1	DC SUB		2.40
1	REAMER		2.92
1	DC SUB		2.40
1	MWD		9.68
1	X/O		1.38
9	DC-DC		84.60
1	X/O		1.41
3	HWDP		27.04
	BHA		143.12

37	D.P.	STANDS	m
K	D.P.	SINGLES	1071.99 m
	KELLY DOWN		9.11 m
	TOTAL		1221 m
WT. OF DC		25000	1000 daN
WT. OF STRING		61000	1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	W83PD
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 3-12000 FT/LBS | FILL ON BOTTOM (m) –

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	06:00	08:00	12:00
DENSITY kg/m³	1145	1140	1145
FUNNEL VIS. - (S/L)	120	85	85
W.L. (cm³)	12.0	13.0	12.0
pH	10.5	10.0	10.0
P.V./T.Y.	80.5	84.4	86.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Drispac	3 SX
Starpak	6 SX
Corinox	3 pails
Sod Sulfite	3 SX
Chemside	1 pail
Akomer 110	2 SX
Sodium	1 SX
Gel	8 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1145	1120	1230

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1145	1135	1160

METRES DRILLED

FROM	TO	DRLD RM R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				
1500	1526	R	60/70	3/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9400	152	100	152	100

REDUCED PUMP SPEED

2500 @ 70 @ 1224 m

DEVIATION SURVEY

DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	1545	7¾	3
1545	1600	¼	7

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

REAM 1200m - 1226m

RE-SEQUENCE IGNITION REMOTE CHAKE

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	–	–	125000		4911 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	DP SUB		34
	DC SUB	228	9.48
	REAMER	228	2.34
	DC SUB	228	2.95
	REAMER	228	2.92
	DC	228	2.40
9	DC	178	84.60
2	MWD		4.34
			163.12

40	D.P.	STANDS	1142.88 m
	D.P.	SINGLES	
	KELLY DOWN		7.00 m
	TOTAL		1299 m
WT. OF DC		25000	1000 daN
WT. OF STRING		62000	1000 daN

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ-15
SERIAL NO.	W83PD
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 3-12000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	17:00	20:00	23:30
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	87	110	95
W.L. (cm³)	12.5	8.5	12
pH	10.0	10.0	10.0
P.V./T.Y.	85.3	84.1	83.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLD RM R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1526	1299	R	70	3000

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9400	152	100	152	100

REDUCED PUMP SPEED

2700 @ 75% @ 70

DEVIATION SURVEY

DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	2215	6¼	3
2215	2230	¼	7
2230	2400	1½	3

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

REAM 1226m - 1251m

TOP DRIVE SERVICE

REAM 1251m - 1299m

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR - BRAKE LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	–	–		CONNECTIONS	4911

FOLD HERE →

149303

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 30 C-31 60'0 12330-0 | UNIQUE ID.: 300 C 31 60 0 12330 - 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) HS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 00 | MONTH 09 | DAY 22 | RIG NO. 58

FUEL @ 8:00 | RIG 82 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	104.2	BTC	K55	55	711.20	6.17	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	134.24	DC	57	178	5.5FH	20	F1000	EMSCO	254
127	71.35	HWDP	76	156	4.5IF	17	F1000	EMSCO	254
127	31.72	E2	108	156	4.5IF	124			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.			3																							
DAY			5																							
EVE.			7½				3½																			
TOTAL			15½				3½																			

TOTALS

SHALE SHAKER(S): NO. 2 | TYPE DERRICK FLC | SCREENS CHANGED ☐ YES ☑ NO | TOP 175 | TOP 140 | MIDDLE 175 | MIDDLE 140 | BOTTOM 175 | BOTTOM 140

RENTALS/SERVICES

	MORN	DAY	EVE
TMS 339092			
AMS 1792			
ARCUM OIL 34			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT SUB		0.91 m
	DC	228	9.43 m
	REAMER	228	2.99 m
	NF	228	2.24 m
	SUB	228	2.06 m
	DC	228	9.43 m
	SUB	178	1.84 m
	DC	178	54.80 m
	X/O		1.41 m
	HWDP		27.14 m
	RHA		16.12 m
43	D.P.	STANDS	1340.96 m
	D.P.	SINGLES	m
	KELLY DOWN		28.96 m
	TOTAL		1391 m
WT. OF DC	25000	1000 daN	
WT. OF STRING	62000	1000 daN	

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	W83PD
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG: 5-100 DC DRAG
TORQUE AT BOTTOM: 3-15000 FT/LBS
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	120	100	93
W.L. (cm³)	11.0	11.0	10.5
pH	10.0	10.0	10.0
PVT m³	76.7	82.9	87.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
LIME	4 SKS
CORINOX	3 pails
SALSULFITE	3 SX
CHEMCIDE	1 pail
ALCOMER	2 SX
LIME	4 SX
POTSULFATE	56 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1135	1815
	CENT #2		
8	1140	1135	1795

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1390		R	75	3
1396	1398	R	75	3

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3400	152	90	152	90

REDUCED PUMP SPEED: 3000 @ 30 @ 1855m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1600	8	3	REAM 1376m - 1398m.

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP DEADMAN ANCHOR BRAKES & LINKAGE

BOILER: HRS. RAN 0 | ph – | STACK TEMP. – | MAXIMUM EXPERIENCED HOOKLOAD 110,000 | SAFETY TOPIC WALKS | M.A.C.P. 4841

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		0.91 m
1	228 DC		9.43 m
1	REAMER		2.99 m
1	228 DC		2.24 m
1	REAMER		2.06 m
1	228 DC		9.43 m
1	SUB		1.84 m
1	228 DC		9.62 m
1	X/O		1.38 m
9	178 DC		54.80 m
1	X/O		1.41 m
3	HWDP		27.14 m
	RHA		16.12 m
43	D.P.	STANDS	1340.96 m
	D.P.	SINGLES	9.75 m
	KELLY DOWN		28.96 m
	TOTAL		1391 m
WT. OF DC	25000	1000 daN	
WT. OF STRING	62000	1000 daN	

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	W83PD
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG: 5-100 DC DRAG
TORQUE AT BOTTOM: 3-15000 FT/LBS
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	120	100	93
W.L. (cm³)	11.0	11.0	10.5
pH	10.0	10.0	10.0
PVT m³	76.7	82.9	87.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
LIME	4 SKS
CORINOX	3 pails
SALSULFITE	3 SX
CHEMCIDE	1 pail
ALCOMER	2 SX
LIME	4 SX
POTSULFATE	56 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1135	1815
	CENT #2		
8	1140	1135	1795

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1390		R	75	3
1396	1398	R	75	3

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3400	152	90	152	90

REDUCED PUMP SPEED: 3000 @ 30 @ 1855m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1600	8	3	REAM 1376m - 1398m.
				HELD SAFETY & ENVIRONMENTAL MEETINGS

NOTES: CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR GREASE TOP LINE & CHECK TORQUE TUBE

BOILER: HRS. RAN – | ph – | STACK TEMP. – | MAXIMUM EXPERIENCED HOOKLOAD 145000 LBS | SAFETY TOPIC | M.A.C.P. 4841

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT SUB		0.91 m
	DC	228	9.43 m
	REAMER	228	2.99 m
	DC	228	9.43 m
	SUB	228	2.06 m
	DC	228	9.43 m
	SUB	178	1.84 m
9	DC	178	54.80 m
3	HWDP		27.14 m
			163.12 m
45	D.P.	STANDS	1342.95 m
1	D.P.	SINGLES	4.34 m
	KELLY DOWN		26.95 m
	TOTAL		1438 m
WT. OF DC	25000	1000 daN	
WT. OF STRING	67000	1000 daN	

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	W83PD
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr

HOLE CONDITION

HOLE DRAG: 5-100 DC
TORQUE AT BOTTOM: 3-15000
FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:00	23:00
DENSITY kg/m³	1140	1140	1145
FUNNEL VIS. - (S/L)	91	90	118
W.L. (cm³)	11.0	14.5	14.5
pH	10.0	9.5	11.0
PVT m³	87.2	87.3	86.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1398	1438	R	75/65	3

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
3600	152	90	152	90

REDUCED PUMP SPEED: 2000 @ 80 @ 1855

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	¼	7	RIG FUNCTION ANNUAL BOP SEE CBV RSFT
1615	2300	6¾	3	REAM 1398m - 1433
2300	2330	½	7	RIG SERV & TOP DRIVE SERVICE
2330	2400	½	3	REAM 1433m - 1458m

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR GREASE & LINKAGE

BOILER: HRS. RAN 0 | ph – | STACK TEMP. – | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC SLIP CARDS | M.A.C.P. 4841

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149304

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST OIL ET AL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: SE C31 6040 12330-0 | UNIQUE ID.: 300 C31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR: 80 | MONTH: 09 | DAY: 03

RIG NO.: 54

FUEL @ 8:00

RIG: 1558 | BOILER:

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	SEAH	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	174.4	E	57	178	3½ IF	26	F 1000	EMSCO	254
	178	174.4	E	57	178	3½ IF	26	F-1000	EMSCO	254
	127	74.5	H90P	76	156	4½ IF	17			
	127	29.02	S2	108	156	4½ IF	124			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN				3¼		1¼	3½															Surveys DC	Top Drive	Handle Tools	
DAY							2															6			
EVE						6	11½															6	¾	1	
TOTAL				3¼		14	17															6	¾	1	

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE DERRICK FLG				
8	SCREENS CHANGED ☐ YES ☒ NO	TMS 399964			
8	TOP 175 TOP 140	AMS 2669			
8	MIDDLE 175 MIDDLE 140	Arun oil - 34			
24	BOTTOM 175 BOTTOM 140				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	8½ DC	203	9.43
1	Float Sub	203	0.76
1	Reed Sub	203	1.75
2	NMDC	203	9.43
1	8½ DC	203	3.85
1	Sub	203	0.39
1	6½ DC	203	5.64
1	JARS	203	9.58
2	8½ DC	203	18.86
1	XO	203	1.42
9	6½ DC	203	84.48
1	XO	203	1.41
3	HWDP	127	27.04
	BHA		169.63
35	D.P. STANDS		947.34
	D.P. SINGLES		18.65
	KELLY DOWN		
	TOTAL		1135 m
WT. OF DC		1000 daN	37000
WT. OF STRING		1000 daN	60000

BIT RECORD

BIT NO.	3C
SIZE (mm)	311
IADC CODE	
MFG.	Hughes
TYPE	ATJ 15
SERIAL NO.	483PD
JETS (mm)	3 x 15
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_1 | T_0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5-7000 DAN

TORQUE AT BOTTOM: 3-15000 FT/LBS

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	01:30 / 03:30
DENSITY kg/m³	1140 / 1145
FUNNEL VIS. - (S/L)	97 / 100
W.L. (cm³)	10.0 / 11.0
pH	9.5 / 10.0
P.V.T m³	85.8 / 87.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Corrosion	3 PAILS
Sod Sulfite	3 SKS
Chemicide	1 Pail
Lime	4 SKS
DRISPAC	2 SKS
Starpak	4 SKS
Gel	2 SKS
Alcomer	2 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1145	1135	1830

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
12	1145	1135	1790

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1438	1474	R	65	34

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8900	152	90	152	90

REDUCED PUMP SPEED: 2800 @ 147 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0315	3¼	3	Ream 1438m - 1474m
0315	0430	1¼	5	CIRC PRIOR TO TOOH
0430	0800	3½	6	TOOH. CIRC OUT 20 STDS

NOTES: Crown Saver - Fastline Clamp - Deadman Anchor Brakes & Linkage

BOILER: HRS. RAN 0 | ph – | STACK TEMP. –

MAXIMUM EXPERIENCED HOOKLOAD:

SAFETY TOPIC: ENVIRONMENTAL

M.A.C.P.: 491 kN

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	1010	4	6	TOOH Flow 20 stds. HWDP
1010		½		INSPECT HWDP & D.C.
	1600	6		CHANGE OUT THD 178 DC

TRIP RECORD
Calc 9.7 m³
Act 9.27 m³
Diff. = .19 m³

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

BOILER: HRS. RAN 0 | ph | STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD:

SAFETY TOPIC:

M.A.C.P.:

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12000	152	120	152	120

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1645	3¼	23	CHANGE GRABBER DIES & KEEPERS
1645	1700	¼	9	R/S FUNCTION Blind Rams & Sec. ck
1700	1800	1	24	R/U MOTOR & SET ORIENT TOOLS
1800	2400	6	6	K.I.H. w/MOTOR TO 1155 m

NOTES: Crown Saver - Fastline Clamp - Deadman Anchor Brakes - Linkage

BOILER: HRS. RAN 0 | ph – | STACK TEMP. –

MAXIMUM EXPERIENCED HOOKLOAD:

SAFETY TOPIC:

M.A.C.P.:

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	motor	203	9.96
1	Float Sub	203	0.76
1	Reed Sub	203	1.75
2	NMDC	203	9.43
1	8½ DC	203	3.85
1	Sub	203	0.39
1	6½ DC	203	5.64
1	JARS	203	9.58
2	8½ DC	203	18.86
1	XO	203	1.42
9	6½ DC	203	84.48
1	XO	203	1.41
3	HWDP	127	27.04
	BHA		169.63
35	D.P. STANDS		947.34
	D.P. SINGLES		18.65
	KELLY DOWN		
	TOTAL		1135 m
WT. OF DC		1000 daN	37000
WT. OF STRING		1000 daN	60000

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	3 x 17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_1 | T_0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5000↑ 5000↓

TORQUE AT BOTTOM: –

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1140	1135	1795

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1140	1135	1830

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149305

LICENCE NO.: 1940 | WELL NAME AND NO.: CANADIAN FOREST ELK NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6090 12330-0 | UNIQUE ID.: 300 C-31 10090 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS — OPR. Initial / R.M. Initial

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 00 | MONTH 04 | DAY 04

RIG NO. 56

FUEL @ 8:00 — RIG 1.35 | BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	325.34	94.20	BTC	K55	55	711.20	6.57	710

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	134.04	E	57	228	6⅝ REG	26	F1000	EMSCO	254
127	73.35	S135	76	136	4½ IF	19	F1000	EMSCO	254
127	70.02	E	101	136	4½ IF	129			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.				8																					
DAY				7¾				¼																	
EVE.			4	4																					
TOTAL			4	19¾				¼																	

TOTALS: 8 | 8 | 8 | 24

SHALE SHAKER(S): NO. 1 TYPE DERRICK FLC | SCREENS CHANGED ☑ YES ☐ NO | TOP 210 | TOP 140 | MIDDLE 175 | MIDDLE 140 | BOTTOM 175 | BOTTOM 140

RENTALS/SERVICES

	MORN	DAY	EVE
TMS 3440 006			
AMS 3765			
ACCUM OIL 34			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		7.96 m
1	FLOAT SUB		1.42 m
2	3 PNDC	279	18.74 m
2	2 DC	228	54.43 m
1	SUB	228	3.23 m
2	DP	127	59.66 m
1	XO		2.44 m
3	PUMP		2.74 m
			159.60 m
36	D.P.	STANDS	1035.16 m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		1194.76 m
WT. OF DC	28000	1000 daN	
WT. OF STRING	67000	1000 daN	

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 50000 ↑ 50000 ↓ | TORQUE AT BOTTOM 8-18000 | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:30	04:30	06:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	80	91	95
W.L. (cm³)	11.0	12.5	12.5
pH	8.0	9.5	10.5
P.V.T m³	76.0	81.0	81.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph	56 SXS
Lime	4 SXS
Sod. Sulfit	3 SXS
Corinox	3 pails
Chemicide	1 Pail

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1135	1785

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1135	1740

METRES DRILLED

FROM	TO	DRD PM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11600	152	100	152	100

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0800		3	REAM 1155m 1222m

NOTES: WEAR CROWN SAVER FASTLINE CLAMP DECORAH ANCHOR BRAKE LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	115000	RIT	4911 KPA

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		7.96 m
1	FLOAT SUB		1.42 m
1	RST SUB		1.67 m
2	NMDC		8.43 m
1	STAB		3.55 m
1	SUB		2.14 m
2	DC		17.53 m
2	DC		17.79 m
1	XO		0.95 m
4	DC		1.41 m
1	XO		2.74 m
3	MWDP		27.64 m
			1474.00 m
41	D.P.	STANDS	1177.01 m
	D.P.	SINGLES	m
	KELLY DOWN		6.41 m
	TOTAL		1360 m
WT. OF DC	78000	1000 daN	
WT. OF STRING	68000	1000 daN	

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 5-10000 DN | TORQUE AT BOTTOM 5-10000 FR185 | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	10:00	12:30	15:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	103	102	105
W.L. (cm³)	10.5	10.0	10.0
pH	10.5	10.0	10.0
P.V.T m³	82.3	81.1	81.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Drispac	2 SX
Starpak	4 SX
Corinox	3 pail
Sod Sulfite	3 SX
Potsolbite	56 SX
Akomer 110	2 SX
Chemicide	1 pail
BARite	39 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD PM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474			35	5
1222	1340	R	METRIC	5½

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12700	152	100	152	100

REDUCED PUMP SPEED: 4100 @ 70 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	1545	9½	3	REAM 1222m - 1340m
1545	1600	¼	7	K/S GREASE TOP DRIVE

NOTES: ✓ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			115000 DN		4911 kpa.

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	MOTOR		7.96 m
	FLOAT SUB		1.42 m
2	NMDC		8.43 m
2	DC	228	36.53 m
1	SUB	238	3.23 m
2	DC	228	18.54 m
1	XO	178	2.40 m
3	MWDP		27.64 m
			187.60 m
			1282.28 m
45	D.P.	STANDS	1191.72 m
1	D.P.	SINGLES	9.34 m
	KELLY DOWN		9.22 m
	TOTAL		1482 m
WT. OF DC	21000	1000 daN	
WT. OF STRING	69000	1000 daN	

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	8
TOTAL HOURS RUN	4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 5-10000 DN | TORQUE AT BOTTOM 8-10000 FR | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:30	23:00
DENSITY kg/m³	1145	1150	1150
FUNNEL VIS. - (S/L)	102	111	82
W.L. (cm³)	10.0	10.0	10.0
pH	10.5	10.0	8.0
P.V.T m³	77.4	76.4	76.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Percol	1 SX
Lime	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
2	1150	1140	1900

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1150	1140	1560

METRES DRILLED

FROM	TO	DRD PM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1474	1982	8	85 Rotary	10
1360	1474	R	Slide	15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14000	152	100	152	100

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1458	3.2	86.2

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2000	4	3	REAM 1360m - 1474m
2000	2400	4	2	SURVEY & START DRILLING

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-			4911 kPa

EVENING TOUR

FOLD HERE →

149306

LICENCE NO.: 1904 | WELL NAME AND NO.: CANADIAN FOREST OIL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 60-10 123-30-0 | UNIQUE ID.: 300 C-31 60-10 123-30-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 00 | MONTH 04 | DAY 03 | RIG NO. 58

FUEL @ 8:00

RIG 96 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.39	104.26	BTC	K-55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	174.81	DC	57	228	4½ IF	36
127	74.55	HWDP	76	156	4½ IF	17
127	29.02	ED	108	156	4½ XH	124

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	EMSCO	254
F-1000	EMSCO	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Night Hole	24	25	26
	MORN.		7¾																							
	DAY		4¾					¼	½														2½			
	EVE.		1¼			3¼																	3½			
	TOTAL		13¾			3¼		¼	½														6			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
9	NO. 2 TYPE DERRICK FLC	TMS 341998
8	SCREENS CHANGED ☐ YES ☐ NO	AMS 4678
8	TOP 210 TOP 140	accumail 34
24	MIDDLE 175 MIDDLE 140	
	BOTTOM 175 BOTTOM 140	

MORN | DAY | EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Mill Tooth		0.36 m
	Float Sub		1.76 m
2	Mud Motor		7.62 m
	DC	228	9.14 m
	Stab	228	1.94 m
	DC	228	9.14 m
2	Jar	228	1.59 m
9	DC	178	84.40 m
3	HWDP		27.64 m
			139.62 m
46	D.P.	STANDS	1521.11 m
1	D.P.	SINGLES	9.27 m
	KELLY DOWN		3.92 m
	TOTAL		1516 m

WT. OF DC 28 000 1000 daN | WT. OF STRING 69 000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP41H
SERIAL NO.	KN2632
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	42
TOTAL HOURS RUN	11¾

CUTTING STRUCTURE: T₁ | T₀ | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 7-9000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	02:00	04:30	06:00
DENSITY kg/m³	1140	1140	1140
FUNNEL VIS. - (S/L)	82	85	85
W.L. (cm³)	10.0	11.0	11.0
pH	9.5	10.0	10.2
P.V.T.m³	75.4	85.8	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Chemicide	1 Pail
Corinex	3 Pails
Sod. Sulfit	3 SXS
Pot. Sulph.	112 SXS
Lime	4 SXS
Alcomer	2 SXS
GEL	38 SXS
Lignite	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1130	1840

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1140	1130	1875

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1482	1516	34	55 Rotary 100 MTR	10½

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
13300	152	100	152	100

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1475.2	3.0	94.7

DRILLER SIGNATURE

[signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0600	6	2	DRILL 1482m - 1510m
0600	0615	¼	7	DWKS & TOP DRIVE SERV
0615	0800	1¾	2	DRILL 1510m - 1516m

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR - BRAKE LINKAGE

BOILER

HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Mill Tooth		0.36 m
1	Float Sub		1.76 m
2	Mud Motor		7.62 m
1	DC	228	9.14 m
1	Stab	228	1.94 m
1	DC	228	9.14 m
1	Jar	228	2.24 m
2	DC	228	18.59 m
1	X/O		1.35 m
9	DC	178	84.45 m
1	X/O		1.41 m
3	HWDP		27.64 m
		BHA =	169.60 m
47	D.P.	STANDS	m
X	D.P.	SINGLES	135.56 m
STICK UP	KELLY DOWN		7.16 m
	TOTAL		1541 m

WT. OF DC 28 000 1000 daN | WT. OF STRING 71 000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP41H
SERIAL NO.	KN2632
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	67
TOTAL HOURS RUN	12½

CUTTING STRUCTURE: T₁ | T₀ | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10 - 50000 DAN | TORQUE AT BOTTOM 6 - 15000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	09:00	12:00	15:00
DENSITY kg/m³	1130	1130	1130
FUNNEL VIS. - (S/L)	70	72	75
W.L. (cm³)	11.0	11.0	
pH	10.0	10.0	10.0
P.V.T.m³	72.4	70.2	63.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Akonello	3 SX
Chemicide	1 pail
Cornox	3 pails
Sod Sulfite	3 SX
Pot Sulfate	56 SX
Lime	
Drispac	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
6	1130	1120	1830

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
6	1130	1120	1860

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1516	1541	25	55 Rotary 100 MTR	10½

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
13700	152	95	152	95

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1513	2.6	E2.3N

DRILLER SIGNATURE

[signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0930	1½	2	DRILL 1516m - 1527m
0930	0945	¼	7	K/S FUNCTION TOP PIPE & SEC. CK
0945	1100	1¼	2	DRILL 1529m - 1533m
1100	1130	½	6	WORK ON DRAWWORKS LOW CLUTCH
1130	1315	1¾	22	WORK TIGHT HOLE
1315	1430	1¼	2	DRILL 1533m - 1538m
1430	1500	½	22	WORK TIGHT HOLE
1500	1545	¾	2	DRILL 1538m - 1541m
1545	1600	¼	22	WORK TIGHT HOLE
				FUNCTION TEST POP VALVES ON PUMPS

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER

HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	127000 DAN		4960 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Mill Tooth		0.36 m
	Float Sub		1.76 m
2	Mud Motor		7.62 m
	DC	228	9.14 m
	Stab	228	1.94 m
2	DC	228	18.29 m
9	DC	178	84.45 m
1	X/O		1.41 m
3	HWDP		27.64 m
		BHA =	169.60 m
47	D.P.	STANDS	1389.12 m
1	D.P.	SINGLES	9.44 m
	KELLY DOWN		2.16 m
	TOTAL		1541 m

WT. OF DC 28000 1000 daN | WT. OF STRING 72000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP41H
SERIAL NO.	KN2632
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	72
TOTAL HOURS RUN	16¾

CUTTING STRUCTURE: T₁ | T₀ | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10 - 15000 DAN | TORQUE AT BOTTOM 6 - 15000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	18:00	21:00	23:00
DENSITY kg/m³	1130	1130	1130
FUNNEL VIS. - (S/L)	74	67	64
W.L. (cm³)	11.0	13.5	13.0
pH	10.0	10.0	10.0
P.V.T.m³	67.7	68.0	68.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Stirpak	½ SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
3	1130	1120	1790

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
3	1130	1120	1790

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1541	1546	5	55 Rotary 100 MTR	10½

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10800	152	90	152	90

REDUCED PUMP SPEED

400 @ 400 @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

[signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	2	DRILL 1541m - 1546m
1715		3¾	22	WORK STUCK PIPE TIGHT HOLE
	2045			1546m TO 1464m
2045	2200	1¼	5	CIRC & WORK STRING 1464m - 1500m
2200	2400	2	5	CIRC & BUILD MUD AT 1488m

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKE LINKAGE

BOILER

HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-			

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149307

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AVA DRILLING LTD

SURFACE LOCATION: 300 C-31 60 40 123 30-0 | UNIQUE ID.: 300 C-31 60 40 123 30-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) HPS Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 10 | MONTH 04 | DAY 06 | RIG NO. 56

FUEL @ 8:00 RIG | BOILER

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	259.4	71.82	BTC	K55	55	711.20	6.47	710

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
229	178.64	DX	57	178	5 1/2 FH	20	F800	Ensco	356
177	118.64	DX	57	178	5 1/2 FH	20	F800	Ensco	356
127	74.35	HWDP	76	159	4 1/2 IF	17	F1000	Ensco	254
127	73.09	E-Z	69	159	4 1/2 IF	124	F1000	Ensco	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.					1/4		1/4																			
DAY					E																					
EVE.		6 3/4					1/4	1/2		1/4											1/4					
TOTAL		6 3/4			1 5/4		1/2	1/2		1/4											1/4					

TOTALS

8	SHALE SHAKER(S) NO.	TYPE Derrick FLC
8	SCREENS CHANGED ☐ YES ☐ NO	
8	TOP 210	TOP 140
8	MIDDLE 185	MIDDLE 140
24	BOTTOM 185	BOTTOM 140

RENTALS/SERVICES (MORN. / DAY / EVE.)

T&J 343204
AMJ 5904
Accum Oil

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH m
	BIT		0.26
	Motor 5/8		6.71
2	NMDC	228	9.43
	DC	228	37.59
2	DC	228	47.09
9	DC	178	264.40
3	HWDP		274.04
	BHA		164.60
47	D.P.	STANDS	1349.12
1	D.P.	SINGLES	9.44
	KELLY DOWN		2.16
	TOTAL		1516

WT. OF DC 28000 (1000 daN)
WT. OF STRING 71000 (1000 daN)

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	3 x 17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	72
TOTAL HOURS RUN	19 3/4

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 4 - 5000 DAN
TORQUE AT BOTTOM 6 - 7000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:30	06:00
DENSITY kg/m³	1145	1165	1175
FUNNEL VIS. - (S/L)	61	60	63
W.L. (cm³)	18.0	18.0	18.0
pH	9.0	10.0	10.5
P.V. T m³	62.2	78.6	82.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Chemicide	1 Pail
Corinox	3 Pails
Sod. Sulfite	3 SXS
Lime	4 SXS
BARITE	420 SKS
Alcomer	1 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN 0 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN 0 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1516				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11900	152	90	152	90

REDUCED PUMP SPEED: 1500 @ 70 @ 178

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0500	5	5	CIRC & COND MUD BUILD WT
0500	0515	1/4	7	RIG & TOP DRIVE SERV
0515	0800	2 3/4	5	CIRC & COND MUD

NOTES: CHECK CROWN-SAVER CASTLINE CLAMP - DEADMAN ANCHOR LINKAGE

BOILER: HRS. RAN | ph | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC: SAFETY MTG | M.A.C.P.: 4702

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH m
	BIT		0.51
	Motor 5/8		6.71
2	NMDC		9.43
	DC		37.59
2	DC	228	47.09
9	DC	178	264.40
3	HWDP		274.04
	BHA		164.60
47	D.P.	STANDS	1375.56
1	D.P.	SINGLES	9.44
	KELLY DOWN		2.16
	TOTAL		1516

WT. OF DC 28000 (1000 daN)
WT. OF STRING 72500 (1000 daN)

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	3 X 17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	72
TOTAL HOURS RUN	19 3/4

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 10000
TORQUE AT BOTTOM 4 - 5000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1190	1200	1220
FUNNEL VIS. - (S/L)	62	61	61
W.L. (cm³)	17.0	17.0	17.5
pH	10.0	10.0	10.0
P.V. T m³	85.7	85.4	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer 74	2 SX
BARITE	756 SX
Pot Sulfate	56 SX
Corinox	3 Pail
Sod Sulfite	3 SX
Chemicide	1 Pail
Lime	4 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN 0 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN 0 | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1516			45	
			MTR	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12400	152	90	152	90

REDUCED PUMP SPEED: 4400 @ 70 @ MTR

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1400	6	5	CIRC & COND. MUD
				(CHECKED) FIRE EXTINGUISHER
				GREASE CROWN

NOTES: ✓ Crown Saver Castline Clamp Deadline Anchor

BOILER: HRS. RAN 0 | ph | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD: 85000 daN | SAFETY TOPIC: WORK PRG | M.A.C.P.: 4554 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH m
	BIT		0.51
	Motor 5/8		6.71
2	NMDC	228	9.43
	DC	228	37.59
2	DC	228	47.09
9	DC	178	264.40
3	HWDP		274.04
	BHA		164.60
48	D.P.	STANDS	1377.84
1	D.P.	SINGLES	9.80
	KELLY DOWN		2.24
	TOTAL		1576

WT. OF DC 28000 (1000 daN)
WT. OF STRING 73000 (1000 daN)

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KN2632
JETS (mm)	3 X 17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	102
TOTAL HOURS RUN	24 1/2

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 10000
TORQUE AT BOTTOM 4 - 5000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:00	22:00
DENSITY kg/m³	1250	1265	1275
FUNNEL VIS. - (S/L)	63	61	58
W.L. (cm³)	18.0	18.5	18.0
pH	10.0	10.0	10.0
P.V. T m³	87.2	87.5	95.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1541	1576	30	25 slide	3 1/2

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14000	152	90	152	90

REDUCED PUMP SPEED: 3900 @ 1541 @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1532	3.2	75.7

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1400	1430	1/2	2	DRILL 1541 m - 1547 m
1430	1445	1/4	22	BOP DRILL HOLE SECURE IN 60 sec.
1445	1700	2 1/4	11	SURVEY @ 1532 m
1700	2100	4	2	DRILL 1547 m - 1567 m
2100	2115	1/4	7	RIG & TOP DRIVE SERV
2115	2230	1 1/2	2	DRILL 1567 m - 1572 m
2230	2300	1/2	8	WORK ON Nol PUMP
2300	2400	1	2	DRILL 1572 m - 1576 m

NOTES: CHECK CROWN SAVER-CASTLINE CLAMP-DEADMAN ANCHOR BRAKES + LINKAGE

BOILER: HRS. RAN 0 | ph | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC | M.A.C.P.

FOLD HERE →

149308

LICENCE NO.:	WELL NAME AND NO.:
400	CANADIAN FOREST OIL NORTH LIARD C-31
OPERATOR:	**CONTRACTOR:**
CANADIAN FOREST OIL	AKITA DRILLING LTD
SURFACE LOCATION:	**UNIQUE ID.:**
31 C 31 60 10 123 30 - 0	300 C-31 60 10 123 30-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR	MONTH	DAY
2009	07	07

RIG NO.: 58

FUEL @ 8:00

RIG: 1341 BOILER:

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.9	101.2	BTC	K55	55	741.20	6.97	740

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	178.94	DC	57	228	5 1/2 FH	26	F 1000	EMSCO	254
	127	79.53	HWDP	76	159	4 1/2 IF	17	F 1000	EMSCO	254
	127	39.02	E 75	108	156	4 1/2 IF	121			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Work Tight Hole.				
MORN.	7 1/2						1/4			1/4																
DAY	3 1/4						1/4			1/4												13/4				
EVE.	3 1/2				1/2	1/2				1/4												3 1/4				
TOTAL	14 3/4				1/2	1/2	1/2			3/4												5				

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE DERRICK		TMJ - 344118			
8	SCREENS CHANGED YES NO		ANT - 6818			
8	TOP 210	TOP 210	Accum Oil - 50			
8	MIDDLE 175	MIDDLE 210				
24	BOTTOM 175	BOTTOM 210 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.34 m
	FLOAT SUB		0.76 m
2	NMDC	228	9.45 m
	DC	228	9.34 m
	SUB	228	1.89 m
9	DC	178	84.48 m
3	HWDP		27.04 m
		BHA:	134.30 m
49	D.P.	STANDS	1405.86 m
1	D.P.	SINGLES	9.65 m
	KELLY DOWN		1.11 m
	TOTAL		1607 m
WT. OF DC			24000 1000 daN
WT. OF STRING			73000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KW2633
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	130
TOTAL HOURS RUN	32

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 ↑ ↓
TORQUE AT BOTTOM	5-8000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: ☑ WATER BASED ☐ OIL BASED

TIME	01:30	03:30	5:00
DENSITY kg/m³	1275	1280	1080
FUNNEL VIS. - (S/L)	54	57	57
W.L. (cm³)	18.0	18.0	20.0
pH	9.5	9.0	10.0
P.V.T.	96.5	98.0	99.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	504 SXS
LIME	4 SXS
CORMOX	3 Pails
Sod. Sulfite	2 SXS
Chemicide	1 PAIL
ALCOMER	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			
	Centrifuge #2		
0 1/2			

METRES DRILLED

FROM	TO	DR-D / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1576	1604	28	30 RPM	15/20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14000	152	90	152	90

REDUCED PUMP SPEED

3600 @ 58 @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1560.3	3.8	79.5

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0730	7 1/2	2	DRILL 1576m - 1604m
0730	0745	1/4	10	SURVEY TIMES
0745	0900	1/4	9	RIG & TOP DRIVE SERVICE

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADLINE ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		WORK ON DRILLING LINE	3936 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		0.34 m
1	FLOAT SUB		0.76 m
2	NMDC	228	16.75 m
1	3 PT SUB	228	3.65 m
1	DC	228	9.34 m
1	SUB	228	1.89 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA:	156.90 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		1617 m
WT. OF DC			28000 1000 daN
WT. OF STRING			74000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KW2632
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	143
TOTAL HOURS RUN	37 3/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 ↑ 15000 ↑
TORQUE AT BOTTOM	6-12000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME	10:00	12:00	15:00
DENSITY kg/m³	1290	1285	1280
FUNNEL VIS. - (S/L)	63	69	75
W.L. (cm³)	14.0	12.0	9.0
pH	10.5	10.0	10.5
PVT m³	98.5	PVT m³	99.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
ALCOMER	1 SX
DRISPAC	4 SX
STARPAC	8 SX
POT SULFATE	56 SX
CHEMICIDE	1 Pail
SOD SULFITE	2 SX
CORMOX	2 Pail
LIME	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1604	1617	13	30 RPM	15/20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15700	152	95	152	95

REDUCED PUMP SPEED

6500 @ @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1579.1	3.6	79.1
1598.1	3.5	81.5

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	1/2	2	DRILL 1604m 1605m
0830	0845	1/4	7	RIG FUNCTION BTM'S UP SERV. RIG
0845	0900	1/4	10	SURVEY
0900	1030	1 1/2	2	DRILL 1605m - 1608m
1030	1145	1 1/4	22	WORK TIGHT HOLE 1608m - 1595m
1145	1245	1	2	DRILL 1608m - 1611m
1245	1315	1/2	22	WORK PIPE PRESSURING UP
1315	16:00	2 3/4	2	DRILL 1611m - 1617m

NOTES: √ Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MOTOR		7.96 m
1	FLOAT SUB		0.76 m
2	NMDC	228	18.75 m
1	DC SHOCK	228	9.45 3.85 m
1	DC	228	9.34 m
2	DC	228	5.69 18.59 m
1	X10		1.38 m
9	DC	178	84.48 m
1	X10		1.41 m
3	HWDP	127	27.04 m
		BHA:	189.60 m
49	D.P.	STANDS	1434.30 m
1	D.P.	SINGLES	9.65 m
	KELLY DOWN		0.78 m
	TOTAL		1624.68 m
WT. OF DC			28000 1000 daN
WT. OF STRING			74000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP44H
SERIAL NO.	KW2632
JETS (mm)	3X17.5
DEPTH OUT (m)	—
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	150
TOTAL HOURS RUN	41 1/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5000 ↑ 3000 ↓ Rotating
TORQUE AT BOTTOM	8000 FT/LBS
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE: ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	
DENSITY kg/m³	1280	1300	
FUNNEL VIS. - (S/L)	76	84	
W.L. (cm³)	9.0	9.0	
pH	10.5	9.5	
PVT.	98.5	99.6	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
DRISPAC	2 SX
STARPAC	4 SX
BARITE	253 SX.
LIME	2 SX.
SOD SULFITE	2 SX
CORMOX	2 pails
CHEMICIDE	1 pail
ALCOMER	1 SX.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			
	Centrifuge #2		

METRES DRILLED

FROM	TO	DR-D / RM-R / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1617	1624	7	30 RPM	15/20
			MTR: 75	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15900	152	100	152	100

REDUCED PUMP SPEED

6500 @ @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1607	3.6	78.0

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:45	3/4	2	Drill 311mm Hole F/1617m - 1618m
16:45	19:15	2 1/2	22	Work & Clean Tight Hole F/1618m - 1593m.
19:15	21:00	1 3/4	2	Drill F/1618m - 1623m
21:00	21:45	3/4	22	Work & Clean hole.
21:45	22:00	1/4	10	Survey @ 1607m
22:00	23:00	1	2	Drill F/1623m - 1624m. Hole Packing off.
23:00	23:30	1/2	5	Work & Clean hole, before Wiper Trip.
23:30	24:00	1/2	6	Wiper Trip F/1624m - 1552m.

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0		—	130 000 LBS	Tripping	5796 KPA

FOLD HERE →

149309

LICENCE NO.:	WELL NAME AND NO.:
1906	Canadian Forest et al North Liard c-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300 c-31 6040 12330 - 0	300 c-31
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
Greg Hatley	Dave Lauck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial DH
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2002 | MONTH 04 | DAY 28

RIG NO. 56

FUEL @ 8:00

RIG 2.02 | BOILER

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	117.20	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178.69	E	57	177	SMF	9			
197	144.55	NC	76	178	SMF	17	F-1000	EMSCO	254
197	135.07	E	101	178	NC	135	F-1000	EMSCO	254
127	29.62	E	101	151	NC	174			

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22 Bundle Tools	23	24	25	26
1	MORN.		2¼			2¾	1¼	¼	1												½						
2	DAY						4½	¼															3¼				
3	EVE.					4	3			1																	
4	TOTAL		2¼			6¼	8¾	½	1	1											½		3¼				

TOTALS

1	8
2	8
3	8
4	24

SHALE SHAKER(S)

NO.	TYPE
2	BRANDT FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP	210	TOP	210
MIDDLE	175	MIDDLE	210
BOTTOM	175	BOTTOM	210

RENTALS/SERVICES

	MORN.	DAY	EVE
TMJ 346009			
AMJ 357			
Accumol 36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MTH	311	.35 7.96 m
1	F SUB	228	.76 1.43 m
1	NMDC	228	15.75 m
1	8¼ DC	228	9.23 m
1	S/SUB	228	3.05
1	DAB DC	228	9.34 m
1	JAR	228	5.64 m
3	7¼ DC	228	18.59 m
1	X/O	228	1.38 m
9	178 DC	178	84.48 m
1	X/O	178	1.41 m
3	HWDP	127	27.04 m
		BHA	189.60 m
50	D.P.	STANDS	1439.30 m
	D.P.	SINGLES	m
	KELLY DOWN		2.25 m
	TOTAL		1626.15 m
WT. OF DC			28000 1000 daN
WT. OF STRING			74000 1000 daN

BIT RECORD

BIT NO.	4C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP 44H
SERIAL NO.	KN2632
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1474
TOTAL METRES DRILLED (m)	152
TOTAL HOURS RUN	43½

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-15000 ↑↓
TORQUE AT BOTTOM	4-9000 FT/LBS.
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1300	1300	1325
FUNNEL VIS. - (S/L)	76	85	80
W.L. (cm³)	9.5	9.5	9.5
pH	10.5	10.0	10.0
PV/YP	101.4	106.4	108.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 SX
BARite	294 SX
Chemcide	1 Pail
Corinox	2 Pail
Sol Sulfite	2 SX
Pot Sulfate	56 SX
Aluminum	1 SX
Gel	33 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1624	1626	2	50/min	12/15
		SLIDING		10/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15900	152	100	152	100

REDUCED PUMP SPEED

4300 @ 12.2m @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1000	0030	½	6	WIPER TRIP 1552m - 1490m
0030	0200	1½	5	CIRC. & WASH FROM 1490m - 1590m
0200	0300	1	8	CHANGE BELTS ON #2 PRE CHARGE PUMP
0300	0315	¼	7	R/S GREASE TEPDRIVE & FUNCTION REMOTE CHOKE
0315	0415	1	5	CIRC. & WASH FROM 1590m - 1624m
0415	0445	½	20	ORIENT TOOL FACE
0445	0700	2¼	2	DRILL 1624m - 1626
0700	0715	¼	5	CIRC & CLEAN HOLE FOR TRIP
0715	0800	¾	6	PULL UP INTO CASING

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
			125 000 DAN	Watch Dog	3657 kpa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB	228	.84 9.24 m
1	DC	228	2.49 9.43 m
1	Reamer		2.06 m
1	DC	228	9.02 m
1	Jar		5.64 m
1	X/O		1.38 m
9	178 DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA =	153.36 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			20000 1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	4C 5CRR
SIZE (mm)	311 311
IADC CODE	1 1 6
MFG.	REED ATJ 15
TYPE	EHP 44H R57EN
SERIAL NO.	KN2632 R57EN
JETS (mm)	3x17.5 3x19.0/17.5
DEPTH OUT (m)	1626
DEPTH IN (m)	1474 1626
TOTAL METRES DRILLED (m)	152
TOTAL HOURS RUN	43½

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
8	8	BT	A	F	6	WT	PR	3.5

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	Trip Record	
DENSITY kg/m³	meas 15.78	
FUNNEL VIS. - (S/L)	Cal 10.31	
W.L. (cm³)	Diff 5.57	
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	12:30	4½	6	P.O.O.H. Flow √@ 10 stds, 33 STDS, @ HWDP.
12:30	14:00	1½	22	Pull M.W.D., Break off Subs, Lay down motor.
14:00	14:15	¼	7	R/S, Function Blind Rams, 6 sec/cls.
14:15	16:00	1¾	22	Make up Reaming B.H.A, R.I.H.

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor,

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB	228	.84 9.24 m
1	DC	228	2.49 9.42 m
1	Bit Reamer	228	2.66 m
1	DC	228	9.02 m
1	JAR		5.64 m
1	X/O		1.38 m
7	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
		BHA:	153.36 m
25	D.P.	STANDS	m
X	D.P.	SINGLES	814.37 m
Stabilizer	KELLY DOWN		1.73 m
	TOTAL		966 m
WT. OF DC			20000 1000 daN
WT. OF STRING			51000 1000 daN

BIT RECORD

BIT NO.	5CRR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x19.0/17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 ↑↓
TORQUE AT BOTTOM	4-10000 FT/LBS.
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	21:00	23:30
DENSITY kg/m³	1325	1340
FUNNEL VIS. - (S/L)	75	75
W.L. (cm³)	12.0	12.0
pH	10.0	10.0
PV/YP	82.4	76.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	4 SX
Lime	1 SX
Aluminum	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Cent #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626			40/60	7/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8200	152	90	152	90

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	18:15	2¼	6	R.I.H. TO 717m. / Lost √
18:15	18:30	¼	5	Break Circulation
18:30	19:30	1	9	Slip cut 20 m of Drill line, √ Crown Saver.
19:30	20:15	¾	6	R.I.H. to 838m Break off
20:15	23:00	3¾	5	CIRC & CLEAN HOLE FROM 838m - 966

NOTES √ Crown Saver Fastline Clamp Deadline Anchor
RESET CROWN SAVER

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
			60000 DAN		3510 kpa

FOLD HERE →

149310

LICENCE NO.:	WELL NAME AND NO.:
1960	Canadian Forest et al North Liard c-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300 c-31 EC40 12330-0	300 c-31 6040 12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
Doug Helbig	Dave Tweed

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 07 | DAY 07

RIG NO. 56

FUEL @ 8:00

RIG 1.60 | BOILER

WEATHER

TEMPERATURE	°C
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178.64	DC	78	228	FH	9			
178	178.64	DC	78	178	5 1/2 IF	36	F-1600	EMSCO	254
127	74.35	H90	76	127	4 1/2 IF	19			
127	36.07	E3	101	152		135	F-1600	EMSCO	254
127	29.62	E2	108	146	↓	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.				5 1/4		2 1/2		1 1/4																	
DAY				13 1/4				1/4																	
EVE.				5																					
TOTAL				24		2 1/2		1 1/2																	

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE DERRICK FLC
SCREENS CHANGED ☒ YES ☐ NO
TOP 175 | TOP 175
MIDDLE 175 | MIDDLE 175
BOTTOM 175 | BOTTOM 175

RENTALS/SERVICES — MORN. / DAY / EVE.

TMJ 349167
AMJ 1517
Nelson oil #36

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.34 m
1	BIT SUB	228	9.24 m
1	3pt. REAMER	228	2.99 m
1	DC	228	9.43 m
1	3pt. REAMER	228	2.66 m
1	DC	228	9.02 m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		M336 m
31	D.P.	STANDS	m
XX	D.P.	SINGLES	909.21 m
KELLY DOWN			4.43 m
TOTAL			1067.00 m
WT. OF DC			20 000 1000 daN
WT. OF STRING			53 000 1000 daN

BIT RECORD

BIT NO.	5 CRR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x17.0/17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 ↑↓
TORQUE AT BOTTOM 4-10000 FT/LBS.
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1350	1350	1360
FUNNEL VIS. - (S/L)	92	94	93
W.L. (cm³)	10.0	8.0	8.5
pH	10.5	10.5	10.5
PVT/TP	72.5	71.4	69.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	504 SX
Drispac	2 SX
Starpak	4 SX
Lignite	2 SX
Lime	2 SX
Alcomer 110	1 SX
Cedinox	1 Pail
Chemtrol	1 Pail

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD IN RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626	1		40/60	2/5
960	1067	107		

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9900	152	100	152	100

REDUCED PUMP SPEED

2700 @ 90 @ 92m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0045	3/4	5	CIRC. & CLEAN HOLE FROM 966m - 967m
0045	0315	2 1/2	3	REAM & WASH DOWN FROM 967m - 985m
0315	0400	3/4	5	CIRC. & CLEAN HOLE FROM 985m - 1023
0400	0415	1/4	7	R/S FUNCTION TEST LINE SEC. & VRSPT
0415	0515	1	5	CIRC. & CLEAN HOLE 1023m - 1047m
0515	0800	2 3/4	3	REAM & WASH DOWN 1047m - 1067m

NOTES Crown Saver, Fast Line Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			105 000 DAN		3376 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 m
1	DC	228	9.24 m
1	REAMER	228	2.99 m
1	DC	228	9.43 m
1	REAMER	228	2.66 m
1	DC	228	9.02 m
1	Jar		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	37.04 m
	BHA:		153.36 m
33	D.P.	STANDS	m
X	D.P.	SINGLES	957.43 m
KELLY DOWN			1.33 m
TOTAL			1112.06 m
WT. OF DC			20000 1000 daN
WT. OF STRING			55000 1000 daN

BIT RECORD

BIT NO.	5CRR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x19.0/17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	Reamed 152 m
TOTAL HOURS RUN	13

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000 ↑ 5000 ↓
TORQUE AT BOTTOM 5000 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:30	12:30	14:00
DENSITY kg/m³	1370	1370	1370
FUNNEL VIS. - (S/L)	91	92	108
W.L. (cm³)	8.0	8.5	9.5
pH	10.5	10.5	10.
PVT/TP	71.2	70.5	72.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sokuflite	2 SX
Alcomer 110	2 SX
Soda Ash	1 SK.
Lignite	1 SK.
Pot. Sulph	36 SX.
Sod. Sulfite	3 SX
Cedinox	1 Pail
Chemtrol	1 Pail
Drispac	1 SK.
Starpac	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD IN RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1067	1112	45	60	5/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11100	152	105	152	105

REDUCED PUMP SPEED

2800 @ 70 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Barry Pobuta

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	15:45	7 3/4	3	Ream F/1067m - 1112 m
15:45	16:00	1/4	7	R/S Function Annular 19 sec c/s.

NOTES Crown Saver, Fastline Clamp, Deadline Anchor. Held camp Fire Drill.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—	105 000 DAN		3309 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 m
1	DC	228	9.24 m
1	REAMER	228	2.99 m
1	DC	228	9.43 m
1	3pt REAMER	228	2.66 m
1	DC	228	9.02 m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		153.36 m
34	D.P.	STANDS	971.15 m
	D.P.	SINGLES	m
Stickup	KELLY DOWN		4.51 m
	TOTAL		1125.51 m
WT. OF DC			20000 1000 daN
WT. OF STRING			55000 1000 daN

BIT RECORD

BIT NO.	5CRR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x19.0/17.5
DEPTH OUT (m)	REAMING 966
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	85 RM
TOTAL HOURS RUN	21

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10 000 DAN
TORQUE AT BOTTOM 4-10000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	16:00	18:00	23:00
DENSITY kg/m³	1380	1385	1380
FUNNEL VIS. - (S/L)	113	109	101
W.L. (cm³)	9.5	10.5	100
pH	10	10	100
PVT/TP	73.1	73.4	75.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	37 SX
Barite	120 SX
Lime	35 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD IN RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1112	1125	13	40/60	5/5 est

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9100	152	95	152	95

REDUCED PUMP SPEED

2850 @ 90 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	24:00	8	3	Ream F/1113m - 1125 m

NOTES Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			105 000 DAN		3239 KPa

FOLD HERE →

153661

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling Ltd.

SURFACE LOCATION: 300 C-31 6040 12330-0 | UNIQUE ID.: 300 C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Gilling. Carmen Lambert | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Sauer

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HPS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 07 | DAY 11

RIG NO. 58

FUEL @ 8:00

RIG 1346 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	176.84	DC	73	228	6 5/8 REG	9			
	178	176.84	DC	57	178	5 1/2 REG	26	F1000	EMSCO	254
	127	74.35	HW	76	147	4 1/2 IF	17			
	127	38.07	E3	101	146		138	F1000	EMSCO	254
	127	29.02	E2	108	156	↓	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.			7¾				¼																	
	DAY			7½				½																	
	EVE.			8																					
	TOTAL			23¾				¾																	

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP	TOP
175	175
MIDDLE 175	MIDDLE 175
BOTTOM 175	BOTTOM 175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 347935			
AMJ 2283			
Accum Oil .36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 1.64 m
1	DC	228	9.24 m
1	STAB/REAMER	228	2.49 9.42 m
1	DC	228	2.06 m
1	STAB/REAMER	228	9.02 m
1	DC		5.64 m
1	JAR		1.38 m
1	X/O		1.41 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		153.36 m
3¾	D.P.	STANDS	m
X	D.P.	SINGLES	965.59 m
STICK UP	KELLY DOWN		5.95 m
	TOTAL		1133 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	55000	1000 daN	

BIT RECORD

BIT NO.	5C RR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	Hughes
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x19.0/17.5
DEPTH OUT (m)	REAMING
DEPTH IN (m)	1626 966
TOTAL METRES DRILLED (m)	173 KM
TOTAL HOURS RUN	26¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN

TORQUE AT BOTTOM 4-7000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1400	1400	1415
FUNNEL VIS. - (S/L)	92	89	85
W.L. (cm³)	11.0	100	10.0
pH	10.5	10.5	10.5
PVT m³	82.7	86.6	91.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	714 SX
Drispac	1 SX
Starpak	2 SX
Carinox	1 Pail
Sodsulfite	2 SX
Chemicide	1 Pail
Lime	2 SX
Lignite	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1125	1133	8	40/60	2/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10100	152	100	152	100

REDUCED PUMP SPEED

2950 @ 90 @ 1116m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0400	4	3	REAM 1125m - 1128m
0400	0415	¼	7	K/S FUNCTION BTM'S RAM 9 SEC. C/S & GSFP
0415	0600	3¾	3	REAM 1128m - 1133m

NOTES ✓ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			100 000 DAN	TIGHT HOLE	2961 kpa

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.84 m
1	DC	228	9.24 m
1	REAMER	228	2.49 9.42 m
1	DC	228	2.06 9.02 m
1	DC	228	m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA:		153.36 m
36	D.P.	STANDS	m
X	D.P.	SINGLES	1043.08 m
	KELLY DOWN		3.56 m
	TOTAL		1200.00 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	56000	1000 daN	

BIT RECORD

BIT NO.	5C RR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	Hughes
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x19.0/17.5
DEPTH OUT (m)	Reaming
DEPTH IN (m)	1626 966
TOTAL METRES DRILLED (m)	234
TOTAL HOURS RUN	36¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN ↑↓

TORQUE AT BOTTOM 4-16000 FT/LBS

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:30	12.00	14.00
DENSITY kg/m³	1425	1440	1450
FUNNEL VIS. - (S/L)	82	80	96
W.L. (cm³)	10	10	11.5
pH	10	10	10
PVT m³	97.4	92.9	95.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer	3 SX
Hi Sulfate	50 SX
Barite	588 SX
Gel	20 SX
Na Sulf.	30 SX
Chemicide	1 pail
Carinox	1 pail
Sod Sulfite	2 Bags

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1133	1200	67	50/70	10/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10500	152	100	152	100

REDUCED PUMP SPEED

Choke 3800 @ 1137m @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:45	1¾	3	Ream F/1133 m - 1137m
09:45	10:15	½	7	R/S, Function TOP Pipe Rams
10:15	16:00	5¾	3	Ream & Wash F/1137m - 1200 m

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor Greased Crown & Blocks, ✓ Torque Tube Bolts.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	105000 DAN	TIGHT HOLE	2752 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.84 m
1	DC	228	9.24 m
1	STAB/REAMER	228	2.49 9.42 m
1	DC	228	2.06 m
1	STAB/REAMER	228	9.02 m
1	DC	228	5.64 m
1	JAR		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.04 m
	BHA		153.36 m
38	D.P.	STANDS	m
X	D.P.	SINGLES	1101.40 m
SLICK JOB	KELLY DOWN		30.76 m
	TOTAL		1284 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	57000	1000 daN	

BIT RECORD

BIT NO.	5C RR
SIZE (mm)	311
IADC CODE	1 1 6
MFG.	HUGHES
TYPE	ATJ 15
SERIAL NO.	R57EN
JETS (mm)	2x19.0/1x17.5
DEPTH OUT (m)	REAMING
DEPTH IN (m)	1626 966
TOTAL METRES DRILLED (m)	258
TOTAL HOURS RUN	44¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN

TORQUE AT BOTTOM 4-20000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	16:00	18:30	23:30
DENSITY kg/m³	1450	1450	1460
FUNNEL VIS. - (S/L)	107	115	109
W.L. (cm³)	12.5	11	9.0
pH	10.5	10	10.5
PVT	96.0	96.7	67.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Drispac	3 SX
Starpac	6 SX
Lignite	3.5 SX
Soda Ash	1 SK
Lime	4 SX
Lime	1 SX
Carinox	1 pail
Sod Sulfite	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1200				
	1224	24	60/70	5/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11100	152	100	152	100

REDUCED PUMP SPEED

3800 @ @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:00	1	3	Ream & Wash F/1200 m - 1234m
17:00	18:15	1¼	3	Hole Packing off, Pull back to 1170m
18:15	2400	5¾	3	Dri Ream F/1170 - 1224

NOTES ✓ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			90 000 DAN		2752 KPA

EVENING TOUR

FOLD HERE →

153662

LICENCE NO.: 1900

WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 C-31 6040 12330-0

UNIQUE ID.: 300 C-31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Fulton

SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Jewett

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 MONTH 04 DAY 11

RIG NO. 56

FUEL @ 8:00

RIG 1.16 BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
245	278	DE	76	286	4½ IF	1
178	178.89	DE	57	178	5½FH	26
127	74.55	HW	76	127	4½ IF	138
127	38.07	E3	101	142	4½ IF	
127	29.02	E2	108	142	↓	174

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22	23	24	25	26
1	MORN.			8																			Handle Tools				
2	DAY			¾		1	5¼	½														½					
3	EVE.			6½			¼	¼	T																		
4	TOTAL						5¾	¾	1													½					

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP 175 TOP 175

MIDDLE 175 MIDDLE 175

BOTTOM 175 BOTTOM 175

RENTALS/SERVICES

	MORN.	DAY	EVE.
Tetl Magnesites 3326/76			
Accumulated Magnesites 3324			
Accum. Oil - 36			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.84 m
1	DC	225	9.24 m
1	3pt. RM		2.49 m
1	DC	226	9.42 m
1	3pt. RM		2.96 m
1	DC	228	9.02 m
1	JAR		5.64 m
1	X/O		1.36 m
9	DC	178	84.46 m
1	X/O		1.41 m
3	HWDP		27.04 m
			153.36 m
36	D.P.	STANDS	m
X	D.P.	SINGLES	1043.06 m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC 20000 1000 daN

WT. OF STRING 57000 1000 daN

BIT RECORD

BIT NO.	5	KR
SIZE (mm)	311	
IADC CODE	1 1 6	
MFG.	HUGHES	
TYPE	ATJ 15	
SERIAL NO.	R57EN	
JETS (mm)	2x18/1x16/1x15	1234
DEPTH OUT (m)		REAMING
DEPTH IN (m)	1626	966
TOTAL METRES DRILLED (m)		268
TOTAL HOURS RUN		52¼

CUTTING STRUCTURE: T_i T_o MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN

TORQUE AT BOTTOM 4-11000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1440	1450	1450
FUNNEL VIS. - (S/L)	107	97	102
W.L. (cm³)	9.0	9.5	9.0
pH	10.5	10.5	10.5
PVT m³	74.6	72.9	70.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	294 SX
Alcomer 110	4 SX
PotSulfate	30 SX
Chemicide	1 Pail
Lime	3 SX

SOLIDS CONTROL

DESILTER: Barite Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1470	2060	1220

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
05	1220	1120	1400

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1224			60/80	5/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10900	152	101	152	100

REDUCED PUMP SPEED

3800 @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Doug Fulton

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0145	1¾	3	BACK REAM 1224m - 1170m PUMPS OFF
0145	0800	6¼	3	REAM 1170m - 1221m

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER: HRS. RAN 8 ph STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD: 110 000

SAFETY TOPIC: FALL ARREST

M.A.C.P.: 2752 KPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 m
1	BIT SUB		.84 m
3	D.C.	228	27.68 m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA:		148.92 m
33	D.P.	STANDS	m
X1	D.P.	SINGLES	966.40 m
	KELLY DOWN		6.68 m
	TOTAL		1122.00 m

WT. OF DC 20000 1000 daN

WT. OF STRING 53000 1000 daN

BIT RECORD

BIT NO.	5C RR	6C
SIZE (mm)	311	311
IADC CODE	1 1 6	1 1 7
MFG.	HUGES	Reed
TYPE	ATJ 15	HP15G
SERIAL NO.	R57EN	mm9252
JETS (mm)	2x19/1x16/1x15	2x19/1x16/1x15
DEPTH OUT (m)	1234 Reaming	
DEPTH IN (m)	966	
TOTAL METRES DRILLED (m)	268	
TOTAL HOURS RUN	52¼	

CUTTING STRUCTURE: T_i T_o MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

WT 6 6 WT A F 6 BT 5.1

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	
DENSITY kg/m³	1455	
FUNNEL VIS. - (S/L)	113	
W.L. (cm³)	8.5	
pH	10.5	
PVT m³	70.8	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer	3 SX
Lime	2 SX
Soft Sulfate	2 SX
Chemicide	1 Pail
Caprox	1 Pail
Barite	126 SX
Resco	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Choke				
8200	152	95	152	95

REDUCED PUMP SPEED

4200 @ 90 @ 1195m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Trip Record.		
MWD 5.88		
Cal 5.43		
DIFF .45		

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:15	¼	5	Pull up To 1194m
08:15	08:45	½	7	R/S, Function Annular 19 sec/615, ✓RSPP
08:45	09:30	¾	3	Pump & Back Ream F/1194m - 1100m
09:30	10:15	¾	6	P.O.O.H. F/1100m - 820m
10:15	11:00	¾	5	Flow✓ mix & Pump P.11
11:00	13:30	2½	6	P.O.O.H. Flow✓@ H.W., Out of Hole
13:30	14:00	½	22	Inspect & change B.T.S.
14:00	16:00	2	6	m/u B.T, lay down reamers, R.I.H.

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER: HRS. RAN 8 ph – STACK TEMP. –

MAXIMUM EXPERIENCED HOOKLOAD: 100000 DAN

SAFETY TOPIC: TRIPPING

M.A.C.P.: 2682 KPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 m
1	BIT SUB		.84 m
3	DC	228	27.66 m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.46 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA:		148.92 m
35	D.P.	STANDS	1005.07 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		11.99 m
	TOTAL		1134 m

WT. OF DC 20000 1000 daN

WT. OF STRING 54000 1000 daN

BIT RECORD

BIT NO.	6C	
SIZE (mm)	311	
IADC CODE	1 1 7	
MFG.	REED	
TYPE	HP 15G	
SERIAL NO.	mm 9252	
JETS (mm)	2x19/1x16/1x15	
DEPTH OUT (m)	Reaming	
DEPTH IN (m)	1122	
TOTAL METRES DRILLED (m)	12 KM	
TOTAL HOURS RUN	6½	

CUTTING STRUCTURE: T_i T_o MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN

TORQUE AT BOTTOM 4-9000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	22:30
DENSITY kg/m³	1455	1455
FUNNEL VIS. - (S/L)	98	90
W.L. (cm³)	9.0	9.5
pH	10.5	10.0
PVT	69.2	78.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1122	1134	12	60/80	5/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11200	152	105	152	105

REDUCED PUMP SPEED

3400 @ 90 @ 1195m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	¼	6	R.I.H. To 1122m
16:15	21:15	5	3	Break Circ, Ream F/1122m - 1133m
21:15	21:30	¼	7	R/S SERVICE TOP DRIVE
21:30	23:00	1½	3	Ream 1133m - 1134m
23:00			8	REPAIR WASHED 2" VALVE ON STAND PIPE & REPAIR
	24:00	1		#2 PRECHARGE PUMP

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER: HRS. RAN 8 ph – STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD: 65000 DAN

SAFETY TOPIC:

M.A.C.P.: 2682 KPa

FOLD HERE →

153663

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Liard c-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C-31-6040-12330-0	300-C-31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**
Greg Stelling	Bruce Faucher

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HPS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Chks	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
2000	07	12

RIG NO.: 58

FUEL @ 8:00

RIG: 1.54 BOILER:

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	DT&C	K55	45	711.26	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	179.54	DC	57	178	4 H90	9 26	F-1000	Emsco	254
127	74.55	HW	76	134	4 IF	9			
147	38.07	E3	101	164	4 IF	9 138	F-1000	Emsco	254
147	29.02	E2	108	142	V	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.				3/4				1/4														Handle Work			
DAY				3/4		1/2	2 1/4	1/2																	
EVE.				3 1/4			1 3/4																		
TOTAL				4 3/4		1/2	4	3/4														1			
																						1			

TOTALS	SHALE SHAKER(S)	RENTALS/SERVICES
	NO. 2 TYPE Brandt FLC	MORN. DAY EVE.
8	SCREENS CHANGED ☒ YES ☐ NO	T.M.J 349E34
8	TOP 175 TOP 175	AMJ 4162
8	MIDDLE 175 MIDDLE 175	Accum Oil .36
8	BOTTOM 175 BOTTOM 175	
24		

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	Bit Sub		.84 m
3	DC	228	27.66 m
1	Jar		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.15 m
			m
	BHA =		148.92 m
37	D.P.	STANDS	1062.66 m
	D.P.	SINGLES	m
	KELLY DOWN		6.42 m
	TOTAL		1218.00 m
WT. OF DC		20000	1000 daN
WT. OF STRING		53000	1000 daN

BIT RECORD

BIT NO.	5C
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	REED
TYPE	HP15G
SERIAL NO.	HM9258
JETS (mm)	3x13/16 x 12/16 RR
DEPTH OUT (m)	-
DEPTH IN (m)	1122
TOTAL METRES DRILLED (m)	96
TOTAL HOURS RUN	14 1/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000
TORQUE AT BOTTOM	4-8000 FT/LBS
FILL ON BOTTOM (m)	-

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1450	1460	1465
FUNNEL VIS. - (S/L)	105	110	110
W.L. (cm³)	100	10.0	10.5
pH	10.0	10.0	10.0
PVT m³	80.6	83.5	87.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Percol	2 SX
BARite	462 SX
Lime	3 SX
Alcomer	2 SX
Chemicle	1 Pail
Corrosx	1 Pail
Pot Sulfate	50 SX
Gel	50 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRILL BIT / CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1134	1218	84	60/80	5/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11300	152	105	152	105

REDUCED PUMP SPEED

3600 @ 100 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0115	1 1/4	3	KEAM 1134m - 1139m
0115	0130	1/4	7	R/S FUNCTION REMOTE CHOKE √RSPP
0130	0800	6 1/2	3	KEAM 1139m - 1218m

NOTES Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	Bit Sub		.84 m
3	DC	228	27.68 m
1	Jar		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
			m
	BHA =		148.92 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC		20000	1000 daN
WT. OF STRING		55000	1000 daN

BIT RECORD

BIT NO.	6C
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	Reed
TYPE	HP15G
SERIAL NO.	mm9252
JETS (mm)	2x13/1x12.5
DEPTH OUT (m)	1226
DEPTH IN (m)	1122
TOTAL METRES DRILLED (m)	104
TOTAL HOURS RUN	18 1/2

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	0800	11:30
DENSITY kg/m³	1465	1490
FUNNEL VIS. - (S/L)	113	130
W.L. (cm³)	11.5	12
pH	10.5	10.5
PVT m³	77.7	75.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel/Barite	420 SX
Drispac	2 SX
Starpac	4 SX
Lignite	2 SX
Pot Sulph	1 SX
Chemcle	1 pail
Alcomer	1 SK.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRILL BIT / CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1218	1226	8	60/80	5/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11700	152	105	152	105

REDUCED PUMP SPEED

3700 @ 1220m @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:30	1/2	3	Ream F/1218m - 1220m
08:30	09:00	1/2	7	R/S Function TOP P/Pe Rams, 6sec/kt √RSPP
09:00	12:00	3	3	Ream F/1220 - 1226m
12:00	13:15	1 1/4	3	Back Ream F/1226m - 1100m
13:15	13:45	1/2	5	Flow √ Pump P/Ill
13:45	16:00	2 1/4	6	P.O.O.H. Flow √@ HW, out of Hole.
				Trip Record
				meas 8.18
				Cal 6.80
				Diff 1.38

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	110 000 DAN		2473 KPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	N.B.R.		2.22 m
1	DC	228	9.24 m
1	Reamer		2.96 m
2	DC	228	18.44 m
1	Jar		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA =		152.36 m
38	D.P.	STANDS	1091.66 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		10.62 m
	TOTAL		1234 m
WT. OF DC		20000	1000 daN
WT. OF STRING		56000	1000 daN

BIT RECORD

BIT NO.	6CRR
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	Reed
TYPE	mm9252
SERIAL NO.	
JETS (mm)	2x19/1x12.5
DEPTH OUT (m)	
DEPTH IN (m)	1136
TOTAL METRES DRILLED (m)	98 KM
TOTAL HOURS RUN	5 3/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 DAN
TORQUE AT BOTTOM	4-15000 FT/LB
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	21:00	23:00
DENSITY kg/m³	1500	1500
FUNNEL VIS. - (S/L)	120	120
W.L. (cm³)	13.0	10.5
pH	10.5	10.5
PVT m³	72.2	76.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Soda Ash	1 SX
Sod Sulfite	1 SX
Alcomer	1 SX
Drispac	1 SX
Starpac	2 SX
Pot Sulfate	16 SX

SOLIDS CONTROL

DESILTER: BARITE RECOVERY

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRILL BIT / CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1136	1234	98	60/80	4/1000

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12200	152	105	152	105

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:00	1	22	Break Bit/mtr-NEW BIT. P/u Reamers.
17:00	18:45	1 3/4	6	R.I.H. TO - 1136m
18:45	2400	5 1/4	3	Break Circulation, Ream F/1136m - 1234

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			100 000 DAN		2405 Kpa

FOLD HERE →

153664

LICENCE NO.: 1200 | WELL NAME AND NO.: Canadian Forest et al North Liard c-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 c-31 (c) 40 12330-0 | UNIQUE ID.: 300 c-31 (c) 40 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	CS Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	CS Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	CS Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	CS Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2006 | MONTH 07 | DAY 13

RIG NO. 56

FUEL @ 8:00

RIG 1.26 | BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.7	106.2	BTC	K55	55	711.20	6.47	710

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	178.5A	XH	57	196	6 5/8 REG	26	F-1000	Emsco	254
178	74.76	Hw	76	178	6 5/8 REG	19			
127	38.07	E3	108	152	4½ IF	136	F-1000	Emsco	254
127	29.62	E2	108	142	↓	179			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	BOP Drill				
MORN.			7				1/4	3/4																		
DAY			7½				½																			
EVE.			7¾																			¼				
TOTAL			22¼				¾	¾														¼				

TOTALS

6	NO. 2
5	SCREENS CHANGED ☑ YES ☐ NO
5	TOP 175 / TOP 175
5	MIDDLE 175 / MIDDLE 175
24	BOTTOM 175 / BOTTOM 175

SHALE SHAKER(S)

NO. 2 TYPE Brandt FLC

RENTALS/SERVICES

	MORN	DAY	EVE
TMT 351244			
AMT 5592			
Accum Oil .36			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	N.B.R.		2.22 m
1	DC	228	9.24 m
1	3PT.RM		2.06 m
2	DC	228	18.44 m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
		BHA =	152.36 m
38	D.P.	STANDS	m
XX	D.P.	SINGLES	1110.83 m
	KELLY DOWN		8.81 m
	TOTAL		1272.00 m
WT. OF DC	20 000	1000 daN	
WT. OF STRING	55000	1000 daN	

BIT RECORD

BIT NO.	7 C KR
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	REED
TYPE	HP15G2
SERIAL NO.	MM9252
JETS (mm)	2x18/1x16/1x15
DEPTH OUT (m)	
DEPTH IN (m)	1136
TOTAL METRES DRILLED (m)	136
TOTAL HOURS RUN	12¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN

TORQUE AT BOTTOM 3-10000 FT/lbs.

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1510	1530	1525
FUNNEL VIS. - (S/L)	130	130	130
W.L. (cm³)	10.5	[illegible]	10.5
pH	10.5	10.6	10.5
PVT m³	78.7	76.3	77.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	378 SX
Chemicide	1 pail
Corinox	1 pail
Lime	3 SX
Lignite	2 SX
Potsulate	56 SX
Akaner	2 SX
Caustic Soda	1 SX
Starpak	2 SX

SOLIDS CONTROL

DESILTER — Barite Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1500	2520	

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4			

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1234	1272	38	60/80	5/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12100	152	115	152	105

REDUCED PUMP SPEED

4150 @ 100 @ 1193m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	3	REAM 1234m - 1245m
0200	0245	¾	8	CHANGE HEAD on Pump #2
0245	0300	¼	7	RIG SERVICE TOP DRIVE
0300	0700	4	3	REAM 1245m - 1272m
07:00	08:00	1	3	Back Ream F/1272m - 1240m. Pooh & OFF.

NOTES ✓ Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			105 000 DAN	Housekeeping	2179 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	NBR		2.22 m
1	DC		9.24 m
1	3pt RM		2.06 m
2	DC		18.44 m
1	Jar		5.64 m
1	X/O		1.38 m
9	DC		84.48 m
1	X/O		1.41 m
3	HWDP		27.15 m
		BHA	152.36 m
37	D.P.	STANDS	m
X	D.P.	SINGLES	1072.40 m
	KELLY DOWN		1.24 m
	TOTAL		1226.00 m
WT. OF DC	20 000	1000 daN	
WT. OF STRING	57000	1000 daN	

BIT RECORD

BIT NO.	7 C RR
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	Reed
TYPE	HP15G
SERIAL NO.	MM9252
JETS (mm)	2x19/1x17/1x15
DEPTH OUT (m)	
DEPTH IN (m)	1136
TOTAL METRES DRILLED (m)	57 167
TOTAL HOURS RUN	19¾

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN

TORQUE AT BOTTOM 4-10000 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	10:00	12:00	2:00
DENSITY kg/m³	1525	1525	1530
FUNNEL VIS. - (S/L)	123	115	118
W.L. (cm³)	11	11	10.5
pH	10.	10	10
PVT m³	755	72.4	73.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	168 sx
Dr.spac	1sk.
Starpac	2sk.
Lignite	1sk
Akaner	3sx
Chemicide	1pail
Corinox	1pail
Sod. Sulfite	2sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1195	1226	31	60/80	5/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11300	152	100	152	100

REDUCED PUMP SPEED

4200 @ 100 @ 1165m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:30	½	3	Back Ream F/1240 - 1136.
08:30	09:00	½	3	Ream F/1195m - 1223m
09:00	09:30	½	7	RIG Function BOP's, Pipe Rams & Check Valves
09:30	16:00	6½	3	Ream F/1136m - 1226m

NOTES ✓ Crown Saver Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	110 000 DAN	B.O.P. Drill	2163 kPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	N.B.R.		2.22 m
1	DC	228	9.24 m
1	3pt.RM		2.06 m
2	DC	228	18.44 m
1	JAR		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
		BHA	152.36 m
39	D.P.	STANDS	m
X	D.P.	SINGLES	1130.33 m
	KELLY DOWN		3.67 m
	TOTAL		1251 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	57000	1000 daN	

BIT RECORD

BIT NO.	7 C KR
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	REED
TYPE	HP15G
SERIAL NO.	MM9252
JETS (mm)	2x17/1x16/1x15
DEPTH OUT (m)	
DEPTH IN (m)	1136
TOTAL METRES DRILLED (m)	192
TOTAL HOURS RUN	27½

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN

TORQUE AT BOTTOM 4-12000 FT/LBS.

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	16:00	18:00	23:00
DENSITY kg/m³	1530	1520	1525
FUNNEL VIS. - (S/L)	146	120	120
W.L. (cm³)	9.5	9.5	10
pH	9.5	10.0	10
PVT m³	78.5	80.8	81.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1226	1251	25	60/80	5/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11100	152	100	152	100

REDUCED PUMP SPEED

4200 @ 100 @ 165

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	1730	1½	3	Ream F/1226m - 1243m
1730	1745	¼	22	B.O.P. Drill, Well secure in 1 minute.
1745	2400	6¼	3	Ream F/1243m - 1251m

NOTES ✓ Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			110 000		2163 kPa

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153665

LICENCE NO.: 1700 | WELL NAME AND NO.: Canadian Forest et al North Lwld c-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 c-31 1040 12330-c | UNIQUE ID.: 300 c-31 1040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauck

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR: 2000 | MONTH: 07 | DAY: 14

RIG NO.: 54

FUEL @ 8:00

RIG: 96 | BOILER:

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	107.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178.64	D	76	228	6 5/8 REG	1			
178	134.35	N	57	178	4 1/2 IF	26	F-1000	EMSCO	254
127	55.67	E	101	152	4 1/2 IF	138	F-1000	EMSCO	254
127	29.02	E	108	152	X	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.			7 3/4				1/4																	
	DAY			8																					
	EVE.			1/2	2	5 1/4	1/4																		
	TOTAL			16 1/4	2	5 1/4	1/2																		

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
5	NO. 2 TYPE Derrick FLC	TMI-352327			
5	SCREENS CHANGED ☐ YES ☑ NO	AMI-6675			
5	TOP 175 TOP 175	Accom Cal. 36			
5	MIDDLE 175 MIDDLE 175				
24	BOTTOM 175 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.34 m
1	NBR.		2.22 m
1	DC	228	9.24 m
1	3PT RM		2.06 m
2	DC	228	18.44 m
1	JAR		5.14 m
1	X/O		1.38 m
9	DC		84.48 m
1	X/O		1.41 m
3	HWDP		27.15 m
		BHA	152.36 m
38	D.P.	STANDS	1091.16 m
	D.P.	SINGLES	m
	KELLY DOWN		4.02 m
	TOTAL		1240.00 m
WT. OF DC		20000	1000 daN
WT. OF STRING		57000	1000 daN

BIT RECORD

BIT NO.	7C RR
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	REED
TYPE	HP15G
SERIAL NO.	MM7252
JETS (mm)	2x12/1x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1136
TOTAL METRES DRILLED (m)	115
TOTAL HOURS RUN	35 1/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 DAN
TORQUE AT BOTTOM	3-14000 FT/Lbs
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1530	1535	1540
FUNNEL VIS. - (S/L)	115	112	110
W.L. (cm³)	10.5	10.0	10.0
pH	10.0	10.0	10.0
PVT m³	82.6		82.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	378 SX
Chemicide	1 Pail
Corrox	1 Pail
Sodium Sulfide	2 SX
Lime	2 SKS
Bicarbonate	56 SX
Alcomer	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1451			60/80	4/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11100	152	100	152	100

REDUCED PUMP SPEED

4600 @ 100 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0230	2 1/2	3	REAM 1251m - 1272m
0230	0315	3/4	3	BACK REAM 1272m - 1264m (Packing OFF)
0315	0530	2 1/4	3	REAM 1224m - 1235m
0530	0545	1/4	3	BACK REAM 1235m - 1224m (Pack off)
0545	0600	1/4	7	K/S FUNCTION Annular 11Sec c/s
0600	0645	3/4	3	CIRC WITH 2 PUMPS & REAM 1224m - 1232m
0645	0800	1 1/4	3	REAM 1232m - 1240m

NOTES: Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8				RESPONSIBILITIES	2125 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.34 m
1	NBR		2.22 m
1	DC	228	9.24 m
1	3PT RM		2.06 m
2	DC	228	18.44 m
1	Jar		5.64 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.15 m
		BHA=	152.36 m
38	D.P.	STANDS	1091.66 m
	D.P.	SINGLES	m
	KELLY DOWN		7.98 m
	TOTAL		1259.00 m
WT. OF DC		20000	1000 daN
WT. OF STRING		57000	1000 daN

BIT RECORD

BIT NO.	7CR
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	Reed
TYPE	HP15G
SERIAL NO.	mm9252
JETS (mm)	2x19/1x17.5
DEPTH OUT (m)	-
DEPTH IN (m)	1136
TOTAL METRES DRILLED (m)	116
TOTAL HOURS RUN	43 1/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-15000 ↑↓
TORQUE AT BOTTOM	3-15000 FT/Lb
FILL ON BOTTOM (m)	-

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	07:30	10:30	12:30
DENSITY kg/m³	1540	1545	1550
FUNNEL VIS. - (S/L)	113	121	118
W.L. (cm³)	9.5	9.5	9.5
pH	10.5	10.5	10.5
PVT m³	79.4	74.0	73.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	294 SX
Sod. Sulfite	2 SX
Bi. Sulphate	56 SX
Corimox	1 pail
Chemicide	1 pail
Alcomer	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626	1240	1252	60/80	5/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11800	152	95	152	95

REDUCED PUMP SPEED

4600 @ @ 95

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	16:00	8	3	Ream F/1240m - 1252m

NOTES: Crown Saver Fastline Clamp Deadman Anchor Brakes & Linkage Greased Crown & Blocks.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	-	-	105000 DAN	Lockouts	1916 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		34 m
	NBR		2.22 m
1	DC	228	9.24 m
	3pt RMR		2.06 m
2	DC	228	18.44 m
	JAR		5.64 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		27.15 m
			152.36 m
38	D.P.	STANDS	1091.66 m
	D.P.	SINGLES	m
	KELLY DOWN		7.98 m
	TOTAL		1253 m
WT. OF DC		20000	1000 daN
WT. OF STRING		57000	1000 daN

BIT RECORD

BIT NO.	7CR	8C
SIZE (mm)	311	311
IADC CODE	1 1 7	
MFG.	Reed	HUGHES
TYPE	HP15G	GT1
SERIAL NO.	MM 9252	~~B93169~~
JETS (mm)	2-19/1-17.5	3x19
DEPTH OUT (m)		SN#45277
DEPTH IN (m)	1136	
TOTAL METRES DRILLED (m)	117	
TOTAL HOURS RUN	43 3/4	

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-15000
TORQUE AT BOTTOM	3-15000 FT/LB
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	
DENSITY kg/m³	1570	
FUNNEL VIS. - (S/L)	115	
W.L. (cm³)	9.5	
pH	10.5	
PVT m³	70.4	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	63 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1252	1253	1	60/80	4/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11800	152	95	152	95

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1630	1/2	3	REAM 1252 - 1253m
1630	1830	2	5	CIRC & CLEAN HOLE
1830	2230	4	6	TOOH.
2230	23:45	1 1/4	6	CHANGE BHA & BIT
23:45	24:00	1/4	7	RIS Function Blind Rams & Sec Ck

NOTES: CHECK CROWNSAVER-FASTLINE CLAMP DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8				TRIP	1916

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153666

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Island C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 09 | DAY 15 | RIG NO. 58

FUEL @ 8:00: RIG 1.58 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DC	75	228	5½ FH	9			
178	178.84	DC	57	178	5½ FH	36	F-1000	EMSCO	254
127	74.35	HW	76	136	4½ IF	17			
127	38.07	E3	101	136		138	F-1000	EMSCO	254
127	29.03	E2	108	158	↓	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.				5½			18	½																	
DAY				5½			2		½																
EVE.				6¼			1¼	½																	
TOTAL				17¼			5¼	1	½																

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE Derrick F.L.G.	Tmj-353488			
8	SCREENS CHANGED ☐ YES ☐ NO	Amj-7836			
8	TOP 140 TOP 175	Accumair-36			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			+34 m
1	NBR		2.22 m
1	SHORT DC	228	3.69 m
1	Ream		2.66 m
3	DC	228	27.68 m
1	Jar		5.64 m
1	X10		1.38 m
9	DC		84.48 m
1	X10		1.41 m
3	HWDP		27.15 m
			m
	BHA:		155.05 m
38	D.P.	STANDS	1091.26 m
	D.P.	SINGLES	m
	KELLY DOWN		13.31 m
	TOTAL		1233 m
WT. OF DC		20000	1000 daN
WT. OF STRING		57000	1000 daN

BIT RECORD

BIT NO.	8C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	U52YT
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	1140
TOTAL METRES DRILLED (m)	93
TOTAL HOURS RUN	5½

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓
TORQUE AT BOTTOM	4-12000 FT/LB
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED		
TIME	05:00	06:30
DENSITY kg/m³	1560	1565
FUNNEL VIS. - (S/L)	108	105
W.L. (cm³)	10	10.5
pH	10	10.
PVT m³	64.5	66.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Baroid	1265x
Corrosx	1 pail
Chemicide	1 pail
Sol. Sulf.	2sx
Aromex	2sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) — 0

CENTRIFUGE #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) — 0

METRES DRILLED

FROM	TO	DRILLED FOR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1140	1233	93	60/80	3/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Pason 11800	152	100	152	100

REDUCED PUMP SPEED: Choke 3600 @ 1170 m @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:30	1½	6	Make up B.H.A. & R.I.H. To 711 m
01:30	02:30	1	3	Break Circulation, Ream Bridges @ 711m, 758m
02:30	03:00	½	6	R.I.H. TO 1140 m
03:00	04:00	1	3	Ream F/1140 m - 1170 m
04:00	04:30	½	7	RIS Function Annular 19 sec's CK ✓ RSPP
04:30	0800	3½	3	Ream F/1170 m - 1233 m

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	75000 DAN		1985 kPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	NBR	228	2.22 m
	SHORT DC		3.69 m
3	DC	228	27.68 m
1	JAR		5.64 m
1	XO		1.38 m
9	DC	178	84.48 m
1	XO		1.41 m
3	HWDP		27.15 m
			m
	BHA		155.05 m
38	D.P.	STANDS	1111.26 m
	D.P.	SINGLES	m
	KELLY DOWN		8.31 m
	TOTAL		1238 m
WT. OF DC		20,000	1000 daN
WT. OF STRING		58000	1000 daN

BIT RECORD

BIT NO.	8C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	U52YT
JETS (mm)	3x19.0
DEPTH OUT (m)	-
DEPTH IN (m)	1140
TOTAL METRES DRILLED (m)	98
TOTAL HOURS RUN	11

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000
TORQUE AT BOTTOM	4-6000 FT/LB
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED		
TIME	11:00	18:00
DENSITY kg/m³	1560	1565
FUNNEL VIS. - (S/L)	58	100
W.L. (cm³)	11.0	11.0
pH	8.0	8.5
PVT m³	75.4	71.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	4 sxs
BARITE	252 sxs
Chemicide	1 Pail
Sod. Sulf.	2 sxs
Corrosx	1 Pail

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) — 0

CENTRIFUGE #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) — 0

METRES DRILLED

FROM	TO	DRILLED FOR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1233	1238.5	5	50/70	3/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11700	152	100	152	100

REDUCED PUMP SPEED: 3600 @ 100 @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1330	5½	3	Ream 1233m - 1238m
1330	1530	2	6	Dummy TRIP To SHOE
1530	1600	½	8	Flow CHECK & REPLACE Pump

NOTES: CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR - BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-		PIPE SPINNER	1985 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			+34 m
1	NBR		2.22 m
1	SHORT DC	228	3.69 m
1	SOFT Ream		2.66 m
3	DC	228	27.68 m
1	Jar		5.64 m
1	X10		1.38 m
9	DC	178	84.48 m
1	X10		1.41 m
3	HWDP	127	27.15 m
			m
	BHA:		155.05 m
38	D.P.	STANDS	m
X	D.P.	SINGLES	1094.95 m
	KELLY DOWN		m
	TOTAL		1250.00 m
WT. OF DC		20000	1000 daN
WT. OF STRING		58000	1000 daN

BIT RECORD

BIT NO.	8C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	U52YT
JETS (mm)	3x19.0
DEPTH OUT (m)	-
DEPTH IN (m)	1140
TOTAL METRES DRILLED (m)	110
TOTAL HOURS RUN	17¼

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 ↑↓ DAN
TORQUE AT BOTTOM	4-12000 FT/LB
FILL ON BOTTOM (m)	1 m

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED			
TIME	20:00	22:00	24:00
DENSITY kg/m³	1565	1560	1565
FUNNEL VIS. - (S/L)	114	112	115
W.L. (cm³)	11.0	11.0	11.5
pH	10.3	10.	10.0
PVT m³	77.4	78.9	82.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) — 0

CENTRIFUGE #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) — 0

METRES DRILLED

FROM	TO	DRILLED FOR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1237	1250	13	50/80	3/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Pason 11800	152	100	152	100

REDUCED PUMP SPEED: Choke 4200 @ 1242 m @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	6	RIH To BTM 1 m FILL
1715	2000	2¾	3	Ream 1237m - 1242 m
2000	2030	½	7	RIS Function TOP P. Pipe Rams 6 sec's ✓ RSPP
2030	2400	3½	3	Ream F/1242 m - 1250

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	80000 DAN	mixing mud	1916 KPA

FOLD HERE →

153667

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Laird C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-17330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M. Initial)

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 | MONTH 04 | DAY 16 | RIG NO. 50

FUEL @ 8:00 | RIG 124 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	104.2	BT&C	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DC	75	238	3½ IF	9			
178	178.84	DC	57	178	5½ H90	26	F-1000	Emsco	254
127	74.35	HW	76	156	4½ IF	17	F-1000	Emsco	254
127	38.07	E3	101	156	4½ IF	138			
127	29.02	E2	108	158	↓	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.			7½				½																			
DAY			3¾		1 5¼																					
EVE.			3¾			2¾	½		1																	
TOTAL			13		1 8	1			1																	

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
8	NO. 2 TYPE Derrick F.L.G.	T mJ - 354922
8	SCREENS CHANGED ☐ YES ☐ NO	A mJ - 339
8	TOP 140 TOP 175	Accumair - 36
8	MIDDLE 140 MIDDLE 175	
24	BOTTOM 140 BOTTOM 175	

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH
1			.34 m
1	N.B.R		2.22 m
1	Short DC	228	2.69 m
1	3pt Reamer		2.06 m
3	D.C.	228	27.68 m
1	Jar		5.64 m
1	X10		1.38 m
9	DC	178	84.48 m
1	X10		1.41 m
3	H.W.D.P	127	27.15 m
		BHA:	155.05 m
38	D.P.	STANDS	1094.95 m
2	D.P.	SINGLES	m
	KELLY DOWN		4.18 m
	TOTAL		1265 m
WT. OF DC			20000 1000 daN
WT. OF STRING			58000 1000 daN

BIT RECORD

BIT NO.	8C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT-1
SERIAL NO.	452YT
JETS (mm)	3x19.0
DEPTH OUT (m)	-
DEPTH IN (m)	1140
TOTAL METRES DRILLED (m)	125
TOTAL HOURS RUN	24¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 T
TORQUE AT BOTTOM 5-18000 FT/Lb
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	09:30	06:00
DENSITY kg/m³	1585	1590	1595
FUNNEL VIS. - (S/L)	108	108	110
W.L. (cm³)	12.	11.5	10.5
pH	10	10	10.5
PVT m³	84.2	83.3	82.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	756sx
Drispac	45x.
Lignite	45x
Starpac	83x
Caustic	1pail
Sod Sulfite	25x.
Lime	35x
Alcomer	25x
Potassium Sulph.	36sx.
Pac-R 120	15K

SOLIDS CONTROL

Desilter: Barite Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Centrifuge #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1250	1263	15	60/80	3/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Packoff				
11900	152	100	152	100

REDUCED PUMP SPEED

Choke 4800 @ 100 @ 1264m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	04:15	4¼	3	Ream F/1250m - 1254m
04:15	04:45	½	7	RS, Function Remote choke
04:45	08:00	3¼	3	Ream F/1254m - 1265m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	90000 DAN	Working @ Heights	1776 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH
			.34 m
	Bit Sub		.81 m
	DC	228	9.24 m
	3PT R		3.06 m
	DC	228	9.14 m
	3PT R		2.48 m
	DC	228	9.34 m
	Jar		5.64 m
	X10		1.38 m
9	DC	178	84.48 m
3	H.W.D.P		27.15 m
		BHA:	163.47 m
41	D.P.	STANDS	1169.53 m
—	D.P.	SINGLES	— m
	KELLY DOWN		— m
	TOTAL		1323.00 m
WT. OF DC			20000 1000 daN
WT. OF STRING			58000 1000 daN

BIT RECORD

BIT NO.	8C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT-1
SERIAL NO.	452YT
JETS (mm)	3x19.0
DEPTH OUT (m)	1271
DEPTH IN (m)	1140
TOTAL METRES DRILLED (m)	131
TOTAL HOURS RUN	26.50

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM 5-15000 FT/Lb
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:30		
DENSITY kg/m³	1620		
FUNNEL VIS. - (S/L)	100		
W.L. (cm³)	11.0		
pH	9.0		
P.V.T m³	74.7		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pac-R 120	25x5
Gel	50 sxs
Lignite	2 sxs
Barite	142 sxs
Soda Ash	2 sxs
Alcomer 110	1 sx

SOLIDS CONTROL

Desilter

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Centrifuge #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1265	1271	6	0/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12000	152	100	152	100

REDUCED PUMP SPEED

4650 @ 1265 @ 75

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0945	1¾	3	Ream 1265m - 1271m
0945	1045	1	5	Circ & Build Hvy Wt Pill
1045	1445	4	6	Tooth Flow ✓ 1051m - 7¾ HW 153m OUT OF HOLE
1445	1600	¼	6	CHANGE AROUND BHA LAY JBS DOWN & Pick up Bit Sub & Reamer

NOTES Check Crown Saver - Fastline Clamp - Deadman Anchor Brake Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—			1568 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH
1			.34 m
1	Bit Sub		.81 m
1	DC	228	9.24 m
1	3pt Ream		2.06 m
1	DC	228	9.14 m
1	3pt Ream		2.48 m
1	DC	228	9.34 m
1	Jar		5.64 m
9	DC	178	84.48 m
3	H.W.D.P		27.15 m
		BHA:	153.47 m
41	D.P.	STANDS	1169.53 m
—	D.P.	SINGLES	— m
	KELLY DOWN		— m
	TOTAL		1323.00 m
WT. OF DC			20000 1000 daN
WT. OF STRING			58000 1000 daN

BIT RECORD

BIT NO.	9CRR
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	452YT
JETS (mm)	3x19.0
DEPTH OUT (m)	—
DEPTH IN (m)	1275
TOTAL METRES DRILLED (m)	48
TOTAL HOURS RUN	3¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ↑↓ DAN
TORQUE AT BOTTOM 4-15000 FT/Lb
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	21:00	22:30	24:00
DENSITY kg/m³	1615	1615	1620
FUNNEL VIS. - (S/L)	107	112.	118
W.L. (cm³)	10	10	
pH	9.5	10	10
PVT m³	71.3	67.8	68.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

Desilter

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Centrifuge #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1275	1323	48	60/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10500	152	90	152	90

REDUCED PUMP SPEED

4200 @ 90 @ 1310m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1645	¾	6	CHANGE AROUND BHA - LAY DOWN
				NBS & Pickup Bit Sub & Reamer
1645	1800	1¼	6	RIH TO SHOE
1800	1900	1	9	SLIP & CUT DRL LINE, √Crown Saver
1900	1930	½	7	RS Function Annular, 19 sec/16.
1930	2015	¾	6	RIH TO 1275m
2015	2400	3¾	3	Break Circulation, Ream F/1275m - 1323m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—	95000 DAN	Safety Glasses	1565 KPA

FOLD HERE →

153668

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-6040-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H2S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 00 | MONTH 04 | DAY 19 | RIG NO. 58 | FUEL @ 8:00 | RIG | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTEC	K55	55	711.30	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178.84	DC	57	178	5½90	28	F-1000	Emsco	254
127	74.35	HW	76	156	4½IF	17	F-1000	Emsco	254
127	38.07	E3	101	166	4½IF	139			
127	29.02	E7	108	158	V	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 - RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.				7½				½																	
DAY				11½			6½																		
EVE.				5½			2¼	¼																	
TOTAL				14½			8¾	¾																	

TOTALS

8	
8	SCREENS CHANGED ☐ YES ☐ NO
8	TOP #1 140 TOP #2 175
8	MIDDLE #1 140 MIDDLE #2 175
24	BOTTOM #1 140 BOTTOM #2 175

SHALE SHAKER(S)

NO. 2 TYPE Derrick F.L.C.

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ-356786			
AMJ-2199			
Accumoik-.35			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 m
1	D.C.	228	9.24 m
1	3PT Reamer		2.06 m
1	DC	228	9.14 m
1	3PT Reamer		2.48 m
1	DC	228	9.34 m
1	Jar X/O		5.64 1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA:		153.47 m
43	D.P.	STANDS	m
X	D.P.	SINGLES	1244.53 m
	KELLY DOWN		— m
	TOTAL		1398.00 m
WT. OF DC			20000 1000 daN
WT. OF STRING			60000 1000 daN

BIT RECORD

BIT NO.	9C RR
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	U52YT
JETS (mm)	3X19.0
DEPTH OUT (m)	—
DEPTH IN (m)	1275
TOTAL METRES DRILLED (m)	123
TOTAL HOURS RUN	11¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓
TORQUE AT BOTTOM	4-10000 FT/Lb
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1620	1610	1605
FUNNEL VIS. - (S/L)	112	120	104
W.L. (cm³)	9.0	9.5	10.5
pH	10	10.5	10.5
PVT m³	70.8	73.4	75.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	296 sx
Tot-Sulphate	56 SX
Sul. Sulfite	23X
Corrosex	1 pail
Defoamer	1 pail
Lime	4 sx
Alcomer	1 sk

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1323	1398	55	60/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10400	152	90	152	90

REDUCED PUMP SPEED

4000 @ 90 @ 1330 m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	03:45	3¾	3	Ream F/1323 m - 1330 m
03:45	04:15	½	7	RIG Function Top Pipe Rams 6 sec/cls ✓RSPP
04:15	08:00	3¾	3	Ream F/1330 m - 1398 m.
				-5 Full Buckets of cuttings Removed From Shale Bin.

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	95 000 DAN	Hearing Protection	1637 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT SUB		.34 m
1	DC	228	9.24 m
	DC	228	9.14 m
	DC	228	9.34 m
	JAR		5.7 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		27.15 m
	BHA		149.06 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			20000 1000 daN
WT. OF STRING			60000 1000 daN

BIT RECORD

BIT NO.	10 C RR	4C RR
SIZE (mm)	311	311
IADC CODE		
MFG.	HUGHES	HUGHES
TYPE	GT1	GT1
SERIAL NO.	U52YT	U52YT
JETS (mm)	3X19.0	3X19.
DEPTH OUT (m)		1395
DEPTH IN (m)	1398	
TOTAL METRES DRILLED (m)	126	1274
TOTAL HOURS RUN		

CUTTING STRUCTURE: 4 | 4 | MDC WT/A | LOC | 3 | I | NO BHA

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓
TORQUE AT BOTTOM	4-10000 FT/lb
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	Trip Record
DENSITY kg/m³	1605	mean 1142
FUNNEL VIS. - (S/L)	100	cen 6.80
W.L. (cm³)	13.0	Diff 4.62
pH	10.0	
PVT m³	74.9	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	142 SKS
Lime	2 SKS
ALCOMER	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1378			60/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10400	152	90	152	90

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Leo Duquoc

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0930	1½	3	Ream -
0930	1400	4½	6	TOOH Flow ✓ 1099 m - 710 m - 153 m
1400	1530	½	6	CHANGE AROUND BHA.
1530	1600	½	6	RIH BHA - 149.06 m
				BELOW JARS 8000
				BOP DRILL WELL SECURE 2 min CLOSE BLINDS OUT OF HOLE

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
				CROWN SAVER	1637

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT SUB		81 m
3	DC	228	27.72 m
	JAR		5.7 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		27.15 m
	BHA		149.06 m
43	D.P.	STANDS	1326.94 m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		1376.00 m
WT. OF DC			20000 1000 daN
WT. OF STRING			59000 1000 daN

BIT RECORD

BIT NO.	12cRR
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	U52YT
JETS (mm)	3x19.0
DEPTH OUT (m)	
DEPTH IN (m)	1398
TOTAL METRES DRILLED (m)	107
TOTAL HOURS RUN	5½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓
TORQUE AT BOTTOM	4-15000 FT/lb
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1600	1600	1400
FUNNEL VIS. - (S/L)	107	104	98
W.L. (cm³)	14	13	12.
pH	10.5	10.5	10.5
PVT m³	60.5	57.7	59.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1274	1376	102	60/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12400	152	100	152	100

REDUCED PUMP SPEED

4100 @ 1324 m @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1645	¾	6	RIH TO 714 m
1645	1700	¼	7	SERV TOP DRIVE & FLOW ✓ SHOE
1700	1800	1	6	RIH 714 m - 1172 m.
1800	1830	½	3	TAG BRIDGE 1172 m & REAM
1830	1900	½	6	RIH TO 1274 m
1900	2400	5	3	REAM 1274 m — 1376 m

NOTES: CHECK CROWN SAVER FASTLINE CLAMP - DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	90 000 DAN	Crown Saver.	1707 KPA

FOLD HERE →

153669

LICENCE NO.: 1900
WELL NAME AND NO.: Canadian Forest et al North Hiard C-31
OPERATOR: Canadian Forest oil
CONTRACTOR: Akita Drilling LTD
SURFACE LOCATION: 300-C31-6040-12330-0
UNIQUE ID.: 300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:
SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)
(1) Daily Walk Around Inspection
(2) Detailed Inspection Weekly (using checklist)
(3) H2S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines
(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 00 MONTH 04 DAY 18
RIG NO. 58
FUEL @ 8:00
RIG 71 BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BT&C	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228									
178	178.84	DC	57	178	5 1/2 H90	54	F-1000	Emsco	254
127	74.35	HW	76	156	4 1/2 IF	17	F-1000	Emsco	254
127	38.07	E75	101	156		138			
127	29.02	E75	108	138	↓	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Crown Saver Lines				
MORN.			6 1/2			1 1/4	1/4																			
DAY			7 3/4		1/2	7 1/4	1/4																			
EVE.			3 1/4			1																3 3/4				
TOTAL			9 3/4		1/2	9 1/2	1/2															3 3/4				

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick Fl.G.	TMJ-358659			
8	SCREENS CHANGED ☐ YES ☑ NO	AMJ-4067			
8	TOP #1 140 TOP #2 175	Accuraoil-.35			
24	MIDDLE 140 MIDDLE 175				
	BOTTOM 140 BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit		.34 m
1	Bit Sub		.81 m
3	DC	228	27.72 m
1	Jar		5.77 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
			m
	BHA=		149.06 m
43	D.P.	STANDS	m
X	D.P.	SINGLES	1242.94 m
	KELLY DOWN		m
	TOTAL		1392.00 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	60000	1000 daN	

BIT RECORD

BIT NO.	10 C RR
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	452YT
JETS (mm)	3X19.0
DEPTH OUT (m)	1392
DEPTH IN (m)	1375
TOTAL METRES DRILLED (m)	118
TOTAL HOURS RUN	13

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.
4 | 4 | WT | A | E | 3 | | NO | P.R. | 9.1

HOLE CONDITION

HOLE DRAG 3-5000 DAN
TORQUE AT BOTTOM 5-15000 ~~DAN~~ FT/LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1600	1600	1600
FUNNEL VIS. - (S/L)	128	132	135
W.L. (cm³)	9.0	9.0	9.0
pH	10	10	10
PVT m³	59.3	58.3	59.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	546 SX
Alcomer	25 X
Drispac	35 X
Shalepac	65 X
Lign. tr	35 X
Sod Sulfite	25 X
Pot. Sulf. Formate Chemical	565 X (Tail)

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0	-	-	-

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0	-	-	-

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1376	1392	16	60/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12700	152	100	152	100

REDUCED PUMP SPEED: Choke 4600 @ 100 @ 1391m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Bruce Tetrault

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	06:30	6 1/2	3	Ream F/1376 m - 1392
06:30	06:45	1/4	7	RS, Function Annular 19 Secs.
06:45	08:00	1 1/4	6	P.O.O.H, Back Ream F/1332m - 1254m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Held Competency Training Meeting

BOILER HRS. RAN	BOILER ph.	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	90000 DAN	Crown Saver	1707 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit		.34 m
	UBRR		8.21 m
	SAR	228	3.66 m
3	DC	228	87.72 m
	JAR		5.77 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		27.15 m
	BHA		155.21 m
38	D.P.	STANDS	1246.58 m
1	D.P.	SINGLES	9.74 m
	KELLY DOWN		.72 m
	TOTAL		1256 m
WT. OF DC	31000	1000 daN	
WT. OF STRING	58000	1000 daN	

BIT RECORD

BIT NO.	11 C
SIZE (mm)	311
IADC CODE	
MFG.	Hughes
TYPE	J4
SERIAL NO.	WC H03
JETS (mm)	3 X 22.2
DEPTH OUT (m)	
DEPTH IN (m)	1392
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN
TORQUE AT BOTTOM 5-15000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	22:00
DENSITY kg/m³	1600
FUNNEL VIS. - (S/L)	105
W.L. (cm³)	10.0
pH	10.0
PVT m³	17.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	3 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1392				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Les Burgess

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0900	1	6	Tooh 1254m - 1089m
0900	0915	1/4	5	Flow Ck, Pump Pill
0915	1145	2 1/2	6	Tooh Flow Ck 711m - 153m
1145	1245	1	6	CHANGE AROUND BHA.
1245	1330	3/4	6	RIH TO SHOE 710m
1330	1345	1/4	7	TOP DRIVE SERVICE
1345	1400	1/4	5	Flow Ck DTF
1400	1600	2	6	RIH 710m - 1256m

Trip Record - meas - 9.70
Calc - 6.80
Diff - 2.90

NOTES: Check Crown Saver - Fastline Clamp - Deadline Anchor
Brake Linkage.

BOILER HRS. RAN	BOILER ph.	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	90,000	Change BHA	1707

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	NB RBR		3.21 m
	DC	228	2.69 m
	3 PT RR		2.06 m
3	DC	228	27.72 m
	JAR		5.77 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		27.15 m
	BHA.		155.21 m
42	D.P.	STANDS	m
X	D.P.	SINGLES	1213.79 m
	KELLY DOWN		— m
	TOTAL		1369.00 m
WT. OF DC	20000	1000 daN	
WT. OF STRING	58000	1000 daN	

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	Hughes
TYPE	J4
SERIAL NO.	WC H03
JETS (mm)	3 X 22.2
DEPTH OUT (m)	—
DEPTH IN (m)	1392
TOTAL METRES DRILLED (m)	30
TOTAL HOURS RUN	3/4

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ~~DAN~~ DAN
TORQUE AT BOTTOM 4-12000 FT/lb
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	22:00	24:00
DENSITY kg/m³	1600	1600
FUNNEL VIS. - (S/L)	105	108
W.L. (cm³)	10.0	10.0
pH	10.0	10.0
PVT m³	17.7	17.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1372	1369		60/80	3/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10800	152	100	152	100

REDUCED PUMP SPEED: Choke 4000 @ 1369 m @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1 1/4	3	RIH 1256 m - 1331 m Ream Bridge
				At 1356 m - 1282 m
1715	1815	1	6	Ream Back To 1104 m.
1815	2200	3 3/4	22	Clean Shale From Pump Suction Lines & Suction Tank.
2200	2400	2	3	Ream & Wash in hole F/1198 m - 1369 m

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph.	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	90000	Confined Space	1707 kPa

FOLD HERE →

153670

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest etal North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Wes Tolley | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Finch

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 00 | MONTH 09 | DAY 19

RIG NO. 58

FUEL @ 8:00

RIG 1.98 | BOILER

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178	DC	75	279	7 5/8 REG	24	F-1000	EMSCO	254
178	178.84	DC	57	178	5 H90	24	F-1000	EMSCO	254
127	74.35	HW	76	156	4 1/2 IF	17			
127	38.07	E3	101	156		138			
127	29.09	E2	108	158	↓	174			

TIME-HRS

CODE NO.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
OPER.																										
MORN.			7/3				1/3																			
DAY			8																							
EVE.			1/2	7 1/4			1/4																			
TOTAL			16	7 1/4			3/4																			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
8	NO. 2 TYPE Derrick F.L.G.	TMJ-359751
8	SCREENS CHANGED ☐ YES ☒ NO	AMJ-5163
8	TOP 140 TOP 175	Accum oil-.35
8	MIDDLE 140 MIDDLE 175	
24	BOTTOM 140 BOTTOM 175	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D.mm	LENGTH
			.34 m
1	N.B.R.		2.21 m
1	S.D.C.	228	2.69 m
1	3PT Reamer		2.06 m
3	D.C	228	27.72 m
1	Jar		5.77 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP		27.15 m
		BHA=	155.21 m
43	D.P.	STANDS	1296.33 m
	D.P.	SINGLES	m
	KELLY DOWN		5.41 m
	TOTAL		1396. m
WT. OF DC		20000	1000 daN
WT. OF STRING		61000	1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J4
SERIAL NO.	WC403
JETS (mm)	3X22.2
DEPTH OUT (m)	
DEPTH IN (m)	1392
TOTAL METRES DRILLED (m)	1396
TOTAL HOURS RUN	10 3/4

CUTTING STRUCTURE: T, T0, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 DAN ↑↓
TORQUE AT BOTTOM	4-8000 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1600	1600	1600
FUNNEL VIS. - (S/L)	96	103	105
W.L. (cm³)	10	10	10.5
pH	10	10	10
PVT. m³	37.2	53.6	56.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	420 SX
Vol Sulph	56 SX
Gel	10 SX
Lime	1 SK.
Sod Sulfite	2 SX.
Coriaox	1 pail
Chemicide	1 pail

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0	—	—	—

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0	—	—	—

METRES DRILLED

FROM	TO	DR.D RM.R CORE.C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1369	1396	27	50/90	3/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Pump				
12200	152	105	152	105
Choke				

REDUCED PUMP SPEED

4400 @ 1884 m @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	06:15	6 1/4	3	Ream F/1369m - 1389m
06:15	06:45	1/2	7	RIS, Function Top Pipe Rams, 6 stands ✓ RSPP.
06:45	08:00	1 1/4	3	Ream F/1389m - 1396m

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. H ✓ Fire extinguishers & eye wash stations.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	85000 DAN	Electrical Repairs	1707 kPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			34 m
	NBR		2.21 m
	SDC	228	2.69 m
	3PT R/		2.06 m
3	DC	228	27.72 m
	JAR		5.77 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		22.15 m
	BHA		155.21 m
50	D.P.	STANDS	1434.82 m
1	D.P.	SINGLES	9.60 m
	KELLY DOWN		8.37 m
	TOTAL		1608 m
WT. OF DC		20000	1000 daN
WT. OF STRING		66000	1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J4
SERIAL NO.	WC403
JETS (mm)	3X22.2
DEPTH OUT (m)	
DEPTH IN (m)	1392
TOTAL METRES DRILLED (m)	216
TOTAL HOURS RUN	18 3/4

CUTTING STRUCTURE: T, T0, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓
TORQUE AT BOTTOM	4-8000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	15:00	18:00
DENSITY kg/m³	1595	1585	1580
FUNNEL VIS. - (S/L)	100	100	111
W.L. (cm³)	10.0	11.0	10.5
pH	8.5	9.5	10.0
PVT. m³	63.0	78.7	80.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Coriaox	1 Pail
Chemicide	1 Pail
Sod. Sulfite	2 SXS
Aremex 110	2 SXS
Lime	6 SXS
BARITE	336 SKS
Lignite	1 SXS
Drispac	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR.D RM.R CORE.C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1396	1608	212	50/120	7/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12200	152	105	152	105

REDUCED PUMP SPEED

4400 @ 1396 @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Start at 2 SXS		

DRILLER SIGNATURE: Leo Burgoon

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0300	1600	8	3	Begin 1396m - 1608m

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		ENVIRO MTG	1600 kPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			34 m
	NBR		2.21 m
	SDC	228	2.69 m
	3PTR		2.06 m
3	DC	228	27.72 m
	JAR		5.77 m
	X/O		1.38 m
9	DC	178	84.48 m
	X/O		1.41 m
3	HWDP		27.15 m
			155.21 m
51	D.P.	STANDS	1463.38 m
	D.P.	SINGLES	m
	KELLY DOWN		2.19 m
	TOTAL		1626. m
WT. OF DC		20000	1000 daN
WT. OF STRING		66000	1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J4
SERIAL NO.	WC403
JETS (mm)	3X22.2
DEPTH OUT (m)	1626
DEPTH IN (m)	1392
TOTAL METRES DRILLED (m)	234
TOTAL HOURS RUN	19 1/4

CUTTING STRUCTURE: T, T0, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓
TORQUE AT BOTTOM	4-8000 FT/LBS
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1580	1585	1590
FUNNEL VIS. - (S/L)	110	98	110
W.L. (cm³)	10	10	11.5
pH	10.5	10.5	10.5
PVT. m³	82.2	86.8	88.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sta-Pax	2 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR.D RM.R CORE.C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				
1608	1626	18	50/120	3/15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Pump				
12700	152	105	152	105
Choke				

REDUCED PUMP SPEED

4200 @ 100 @ 1626m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1630	1/2	3	Ream 1608m - 1626m
1630	1645	1/4	7	TOP Drive Service
1645	2400	7 1/4	5	Circ & Cond Mud.

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES LINKAGE. Held environmental meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	15000 DAN	Fluid disposal	1776 kPA

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153671

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually inspect BOP's - Flanges & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 20 | MONTH 04 | DAY 20

RIG NO. 58

FUEL @ 8:00

RIG 1.54 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.31	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DC	75	298	7⅝ REG	9			
178	178.94	DC	57	178	5½ REG	24	F-1000	Emsco	254
127	74.35	HW	76	156	4½ IF	12	F-1000	Emsco	254
127	39.07	E2	101	156	↓	138			
127	39.02	E2	108	158	↓	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Flow V	24	25	26	TOTALS
MORN.						7½	¼	¼																		8
DAY						14¼	6¾																1/4			8
EVE.						2¼	¾	¼																		8
TOTAL						24	12	½															1/4			24

SHALE SHAKER(S)

NO. 2 | TYPE Derrick F.L.G.

SCREENS CHANGED ☐ YES ☒ NO

TOP	140	TOP	175
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES (MORN. / DAY / EVE.)

TMJ-362021
AmJ-7433
Accum oil - .35

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	NBR		2.21 m
1	Short DC	228	2.69 m
1	BPT Reamer		2.06 m
3	DC	228	27.72 m
1	Jar		5.77 m
1	X10		1.38 m
9	DC	178	84.48 m
1	X10		1.41 m
3	HWDP	127	27.15 m
	RHA =		155.21 m
51	D.P.	STANDS	m
X	D.P.	SINGLES	1470.79 m
	KELLY DOWN		m
	TOTAL		1626.00 m

WT. OF DC 20000 1000 daN
WT. OF STRING 66000 1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J4
SERIAL NO.	WC403
JETS (mm)	3X22.2
DEPTH OUT (m)	1626
DEPTH IN (m)	1392
TOTAL METRES DRILLED/Reamed (m)	334
TOTAL HOURS RUN	19¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5000 DAN ↑↓
TORQUE AT BOTTOM 5-7000 FT/lb
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1600	1600	1610
FUNNEL VIS. - (S/L)	114	104	103
W.L. (cm³)	11	11	11
pH	10.5	10.5	10.5
R.V.T m³	92.2	92.8	93.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	37.5x
Chemcide	1 pail
Corimox	1 pail
Sod. Sulfite	2 sx
Pot. Sulph.	35 sx
Soda Ash	15k.
Drispac	2 sks
Starpac	4 sxs
Lignite	2 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0	—	—	—

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0	—	—	—

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626			25	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12600	152	105	152	105

REDUCED PUMP SPEED

4400 @ 100 @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:00	3	5	Circulate & Raise mud weight TO 1620 Kg/m3
03:00	03:15	¼	7	R/S, Function Bottom Pipe Rams & check in/Rsm
03:15	0745	4½	5	Circulate & Raise mud weight.
0745	0800	¼	6	Pooh To 1188m.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held Watchdog meeting.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	80000 DAN	Winter Operations	1568 kPa

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			34 m
	NBR		2.21 m
	SDC	228	2.69 m
	3PR		2.06 m
3	DC	228	27.72 m
	JAR		5.77 m
	X10		1.38 m
19	DC	178	84.48 m
	X10		1.41 m
3	HWDP	127	27.15 m
	RHA		155.21 m
51	D.P.	STANDS	m
X	D.P.	SINGLES	1470.79 m
	KELLY DOWN		m
	TOTAL		1626.00 m

WT. OF DC 20000 1000 daN
WT. OF STRING 66000 1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J4
SERIAL NO.	WC403
JETS (mm)	3x22.2
DEPTH OUT (m)	1626
DEPTH IN (m)	1392
TOTAL METRES DRILLED/Reamed (m)	234
TOTAL HOURS RUN	19¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-15000 ↑↓
TORQUE AT BOTTOM 5-7000 FT/LB
FILL ON BOTTOM (m) 3m

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	07:30	15:00	18:00
DENSITY kg/m³	1630	1625	1620
FUNNEL VIS. - (S/L)	97	98	120
W.L. (cm³)	11.5	11.0	10.5
pH	10.5	10.0	10.5
P.V.T m³	95.2	91.6	93.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BGel	49sx
Fd. Sulph.	30 sxs
Drispac	1 sx
StarPAC	2 sxs
Chemcide	1 Pail
Lignite	1 sx
Corimox	1 Pail
Sod. Sulfite	2 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12900	152	105	152	105

REDUCED PUMP SPEED

4200 @ 100 @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1145	3¾	6	Pooh To 1111m
1145	1200	¼	22	Flow V
1200	1445	2¾	6	RIH To 1315m Hit Bridge
				1315m to 1323m - 1387m to 1392m
				1417-1425m
1445	1600	1¼	5	Circ & Cond mud

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	95600	TRIPPING	1498

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			34 m
	NBR		2.21 m
	SDC	228	2.69 m
	3PR		2.06 m
3	DC	228	27.72 m
	JAR		5.77 m
	X10		1.38 m
9	DC	178	84.48 m
	X10		1.41 m
3	HWDP		27.15 m
	RHA		155.21 m
51	D.P.	STANDS	m
1	D.P.	SINGLES	1470.79 m
	KELLY DOWN		m
	TOTAL		1626.00 m

WT. OF DC 20000 1000 daN
WT. OF STRING 66000 1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J4
SERIAL NO.	WC403
JETS (mm)	3x22.2
DEPTH OUT (m)	1626
DEPTH IN (m)	1392
TOTAL METRES DRILLED/Reamed (m)	234
TOTAL HOURS RUN	19¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME
DENSITY kg/m³
FUNNEL VIS. - (S/L)
W.L. (cm³)
pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	4 sxs
Soda Ash	1 sx
Barite	94sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1700	1	5	Circ & Cond Mud
1700	1715	¼	7	Service Top Drive
1715	18:15	1	5	Circ & Cond Mud
18:15	22:00	3¾	6	P.O.O.H. Flow/C Stds, 18 stds
22:00	22:30	½	5	mix & Pump Pill.
22:30	24:00	1½	6	P.O.O.H. Flow/C H.W.D.P.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	100000 DAN		1498 kPa

EVENING TOUR

FOLD HERE →

153672

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Liard C 31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION:	**UNIQUE ID.:**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flexibles & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
00	04	27

RIG NO.: 58

FUEL @ 8:00

RIG: 136 BOILER:

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	104.2	BT & C	K55	55	711.20	6.47	710

DC/OP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228		DC	75	228	4½ IF	4			
178	178.89	DC	57	178	5½ FH	24	F-1000	EMSCO	254
127	74.35	DP	76	156	4½ IF	17			
127	30.09	E3	101	136		139	F-1000	EMSCO	254
127	29.02	E2	108	159	↓	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Clean Reamers B.O.P. Drill Flow		Hang Tools		
MORN.					1½	5½	¼														½		¼			
DAY					1	5½	¼															¼		1		
EVE.					3	2½			¾											½				1¼		
TOTAL					2½	13¼	½		¾											½		½		2½		

TOTALS	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 MAKE Derrick F.L.G.	TmJ - 367231			
8	SCREENS CHANGED ☐ YES ☐ NO	AmJ - 422			
8	TOP / TOP	Accumoil - .35			
24	MIDDLE / MIDDLE				
	BOTTOM / BOTTOM				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.34 m
1	NBR		2.21 m
1	Short DC	228	2.69 m
1	3PT Ream		2.06 m
3	DC	228	27.72 m
1	Jar		5.77 m
1	X10		1.38 m
9	DC	178	84.48 m
1	X10		1.41 m
3	HWDP	127	27.15 m
		BHA =	155.31 m
51	D.P.	STANDS	m
X	D.P.	SINGLES	1470.79 m
	KELLY DOWN		m
	TOTAL		1626.00 m
WT. OF DC		20000	1000 daN
WT. OF STRING		66000	1000 daN

BIT RECORD

BIT NO.	11C
SIZE (mm)	311
IADC CODE	
MFG.	HUGHES
TYPE	J9
SERIAL NO.	WC403
JETS (mm)	3x22.2
DEPTH OUT (m)	1626
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	244
TOTAL HOURS RUN	19¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

							BIT	

HOLE CONDITION

HOLE DRAG	5-10000 DAN
TORQUE AT BOTTOM	5500 FT/LB
FILL ON BOTTOM (m)	1.5m

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	05:00	06:00
DENSITY kg/m³	1600	1620
FUNNEL VIS. - (S/L)	125	112
W.L. (cm³)	11.5	11.5
pH	10.5	10.5
PVT m3	83.6	83.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 0 | INTAKE DENSITY | OVERFLOW DENSITY | UNDERFLOW DENSITY

Centrifuge #2: HOURS RUN 0 | INTAKE DENSITY | OVERFLOW DENSITY | UNDERFLOW DENSITY

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626			30/70	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
12300	152	100	152	100

REDUCED PUMP SPEED

Choke: 4500 @ 100 @ 1626

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Trip Record		
mins 10.18		
Con 8.85		
Diff 1.33		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:30	½	6	P.O.O.H.
00:30	01:00	½	22	Clean Reamers & Bit.
01:00	01:15	¼	7	R/S Function Blind Rams 6 secs
01:15	02:30	1¼	6	R.I.H.
02:30	02:45	¼	23	B.O.P. Drill, Well secure in 1 min
02:45	05:00	2¼	6	R.I.H., Ream Bridges @ 1388m, 1454m, 1471m, 1490-1523m, Clean 1.5m TO Bottom
05:00	06:30	1½	5	Circulate hole Clean.
06:30	08:00	1½	6	P.O.O.H.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	100 000 DAN.	BOP Drill	1568 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	85 SKS

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

4500 @ 120 @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0900	1	6	Hook to 1400m.
0900	0915	¼	24	Flow
0915	0930	¼	7	Dwksa Top Drive Serv.
0930	1030	1	5	Mix + Pump Pill.
1030	1500	4½	6	Tooh Flow Stop Top DHA out of Hole
1500	1600	1	25	M/U BHA
				Close Blinds out of Hole
				Hole Fill Actual 1630m3 Cal 9.00 Diff 2.80

NOTES: Check Crown Saver - Fastline Clamp - Deadman Anchor Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-			1568 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	PDC Rest Sub		9.32 m
1			.69 m
2	NMDC		18.75 m
1	DX	228	4.45 m
1	S/S		3.89 m
1	DC	228	9.34 m
2	Stabs DC	228	15.59 m
1	X/O		1.38 m
9	DC	178	69.46 m
1	X/O		1.41 m
3	HWDP		27.15 m
		BHA	161.17 m
50	D.P.	STANDS	1431.82 m
	D.P.	SINGLES	m
	KELLY DOWN		101 m
	TOTAL		1626 m
WT. OF DC		24006	1000 daN
WT. OF STRING		70000	1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	5-10000 DAN
TORQUE AT BOTTOM	6-8000
FILL ON BOTTOM (m)	2m

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME		
DENSITY kg/m³		
FUNNEL VIS. - (S/L)		
W.L. (cm³)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626			30/70	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
13400	152	90	152	90

REDUCED PUMP SPEED

4600 @ 152 mm @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1715	1¼	2-5	M/U BHA
1715	1830	1¼	6	R I H with 775m
1830	1915	¾	9	Cut & Slip 20m Reset Crown Saver
1915	1945	½	20	Test MWD Tools
1945	2100	1¼	6	R I H from 775m - 1457m (Ream 1457m)
2100	2400	3	5	Brk. Circ & Wash from 1457m - 1626m

NOTES: Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	-	-			

FOLD HERE →

153673

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: ARITA DRILLING LTD

SURFACE LOCATION: 300-C-31 60°40 123°30-0 | UNIQUE ID.: 300 C 31 60°40 123°30 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Tuck

DAILY CHECKS (OPR. / R.M.)

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 01 | DAY 22

RIG NO. 58

FUEL @ 8:00

RIG 220 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTRC	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. I.D. (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	78.94	E	57	178	3½ IF	6	F1000	EMSCO	254
	127	34.35	E Hwdp	76	156	4½ IF	18	F1000	EMSCO	254
	127	38.07	E	101	156	4½ IF	18			
	127	29.62	E	108	158	4½ IF	17			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.		7¾					¼														Clean Screens	Dsl. Drlg		
	DAY		6					¼			¼											Work on Pumps 1½			
	EVE.		6½					¼			¾											½	¼		
	TOTAL		19¾					½			1											2	¼		

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. TYPE: 2 DERRICK F1C	TMS 564587			
8	SCREENS CHANGED ☐ YES ☐ NO	AMS 778			
8	TOP / TOP	ACCUMOIL - 55			
8	MIDDLE / MIDDLE				
24	BOTTOM / BOTTOM				

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.32 m
	FLT SUB		7.96 m
2	8" NMDC	228	18.37 m
1	STAB	228	3.19 m
1	DC	228	9.34 m
9	DC	178	84.48 m
	XO		1.41 m
3	HWDP	127	97.15 m
	BHA		191.17 m
			m
			m
50	D.P.	STANDS	1134.82 m
2	D.P.	SINGLES	11.96 m
	KELLY DOWN		9.5 m
	TOTAL		1644 m
WT. OF DC	24000	1000 daN	
WT. OF STRING	70000	1000 daN	

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	18
TOTAL HOURS RUN	7¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000

TORQUE AT BOTTOM 6-8000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:30	04:30	06:30
DENSITY kg/m³	1620	1620	1620
FUNNEL VIS. - (S/L)	97	105	110
W.L. (cm³)	10.0	10.5	10.5
pH	10.0	10.5	10.5
P.V.T	91.6	92.1	91.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aquagel 110	1 sx
Sod. Sulfite	2 sxs
Corinox	1 Pail
Cleancide	1 Pail
Ferr. Sulph.	28 sxs
Lime	4 sxs
Gel	30 sxs
Lignite	3 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRD RM.R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1626	1644	18	50/80	22½/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
16200	152	95	152	95

REDUCED PUMP SPEED

7000 @ 100 @ 1635

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

[signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0400	4	2	DRILL FROM 1626m - 1635m.
0400	0415	¼	7	TOP DRIVE-SERVICE
0415	0800	3¾	2	DRILL 1635m - 1644m
				DRISPAC-R- 1 sx
				STARPAK - 2 sxs

NOTES: CROWN SAVER - FASTLINE CLAMP DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			80,000	CLEAN R.F.	15GT KPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		0.32 m
1	FLT SUB		7.96 m
2	NMDC		18.75 m
1	DC	228	9.03 m
1	STAB	228	3.19 m
1	DC	228	9.34 m
1	XO		1.37 m
9	DC	178	84.48 m
1	XO		1.41 m
3	HWDP	127	97.15 m
	BHA		191.17 m
51	D.P.	STANDS	m
X	D.P.	SINGLES	1472.96 m
	STICK UP KELLY DOWN		5.15 m
	TOTAL		1659 m
WT. OF DC	24000	1000 daN	
WT. OF STRING	71000	1000 daN	

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	33
TOTAL HOURS RUN	13¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN

TORQUE AT BOTTOM 5-8000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	08:00	10:00	14:00
DENSITY kg/m³	1600	1600	1605
FUNNEL VIS. - (S/L)	115	95	90
W.L. (cm³)	10.0	10.5	10
pH	10.5	10.5	10
P.V.T	91.2	91.0	87.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aquagel	1 sx
Drispac	1 sx
Starpak	2 sx
Lime	2 sx
Barite	275 sx
Corinox	1 pail
Cleancide	1 pail
Ferr. Sulph.	24 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1680	1650	1230
	Centrifuge		
4	1730	1015	1470

METRES DRILLED

FROM	TO	DRD RM.R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1644	1659	15	50/80	22½/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17100	152	95	152	95

REDUCED PUMP SPEED

6100 @ 1450m @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1627.96	4.1	69.9

DRILLER SIGNATURE

[signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1115	3¼	2	DRILL 1644m - 1652m.
1115	1130	¼	7	K/S FUNCTION DRILLING 26 sec. P/S 4 RSPP
1130	1245	1¼	2	DRILL 1652m - 1655m
1245	1345	1	22	Clean Screens in pumps & MUD Screen in pipe
1345	1515	1½	2	DRILL 1655m - 1659m
1515	1545	½	22	CHANGE HEAD ON #1 Pump
1545	1600	¼	10	Accumulated Surveys
				CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

NOTES: CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			80 000 DAN		1701 KPa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.32 m
	FLT SUB		7.96 m
2	NMDC		18.75 m
1	DC	228	9.34 m
	STAB		3.19 m
2	DC	228	18.68 m
9	DC	178	84.48 m
3	HWDP		97.15 m
	BHA		191.17 m
52	D.P.	STANDS	1492.27 m
	D.P.	SINGLES	m
	KELLY DOWN		8.44 m
	TOTAL		1659 m
WT. OF DC	24000	1000 daN	
WT. OF STRING	71000	1000 daN	

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	49
TOTAL HOURS RUN	20¼

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN

TORQUE AT BOTTOM 5-9000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	23:30
DENSITY kg/m³	1615	1615	1630
FUNNEL VIS. - (S/L)	90	91	58
W.L. (cm³)	10	9.0	10.5
pH	11.0	10.0	10.0
P.V.T	96	95.1	94.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aquagel	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD RM.R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1659	1675	16	50/80	22½/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17100	152	95	152	95

REDUCED PUMP SPEED

6000 @ 1650m @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1647.16	4.7	68.2

DRILLER SIGNATURE

[signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1800	1800	¾	2	DRILL 1659m - 1663m
1800	1845	¾	10	SURVEY @ 1627m & 1647m
1845	1900	¼	2	DRILL 1663m - 1664m
1900	1915	¼	23	BOP DRILL WELL SECURE 75 sec
1915	1930	½	2	DRILL 1664m - 1665m
1930	2000	½	22	CHANGE HEAD ON #1 PUMP
2000	2400	4	2	DRILL 1665m - 1675m
				CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR BRAKES LINKAGE

NOTES: CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				SAFETY DRUGS	1565 KPA

FOLD HERE →

153675

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH HARD C31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C 34 60 10 12330 0 | UNIQUE ID.: 300 C-31 60 10 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Finch

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 09 | DAY 27

RIG NO. 58

FUEL @ 8:00

RIG 174 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	107.2	BTSC	K55	55	711.20	6.77	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	148.8	G	57	194	5.5 FH	24	F 1000	EMSCO	254
127	73.35	H-90	78	156	4½ IF	17	F 1000	EMSCO	254
127	38.07	E	101	146	4½ IF	135			
127	29.02	E	108	158	4½ IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	22 PUMP REPAIR	23	24	25	26
	MORN.		6½					¼			½												¾			
	DAY		7¼					¼			½															
	EVE.		7½								½															
	TOTAL		21¼					½			1½												¾			

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
	NO. TYPE: DERRICK F-6	364894			
	SCREENS CHANGED ☐ YES ☐ NO	TMS 1085			
	TOP 140 TOP 170	AMS			
	MIDDLE 140 MIDDLE 175	ACUMIN OIL 35			
	BOTTOM 140 BOTTOM 175				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	HTC		0.32 m
	F-3 SUB		1.62 m
2	NMDC	228	18.75 m
	DC		9.43 m
	DC	228	37.70 m
3	STAB		2.34 m
9	DC	178	84.77 m
3	HWDP		27.55 m
	DRLG		191.17 m
			m
			m
			m
52	D.P. STANDS		1492.27 m
	D.P. SINGLES		9.67 m
	KELLY DOWN		11 m
	TOTAL		1673 m

WT. OF DC: 24000 1000 daN | WT. OF STRING: 71000 1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	67
TOTAL HOURS RUN	26¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5-10000 DAN

TORQUE AT BOTTOM: 5-8000 FT/LBS

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	02:30	04:30	06:30
DENSITY kg/m³	1630	1625	1625
FUNNEL VIS. - (S/L)	118	86	85
W.L. (cm³)	10.0	9.5	10.0
pH	11.0	10.5	10.5
P.V.T m³	90.5	87.5	89.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
ALKAMEEN 40	2 SKS
BARITE	84 SKS
Chemicide	1 Pail
Lime	4 SKS
Cosinex	1 PAIL
Sod. Sulfite	2 SKS
Pot. Sulph	28 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

H.S CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
6	1630	1110	2006

BAR-Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
6	1630		2100

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1675	1693	18	30/50	2½

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
16700	152	95	152	95

REDUCED PUMP SPEED: 5800 @ 70 @ 1682

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1664.7	5.2	69.4

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000	0230	2½	2
0230	0245	¼	7
0245	0300	¼	2
0300	0345	¾	22
0345	0730	3¾	2
0730	0800	½	10

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL FROM 1675m - 1682m
TOP DRIVE SERV - CLOSE PIRS 65 SEC
DRILL F 1682-1683m
CHANGE HEAD NO 1 PUMP
DRILL 1683m - 1693m
SURVEYS FOR TOUR.
PUMPED 6m³ PREHYDRATED GEL TO ACTIVE
RECOVERED 15m³ OF ACTIVE MUD

NOTES: CHECK CROWNSAVER - FASTLINE CLAMP - DEADMAN ANCHOR - LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	85000	WATCH DOG MTG	

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	HTC		0.32 m
½	F-3 SUB		1.62 m
½	NMDC		15.75 m
1	DC	228	9.43 m
1	DC	228	37.70 m
1	STAB		2.34 m
2	DC	228	18.87 m
1	XO		1.36 m
9	DC	178	84.48 m
3	HWDP	127	27.55 m
	DRLG	BHA	176.17 m
53	D.P. STANDS		m
¼	D.P. SINGLES		5.37 m
	KELLY DOWN		10.54 m
	TOTAL		1711 m

WT. OF DC: 24000 1000 daN | WT. OF STRING: 74000 1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	85
TOTAL HOURS RUN	34

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5-10000 DAN

TORQUE AT BOTTOM: 6-9000 FT/LBS

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	08:00	10:00	14:00
DENSITY kg/m³	1615	1605	1605
FUNNEL VIS. - (S/L)	90	95	90
W.L. (cm³)	8.5	8.5	10.0
pH	10.5	10.5	10.5
P.V.T	95.5	99.2	101

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	315 SX
Chemicide	1 pail
Cosinex	1 pail
Sod Sulfite	2 SX
Soda Ash	1 SX
Lime	2 SX
Potassium	2 SX
Alkomer 40	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
15	1605	1620	1930

Bar-Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1330	1620	1630

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1693	1711	18	30/60	2½/4

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17200	152	95	152	95

REDUCED PUMP SPEED: 5700 @ 95 @ 1701m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1145.57	5.4	73.9

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0600	1045	2¾	2
1045	1115	½	10
1115	1430	3¼	2
1430	1445	¼	7
1445	1600	1¼	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1693m - 1701m
SURVEY 1145.57
DRILL 1701m - 1707m
K/S ELEVATION 5 MIN. FOR KWK BSR. CK'S KELLY
DRILL 1707m to 1711m

NOTES: CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			85000		16742 kpa

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	HTC		0.32 m
	F-3 SUB		1.62 m
2	NMDC	228	18.75 m
	DC	228	9.43 m
	DC	228	37.70 m
3	STAB	228	2.34 m
9	DC	178	84.48 m
3	HWDP		27.55 m
	DRLG	BHA	176.17 m
53	D.P. STANDS		1520.79 m
2	D.P. SINGLES		19.18 m
	KELLY DOWN		6.14 m
	TOTAL		1725 m

WT. OF DC: 24000 1000 daN | WT. OF STRING: 74000 1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3x17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	99
TOTAL HOURS RUN	41½

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG: 5-10000 DAN

TORQUE AT BOTTOM: 6-9000 FT/LBS

FILL ON BOTTOM (m):

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	18:00	20:30	23:00
DENSITY kg/m³	1620	1630	1630
FUNNEL VIS. - (S/L)	89	71	87
W.L. (cm³)	9.0	9.0	9.8
pH	10.5	9.5	9.5
P.V.T	98.	97.5	93.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	20 SX
Resodrill	1 SX
Dri-Pac	1 SX
Starch	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

H.S CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
3	1630	1210	1900

BAR-Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
3	1630		1960

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1711	1725	14	30/80	2½/4

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
16700	152	95	152	95

REDUCED PUMP SPEED: 5800 @ 1725 @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1702.4	5.7	70.1

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	2000	4	2
2000	2030	½	10
2030	2400	3½	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1711m - 1720m
SURVEY
DRILL 1720m - 1725m
RECOVERED 15m³ OF ACTIVE MUD

NOTES: CK CROWNSAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES - LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			75000	PICKUPS UBS	16724 kPa

FOLD HERE →

153676

LICENCE NO.: 1904 | WELL NAME AND NO.: CROKHART FOREST ETAL NORTH 2 HARO C 31

OPERATOR: Rocky Mtn Forest Oil | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C 31 60 10 W5 12330 | UNIQUE ID.: 300 C 31 60 10 12330 - 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauer

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection Weekly (using checklist) — Initial / Initial
(3) HPS Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 07 | DAY 29 | RIG NO. 58 | **FUEL @ 8:00** | RIG 133 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID. (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	119.84	DC	57	178	5 1/2 FH	12	F 1000	EMSCO	254
	127	73.35	HWDP	76	178	4 1/2 IF	30	F 1000	EMSCO	254
	127	38.00	E2	101	152	4 1/2 IF	139			
	127	29.02	E2	108	158	4 1/2 IF	179			

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22	23	24	25	26
1	MORN.		7 1/4					1/4															NIPPLE UP BOP	HANDLE TOOLS, RUN 8 1/2" BHA			
2	DAY		6 3/4					1/4			1/4													1 1/4			
3	EVE.		1/2			1 1/4	4 3/4																		3/4		
	TOTAL		14			1 1/4	4 3/4	1/2			1/4													1 3/4	3/4	3/4	

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 1 TYPE BRANDT FLC	TMI 366080			
8	SCREENS CHANGED ☐ YES ☐ NO	AMI 2271			
8	TOP 140 TOP 175	RECLAIMER 35			
8	MIDDLE 140 MIDDLE 175				
24	BOTTOM 140 BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	BIT		0.32
	FLEX SUB		1.65
2	NMDC		1.75
	DC	228	9.23
	SUB		0.37
	DC	228	9.24
	JARS		3.77
3	DC	228	18.59
	XO		0.73
3	NMDP		2.15
			19.47

54 D.P. STANDS 1549.38 m
D.P. SINGLES m
KELLY DOWN 9.75 m
TOTAL 1749 m
WT. OF DC 24000 1000 daN
WT. OF STRING 74000 1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3X17.5
DEPTH OUT (m)	
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	114
TOTAL HOURS RUN	14 3/4

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 10000 DAN
TORQUE AT BOTTOM 5 - 8000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1630	1635	1630
FUNNEL VIS. - (S/L)	150	102	90
W.L. (cm³)	10.0	6.0	6.0
pH	10.5	10.0	10.0
P.V.T m^3	91.4	91.0	90.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph.	56 5x5
Sod. Sulfite	2 5x5
Cosmox	1 Pail
Chemcide	1 Pail
Alcomer 110	2 5x5
CAUSTIC	3 5x5
Lime	6 5x5
STARPAC	6 5x5

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1725	1740	15	50/70	12/14

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17400	152	75	152	75

REDUCED PUMP SPEED: 2750 @ 1735m @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG — MORNING TOUR

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0215	2 1/4	2	DRILL FROM 1725m - 1731m
0215	0245	1/2	22	CHANGE HEAD & LINER #1 PUMP
0245	0300	1/4	7	TOP DRIVE SERVICE & CHOKE P.R.
				650C
0300	0800	5	2	DRILL 1731m - 1740m

NOTES: CHECK CROWN SAVER, FASTLINE CLAMP - DEADMAN ANCHOR, BRAKE LINKAGE

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	0	—	—	850 00	CONFINED SPACE TRAINING	1498 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	BIT		0.32
	FLEX SUB		1.65
1	NMDC		16.75
1	DC	228	7.43
1	SUB		1.58
1	DC	228	7.59
1	JARS		9.44
1	DC	228	18.59
1	XO		1.58
9	DC	178	84.66
3	HWDP		27.44
	BHA		91.17

54 D.P. STANDS m
XX D.P. SINGLES 1683.3 m
STICK UP KELLY DOWN 13.00 m
TOTAL 1747 m
WT. OF DC 14000 1000 daN
WT. OF STRING 74000 1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3X17.5
DEPTH OUT (m)	1686
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	121
TOTAL HOURS RUN	55

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 10000 DAN
TORQUE AT BOTTOM 6 - 8000 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	9:00	11:30	13:30
DENSITY kg/m³	1625	1610	1605
FUNNEL VIS. - (S/L)	90	98	95
W.L. (cm³)	9.0	7.5	8.5
pH	10.0	11.0	11.0
P.V.T.	90.5	91.3	92.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
DRISPAK	3 5x5
Lignite	4 5x5
Sul Acid	2 5x5
CAUSTIC	2 5x
Corinox	1 pail
Chemcide	1 pail
Alcomer	2 5x
GeL	20 5x

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1605	2500	1380

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1580	1690	1035

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1740	1747	7	50/70	12/14

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17400	152	75	152	75

REDUCED PUMP SPEED: 2700 @ 1736m @ 75

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1723.76	5.1	15.5

DRILLER SIGNATURE: [signature]

TIME LOG — DAY TOUR

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0715	1 1/4	22	CHANGE HEAD & LINER #1 PUMP
0715	0820	1/4	7	K/S JUNCTION & SWIVEL CHANGE & ESP
0820	0945	1 1/4	10	SURVEY @ 1723.76
0945	1600	6 1/4	2	DRILL 1740m - 1747m

NOTES: CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	6			850 00 DAN		16 72 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m

D.P. STANDS m
D.P. SINGLES m
KELLY DOWN m
TOTAL m
WT. OF DC 1000 daN
WT. OF STRING 1000 daN

BIT RECORD

BIT NO.	12C
SIZE (mm)	311
IADC CODE	5 1 7
MFG.	SMITH
TYPE	F2P
SERIAL NO.	LY1654
JETS (mm)	3X17.5
DEPTH OUT (m)	1748
DEPTH IN (m)	1626
TOTAL METRES DRILLED (m)	122
TOTAL HOURS RUN	55 1/2

CUTTING STRUCTURE: T_i 5 | T_o 8 | MDC BT | LOC O | B E | Gage 6mm | ODC | Reason Pulled PR | Total Run m/hr. 4.1

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	168 5x
Sod. Sulfite	2 5x
Pot. Sulph.	28 5x
Lignite	1 Pail
PERCOL 778	4 5x5
CMHEC	15x

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1747	1748	1	50/70	12/14

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17600	152	75	152	75

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: [signature]

TIME LOG — EVENING TOUR

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1630	1/2	2	DRILL 1747m - 1748m
1630	1730	1	5	CIRC. BOTTOMS - UP
1730	1830	1	6	FLOW CHECK, PULL 10 STANDS, FLOW CHECK
1830	1845	1/4	5	PUMP DRILL
1845	2230	3 3/4	6	TRIP OUT, FLOW CHECK, STAND BACK TOP BHA
				OUT OF HOLE
2230	2315	3/4	23	LAY DOWN MWD & MOTOR
2315	2400	3/4	24	PULL WEAR BUSHING.

Hole Fill MEAS - 16.90 m^3 - CAL - 10.22 m^3
DIFF 6.68 m^3 OK

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR, BRAKES & LINKAGE

DRILLER SIGNATURE	BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	0					16 72 kPa

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153677

LICENCE NO.:	WELL NAME AND NO.:
1900	CANADIAN FOREST OIL NORTH LIARD C-31
OPERATOR:	CONTRACTOR:
CANADIAN FOREST OIL	AKITA DRILLING LTD
SURFACE LOCATION:	UNIQUE ID.:
300 C-31 6040/12330 SD	300 C-31 6040 12330 D
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:
Allan Wiancko	Dave Lauck

DAILY CHECKS (OPR. / R.M.)

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2006 | MONTH 04 | DAY 28 | RIG NO. 28

FUEL @ 8:00

RIG 101 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	711.20	6.97	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	196.85	S	57	178	4½ IF	24
127	24.35	E NUP	76	156	4½ H	17
127	31.09	E	101	156	4½ H	133
127	29.02	E	108	156	4½ H	174

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F 1000	EMSCO	254
F 1000	EMSCO	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.																						HANDLE TOOLS	WEAR BUSHING	CHECK COLLARS	
	DAY		1½	1¼		1½	2½	1¼	½														1	1½	5½	
	EVE.		7¾				¼			¼															½	
	TOTAL		9	1¼		1½	2¾	1½	½	¼													1	1½	6	

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 | TYPE DERRICK FLC

SCREENS CHANGED ☑ YES ☐ NO

TOP		TOP	
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN	DAY	EVE
TMS 366729			
AMS 2920			
NEUMOIL 35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT SUB		0.32 m
	FLT SUB		1.69 m
2	NMDC	228	18.75 m
1	DC	228	9.43 m
1	SUB		1.62 m
1	DC	228	9.34 m
1	JARS		5.77 m
2	DC	228	18.69 m
1	X/O		1.38 m
9	DC	178	84.46 m
1	X/O		1.41 m
3	HWDP	127	27.45 m
	BHA		191.24 m
54	D.P.	STANDS	1568.83 m
XX	D.P.	SINGLES	m
	KELLY DOWN		9.07 m
	TOTAL		1751 m
WT. OF DC		24000	1000 daN
WT. OF STRING		73000	1000 daN

BIT RECORD

BIT NO.	13C
SIZE (mm)	311
IADC CODE	517
MFG.	REED
TYPE	HP51H
SERIAL NO.	CK2106
JETS (mm)	3x22.2
DEPTH OUT (m)	
DEPTH IN (m)	1748
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
GEL	30 SKS
Lignite	1 SK
Soda Ash	1 SK

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1748				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Les Burgoyne

MORNING TOUR

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0130	1½	22	ATTEMPT TO PULL WEAR BUSHING (COULD NOT BACK OUT NUTS)
0130	0230	1	23	MAKE UP MOTOR & JM WD.
0230	0800	5½	25	CHECK COLLARS, HWDP

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR - BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-		WEAR BUSHING	1672 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		0.32 m
1	FLT SUB		1.69 m
2	NMDC		18.75 m
1	DC	228	9.43 m
1	SUB		1.62 m
1	DC	228	9.34 m
1	JARS		5.77 m
2	DC	228	18.69 m
1	X/O		1.38 m
9	DC	178	84.46 m
1	X/O		1.41 m
3	HWDP	127	27.45 m
	BHA		191.24 m
54	D.P.	STANDS	1568.83 m
XX	D.P.	SINGLES	m
	KELLY DOWN		9.07 m
	TOTAL		1751 m
WT. OF DC		24000	1000 daN
WT. OF STRING		73000	1000 daN

BIT RECORD

BIT NO.	13C
SIZE (mm)	311
IADC CODE	517
MFG.	REED
TYPE	HP51H
SERIAL NO.	CK2106
JETS (mm)	3x22.2
DEPTH OUT (m)	
DEPTH IN (m)	1748
TOTAL METRES DRILLED (m)	3
TOTAL HOURS RUN	1½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 6500 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	13:00	16:00
DENSITY kg/m³	1635	1630
FUNNEL VIS. - (S/L)	72	85
W.L. (cm³)	10.0	7.0
pH	10.0	10.5
P.V.T	79	P.V.T 79.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 SX
Potassium	56 SX
Starpak	3 SX
Drispac	3 SX
Hiconnes	1 SX
Sod Sulfite	2 SX
T 352	1 pail
Corinox	1 pail

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1748	1751	3	30/50	10/14

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17600	152	100	152	100

REDUCED PUMP SPEED

5800 @ 100 @ 1740m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

DAY TOUR

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	½	25	Inspect Saver Sub & change out Saver Sub
0830	0915	¾	6	R.I.H. to 765m Flow ✓
0915	0930	¼	5	Brk. Circ. & Test MWD Tool
0930	1030	1	6	R.I.H. FROM 765m 1454m Broke Circ
1030	1145	1¼	5	Brk Circ @ 1453m Wash Down to 1532
1145	1230	¾	6	R.I.H. F/1532m - 1721m
1230	1345	1¼	3	Ream 1721m - 1748m
1345	1500	1¼	2	Drill 1748m - 1750m
1500	1530	½	8	Repair #2 Suction Screen Box
1530	1545	¼	7	K/S Junction Annular 26 Sec cls ✓ RSPP
1545	1600	¼	2	Drill 1750m - 1751m

NOTES: Crown Saver Fastline Clamp Deadline Anchor RESET CROWN SAVER ON FIRST STAND OF DRILL PIPE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			105 000 DAN		1498 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.32 m
	FLT SUB		1.69 m
2	NMDC		18.75 m
1	DC	228	9.43 m
1	SUB		1.62 m
1	DC	228	9.34 m
1	JARS		5.77 m
2	DC	228	18.69 m
1	X/O		1.38 m
9	DC	178	84.46 m
1	X/O		1.41 m
3	HWDP	127	27.45 m
	BHA		191.24 m
55	D.P.	STANDS	1578.5 m
	D.P.	SINGLES	m
	KELLY DOWN		7.83 m
	TOTAL		1762 m
WT. OF DC CORRECTED		24000	1000 daN
WT. OF STRING		78000	1000 daN

BIT RECORD

BIT NO.	13C
SIZE (mm)	311
IADC CODE	517
MFG.	REED
TYPE	HP51H
SERIAL NO.	CK2106
JETS (mm)	3x22.2
DEPTH OUT (m)	
DEPTH IN (m)	1748
TOTAL METRES DRILLED (m)	14
TOTAL HOURS RUN	9

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 5-8000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	20:00	23:00
DENSITY kg/m³	1630	1635	1635
FUNNEL VIS. - (S/L)	85	80	86
W.L. (cm³)	7.0	6.3	5.0
pH	10.5	10.5	10.0
P.V.T	79.5	79.0	79.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1751	1762	11	30/80	2/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
16800	152	95	152	95

REDUCED PUMP SPEED

6000 @ 175m @ 100

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1741	4.8	65.2

DRILLER SIGNATURE

Les Burgoyne

EVENING TOUR

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2200	6	2	Drill 1751m - 1759m
2200	2215	¼	4	TOP DRIVE SER. Close Lower PIRS 65
2215	2345	1½	2	1759m - 1762m
2345	2400	¼	10	Survey.

NOTES: CHECK CROWN SAVER - FASTLINE CLAMP - DEADMAN ANCHOR BRAKES LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	85 000	STOP CARDS	1498

FOLD HERE →

153678

LICENCE NO.:	WELL NAME AND NO.:
1900	CANADIAN FOREST ETAL NORTHLAND C-31
OPERATOR:	**CONTRACTOR:**
CANADIAN FOREST OIL	AKITA DRILLING, LTD
SURFACE LOCATION:	**UNIQUE ID:**
300 C 31 60 MO 12330	300 C 31 60 MO 12330
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 MONTH 09 DAY 24

RIG NO. 56

FUEL @ 8:00

RIG 212 BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	315.91	61.2	BTC	K55	55	711.20	6.11	710

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	53.53	S135	57	178	6 5/8 REG	27	F1000	EMSCO	381
	127	38.06	G105	101	146	4 1/2 IF	138	F1000	EMSCO	254
	127	29.07	G105	108	146	4 1/2 IF	174			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	WORK ON PUMP	WOC	Bushing	Made Trips	
MORN.		4 1/4			1	2									3/4											
DAY						6																	1/2			
EVE						4 1/4	1/4								2 1/2									1		
TOTAL		4 1/4			1	12	1/4								2 1/2							3/4	2	1		

TOTALS

8			
8			
8			
24			

SHALE SHAKER(S)

NO. 2 TYPE DERRICK FLC

SCREENS CHANGED ☑ YES ☐ NO

TOP	140	TOP	175
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ 368159			
AMJ 4350			
ACCUMOIL 35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		0.33 m
	NMDC		9.11 m
2	NMDC		17.76 m
	DC	228	7.63 m
	STAB	228	3.42 m
	NMDC		1.84 m
2	DC		18.59 m
9	DC	178	84.48 m
3	HWDP		27.45 m
	SUB		1.91 m
			m
			m
55	D.P.	STANDS	1578.59 m
	D.P.	SINGLES	m
	KELLY DOWN		3.83 m
	TOTAL		1766 m

WT. OF DC 24 000 1000 daN

WT. OF STRING 78000 1000 daN

BIT RECORD

BIT NO.	13C	
SIZE (mm)	311	
IADC CODE	S 1 7	
MFG.	REED	
TYPE	HP51H	
SERIAL NO.	CK2106	
JETS (mm)	3X20 2	
DEPTH OUT (m)	1766	
DEPTH IN (m)	1748	
TOTAL METRES DRILLED (m)	18	
TOTAL HOURS RUN	13 1/4	

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 10000 DAN

TORQUE AT BOTTOM 5 - 8000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1630	1635	1630
FUNNEL VIS. - (S/L)	86	91	87
W.L. (cm³)	6.2	6.5	6.8
pH	10.0	10.5	10.5
P.V. T m³	80.0	80.5	80.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph	32 SXS
Sod. Sulf	2 SXS
Caliper	1 Pail
T-352	1 Pail
Xcomer	1 SX
GEL	11 SXS
Lime	6 SXS
BARITE	48 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1762	1766	4	340	24/25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
17400	152	95	152	95

REDUCED PUMP SPEED 5400 @ 100 @ 1764

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Leo Berrigan

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0130	1 1/2	2	DRILL FROM 1762m - 1763m
0130	0215	3/4	22	REPAIR No 2 PUMP. SEAT + 2 VALVES
0245	0500	2 1/4	2	DRILL 1763m - 1766m
0500	0600	1	5	CIRC BTMS UP
0600	0900	3	6	POOH FOR PRESSURE TEST

NOTES Check Crown Saver - Fast Line Clamp, Deadman Anchor Brakes Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	85 000	MIXING MUD	1498 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC 1000 daN

WT. OF STRING 1000 daN

BIT RECORD

BIT NO.		
SIZE (mm)		
IADC CODE		
MFG.		
TYPE		
SERIAL NO.		
JETS (mm)		
DEPTH OUT (m)		
DEPTH IN (m)		
TOTAL METRES DRILLED (m)		
TOTAL HOURS RUN		

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³	Hole Fill Record		
FUNNEL VIS. - (S/L)	Cal 9.17 m³		
W.L. (cm³)	Act 13.72 m³		
pH	Diff 4.55 m³		
P.V. T m³			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1766				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	1400	8	6	POOH. Tight spot @ 1220m - 1218m
1400	1500	1	23	Pull out wear bushing
1500	1600	1	23	Clean Threads & Put in new Dog nuts for Wear Bushing
				Tight Spot @ 1144m
				Back Ream out with Pumps
				Tight Spot @ 1144m

NOTES √ Crown Saver, Castline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			125000		1498 KPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

WT. OF DC 1000 daN

WT. OF STRING 1000 daN

BIT RECORD

BIT NO.		
SIZE (mm)		
IADC CODE		
MFG.		
TYPE		
SERIAL NO.		
JETS (mm)		
DEPTH OUT (m)		
DEPTH IN (m)		
TOTAL METRES DRILLED (m)		
TOTAL HOURS RUN		

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Leo Berrigan

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1615	1/4	7	KK Function Blind Rams 8 sec
1615	1715	1	24	P/U PACKER & RIH WITH ONE DP
1715	1815	1	15	Blow Choke Lines with Air Test Same
1815	2045	2 1/4	6	RIH w/ PACKER R.T.T.S. To 705m
2045	2130	3/4	15	TEST CASING 1500 LOW ( ) 7000 HIGH ( ) 10 min EACH
2130	2315	1 3/4	6	POOH RTTS PACKER.
2315	2400	3/4	15	RIG up To PRESSURE TEST

NOTES Check Crown Saver Fastline Clamp - Deadman Anchor Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			20000	RIG PRESSURE TEST	1498

FOLD HERE →

153679

LICENCE NO.: 19

WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL

CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C 81 6040 12330-0

UNIQUE ID.: 300 C31 6040 12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H²S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2004 | MONTH | DAY

RIG NO. 58

FUEL @ 8:00

RIG 1.91 | BOILER

WEATHER

TEMPERATURE °C
CURRENT CONDITIONS
WIND DIRECTION
ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.3/311.2		BTC	K55	55	711.20	6.17	710

	DRIFT SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	315	71.43	K55	311	406	4½ FH	17	F1000	EMSCO	254
	127	71.43	K55	101	156	4½ FH	138	F1000	EMSCO	254
	127	71.43	E3	101	156	4½ FH	138			
	127	71.43	E2	101	158	4½ FH	179			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 WEAR BUSH	24	25	26
	MORN.						2									5/4							1			
	DAY		3½				4														½					
	EVE.		1 3/4			1	3/4														½					
	TOTAL																									

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE Derrick FLC	TMJ 269212			
8	SCREENS CHANGED ☐ YES ☐ NO	AMJ 5403			
8	TOP 140 TOP 175	Accum Oil 35			
8	MIDDLE 140 MIDDLE 175				
	BOTTOM 140 BOTTOM 175				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	NB SHA.	311	5.00
1	KES		

D.P. STANDS
D.P. SINGLES
KELLYDOWN
TOTAL
WT. OF DC 1000 daN
WT. OF STRING 1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_1 T_2 MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1766				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
ACCUMULATOR BOTTLES		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0000	0500	5	15
0500	0600	1	22
0600	0700	2	6

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

PRESSURE TEST BOP'S - PIPE - UPPER (OK)
ANNULAR (OK) HYDRIL (OK) KILL LINE
VALVES (OK) CHOKE VALVES (OK) LOWER
PIPES (OK) TOP DRIVE VALVE (OK)
ALL MANIFOLD VALVES (OK) LOW (500)
HIGH (13000) ALL TESTS 10 MIN.
FUNCTION ACCUMULATOR
INSTALL WEAR BUSHING
MAKE RHA & RIH
ACCUMULATOR BOTTLES #1 - 2100 PSI. #2 - 2000 PSI
#3 - 1900 PSI #4 - 2000 PSI #5 - 2100 PSI
PRECHARGE PRESSURE 6900 KPA.

NOTES

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	NB SHA.	311	5.00
1	KES	215	.69
2	NMDC	208	16.75
1	SHK	215	2.49
3	DC	208	27.69
1	JARS	208	5.77
5	DC	208	46.76
1	X/O	178	1.38
9	DC	178	69.48
13	X/O HWDP	127	121
		BHA=	227.15
54	D.P.	STANDS	1542.96
4	D.P.	SINGLES	39.24
	KELLYDOWN		16.22
	TOTAL		1765
WT. OF DC			33000
WT. OF STRING			83000

BIT RECORD

BIT NO.	1 4C
SIZE (mm)	311
IADC CODE	
MFG.	SEC. DBS
TYPE	FM2743
SERIAL NO.	5997062
JETS (mm)	6x 17.5
DEPTH OUT (m)	
DEPTH IN (m)	1766
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T_1 T_2 MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 15000 DAN
TORQUE AT BOTTOM 7500 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	16:00
DENSITY kg/m³	1615
FUNNEL VIS. - (S/L)	78
W.L. (cm³)	6.0
pH	10.0
P.V.T	58.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2.5x
Wheatsian	28.5x
T352	1 pail
CORINOX	1 pail
Sod Sulfite	2.5x
Bar. Lo	90 sx
Alcomer	1 sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1766			60/70	15
1685	1765	RM	40	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14300	152	95	152	75

REDUCED PUMP SPEED 4300 @ 1851 m @ 75

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	1000	2	6
1000	1015	¼	20
1015	1215	2	6
1215	1545	3½	3
1545	1600	¼	20

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

M/U BHA Pick-up 4 DC's
TEST MWD TOOLS @ 249m
R.I.H. FROM 249m - 1625m
Brk. Circ. & Ream 1625m - 1765m
TEST MWD TOOLS

NOTES ✓ Crown Saver Kelly Hose Clamp Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	NB SHA.	311	5.00
1	KES	215	.69
2	NMDC	208	16.75
1	SHK	215	2.49
3	DC	208	27.69
1	JARS	208	5.77
5	DC	208	46.76
1	X/O	178	1.38
9	DC	178	69.48
13	X/O HWDP	127	121
		BHA=	227.15
54	D.P.	STANDS	1542.96
4	D.P.	SINGLES	39.24
	KELLYDOWN		16.22
	TOTAL		1765
WT. OF DC			33000
WT. OF STRING			83000

BIT RECORD

BIT NO.	1 4C
SIZE (mm)	311
IADC CODE	
MFG.	SEC. DBS
TYPE	FM2743
SERIAL NO.	5997062
JETS (mm)	6x 17.5
DEPTH OUT (m)	1770
DEPTH IN (m)	1766
TOTAL METRES DRILLED (m)	1770-4
TOTAL HOURS RUN	4.

CUTTING STRUCTURE: T_1 T_2 MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5 - 15000 DAN
TORQUE AT BOTTOM 5 - 7500 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	17:00	20:00
DENSITY kg/m³	1620	1630
FUNNEL VIS. - (S/L)	83	77
W.L. (cm³)	6.0	7.2
pH	10.0	10.0
P.V.T	60.6	61.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	168 sx
Lime	2 sx
T352	1 Pail
Alcomer	1 sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1766	1770	RM	70	15/20
1765	1766	RM	60/70	15

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
11900	152	80	152	80

REDUCED PUMP SPEED 4800 @ 70 @ 1770

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1760m	4.6	68.2

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	1615	¼	3
1615	1645	½	20
1645	1815	1½	3
1815	2215	4	2
2215	23:15	1	5
23:15	24:00	¾	6

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

REAM 1765m - 1765.5'
TEST MWD GET GYRO SURVEY BEFORE
REAM 1765.5m - 1766m
DRILL 1766m - 1770m
CIRC & MIX PILL / SURVEY.
TRIP OUT BIT #14C.
RIH S&P

NOTES Check Crown Saver - Tasline Clamp - Deadline Anchor - Brakes
Linkage

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		Housekeeping	1568 KPA

EVENING TOUR

FOLD HERE →

153680

LICENCE NO.: 1900 | WELL NAME AND NO.: CANADIAN FOREST ETAL NORTH LIARD C-31

OPERATOR: CANADIAN FOREST OIL | CONTRACTOR: AKITA DRILLING LTD

SURFACE LOCATION: 300 C-31 6040 12330-0 | UNIQUE ID.: 300 C-31 6040 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HPS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2010 | MONTH 03 | DAY 28

RIG NO. 58

FUEL @ 8:00

RIG 1.70 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.91	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	71.35	HWDP	76	156	3½ IF	9	F 1000	EMSCO	254
127	38.06	L3	101	156	4½ XH	136	F 1000	EMSCO	254
127	29.02	E2	108	158	4½ IF	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.						1¼	7¾																			
DAY			6			¼	13¼																			
EVE.			3½			½	4	¼																		
TOTAL			9½			3¼	13¾	¼																		

TOTALS	
8	
8	
8	
24	

SHALE SHAKER(S)

NO. 1 TYPE DERRICK FLC

SCREENS CHANGED ☑ YES ☐ NO

TOP		TOP	
MIDDLE	140	MIDDLE	175
BOTTOM	140	BOTTOM	175

RENTALS/SERVICES

	MORN	DAY	EVE
Tuzo 371625			
Amj 76195			
Accum DC .35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	15C
SIZE (mm)	311
IADC CODE	
MFG.	REED
TYPE	EHP43H
SERIAL NO.	KH7469 KH7469
JETS (mm)	3X 22 2
DEPTH OUT (m)	
DEPTH IN (m)	1770
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME | DENSITY kg/m³ | FUNNEL VIS. - (S/L) | W.L. (cm³) | pH

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

MORNING TOUR

METRES DRILLED

FROM	TO	DR'G RM'R CORE'G	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1770				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm), S.P.M.

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

Ed Ferguson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0115	1¼	6	POOH TO 1493m
0115	0130	¼	5	FILL HOLE - FLOW✓ - PUMP PILL
0130	0615	4¾	6	POOH 1493 - SIT FLOW✓ SAB
				TOP BHA - OUT OF HOLE
0615	0800	1¾	6	RIH - NEW BIT
				HOLE FILL ACTUAL 12.41 m³ CAL. 7.34
				DIFF 5.07 m³
				CLOSE BLINDS OUT OF HOLE

NOTES: CHECK FASTLINE CLAMP - DEADMAN ANCHOR - CROWN SAVER BRAKES & LINKAGE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	110,000	STOP CARDS	1568 KPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		2.22 m
1	REST SUB		.69 m
2	NMDC	228	15.75 m
1	3PT Reamer		2.49 m
3	DC	228	27.69 m
1	JARS		5.77 m
5	DC	228	45.76 m
1	X/O		1.38 m
9	DC	178	84.46 m
3	HWDP	127	27.15 m
		BHA:	221.98 m
54	D.P.	STANDS	m
X	D.P.	SINGLES	1559.24 m
Pickup	KELLY DOWN		8.97 m
	TOTAL		1773.25 m
WT. OF DC			33000 1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	15C
SIZE (mm)	311
IADC CODE	437
MFG.	REED
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3X 22 2
DEPTH OUT (m)	-
DEPTH IN (m)	1770
TOTAL METRES DRILLED (m)	2
TOTAL HOURS RUN	6

CUTTING STRUCTURE: T, T, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 6-8000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	11:00	13:00	16:00
DENSITY kg/m³	1630	1610	1610
FUNNEL VIS. - (S/L)	102	93	95
W.L. (cm³)	6.5	6.5	6.5
pH	10.0	10.5	10.5
P.V.T	76.9	80.2	82.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 sx
Barite	145 sx
Carbonox	1 pail
T352	1 pail
Potassium	28 sx
SodaAsh	2 sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'G RM'R CORE'G	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1770	1772	2	80/40	25/25

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm), S.P.M.

15500 | 152 | 95 | 152 | 95

REDUCED PUMP SPEED

5200 @ 1774m @ 95

DEVIATION SURVEY

DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0945	1¼	6	RIH TO 1752m Flow✓
0945	1000	¼	5	ISR. CIRC WASH 1752m - 1770
1000	1600	6	2	DRILL 1770m - 1772.25m

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0			95000 DAN		

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		.35 m
1	REST SUB		2.22 m
2	NMDC	228	18.75 m
1	3PT Reamer		2.49 m
1	SHOCK		3.82 m
3	DC	228	27.69 m
1	JAR		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	1.41 m 27.15 m
		BHA:	221.98 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			33000 1000 daN
WT. OF STRING			83000 1000 daN

BIT RECORD

BIT NO.	15C
SIZE (mm)	311
IADC CODE	437
MFG.	Reed
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3X 22 2
DEPTH OUT (m)	
DEPTH IN (m)	1770
TOTAL METRES DRILLED (m)	3
TOTAL HOURS RUN	9½

CUTTING STRUCTURE: T, T, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00
DENSITY kg/m³	1630
FUNNEL VIS. - (S/L)	83
W.L. (cm³)	6.5
pH	10.5
PVT m³	84.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	210 sx
Lignite	15k.

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

0 | Centrifuge #2

HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

0

EVENING TOUR

METRES DRILLED

FROM	TO	DR'G RM'R CORE'G	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1772	1773	1	80/40	25/30

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm), S.P.M.

Pump #1 Pump #2

15500 | 152 | 95 | 152 | 95

REDUCED PUMP SPEED

4600 @ 95 @ 1773m

DEVIATION SURVEY

DEPTH (m) | DEVIATION (°) | DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	19:30	3½	2	Drill 311 mm hole F/1772.25m - 1773.40
19:30	20:00	½	6	P.O.O.H. TO 1723m, Flow✓
20:00	20:15	¼	7	RIS, Function Annular 19 sec/ks
20:15	21:30	1¼	6	P.O.O.H. TO 1430 m
21:30	21:45	¼	5	Pump Pill Flow✓
21:45	24:00	2¼	6	P.O.O.H. Flow✓ @ 50 stds to HWDP

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Function Remote Choke.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—		Packing mud	1498 KPA

FOLD HERE →

153681

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 C31 6040 12330 O | UNIQUE ID.: 300 C31 6040 12330 O

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial CC / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H2S Signs Posted (if required) — Initial / Initial
(4) Well License & Stick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flamelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (once/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR: 2000 | MONTH: 07 | DAY: 29 | RIG NO.: 38

FUEL @ 8:00 | RIG: 1.44 | BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.3A	104.2	BT&C	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	74.35	XH	76	178	4½ IF	39	F-1000	Emsco	254
168	56.66	E75	101	178	4½ IF	136	F-1000	Emsco	254
127	29.01	E75	108	158		174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			3/4			3/4	4 3/4			3/4																
DAY			6 3/4			1/4					1/4												1/4	3/4	3/4		
EVE.			7 1/4					1/2			1/4															
TOTAL			14 3/4			1	4 3/4	1/2		3/4	1/2												1/4	3/4	3/4		

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
6	NO. 1 TYPE Derrick FLC	TMJ 370265
8	SCREENS CHANGED ☐ YES ☐ NO	AMJ 90
8	TOP 140 TOP 140	Accum 0.1 135
8	MIDDLE 140 MIDDLE 135	
24	BOTTOM 140 BOTTOM 135	

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	NB STT		2.22
1	Rest Sub		.69
2	NMDC	228	18.75
1	SPT Rem Shock		3.69
3	DC	228	27.69
1	Jar		5.77
5	DC	228	45.78
1	X/O		1.38
9	DC	178	84.48
1	X/O		1.41
3	HWDP	127	27.15
	BHA:		221.98
54	D.P.	STANDS	
X	D.P.	SINGLES	1551.39
	KELLY DOWN		—
	TOTAL		1773.37
WT. OF DC			35000 (1000 daN)
WT. OF STRING			83000 (1000 daN)

BIT RECORD

BIT NO.	16C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7 x 14.3
DEPTH OUT (m)	
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	3/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:30	11:00
DENSITY kg/m³	1630	1625
FUNNEL VIS. - (S/L)	74.	83
W.L. (cm³)	7.5	8.0
pH	10.0	10.0
PVT m³	74.1	65.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Mica	35 x
Sawdust	20 SX
Walnut Hds	5 SX
Lignite	2 SX
Drispac	2 SX
Starpac	4 SX

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1773				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm), S.P.M.

	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
TVD Record		
cal 12.28 m		
mea 13.36 m		
Diff 1.00 m		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0145	1¾	6	TOOH f/ Surface to Surface
0145	0200	¼	22	CHANGE BITS
0200	0300	1	6	RIH w/ DSS BIT to 259mm
0300	0330	½	23	TEST MWD Tools
0330	0415	¾	6	RIH 259m - 718m Flow ✓
0415	0430	¼	23	TEST MWD Tools
0430	0515	¾	9	Slip & cut 20m
0515	0530	¼	6	RIH 718m - 921m
0530	0545	¼	5	Dev. Circ. @ 921m
0545	0645	1	6	RIH 921m - 1772
0645	07:30	¾	2	Drill Break in BIT
07:30	08:00	½	5	Circulate. Circulate. Repair Pump #1

NOTES: ✓ Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0					1498 kpa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	NB STT		.35
1	Rest Sub		2.22
2	NMDC	228	.69
1	SPT Rem Shock		18.75
3	DC	228	3.69
1	Jar		27.69
5	DC	228	5.77
1	X/O		45.78
9	DC	178	1.38
1	X/O		84.48
3	HWDP	127	1.41
	BHA:		27.15
54	D.P.	STANDS	221.98
X	D.P.	SINGLES	1556.82
	KELLY DOWN		—
	TOTAL		1778.80
WT. OF DC			33000 (1000 daN)
WT. OF STRING			83000 (1000 daN)

BIT RECORD

BIT NO.	16C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	5
TOTAL HOURS RUN	7½

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 4-15000 FT/lb | FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	11:00	13:30	16:30
DENSITY kg/m³	1625	1625	1630
FUNNEL VIS. - (S/L)	83	107	93
W.L. (cm³)	8.0	8.0	7.0
pH	10.0	10.5	10.5
PVT m³	65.8	67.8	70.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Akomix	1 sk.
Carinox	1 pa. 1
T-352	1 pa. 1
Sod. Sulfite	2.5 x
Gel	15 sx
Soda Ash	1 sk.
Barite	294 sx
Lime	4 sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	0		

CENTRIFUGE #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	0		

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1773	1778	5	90	10/15

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm), S.P.M.

14000	152	90	152	90

REDUCED PUMP SPEED: Choke 4400 @ 90 @ 1450m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1759	4.7	66.9

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:15	¼	5	Circulate, Repair Pump #1 (Changed seat & valve.)
08:15	08:30	¼	10	Survey @ 1759m
08:30	09:15	¾	24	Loss in Flow & volume, Flow ✓ Hole Taking mud.
09:15	16:00	6¾	2	Drill F/1773.37m - 1778.80m
				Greased Crown & Blocks.

NOTES: ✓ Crown Saver Fastline Clamp Deadline Anchor. Brakes & Linkage. Function Remote choke. ✓ Bolts in Drawworks

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	100 000 DAN	Slip Cards.	1533 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	NB STT		.35
1	Rest Sub		2.22
2	NMDC	228	.69
1	SPT Rem Shock		18.75
3	DC	228	3.69
1	JAR		27.69
5	DC	228	5.77
1	X/O		45.78
9	DC	178	1.38
1	X/O		84.48
3	HWDP	127	1.41
	BHA:		27.15
54	D.P.	STANDS	221.98
XX	D.P.	SINGLES	1558.71
Stick-Up	KELLY DOWN		5.74
	TOTAL		1785
WT. OF DC			33000 (1000 daN)
WT. OF STRING			83000 (1000 daN)

BIT RECORD

BIT NO.	16C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	12
TOTAL HOURS RUN	19¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 5-10000 DAN | TORQUE AT BOTTOM 4-15000 FT/lbs | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	23:00
DENSITY kg/m³	1625	1625	1620
FUNNEL VIS. - (S/L)	83	97	85
W.L. (cm³)	9.0	9.0	9.0
pH	10.0	10.0	10.0
PVT m³	74.2	76.3	77.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1778	1785	7	90	10/15

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm), S.P.M.

14200	152	90	152	90

REDUCED PUMP SPEED: Choke 4700 @ 1780m @ 90

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1770	4.3	73.3

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:15	1¼	2	Drill 311mm hole F/1778.80m - 1780.80m
17:15	17:45	½	7	R/S Function TOP Pipe Rams 6 stands ✓ RSPP
17:45	18:00	¼	10	Survey @ 1770m
18:00	24:00	6	2	Drill F/1780.80m - 1785m

NOTES: ✓ Crown Savers, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—			1368 kpa

FOLD HERE →

153682

LICENCE NO.:	WELL NAME AND NO.:
1900	Canadian Forest et al North Lwrd c-31
OPERATOR:	**CONTRACTOR:**
Canadian Forest Oil	Akita Drilling #70
SURFACE LOCATION:	**UNIQUE ID.:**
300 c31 6040 12330 01	300 c31 6040 12330 0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	**SIGNATURE OF CONTRACTOR'S RIG MANAGER:**

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection Weekly (using checklist)	Initial	Initial
(3) H'S Signs Posted (if required)	Initial	Initial
(4) Well Licenses & Slick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (once/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 09 | DAY 20

RIG NO. 56

FUEL @ 8:00

RIG 1.09 | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	K.12	Stelco	K55	55	728.21	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	228.4	E	57	178	5 1/2 FH	24	F-1000	Emsco	254
121	74.75	E	76	146	NC 46 IF	17			
147	99.16	E	101	168	NC 50 IF	130	F-1000	Emsco	254
127	79.02	E	103	168		174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			7 1/4																			Flow ✓	Build volume			
DAY						3/4																3/4	6 3/4			
EVE.			3 1/4			1/2		1/4		1/4												1/2	6 3/4			
TOTAL			10 3/4			1 1/4		1/4		1/4												1 1/4	16 1/2			

TOTALS

5	SHALE SHAKER(S) NO.	TYPE	2 Derrick FE
5	SCREENS CHANGED ☐ YES ☒ NO		
8	TOP 140	TOP 140	
8	MIDDLE 140	MIDDLE 175	
24	BOTTOM 140	BOTTOM 175	

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMS 37482			
AMJ 267			
Accumul .35			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB SPT		0.35 2.92 m
1	Rest sub		.69 m
2	NMDC	228	18.75 m
1	SPT Roam Shock Sub		3.82 m
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	1.41 27.15 m
			BHA: 221.98 m
54	D.P.	STANDS	m
XX	D.P.	SINGLES	1567.62 m
	KELLY DOWN		m
	TOTAL		1789.60 m
WT. OF DC		33000	1000 daN
WT. OF STRING		83000	1000 daN

BIT RECORD

BIT NO.	16C
SIZE (mm)	311
IADC CODE	
MFG.	SEC. DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	16
TOTAL HOURS RUN	22

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3000-5000 ↑↓ DAN

TORQUE AT BOTTOM 4000-12000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME	02:00	04:00	06:00
DENSITY kg/m³	1625	1630	1635
FUNNEL VIS. - (S/L)	85	82	77
W.L. (cm³)	9.0	9.0	9.0
pH	10.0	10.0	10.0
P.V.T	79.8	79.5	77.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sodsulfit	2 SX
Alcomer	1 SX
T352	1 pail
Corinox	1 pail
Rotaspan	5 SX
Barite	210 SX
Lime	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1785	1789	4	80/70	15/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	95	152	95

REDUCED PUMP SPEED

4500 @ 90 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	07:15	7 1/4	2	DRILL 1785 m - 1789.60 m
07:15	08:00	3/4	22	Loss in Flow & volume, Flow ✓, Hole Taking mud., Flow ✓ mix L.C.M. Pill

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—			1964 kDaN

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB SPT		.35 2.92 m
1	Rest sub		.69 m
2	NMDC	228	18.75 m
1	SPT Roam Shock Sub		3.82 m
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP		1.41 27.15 m
			BHA: 221.98 m
54	D.P.	STANDS	m
XX	D.P.	SINGLES	1567.62 m
	KELLY DOWN		m
	TOTAL		1789.60 m
WT. OF DC		33000	1000 daN
WT. OF STRING		83000	1000 daN

BIT RECORD

BIT NO.	16C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	16
TOTAL HOURS RUN	22

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 - 10-13000 - NOT ROTATING

TORQUE AT BOTTOM 6500 FT/LB off Bottom

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME			16:30
DENSITY kg/m³			1620
FUNNEL VIS. - (S/L)			81
W.L. (cm³)			
pH			10.0
PVT			103.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	180 SX
Gel	40 SX
Corinox	1 pail
T352	1 pail
Pot. Sulph.	6 SX
Sod. Sulfit	8 SX
Sawdust	30 SX
Mica	7 SX
Drispac	1 SX
Starpac	2 SX
Walnut Hulls	8 SX
Kwikseal	1 SX
Soda Ash	1 SX
Lime	1 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1789			18	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
Choke				
4500	152	30	152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:30	1/2	22	Flow ✓, Mix L.C.M. Pill (Loss 42 m³)
08:30	09:15	3/4	5	Pump L.C.M. Pill
09:15	16:00	6 3/4	3	Build volume in MUD Tanks, Condition MUD. Monitor Hole, Work Drill String

NOTES ✓ Crown Saver Fastline Clamp, Deadline Anchor, Brakes & Linkage. Function Remote choke

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	100 000 DAN	Winter Conditions	1498 kDA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB SPT		.35 2.92 m
1	Rest sub		.69 m
2	NMDC	228	18.75 m
1	SPT Roam Shock Sub		3.82 m
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	1.41 27.15 m
			BHA: 221.98 m
55	D.P.	STANDS	1578.33 m
	D.P.	SINGLES	m
STICK UP	KELLY DOWN		9.31 m
	TOTAL		1791 m
WT. OF DC		33000	1000 daN
WT. OF STRING		83000	1000 daN

BIT RECORD

BIT NO.	16C
SIZE (mm)	311
IADC CODE	
MFG.	SEC DBS
TYPE	FM2763
SERIAL NO.	5984822
JETS (mm)	7X14.3
DEPTH OUT (m)	1791
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	18
TOTAL HOURS RUN	25 1/4

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN

TORQUE AT BOTTOM 3-10000 MIN

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE	☒ WATER BASED	☐ OIL BASED	
TIME	21:00		23:00
DENSITY kg/m³	1620		1620
FUNNEL VIS. - (S/L)	70		77
W.L. (cm³)	9.5		8.5
pH	10.0		10.0
P.V.T	102.9		103.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 SX
Drispac	1 SX
Starpac	2 SX
Mica	2 SX
Barite	250 SX
Corinox	1 SX
Soda Ash	60 SX
Pot. Sulph.	16 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-O RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1789	1791	2	70/80	5/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14500	152	90	152	90

REDUCED PUMP SPEED

4150 @ 70 rpm @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1788.67	4.3	74.48

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00			23	Condition Mud, monitor hole For Losses
	1945	3 1/4		Work Drill String
1945	2045	1	2	Drill 1789.6 m - 1790.2
2045	2100	1/4	7	K/S Function Top Pipe Sec. c/s
2100	2115	1/4	10	Survey @ 1781.27
2115	2330	2 1/4	2	Drill 1790 m - 1791 m
2330	2400	1/2	5	Circ 15 Stands - up

NOTES ✓ Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—			1545 kDa

FOLD HERE →

153683

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lund c-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300 c 31 104c 12330 c | UNIQUE ID.: 300 c 31 c 10 12330 c

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial / Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial / Initial
(3) H'S Signs Posted (if required) — Initial / Initial
(4) Well License & Slick Diagram Posted — Initial / Initial
(5) Flare Lines Staked — Initial / Initial
(6) BOP Drills Performed — Initial / Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines — Initial / Initial

(1) Rig Site Health and Safety Meeting (one/crew/month) — Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month) — Initial
(3) Mast Inspection Before Raising or Lowering — Initial
(4) Crown Saver Checked — Initial
(5) Motor Kills checked — Initial

YEAR 2000 | MONTH 10 | DAY 01

RIG NO. 58

FUEL @ 8:00

RIG 83 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	6.42	STFC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	178.54	DC	57	228	6 5/8 Reg	24	F-1000	Emsco	254
197	224.34	HW	71	197	4 1/2 IF	9	F-1000	Emsco	254
197	224.16	E2	106	158	6 5/8 Reg	174			
197	224.02	E2	106	158	6 5/8 Reg	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Flow Check	24 TOP DRIVE	25 Handle Tools	26 BOP Drill
	MORN.					1 1/2	5																1/4	1 1/4		
	DAY		1			3/4	4 1/2	1/2													1/4				3/4	1/4
	EVE.		7/8								1/4															
	TOTAL		1 7/8			2 1/4	9 1/2	1/2			1/4										1/4	1/4	1/4	1 1/4	3/4	1/4

TOTALS

S	SHALE SHAKER(S) NO. 1 TYPE Derrick ALC
S	SCREENS CHANGED ☐ YES ☐ NO
S	TOP 140 / TOP 140
S	MIDDLE 140 / MIDDLE 175
24	BOTTOM 140 / BOTTOM 175

RENTALS/SERVICES

	MORN.	DAY	EVE.
Tool 379125			
MWD 1930			
Accum Cal .35			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH

KELLY DOWN — TOTAL — WT. OF DC — WT. OF STRING

BIT RECORD

BIT NO.	16
SIZE (mm)	311
IADC CODE	
MFG.	Sec DBS
TYPE	FM2763
SERIAL NO.	5964422
JETS (mm)	7x14.3
DEPTH OUT (m)	1791
DEPTH IN (m)	1773
TOTAL METRES DRILLED (m)	18
TOTAL HOURS RUN	25 1/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

D.P. | STANDS | m — D.P. | SINGLES | m

HOLE CONDITION

HOLE DRAG | TORQUE AT BOTTOM | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sawdust	15sx
Mica	4sx.

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1791				

CIRCULATION PRESSURE (kPa) | PUMP NO. 1 LINER SIZE (mm) | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE (mm) | PUMP NO. 2 S.P.M.

	152		152

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Trip Record		
meas	21.56	
calc	23.97	
DIFF	2.41	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0045	3/4	5	Circ. Btms-up
0045	0200	1 1/4	6	Flow Pull 6 stds Flow Losses 6m³
0200	0245	3/4	5	Pump, L.C.M. Pill
0245	0300	1/4	22	Flow
0300	0615	3 1/4	6	Pooh Flow Check 10, 25, 5 stds.
0615	0730	1 1/4	13	Repair Top Drive Link Tilt Forward
0730	08:00	1/2	6	P.O.O.H.

NOTES: Crown Saver Fastline Clamp Deadline Anchor Blew Boilers Down 2 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
24	10.5	240			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		.35
1	Rest Sub		2.29 / .29
1 2	NMDC	228	18.75
1	3PT Ream		2.49 / 3.89
1	Shock Sub		
3	DC	228	27.69
1	Jar		5.77
5	DC	228	45.78
1	X/O		1.38
9	DC	178	84.48
1 3	X/O HWDP	127	1.41 / 27.15
	BHA:		221.98
55	D.P.	STANDS	1570.12
—	D.P.	SINGLES	—
	KELLY DOWN		—
	TOTAL		1792.10
	WT. OF DC		33000 (1000 daN)
	WT. OF STRING		83000 (1000 daN)

BIT RECORD

BIT NO.	17C
SIZE (mm)	311
IADC CODE	117
MFG.	HUGHES
TYPE	GT-1
SERIAL NO.	W37XV
JETS (mm)	3x14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1791
TOTAL METRES DRILLED (m)	0+90=1
TOTAL HOURS RUN	1

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

D.P. | STANDS | m — D.P. | SINGLES | m

HOLE CONDITION

HOLE DRAG 3-5000 Rotating / 10-15000 slide | TORQUE AT BOTTOM 8000 FT/Lb | FILL ON BOTTOM (m) 0 NO Fill

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	16:00	18:00
DENSITY kg/m³	1625	1625
FUNNEL VIS. - (S/L)	76	84
W.L. (cm³)	10	9.0
pH	10	10.5
PVT m³	962	95.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	277 sx
Sod Soliflo	2 sx
T-352	1 pail
Caustic	1 pail
Dr. Spac	2 sx
Star Pac	2 sx
Lime	2 sx
Walnuts Hulls	45x.

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY	OVERFLOW DENSITY	UNDERFLOW DENSITY

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY	OVERFLOW DENSITY	UNDERFLOW DENSITY
0			

Centrifuge #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY	OVERFLOW DENSITY	UNDERFLOW DENSITY
0			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1791	1792	1	80/90	10/16

CIRCULATION PRESSURE (kPa) | PUMP NO. 1 LINER SIZE (mm) | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE (mm) | PUMP NO. 2 S.P.M.

13750	152	80	152	80

Choke **REDUCED PUMP SPEED**

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:30	1 1/2	6	P.O.O.H., Flow ✓ @ H.W., out of Hole
09:30	10:00	1/2	24	Change Bits, Function Blind Rams, 6 sec/cls.
10:00	10:15	1/4	24	Install M.W.D Tool.
10:15	11:30	1 1/4	6	Flow ✓ R.I.H. TO 316m, Flow ✓
11:30	11:45	1/4	20	Test M.W.D. Tool
11:45	12:15	1/2	7	RIS, Function Bottom Pipe Rams, 6 sec/cls.
12:15	12:45	1/2	6	R.I.H. TO 718m
12:45	13:00	1/4	25	B.O.P. Drill, Well Secure in 1 min.
13:00	14:15	1 1/4	6	R.I.H. TO 1771m
14:15	15:00	3/4	5	Break Circulation, Wash 20m to bottom, No Fill
15:00	16:00	1	2	Drill F/1791.20m - 1792.10m

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	260	95000 DAN	B.O.P. Drills	1533 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		.35
1	Rest Sub		.69
1 2	NMDC	228	18.75
1	3PT Ream		2.49 / 3.89
1	Shock Sub		
3	DC	228	27.69
1	JAR		5.77
5	DC	228	45.78
1	X/O		1.38
9	DC	178	84.48
1 3	X/O HWDP	127	1.41 / 27.15
	BHA:		221.98
55	D.P.	STANDS	
X	D.P.	SINGLES	1568.14
Stick Up	KELLY DOWN		9.12
	TOTAL		1801
	WT. OF DC		33000 (1000 daN)
	WT. OF STRING		85000 (1000 daN)

BIT RECORD

BIT NO.	17C
SIZE (mm)	311
IADC CODE	117
MFG.	HUGHES
TYPE	GT 1
SERIAL NO.	W37XV
JETS (mm)	3X14.3
DEPTH OUT (m)	
DEPTH IN (m)	1791
TOTAL METRES DRILLED (m)	10
TOTAL HOURS RUN	6 3/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

D.P. | STANDS | m — D.P. | SINGLES | m

HOLE CONDITION

HOLE DRAG 3-5000 | TORQUE AT BOTTOM 8000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1620	1620	1620
FUNNEL VIS. - (S/L)	90	87	87
W.L. (cm³)	10.0	10.0	10.5
pH	10.0	10.0	7.0
P.V.T	98.3	99.7	99.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod Soliflo	2 sx
Alcomer	1 sx
T-352	1 pail
Caustic	1 pail
Lime	4 sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY	OVERFLOW DENSITY	UNDERFLOW DENSITY

CENTRIFUGE #1: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY	OVERFLOW DENSITY	UNDERFLOW DENSITY

Centrifuge #2: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY	OVERFLOW DENSITY	UNDERFLOW DENSITY

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1792	1801	9	80/90	14/16

CIRCULATION PRESSURE (kPa) | PUMP NO. 1 LINER SIZE (mm) | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE (mm) | PUMP NO. 2 S.P.M.

13820	152	80	152	80

Choke **REDUCED PUMP SPEED**

45000 @ 50 @ 1777m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1791.9	4.1	75.0

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2215	6 1/4	2	Drill 311mm Hole F/1792m - 1799m
2215	2230	1/4	10	Survey @ 1791.9
2230	2400	1 1/2	2	Drill 1799m - 1801m

NOTES: ✓ Crown Saver, Fastline Clamp, Deadline Anchor Blew Down Boiler Down 2 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5				1566 KPA

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153684

LICENCE NO.: 19900
WELL NAME AND NO.: Canadian Forest et al Neithard c-31
OPERATOR: Canadian Forest Oil
CONTRACTOR: Akita Drilling LTD
SURFACE LOCATION: 300 c-31 6040 19330 0
UNIQUE ID.: 300 c-31 6040 19330 0
SIGNATURE OF OPERATOR'S REPRESENTATIVE:
SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)
(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) HPS Signs Posted (if required)
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines
(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 2000 MONTH 10 DAY 02
RIG NO. 56
FUEL @ 8:00
RIG 150 BOILER

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	314.71	107.1	Stfc	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	171.54	DC	57	228	6 5/8 Reg	24	F-1600	Emsco	254
127	74.35	DP	91	158	NC 50 IF	178	F-1600	Emsco	254
147	76.66	E5	101	168	NC 50 IF	178			
127	53.09	E2	103	143	↓	179			

TIME-HRS

OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
MORN.		8																								
DAY		7					1/2			1/2																
EVE.		1/4			1 1/4	6				1/4																
TOTAL		15 1/4			1 1/4	6	1/2			3/4																

TOTALS: 8 / 8 / 8 / 24

SHALE SHAKER(S): NO. 2 TYPE Electric FLC; SCREENS CHANGED ☐ YES ☐ NO; TOP #1 140 TOP #2 140; MIDDLE 140 MIDDLE 175; BOTTOM 140 BOTTOM 175

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ 374457			
AMJ 3262			
Arcan Oil .37			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT	311	.35 m
1	Rest Sub		2.22 m
2	NMDC	228	.69 m
1	3PT Ream		18.75 m
3	DC	228	3.49 m
1	Jar		27.69 m
5	DC	228	5.77 m
1	X10		45.78 m
9	178 DC	178	1.38 m
1	X10		84.48 m
3	HWDP		1.91 m
		BHA:	99.75 m
55	D.P.	STANDS	221.98 m
X	D.P.	SINGLES	1585.94 m
	KELLY DOWN		— m
	TOTAL		1807.92 m
WT. OF DC		33000	1000 daN
WT. OF STRING		83000	1000 daN

BIT RECORD

BIT NO.	17c
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	W37XV
JETS (mm)	3X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1791
TOTAL METRES DRILLED (m)	16
TOTAL HOURS RUN	16 3/4

CUTTING STRUCTURE: T_i T_o MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION: HOLE DRAG 3-5000; TORQUE AT BOTTOM 8000 FT/LBS; FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1610	1620	1620
FUNNEL VIS. - (S/L)	92	90	85
W.L. (cm³)	7.0	7.5	8.0
pH	10.5	10.5	10.5
P.V.T	101.2	102.3	102.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Drispac	2 sx
Starpak	2 sx
Potassium	40 sx
Barite	252 sx

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 0

CENTRIFUGE #2: HOURS RUN 0

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1801	1807	6	40	13

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
13800	152	80	152	80

REDUCED PUMP SPEED: 4500 @ 80 @ 1791m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0800	8	2	DRILL 1801m - 1807m
				CHECKED FIRE EXTINGUISHERS

NOTES: √ Crown Saver Fastline Clamp Deadline Anchor
BLEW BOILER DOWN 2 TIMES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
6	10.5	240			1568 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT	311	.35 m
1	Rest Sub		2.22 m
2	NMDC	228	.69 m
1	3PT Ream		18.75 m
1	Shock Sub		3.49 m
3	DC	228	3.99 m
1	Jar		27.69 m
5	DC	228	5.77 m
1	X10		45.78 m
9	178 DC	178	1.38 m
1	X10		84.48 m
3	HWDP		1.91 m
		BHA:	99.75 m
55	D.P.	STANDS	221.98 m
XX	D.P.	SINGLES	1596.72 m
	KELLY DOWN		— m
	TOTAL		1818.70 m
WT. OF DC		33000	1000 daN
WT. OF STRING		84000	1000 daN

BIT RECORD

BIT NO.	17c
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	W37XV
JETS (mm)	3X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1791
TOTAL METRES DRILLED (m)	27
TOTAL HOURS RUN	23 3/4

CUTTING STRUCTURE: T_i T_o MDC LOC B Gage ODC Reason Pulled Total Run m/hr.

HOLE CONDITION: HOLE DRAG 3-5000; TORQUE AT BOTTOM 8000 FT/LB; FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	08:00	12:00	16:00
DENSITY kg/m³	1620	1625	1625
FUNNEL VIS. - (S/L)	80	84	85
W.L. (cm³)	8.0	8.0	8.0
pH	10.5	10.5	10.5
PVT m³	103.5	107.4	107.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Barite	182 sx.
Lime	25 x.
Caustic	1 sk
Sod Sulfite	25 x
Cocmax	1 pail
T-352	1 pail
Pot Sulphate	56 sx.
Aleomer	1 sk

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 0

CENTRIFUGE #2: HOURS RUN 0

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1807	1818	11	90	22/23

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	85	152	80

REDUCED PUMP SPEED: 4900 @ 1809m @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1800	4.2	68.0

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:00	1	2	Drill 311 mm Hole F/1807m - 1809m
09:00	09:30	1/2	7	R/S, Function Annular 19 sec/15 √RSPP.
09:30	10:00	1/2	10	Survey @ 1800m
10:00	16:00	6	2	Drill F/1809m - 1818m

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Boiler Blowdown x3

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.0	260	95000 DAN	Hearing Protection	1533 kPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	17c
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	HUGHES
TYPE	GT1
SERIAL NO.	W37XV
JETS (mm)	3X14.3
DEPTH OUT (m)	1819
DEPTH IN (m)	1791
TOTAL METRES DRILLED (m)	28
TOTAL HOURS RUN	~~27 3/4~~ 23 1/4

CUTTING STRUCTURE: T_i T_o MDC LOC B Gage ODC Reason Pulled Total Run m/hr.
6 6 WT G 8 IN NO HR 1.13

HOLE CONDITION: HOLE DRAG; TORQUE AT BOTTOM; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1: HOURS RUN 0

CENTRIFUGE #2: HOURS RUN 0

METRES DRILLED

FROM	TO	DRLG RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1818	1819	1	90	23

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14900	152	85	152	80

REDUCED PUMP SPEED: 4500 @ 80 @ 1819m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1810	4.2	68.9

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:30	1/2	2	Drill F/1818.70m - 1819.40m
16:30	17:45	1 1/4	5	Circulate Bottoms up.
17:45	18:00	1/4	10	Survey @ 1810 m
18:00	24:00	6	6	Flow ck, P.O.O.H., Flow ck @ 1676m, 30 HWDP out of HOLE
				TRIP RECORD
				Cal 27.90 m³
				MEA 26.16 m³
				DIFF 1.60 m³

NOTES: √ Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					

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153685

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest Oil North Lwd c-31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling Ltd

SURFACE LOCATION: 300 c-31 6040 12330 o | UNIQUE ID.: 300 c-31 6040 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 10 | DAY 03

RIG NO. 58

FUEL @ 8:00

RIG 1.15 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.30	107.2	BTC	K55	45	711.30	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (Kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
245	178.0	E	3	273	4 1/2 IF	39	F-1000	Emsco	254
197	94.74	NC	2 1/4	178	4 1/2 IF	136	F-1000	Emsco	254
127	73.02	E	NC	152	3 1/2	179			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		3 1/2			1/2	3 1/2	1/4													1/4						
DAY		8																								
EVE		7 1/2					1/4			1/4																
TOTAL		19			1/2	3 1/2	1/2			1/4										1/4						

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
8	NO. 2 TYPE Brandt Dual	TMS 316244
8	SCREENS CHANGED ☑ YES ☐ NO	AMJ 4049
8	TOP 140 / TOP 175	Accum Dl .37
8	MIDDLE 140 / MIDDLE 175	
24	BOTTOM 140 / BOTTOM 140	

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB SPT	311	.35 m
1	Rest Sub		.69 m
2	NMDC	228	18.75 m
1	SPT Recm Shock Sub		3.82 m
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	MWDP	127	27.15 m
	BHA = 221.98 m		
56	D.P.	STANDS	1599.08 m
—	D.P.	SINGLES	— m
	KELLYDOWN		— m
	TOTAL		1821.10 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	84000	1000 daN	

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	2
TOTAL HOURS RUN	3 1/2

CUTTING STRUCTURE: T1 | TO | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000
TORQUE AT BOTTOM	7000 FT/LBS
FILL ON BOTTOM (m)	0 NO FILL

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	0:600
DENSITY kg/m³	1620
FUNNEL VIS. - (S/L)	80
W.L. (cm³)	7.5
pH	10.5
P.V.T	101.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Attasorb	40 sx
Sod Sulph	2 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1819	1821	2	70/80	10/19

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	55	152	50

REDUCED PUMP SPEED

@ — @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0015	1/4	7	KB Function Blind Rams Exercise
0015	0145	1 1/2	6	R.I.H to 729m Flow ✓
0145	0200	1/4	10	Test MWD Tools
0200	0230	1/2	6	R.I.H from 729m - 1102m Flow ✓
0230	0245	1/4	5	Brk Circ @ 1102m
0245	0415	1 1/2	6	R.I.H 1102m - 1810m
0415	0430	1/4	5	Brk. Circ. Wash from 1810m - 1819m
0430	0800	3 1/2	2	Brk. in Bit & Drill 1819m - 1821m

NOTES: Crown Saver Fastline Clamp Deadline Anchor
Blew Boiler Down 3 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5				1368 KPA

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB SPT	311	.35 m
1	REST SUB		.69 m
2	NMDC	228	18.75 m
1	SPT Recm Shock Sub		3.82 m
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	MWDP	127	27.15 m
	BHA = 221.98 m		
56	D.P.	STANDS	1605.02 m
—	D.P.	SINGLES	— m
	KELLYDOWN		— m
	TOTAL		1827.00 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	84000	1000 daN	

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	8
TOTAL HOURS RUN	11 1/2

CUTTING STRUCTURE: T1 | TO | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 ↑↓ Rotating.
TORQUE AT BOTTOM	7000 FT/Lb
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	08:00	11:30	16:30
DENSITY kg/m³	1630	1630	1635
FUNNEL VIS. - (S/L)	80	84	84
W.L. (cm³)	7.5	7.5	7.5
pH	10.5	10.5	10.5
P.V.T m³	101.9	101.8	96.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod Sulph	2 sx.
Caustex	1 pail
F-352	1 pail
Alcomer	1 sk.
Pot Sulph.	56 sx
Lime	1 sk

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1821	1827	6	90	30/31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15200	152	85	152	80

REDUCED PUMP SPEED

4600 @ 80 @ 1821m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	16:00	8	2	Drill 311 mm Hole F/1821m - 1827m
				Inspected TOP Drive Torque Tube. Greased Crown and Blocks
				Held environmenton Competency training meeting

NOTES: Crown Saver, Fastline Clamp Deadline Anchor, Brakes & Linkage.
Boiler Blown down 3 Times. Function Remote choke, Held Comp Fire Drill

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5		—	Emergency Response	1463 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB SPT	311	.35 m
1	REST SUB		.69 m
2	NMDC	228	18.75 m
1	SPT Recm Shock Sub		3.82 m
3	DC	228	27.69 m
1	JAR		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	MWDP	127	27.15 m
	BHA		221.98 m
56	D.P.	STANDS	m
8	D.P.	SINGLES	1616.70 m
Stuck Up	KELLYDOWN		6.68 m
	TOTAL		1832 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	85000	1000 daN	

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	13
TOTAL HOURS RUN	19

CUTTING STRUCTURE: T1 | TO | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG	3-5000 DAN ↑↓
TORQUE AT BOTTOM	9000 FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1630	1625	1620
FUNNEL VIS. - (S/L)	84	93	85
W.L. (cm³)	8.5	8.0	7.0
pH	10.5	10.5	10.5
P.V.T	98.4	98.8	99.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Soda Ash	1 sx
Drispac	2 sx
Starpac	2 sx
Aquagel	15 x
Bar	30 sx
Teco Vis	1 sx

SOLIDS CONTROL

DESILTER: Sharpels

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
6	1625	1640	1650

CENTRIFUGE: Sigma

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4	1625	1405	1570

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
6	1625	1620	1910

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1827	1832	5	80/90	30/31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15400	152	85	152	80

REDUCED PUMP SPEED

Choke 4700 @ 1828m @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1818	4.0	76.6

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1815	2 1/4	2	Drill 311 mm hole F/1827m - 1828m
1815	1830	1/4	10	Survey @ 1818m
1830	1845	1/4	7	RS, Function TOP Pipe Rams, Gas Alrm & RSPP
1845	2400	5 1/4	2	Drill F/1828m - 1832m

NOTES: Crown Saver, Fastline Clamp Deadline Anchor
Blew Boiler Down 3 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5				

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153686

LICENCE NO.: 1960 | WELL NAME AND NO.: Canadian Forest et al North Laird c-31

OPERATOR: Canadian Forest Oil LTD | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300 c-31 ℓ040 12330 0 | UNIQUE ID.: 300 c31 ℓ040 12330 0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR 2000 | MONTH 10 | DAY 29 | RIG NO. 56

FUEL @ 8:00 | RIG 1.69 | BOILER

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	107.2	BTFC	K55	55	711.20	6.47	710

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	228	178.0	S	76	320	6 5/8 REG	19	F1000	ENSEC	254
	197	134.2	S	52	178	5 1/2 IF	19	F1000	ENSEC	254
	197	75.66	E	101	152	4 1/2 IF	156			
	159	29.03	E2	108	138	V	179			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.		8																						
	DAY		7½					1/4			1/4														
	EVE.		7½					1/4			1/4														
	TOTAL		23					1/2			1/2														

TOTALS

	SHALE SHAKER(S)		RENTALS/SERVICES	MORN	DAY	EVE
2	NO. 2 TYPE Derrick FLC		TMJ 576339			
8	SCREENS CHANGED ☐ YES ☒ NO		AMJ 4144			
6	TOP 140	TOP 175	Accum Oil .36			
8	MIDDLE 140	MIDDLE 175				
24	BOTTOM 140	BOTTOM 140				

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D. mm	LENGTH
1	BIT		.35 m
1	NB 8PT		2.02 m
1	Best Sub		.69 m
2	NMDC	228	18.75 m
1	3PT RR m SLK SUB		3.62 m
3	DC	228	27.69 m
1	JAR		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	27.15 m
	BHA:		221.98 m
56	D.P. STANDS		— m
X	D.P. SINGLES		1615.92 m
	KELLY DOWN		— m
	TOTAL		1837.90 m
WT. OF DC		33000	1000 daN
WT. OF STRING		85000	1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	417
MFG.	HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	18
TOTAL HOURS RUN	27

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN | TORQUE AT BOTTOM 7000 FT/LBS | FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	0:200	04:00	06:00
DENSITY kg/m³	1620	1620	1620
FUNNEL VIS. - (S/L)	85	84	82
W.L. (cm³)	7.0	7.5	8.0
pH	10.5	10.5	10.5
P.V.T	1003	101.4	101.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	56 SX
T352	1 pail
Conpax	1 pail
Sod Sulfite	2 SX
Alcomer	1 SX
Lime	2 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLG RMR CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1832	1837	5	60/40	3/31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15400	152	85	152	80

REDUCED PUMP SPEED

ABOVE @ — @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	08:00	8	2	Drill 1832m - 1837m

NOTES Crown Saver, Fastline Clamp, Deadline Anchor, Blew Boiler Down 3x

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5				1565 kpa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D. mm	LENGTH
1	BIT		.35 m
1	NB 8PT		2.02 m
1	Best Sub		.69 m
2	NMDC	228	18.75 m
1	3PT RR m SLK SUB		3.82 m
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP		37.15 m
	BHA:		221.98 m
56	D.P. STANDS		— m
XX	D.P. SINGLES		1621.77 m
	KELLY DOWN		— m
	TOTAL		1843.75 m
WT. OF DC		33000	1000 daN
WT. OF STRING		85000	1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	417
MFG.	HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	24
TOTAL HOURS RUN	34½

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN Rotating | TORQUE AT BOTTOM 7000 FT/LBS | FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	10:00	14:00	16:00
DENSITY kg/m³	1625	1625	1625
FUNNEL VIS. - (S/L)	80	86	87
W.L. (cm³)	7.5	7.5	8.0
pH	10.5	10.5	10
PVT m³	103.3	104.3	104.41

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	115 SX
Sod Sulfite	2 SX
K Sulfate	40 SX
Alcomer	1 SK
Conpax	1 pail
T-352	1 pail
Lime	2 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RMR CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1837	1843	6	90	31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15800	152	85	152	80

REDUCED PUMP SPEED

4900 @ 80 @ 1838m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1828	4.0	72.4

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	½	7	Drill 311mm hole F/1837m - 1838m
0830	0845	¼	7	R/S, Function Bottom Pipe Rams, 6 Sec/CB √RSP
0845	0900	¼	10	Survey @ 1828m
0900	1600	7	2	Drill F/1838m - 1843m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3 Times.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5		100 000 DAN	USING STEAM	1533 KPA

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D. mm	LENGTH
1	BIT		.35 m
1	NB 8PT		2.02 m
1	Best Sub		.69 m
2	NMDC	228	18.75 m
1	3PT RR m SLK SUB		3.82 m
3	DC	228	27.69 m
1	JAR		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	27.15 m
	BHA:		221.98 m
57	D.P. STANDS		1635.40 m
	D.P. SINGLES		— m
	KELLY DOWN		3.56 m
	TOTAL		1864 m
WT. OF DC		33000	1000 daN
WT. OF STRING		85000	1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	417
MFG.	ATM/HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	35
TOTAL HOURS RUN	31½

CUTTING STRUCTURE T_I	T_O	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN. | TORQUE AT BOTTOM 8000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	20:00	22:00
DENSITY kg/m³	1625	1620	1620
FUNNEL VIS. - (S/L)	89	87	86
W.L. (cm³)	8.0	9.0	9.0
pH	10.5	10.5	10.5
PVT m³	103.6	100.8	100.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 SX
Dispac	2 SX
Sampak	2 SX
Lignite	3 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RMR CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1843	1854	11	90	31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14900	152	85	152	80

REDUCED PUMP SPEED

4900 @ 80 @ 1838m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1839.16	3.8	66.3

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1900	3	2	Drill 311mm hole F/1843m -
1900	1915	¼	7	R/S, Function Bottom Pipe Rams, 6 Sec/CB √RSP
1915	1930	¼	10	Survey @ 1839.
1930	2400	4½	2	Drill 1843m - 1854

NOTES √CROWN SAVER FASTLINE CLAMP DEADLINE ANCHOR

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					1566 kpa

FOLD HERE →

153687

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Laird c-31

OPERATOR: Canadian Forest Oil LTD | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300/c-31-E040-12330-0 | UNIQUE ID.: 300-C31-E040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 10 | DAY 05

RIG NO. 58

FUEL @ 8:00

RIG 1.21 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	106.9	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	208.4	DC	57	240	5H40	24	F-1000	Emsco	254
127	134.35	HW	76	165	4½IF	17	F-1100	Emsco	254
127	34.26	E3	101	165	4½IF	1			
127	24.02	E2	108	165	↓	174			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			7½					¼			¼														
DAY			7¼					½			¼														
EVE.			7½								½														
TOTAL			22¼					1			1														

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 | TYPE Alpine FLC

SCREENS CHANGED ☑ YES ☐ NO

TOP	TOP
140	140
MIDDLE 175	MIDDLE 140
BOTTOM 175	BOTTOM 140

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ-316455			
AmJ-4260			
Accum Oil .36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		.35 2.22 m
1	REST SUB		.69 m
2	NMDC	228	18.75 m
1	SPT Rsm S/S		2.49 3.82 m
3	DC	228	27.69 m
1	JAR		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	X/O HWDP	127	1.41 27.15 m
	BHA:		221.98 m
57	D.P.	STANDS	m
XX	D.P.	SINGLES	1645.23 m
	KELLY DOWN		— m
	TOTAL		1867.20 m
WT. OF DC		33000	1000 daN
WT. OF STRING		86000	1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-COXP
SERIAL NO.	X02BW
JETS (mm)	4X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	48
TOTAL HOURS RUN	39½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 DAN.

TORQUE AT BOTTOM 8000 FT/LBS

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1620	1620	1620
FUNNEL VIS. - (S/L)	85	85	85
W.L. (cm³)	8.0	8.0	8.5
pH	10.5	10.5	10.5
P.V.T	101.5	102.7	103.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sod Sulfite	2 SX
Caustic	1 pail
Barite	1 SX
Alcomer	1 pail

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1854	1867	13	90	31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14400	152	85	152	80

REDUCED PUMP SPEED

4600 @ [Choke] @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1848.39	3.8	73.4

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0115	1¼	2	DRILL 1854m - 1857
0115	0130	¼	7	K/S FUNCTION ANNULAR 87 SEC. c/s √ KSPP
0130	0145	¼	10	SURVEY @ 1848.
0145	0800	6¼	2	DRILL 1857m - 1867m
				HELD ENVIRONMENTAL & SAFETY DAY MEETING

NOTES: √ CROWN SAVER, FASTLINE CLAMP, DEADLINE ANCHOR, BLEW BOILER DOWN 4X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5		100000 DAN	STUFF	1545 kpa.

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		.35 2.22 m
1	REST SUB		.69 m
2	NMDC	228	18.75 m
1	3PT Rsm SHOCK SUB		2.49 3.82 m
3	DC	228	27.69 m
1	JAR		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	X/O HWDP	127	1.41 27.15 m
	BHA:		221.98 m
58	D.P.	STANDS	1663.71 m
	D.P.	SINGLES	m
	KELLY DOWN		8.69 m
	TOTAL		1877. m
WT. OF DC		33000	1000 daN
WT. OF STRING		86000	1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-COXP
SERIAL NO.	X02BW
JETS (mm)	4X14.3
DEPTH OUT (m)	
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	58
TOTAL HOURS RUN	56¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 - ROT, 10-13000 Sliding

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:30	12:30	15:00
DENSITY kg/m³	1615	1615	1615
FUNNEL VIS. - (S/L)	88	86	87
W.L. (cm³)	7.0	7.0	7.0
pH	10.5	10.5	10.5
P.V.T.3	105.5	104.7	100.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer	15K.
Sod. Sulfite	2SX
Caustic	1pail
T-352	1pail
Lime	1SK
Pot. Sulph.	15SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
08	1620	1819	1930

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
04	1620	1819	1930

DAY TOUR

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1867	1876	9	90	31
1876	1877	1	90	31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14600	152	85	152	80

REDUCED PUMP SPEED

5000 @ 80 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1865	3.6	73.6

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1430	6½	2	Drill 311mm Hole F/1867m - 1876
1430	1500	½	7	R/S Function TOP Pipe Rams 6 sec c/s, √ KSPP.
1500	1515	¼	10	Survey @ 1865m
1515	1600	¾	2	DRILL. 1876-1877m

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Boiler Blown down 3 Times, Function Remote choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5		97000 DAN	Tong Inspections	1602 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	NB 3PT		2.22 m
1	REST SUB		.69 m
2	NMDC 3PT R.	228	18.75 m
3	DC	228	27.69 m
5	DC	228	45.78 m
9	DC	178	84.48 m
3	HWDP	127	27.15 m
	BHA		221.98 m
			m
			m
			m
58	D.P.	STANDS	1663.71 m
X	D.P.	SINGLES	-81 m
	KELLY DOWN		— m
	TOTAL		1886.50 m
WT. OF DC		33000	1000 daN
WT. OF STRING		81000	1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM COXP
SERIAL NO.	X02 BW
JETS (mm)	4X14.3
DEPTH OUT (m)	—
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	67
TOTAL HOURS RUN	64¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ROT

TORQUE AT BOTTOM 9000 FT/LBS

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	16:00	20:00	22:00
DENSITY kg/m³	1615	1615	1625
FUNNEL VIS. - (S/L)	86	87	88
W.L. (cm³)	6.5	8.0	7.8
pH	10.0	11.0	11.0
P.V.T.3	98.5	99.3	100.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulph.	20 SXS
Sod. Sulfite	2 SXS
Caustic	1 PL
T-352	1 PL
BARITE	98 SXS
LIME	2 SXS
ALCOMER	1 SX
BARITE	3 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1877m	1886	9	90	31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15900	152	85	152	85

REDUCED PUMP SPEED

5000 @ [Choke] @ 80

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1876	3.4	68.2

DRILLER SIGNATURE: [signature]

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2215	6¼	2	DRILL 1877m - 1884m
2215	2245	½	10	SURVEY
2245	2400	1¼	2	DRILL 1884m - 1886m
				STRIPPED 8m³ OF ACTIVE MUD

NOTES: CHECK CROWN SAVER FASTLINE CLAMP - DEADMAN ANCHOR BRAKES & LINKAGE BLOW DOWN BOILER 2 X

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5		95000 DAN	STEAM	1602 KPA

FOLD HERE →

153688

LICENCE NO.	WELL NAME AND NO.
1900	Canadian Forest et al North Liard C91
OPERATOR	**CONTRACTOR**
Canadian Forest Oil	Akita Drilling LTD
SURFACE LOCATION	**UNIQUE ID.**
300-C31-6040-12330-0	300-C31-6040-12330-0
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
Greg Talley, Agent	Dave Lauck

DAILY CHECKS — OPR. Initial / R.M. Initial

	OPR.	R.M.
(1) Daily Walk Around Inspection		
(2) Detailed Inspection-Weekly (using checklist)		
(3) H²S Signs Posted (if required)		
(4) Well License & Stick Diagram Posted		
(5) Flare Lines Staked		
(6) BOP Drills Performed		
(7) Visually inspect BOP's - Flarelines & Degasser Lines		
(1) Rig Site Health and Safety Meeting (one/crew/month)		
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		
(3) Mast Inspection Before Raising or Lowering		
(4) Crown Saver Checked		
(5) Motor Kills checked		

YEAR 2000 | MONTH 10 | DAY 06

RIG NO. 58

FUEL @ 8:00

RIG .71 | BOILER

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	339.7	315.34	101.3	BT&C	K55	55	711.20	6.47	710
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
1	228	208.41	DS	75	228	5 1/2 FH	9			
2	178	174.9	DS	63	178	5 H90	39	F-1000	EMSCO	254
3	127	74.35	HW	76	156	4 1/2 IF	17			
4	127	34.96	E2	101	154		139	F-1000	EMSCO	254
5	127	39.02	E2	108	158	↓	174			

TIME-HRS

CODE NO.	OPER.	1 RIG UP & TEAR DOWN	2 DRILL ACTUAL	3 REAMING	4 CORING	5 COND. MUD & CIRC.	6 TRIPS	7 RIG SERVICE	8 REPAIR RIG	9 CUT OFF DRILL LINE	10 DEV. SURVEY	11 WIRE LINE LOGS	12 RUN CASE & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL STEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MTG.	22	23	24	25	26
	MORN.		7			1/2		1/4			1/4											BOP Drill				
	DAY					11 1/4	6 1/2																1/4			
	EVE.						7			1/2											1/2					
	TOTAL		7			13 1/4	13 1/2	1/4		1/2	1/4										1/2		1/4			

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO.	TYPE
1	Derrick F.L.G.
2	

SCREENS CHANGED ☐ YES ☐ NO

TOP	140	TOP	140
MIDDLE	175	MIDDLE	140
BOTTOM	175	BOTTOM	140

RENTALS/SERVICES

	MORN.	DAY	EVE.
TmJ-378413			
AmJ-165			
Accumoir-.36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
			.35
1	NB SPT		2.32
1	REST SUB		.69
2	NMDC	228	18.75
1	SPT Roam		2.49
1	SHOCK SUB		3.82
3	DC	228	27.69
1	Jar		5.77
5	DC	228	45.78
1	X/O		1.38
9	DC	178	84.48
1 3	X/O HWDP	127	1.41 27.15
		BHA:	221.98
58	D.P.	STANDS	
X	D.P.	SINGLES	1672.01
	KELLY DOWN		—
	TOTAL		1893.99
WT. OF DC			33000 1000 daN
WT. OF STRING			87000 1000 daN

BIT RECORD

BIT NO.	18C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-00XP
SERIAL NO.	X028W
JETS (mm)	4X14.3
DEPTH OUT (m)	1893.4
DEPTH IN (m)	1819
TOTAL METRES DRILLED (m)	74
TOTAL HOURS RUN	71 1/4

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

2 2 RT M 2 I NO TD 1.03

HOLE CONDITION

HOLE DRAG 3-5000 DAN 10-13000 slides

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	01:30	03.00	06:00
DENSITY kg/m³	1625	1625	1625
FUNNEL VIS. - (S/L)	91	90	100
W.L. (cm³)	7.5	7.6	7.8
pH	11	10.5	10.5
PVT m³	99.3	98.9	97.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulphate	36 5x
Lignite	15K.

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

MORNING TOUR

METRES DRILLED

FROM	TO	DR'G RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1886	1893	7	90	31

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
15300	152	85	152	85

REDUCED PUMP SPEED

5000 @ 85 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1884	3.4	68

DRILLER SIGNATURE

Barry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0700	7	2	Drill 311 mm Hole F/1886m - 1893m
0700	0715	1/4	7	RIS. Function Annular 19 Secs. Pipe RAMS.
0715	0730	1/4	10	Survey @ 1884m
0730	0800	1/2	5	Circulate Bottoms up

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.
Boiler Blown down 3 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5		115000 DAN	Working at Heights	1533 kPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	
SIZE (mm)	
IADC CODE	
MFG.	
TYPE	
SERIAL NO.	
JETS (mm)	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
BARITE	~~60 SKS~~ 125 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'G RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1893				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Rob Blackadar

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	1/2	5	Circ Btms up
0830	0930	1	6	Pull out of Hole To 1685m
0930	0945	1/4	5	Pump Pill & Flow ✓
0945	1115	1 1/2	6	POOH To 1206m
1115	1145	1/2	5	Pump 2ND Pill & Flow ✓
1145	1230	3/4	6	POOH To 711 m.
1230	1245	1/4	22	BOP Drill Well Secure in 2 min
1245	1415	1 1/2	6	Flow ✓ & POOH To Top BHA 221m
1415	1530	1 1/4	6	POOH BHA
1530	1600	1/2	6	Lay Down Jars & MWD Tool
Hole Fill				Calc - 12.82 - Actual 15.69 Diff 2.87m³ +

NOTES Crown Saver · Fastline Clamp Deadline Anchor
Brakes & Linkage · Blow Down Boiler Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
3	10.5		115000	TRIPPING	1533 kPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1			.35
1	MOTOR		8.99
1	FLOAT SUB		.76
1	REST SUB		.71
2	NMDC	228	18.75
1	STAB SUB		3.82
3	DC	228	27.69
1	Jar		5.77
5	DC	228	45.78
1	X/O		1.38
9	DC	178	84.48
1 3	X/O HWDP	127	1.41 27.15
		BHA:	227.04
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
WT. OF DC			33000 1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	
MFG.	ATM
TYPE	PS03
SERIAL NO.	430JC
JETS (mm)	3X20.2
DEPTH OUT (m)	
DEPTH IN (m)	1893
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

EVENING TOUR

METRES DRILLED

FROM	TO	DR'G RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1893				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Barry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1900	3	6	Pick up Motor & Set.
1900	2100	2	6	Flow ✓ R.I.H - 739 m
2100	2130	1/2	20	Test BWD.
2130	2200	1/2	9	Slip & Cut 20 m of Drill line. ✓ Crown Saver
2200	2400	2	6	R.I.H. Lay down Bent Drill P.P. Flow ✓ & Fill Pipe every 570 m.

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage
Boiler Blown down 2 Times.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5			Laying down Pipe.	1533 kPA

FOLD HERE →

153689

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Ireland C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauck

DAILY CHECKS — OPR. / R.M.

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HFS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 10 | DAY 07 | RIG NO. 58 | **FUEL @ 8:00** | RIG 2.32 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
245	280.7	DC	75	178	4½ IF	23
178	174.0	DC	63	178	5½ FH	19
127	74.55	HW	76	136	4½ IF	138
127	39.06	E3	101	156	↓	150
127	29.07	E2	108	138	↓	

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	EMSCO	254
F-1000	EMSCO	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.					
MORN.		5½				2	¼			¼																
DAY		6¼						1½		¼																
EVE.		7½					¼			¼																
TOTAL		19¼				2	½	1½		1¼																

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE Derrick F.L.G.

SCREENS CHANGED ☐ YES ☒ NO

TOP 140	TOP 140
MIDDLE 175	MIDDLE 140
BOTTOM 175	BOTTOM 140

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ - 379136			
AMJ - 888			
Accum o/r - .36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	Motor Float Sub		8.99 .76 m
1	Rest Sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.88
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41
3	HWDP	127	27.15 m
	BHA: 237.04 m		
58	D.P.	STANDS	— m
X	D.P.	SINGLES	1671.96 m
	KELLY DOWN		— m
	TOTAL		1899.00 m

WT. OF DC 33000 1000 daN | WT. OF STRING 87000 1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-PS03
SERIAL NO.	A30JL
JETS (mm)	3x22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1895
TOTAL METRES DRILLED (m)	5
TOTAL HOURS RUN	5½

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 Rotate 10-13000 slide | TORQUE AT BOTTOM 7000 FT/Lb | FILL ON BOTTOM (m) NO Fill

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	03:30	06:00	06:30
DENSITY kg/m³	1630	1630	1630
FUNNEL VIS. - (S/L)	90	92	95
W.L. (cm³)	7.6	7.4	7.4
pH	10.5	10.5	11
PVT m³	74.7	78.2	81.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	56 sx
T-352	1 pail
Corimox	1 pail
Sod. Sulf.	25 sx
Acomed	1 sk.
Lime	35 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1894	1899	5	25+ MTR	29
		Slide	MTR: 65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	85	152	85

REDUCED PUMP SPEED

4900 @ 85 @ 1894 m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1877	3.6	67.5

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0000	0200	2	6	R.I.H. Fluid & Fill P.P. every 570 m.
				Loaded down 11 JTS of Bent E2 D.P. Picked up 11 JTS E2
0200	0215	¼	7	R/S. Function TOP Pipe Rams, Check for Flow
0215	0230	¼	10	Survey @ 1885 m
0230	0800	5½	2	Breakin B.T. Drill 311 mm F/1894 m - 1899 m
				- Changed Corrosion Ring.
				Weight Below Jars = 10560 DAN

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	8.5	115	105000 DAN	Laying Down Pipe	1498 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	Motor Float Sub		8.99 .76 m
1	Rest Sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.88
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41
3	HWDP	127	27.15 m
	BHA: 237.04 m		
58	D.P.	STANDS	1662.78 m
XX	D.P.	SINGLES	19.53 m
	KELLY DOWN		5.15 m
	TOTAL		1904 m

WT. OF DC 33000 1000 daN | WT. OF STRING 87000 1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-503
SERIAL NO.	A30JL
JETS (mm)	3x22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	10
TOTAL HOURS RUN	11¾

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ROT 10-13000 SLIDE | TORQUE AT BOTTOM 7000 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	12:00	14:00
DENSITY kg/m³	1625	1625	1620
FUNNEL VIS. - (S/L)	97	95	88
W.L. (cm³)	8.0	9.0	9.0
pH	10.5	10.5	10.5
PVT m³	83.0	84.3	85.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aldacide	1 sx
Pot. Sulph.	56 sxs
Sod. Sulfite	2 sxs
Corimox	1 pl
T-352	1 pl
Lignite	3 sxs
Starpak	1 sx
Desspak	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1894	1904	5	25+ MTR	29
		Slide	MTR	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14400	152	85	152	85

REDUCED PUMP SPEED

6200 @ 87 @ 70

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1880.7	3.7	65.2

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0830	½	2	Drill 1894 m - 1897.56 m
0830	0930	1	8	Change Pump Head No 1
0930	0945	¼	2	Drill 1897.56 m - 1899.95 m
0945	1000	¼	10	Survey - 1890.98 m
1000	1300	3	2	Drill 1900 m - 1902 m
1300	1330	½	8	Tighten Pump Head No 2
1330	1600	2½	2	Drill 1902 m - 1904 m
				Sent 24 Joints of Bent E2 Drill Pipe and
				1 Bent Joint of H.W.D.P. TO FORT ST. JOHN.

NOTES CROWN SAVER - FASTLINE CLAMP - DEADLINE ANCHOR - BRAKE LINKAGE SHUT DOWN BOILER 4 TIMES

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—		Work on Pumps	1498 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	Motor Float Sub		8.99 .76 m
1	Rest Sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.88
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41
3	HWDP	127	27.15 m
	BHA: 237.04 m		
59	D.P.	STANDS	1687.56 m
—	D.P.	SINGLES	— m
	KELLY DOWN		— m
	TOTAL		1914.60 m

WT. OF DC 33000 1000 daN | WT. OF STRING 87000 1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-503
SERIAL NO.	A30JL
JETS (mm)	3x22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	20
TOTAL HOURS RUN	19¼

CUTTING STRUCTURE: T_i | T_o | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ROT 10-13000 SLIDE | TORQUE AT BOTTOM 8000 FT/LB | FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	17:00	21:30	24:00
DENSITY kg/m³	1620	1620	1625
FUNNEL VIS. - (S/L)	94	88	85
W.L. (cm³)	9.0	8.0	8.0
pH	11.0	10.5	11.0
PVT m³	85.8	91.1	94.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Lime	2 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1904	1914	10	25+ MTR	29
		Slide	MTR: 65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14400	152	85	152	85

REDUCED PUMP SPEED

6100 @ 90 @ 1902

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1892	3.6	63.4

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1815	2¼	2	Drill 1904 m - 1907 m
1815	1830	¼	7	Top Drive Ser - Close Upper Pipe Rams
1830	1945	1¼	2	Drill 1907 m - 1910 m
1945	2000	¼	10	Survey @ 1892 m
2000	2400	4	2	Drill F/1910 m - 1914 m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Function Remote Choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	8.5	115	100000 DAN	SCBA	1566 KPA

FOLD HERE →

153690

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al Northwood C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Craig Allen | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Zavek

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial DZ
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial DZ
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial DZ
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	Initial DZ
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 10 | DAY 08

RIG NO. 58

FUEL @ 8:00

RIG 1442 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTC	K55	55	716.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	208.0	N	75	228	7 5/8 REG	3	F-1000	Emsco	254
178	174.0	N	63	178	5 1/2 FH	6	F-1000	Emsco	254
127	74.35	HW	76	156	4 1/2 IF	138			
127	38.07	S2	101	154	↓	150			
127	39.02	E2	108	158	↓				

TIME-HRS

CODE NO.	OPER.	TRIP UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22	23	24	25	26
	MORN.		7					1/2			1/2												BOP Drill				
	DAY		7 1/2					1/4			1/4																
	EVE.		6 1/4			1		1/2														1/4					
	TOTAL		20 3/4			1		1 1/4			3/4											1/4					

TOTALS: 8 / 8 / 8 / 24

SHALE SHAKER(S)

NO. 2 | DGE Derrick F.H.C.

SCREENS CHANGED ☐ YES ☐ NO

TOP		TOP	
MIDDLE	175	MIDDLE	140
BOTTOM	175	BOTTOM	140

RENTALS/SERVICES

	MORN	DAY	EVE
Tmt-379783			
Amt-1539			
Accumoil-36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	MOTOR Float Sub		8.99 .76 m
1	Rest Sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.82
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	XO HWDP	127	1.41 97.15 m
	BHA =		327.04 m
59	D.P.	STANDS	— m
X	D.P.	SINGLES	1695.96 m
	KELLY DOWN		— m
	TOTAL		1923.00 m
WT. OF DC			33000 1000 daN
WT. OF STRING			87000 1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-503
SERIAL NO.	A302L
JETS (mm)	3X22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	29
TOTAL HOURS RUN	26 3/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 Rot 10-13000 slide

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1625	1625	1630
FUNNEL VIS. - (S/L)	85	87	83
W.L. (cm³)	9.0	9.0	8.0
pH	11	10.5	10.5
P.V.T m³	86.3	96.0	95.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alkomer	1 Sk.
Lignite	1 Sk
Drispac	1 Sk.
Starpac	1 Sk.
Cacinox	1 Pail
T-352	1 Pail
Sod Sulfite	2 Sx
Pot Sul Phate	56 SX
Barite	350 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1914	1923	9	25+ MTR	26
			MTR-65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14500	152	85	152	85

REDUCED PUMP SPEED

5800 @ 1118 m @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1908	3.7	69.0

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:15	2 1/4	2	Drill 311mm hole F/1914m-1918m
02:15	02:45	1/2	7	RIS, Function Annular, 19 sec/cls ✓ RSTR
02:45	03:15	1/2	2	Drill F/1918m-1919m
03:15	03:45	1/2	10	Survey @ 1900m
03:45	08:00	4 1/4	2	Drill F/1919m-1923m

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage - ✓Fire extinguishers, S.C.B.A.'s and eyewash stations.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	105 000 DAN	SCBA's	1498 kPa

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	Bit Sub		8.99 m
	Float Sub		.76 m
2	NMDC		18.75 m
3	DC	228	27.69 m
5	DC	228	45.78 m
7	X/O	178	84.48 m
3	HWDP		271.5 m
	BHA =		327.04 m
59	D.P.	STANDS	1681.77 m
2	D.P.	SINGLES	19.18 m
	KELLY DOWN		1.01 m
	TOTAL		1937 m
WT. OF DC			33000 1000 daN
WT. OF STRING			88000 1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM 503
SERIAL NO.	A302L
JETS (mm)	3X22.1
DEPTH OUT (m)	
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	43
TOTAL HOURS RUN	33 3/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ROT 10-13000 SLIDE

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:30	14:00	16:00
DENSITY kg/m³	1630	1625	1630
FUNNEL VIS. - (S/L)	80	90	96
W.L. (cm³)	8.5	8.4	7.5
pH	10.5	10.5	10.0
P.V.T m³	90.4	79.3	80.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
T-352	3 Pl
Caustic	1 Pl
Percol-[illegible]	1 Sx
Sod. Sulfite	2 Sxs
Lignite	2 Sxs
Starpak	1 Sx
Drispac	1 Sx
Akomer	1 Sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4 1/2	1630	1720	1760

Recovery

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
4 1/2	1740	1750	1760

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1923m	1937	14	25+ MTR	26
			MTR	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14400	152	85	152	85

REDUCED PUMP SPEED

5300 @ 85 @ 129

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1911.43	3.9	65.7

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1045	2 3/4	2	Drill 1923m - 1927m
1045	1100	1/4	7	Top Drive Ser & Close Lower Pipe Rams
1100	1145	3/4	2	Drill 1927m - 1929m
1145	1200	1/4	10	Survey
1200	1600	4	2	Drill 1929m - 1937m

Recovered 6 m³ Active Mud

Stripped 11 m³ Active Mud

NOTES: Check Crown Saver - Fastline Clamp - Deadline Anchor - Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0				Rolling Casing	1498 kPa

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	MOTOR Float Sub		8.99 .74 m
1	Restricted Sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.82
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	XO HWDP	127	1.41 97.15 m
	BHA =		327.04 m
60	D.P.	STANDS	— m
X	D.P.	SINGLES	1721.10 m
	KELLY DOWN		— m
	TOTAL		1948.50 m
WT. OF DC			33000 1000 daN
WT. OF STRING			88000 1000 daN

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM 503
SERIAL NO.	A302L
JETS (mm)	3X22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	54
TOTAL HOURS RUN	40

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 ROT 10-13000 slide

TORQUE AT BOTTOM 8000 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	18:00	20:30	23:30
DENSITY kg/m³	1625	1625	1625
FUNNEL VIS. - (S/L)	93	89	85
W.L. (cm³)	7.2	7.5	8.0
pH	10.0	10.5	11
P.V.T m³	81.0	82.2	82.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Pot. Sulf.	40 SKS
Lime	4 SKS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1937	1948	11	25+ MTR	26
			MTR-65	

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14600	152	85	152	85

REDUCED PUMP SPEED

5250 @ 85 @ 1942

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1921.02	3.9	65.7

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	1900	3	2	Drill 1937m - 1942m
1900	2000	1	5	Change Head No 2 Circ & Work Pipe.
2000	2230	2 1/2	2	Drill F/1942m - 1947m
2230	2300	1/2	7	RIS, Function Top Pipe Rams 6 sec/cls ✓RSTR
2300	2315	1/4	22	BOP Drill, Well secure in 1 min.
2315	2400	3/4	2	Drill F/1947m - 1948m

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	100 000 DAN	Working Night Tour	1533

EVENING TOUR

FOLD HERE →

153691

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Hoard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-1

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Greg Gibbin, Mgr. | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Jaick.

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial DH
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	Initial
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 10 | DAY 04

RIG NO. 58

FUEL @ 8:00

RIG 1.08 | BOILER

WEATHER: TEMPERATURE °C | CURRENT CONDITIONS | WIND DIRECTION | ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BT&C	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	208.14	DC	76	238	4½ IF	23	F-1000	Emsco	254
178	174.0	DC	63	178	5 H90	23			
127	74.35	HW	76	156	4½ IF	16	F-1000	Emsco	254
127	38.07	E2	101	140		130			
127	39.09	E2	108	158	↓	150			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Handle Tools				
MORN.		7¼								3/4																
DAY		5⅞			1¼	½				½		XX														
EVE.						6¾	¼															1				
TOTAL		13			1¼	7¼	¼			1¼		XX										1				

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick F.L.C.	TmJ-381463			
8	SCREENS CHANGED ☐ YES ☒ NO	AmJ-3215			
8	TOP 140 TOP 140	Accum oil-36			
8	MIDDLE 175 MIDDLE 140				
24	BOTTOM 175 BOTTOM 140				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.35 m
1	MOTOR Float Sub		8.99 .76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.86
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	1.41 27.15 m
		BHA:	227.04 m
60	D.P.	STANDS	— m
XX	D.P.	SINGLES	1730.96 m
	KELLY DOWN		— m
	TOTAL		1958.00 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	88000	1000 daN	

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-503
SERIAL NO.	A30JL
JETS (mm)	3X22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	64
TOTAL HOURS RUN	47¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 Rotate 10-13000 Slide

TORQUE AT BOTTOM 8000 FT/Lb

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:30	04:00	06:30
DENSITY kg/m³	1620	1615	1620
FUNNEL VIS. - (S/L)	84	80	85
W.L. (cm³)	7.5	7.5	7.8
pH	11.5	11.5	11
PVT m³	83.1	83.4	81.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Alcomer	1 SK
Sod Sulfite	2 SX
Pot. Sulphate	56 SX
Cormex	1 PL
T-352	1 PL
Baritc	168 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1948	1958	10	25	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14600	152	85	152	85

REDUCED PUMP SPEED

5100 @ 80 @ 146

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1930.61	4.0	68.5
1940.04	4.2	70.5

DRILLER SIGNATURE: Gary Fisher

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:30	½	10	Survey @ 1930.61
00:30	07:45	7¼	2	Drill 311 mm Hole F/1948m - 1958m
07:45	08:00	¼	10	Survey @ 1940 m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—	100 000 DAN	Working Tight Hole.	1568 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT		.35 m
	MOTOR		8.99 .76 m
1	Float Sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.86
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	1.41 27.15 m
		BHA:	227.04 m
60	D.P.	STANDS	— m
XX	D.P.	SINGLES	1730.96 m
	KELLY DOWN		— m
	TOTAL		1958.00 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	88000	1000 daN	

BIT RECORD

BIT NO.	19C
SIZE (mm)	311
IADC CODE	4 1 7
MFG.	HUGHES
TYPE	ATM-503
SERIAL NO.	A30JL
JETS (mm)	3X22.1
DEPTH OUT (m)	1958
DEPTH IN (m)	1894
TOTAL METRES DRILLED (m)	64
TOTAL HOURS RUN	47¼

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 3-5000 Rot 10-13000 Slide

TORQUE AT BOTTOM 8000 FT/Lbs.

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	08:30	14:00	
DENSITY kg/m³	1625	1620	
FUNNEL VIS. - (S/L)	85	78	
W.L. (cm³)	7.4	8.2	
pH	11.0	10.0	
PVT m³	87.0	89.5	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Cormex	1 PL
Sod. Sulfite	2 SKS
T-352	1 PL
Pot. Sulph.	37 SKS
Alcomer	1 SK
Lime	2 SKS
Baryte	70 SKS
Liquide	1 SK

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1958	1967	9		32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14500	152	85	152	85

REDUCED PUMP SPEED

5250 @ 1967 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1949.62	4.2	71.7

DRILLER SIGNATURE: Leo Ferguson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	1345	5¾	2	DRILL 1958m - 1967m
1345	1415	½	10	SURVEY
1415	1530	1¼	5	CIRC BTMS UP
1530	1600	½	6	TOOH TO CHANGE MOTOR ANGLE
				TO 1324m FLOW ✓ 10 STDS

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	—	—	110,000	WATCH DOG	1568 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.35 m
1	MOTOR Float Sub		8.99 .76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.86
3	DC	228	27.69 m
1	Jar		5.77 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
3	X/O HWDP	127	1.41 27.15 m
		BHA:	226.53 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	33000	1000 daN	
WT. OF STRING		1000 daN	

BIT RECORD

BIT NO.	15C RR
SIZE (mm)	311
IADC CODE	
MFG.	Reed
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3X22.1
DEPTH OUT (m)	
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

CUTTING STRUCTURE: T1 | T2 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1967				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Trip Record		
Meas 14.02		
Cal 12.78		
Diff 1.24		

DRILLER SIGNATURE: Gary Fisher

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2145	5¾	6	TOOH TO CHANGE ANGLE - 1324m
				TO 710m, FLOW @ Shoe OUT OF Hole.
2145	2200	¼	7	BOP'S, Function Blind Rams 6 sec/cls.
2200	2300	1	22	Change BITS, set up motor, install MWD
2300	2400	1	6	make up B.H.A.

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8				Crew Change	1568 KPA

FOLD HERE →

153692

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Lord C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HS Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)	Initial	
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)	Initial	
(3) Mast Inspection Before Raising or Lowering	Initial	
(4) Crown Saver Checked	Initial	
(5) Motor Kills checked	Initial	

YEAR 2000 | MONTH 10 | DAY 10

RIG NO. 58

FUEL @ 8:00

RIG 80 | BOILER

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
339.7	315.34	101.2	BTC	K55	55	711.30	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	178.0	DC	73	228	4½ IF	1			
178	174.0	DC	63	178	3½ IF	33	F-1000	Emsco	369
127	74.35	HW	76	152	4½ IF	16			
127	38.06	E75	104	152		138	F-1000	Emsco	354
127	34.03	E75	108	158	↓	150			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DPL WORK	22 SAFETY MTG.	23	24	25	26
MORN.			3¾			½	2¾	½			¼										¼				
DAY			7					½			½														
EVE.			7½					½																	
TOTAL			18¼			½	2¾	1½			¾										¼				

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 TYPE Derrick F.L.G.

SCREENS CHANGED ☐ YES ☐ NO

TOP	140	TOP	140
MIDDLE	175	MIDDLE	140
BOTTOM	175	BOTTOM	140

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ - 382508			
AMJ - 4260			
Accum Oil - 36			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	Motor		8.99 m
1	Float Sub		.76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub	228	3.86 m
3	DC	228	27.69 m
1	Jar		5.22 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA:		296.53 m
61	D.P.	STANDS	1749.97 m
—	D.P.	SINGLES	— m
	KELLY DOWN		— m
	TOTAL		1971.50 m
WT. OF DC		33000	1000 daN
WT. OF STRING		88000	1000 daN

BIT RECORD

BIT NO.	20 CRR
SIZE (mm)	311
IADC CODE	4 3 7
MFG.	Reed
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3X22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	4
TOTAL HOURS RUN	3¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000 Sliding.

TORQUE AT BOTTOM 9500 FT/LBS

FILL ON BOTTOM (m) NO FILL

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	06:00
DENSITY kg/m³	1625
FUNNEL VIS. - (S/L)	83
W.L. (cm³)	7.8
pH	11.0
P.V.T. m³	84.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Aldacide	15K
Sod Sulfite	25L
Carbonox	1 pail
T-352	1 pail
Pot. Sulphate	38 SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
○			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
○			

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1967	1971	4	55	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14600	152	85	152	85

REDUCED PUMP SPEED

5200 @ 80 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1948.29	4.3	71.7

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
00:00	01:00	1	6
01:00	01:15	¼	20
01:15	01:45	½	7
01:45	03:30	1¾	6
03:30	04:00	½	5
04:00	04:30	½	2
04:30	04:45	¼	10
04:45	08:00	3¼	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

R.I.H. To 800m Flow ✓
Break Circulation. Test M.W.D.
R/S, Function Annular 14 sec/cls
R.I.H., Flow ✓ & Fill Pipe @ 1460m, 1950m
Break Circ. Wash & Clean To Bottom, No Fill.
Pattern Bit. Drill .50 m.
Survey @ 1948.29
Drill 311mm hole F/1967m - 1971m
Picked up New Jars - SN# Foster 10158
- Shock Sub - SN# - Foster - 10743

NOTES: ✓ Crown Saver, Fast Line Clamp, Deadline Anchor, Brakes & Linkage.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-	110000 DAN	Crew Truck.	1533 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	Motor		8.99 m
1	Float Sub		.76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub	228	3.86 m
3	DC	228	27.69 m
1	Jar		5.22 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA:		296.53 m
61	D.P.	STANDS	1749.28 m
1	D.P.	SINGLES	9.49 m
	KELLY DOWN		8.30 m
	TOTAL		1977 m
WT. OF DC		33000	1000 daN
WT. OF STRING		88000	1000 daN

BIT RECORD

BIT NO.	20 CRR
SIZE (mm)	311
IADC CODE	4 3 7
MFG.	Reed
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3X22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	10
TOTAL HOURS RUN	10¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15 SLIDING

TORQUE AT BOTTOM 9500 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	13:00	15:00
DENSITY kg/m³	1630	1630	1630
FUNNEL VIS. - (S/L)	75	93	79
W.L. (cm³)	8.5	8.4	7.4
pH	11.0	11.0	10.5
P.V.T. m³	84.9	72.2	73.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Carbonox	1 PL
Sod. Sulfite	2 SXS
T-352	1 PL
Aldacide	1 SX
Driscal	1 SX
Soltex	2 SX
Impaflo	3 SX
Barite	178 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
○			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
○			

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1971	1977	6	55	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14600	152	85	152	85

REDUCED PUMP SPEED

5350 @ 174 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1958.82	4.4	73.3

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0800	1130	3½	2
1130	1200	½	7
1200	1430	2½	2
1430	1500	½	10
1500	1600	1	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1971m - 1974m
TOP DRIVE SERV - RSPP - Close UPPER PIPE RAMS 6 SEC
DRILL 1974m - 1976m
SURVEY 1958.82m
DRILL 1976m - 1977m

Proceed 16 m³ of Active Mud

NOTES: Crown Saver, Fast Line Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	-	-		Confined Space Entry	1533 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.35 m
1	Motor		8.99 m
1	Float Sub		.76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub	228	3.86 m
3	DC	228	27.69 m
1	Jar		5.22 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1	X/O		1.41 m
3	HWDP	127	27.15 m
	BHA:		296.53 m
61	D.P.	STANDS	m
XX	D.P.	SINGLES	1759.07 m
	KELLY DOWN		— m
	TOTAL		1985.80 m
WT. OF DC		33000	1000 daN
WT. OF STRING		89000	1000 daN

BIT RECORD

BIT NO.	20 CRR
SIZE (mm)	311
IADC CODE	4 3 7
MFG.	REED
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3X22.1
DEPTH OUT (m)	—
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	18
TOTAL HOURS RUN	18¼

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000 DAN SLIDING

TORQUE AT BOTTOM 9500 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	15:00	20:30	23:00
DENSITY kg/m³	1625	1620	1625
FUNNEL VIS. - (S/L)	73	81	84
W.L. (cm³)	8.0	9.0	7.8
pH	10.5	10.5	10.5
P.V.T. m³	77.2	81.9	83.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	30 SKS
Percol 728	1 SXS
Pot. Sulph	56 SXS

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
○			

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
○			

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1977	1985	8	55	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	85	152	85

REDUCED PUMP SPEED

5600 @ 85 @ 174m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
1600	2200	6	2
2200	2230	½	7
2230	2400	1½	2

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILL 1977m - 1984m
R/S Function Bottom Pipe Rams 6 sec cls ✓ RSPP.
Drill F/1984m - 1985m

NOTES: ✓ Crown Saver, Fast Line Clamp, Deadline Anchor, Brakes & Linkage.
Function Remote Choke.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	105000 DAN	Lock Outs.	1535 KPA

FOLD HERE →

153693

LICENCE NO.: 1900 | WELL NAME AND NO.: Canadian Forest et al North Liard C31

OPERATOR: Canadian Forest Oil | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: 300-C31-6040-12330-0 | UNIQUE ID.: 300-C31-6040-12330-0

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Adling, Mike Todd | SIGNATURE OF CONTRACTOR'S RIG MANAGER: Norm Smith

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection
(2) Detailed Inspection-Weekly (using checklist)
(3) H²S Signs Posted (if required)
(4) Well License & Slick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)
(3) Mast Inspection Before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kills checked

YEAR 2000 | MONTH 03 | DAY 11

RIG NO.: 58

FUEL @ 8:00

ROG: 1.86 | BOILER:

WEATHER: TEMPERATURE °C; CURRENT CONDITIONS; WIND DIRECTION; ROAD

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	339.7	315.34	101.2	BTEC	K55	55	711.20	6.47	710

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
228	208.0	DC	73	273	FH				
178	174.0	DC	63	178	5½FH	23	F-1000	Emsco	254
127	74.35	HW	50	156	4½IF	16			
127	38.07	E3	101	156		138	F-1000	Emsco	254
127	38.07	E3	108	158	↓	150			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Work on Pump	24	25	26
	MORN.		7¾								¼															
	DAY		7					½			¼											1/4					
	EVE.		5¼					½													¾	1½					
	TOTAL		20					1			½										¾	13/4					

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick Fine	Tmj-388168			
8	SCREENS CHANGED ☐ YES ☐ NO	Amj-4920			
8	TOP 140 TOP 140	Accum oil - 36			
8	MIDDLE 175 MIDDLE 140				
24	BOTTOM 175 BOTTOM 140				

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.35 m
1	Motor		8.99 m
1	Float Sub		.76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.86 m
3	DC	228	27.69 m
1	Jar		5.32 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	X/O HWDP	127	1.41 27.15 m
		BHA:	226.53 m
61	D.P.	STANDS	m
XX	D.P.	SINGLES	1766.47 m
	KELLYDOWN		m
	TOTAL		1993.00 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	89000	1000 daN	

BIT RECORD

BIT NO.	20CRR
SIZE (mm)	311
IADC CODE	4 3 7
MFG.	REED
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3x22.2
DEPTH OUT (m)	—
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	26
TOTAL HOURS RUN	26

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000 Sliding
TORQUE AT BOTTOM 9500 FT/LB
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:30	04:30	06:30
DENSITY kg/m³	1630	1635	1635
FUNNEL VIS. - (S/L)	84	83	83
W.L. (cm³)	6.8	7.0	7.5
pH	10.5	10	10.5
PVT m³	86.2	87.1	88.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Kol Sulfate	56 sx.
Corrosion T-350	1 pail
Soda Sulfite	2 sx
Alcomer	1 sx.
Drispac Starpac Unite	3 sx 3 sx
Ge	1 sx.
Lacrite	294 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1985	1993	8	60	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	85	152	85

REDUCED PUMP SPEED

5600 @ 85 @ 1985m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1968.31	4.8	82.1

DRILLER SIGNATURE: Gary Stinson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:15	¼	10	Survey @ 1968m
00:15	08:00	7¾	2	Drill 311mm Hole F/1985m - 1993m

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage. Held watch/day meeting

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	105000 DAN	Lockouts	1463 kPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.35 m
1	Motor		8.99 m
1	Float Sub		.76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.86 m
3	DC	228	27.69 m
1	Jar		5.32 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	X/O HWDP	127	1.41 27.15 m
		BHA:	226.53 m
62	D.P.	STANDS	1771.83 m
	D.P.	SINGLES	m
	KELLYDOWN		4.26 m
	TOTAL		2000 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	89000	1000 daN	

BIT RECORD

BIT NO.	20CRR
SIZE (mm)	311
IADC CODE	4 3 7
MFG.	REED
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3x22.2
DEPTH OUT (m)	
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	33
TOTAL HOURS RUN	33

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000 Sliding
TORQUE AT BOTTOM 9500 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:30	14:00	16:00
DENSITY kg/m³	1635	1630	1630
FUNNEL VIS. - (S/L)	85	80	77
W.L. (cm³)	7.4	8.2	7.6
pH	10.5	10.0	10.5
PVT m³	89.1	88.8	91.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Corrosion	1 Pl
Soda Sulfite	2 sxs
F-352	1 PL
Alcomer	1 sx
Pot. Sulph.	56 sxs
GEL	35 sxs
LIGNITE	3 sxs
Lime	2 sxs

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1993	2000	7	65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	85	152	85

REDUCED PUMP SPEED

5600 @ 85 @ 85

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1977.7	4.8	94.9

DRILLER SIGNATURE: Les Bergen

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	0845	¾	2	DRILL 1993m - 1994m
0845	0900	¼	22	CHANGE VALVE & SEAT IN PUMP #2
0900	0930	½	7	TOP DRIVE SERV - CLOSE LOWER PIPE RAMS - BOP
0930	1115	1¾	2	DRILL 1994m - 1995m
1115	1130	¼	10	SURVEY 1977.7m
1130	1600	4½	2	DRILL 1995m - 2000

NOTES: CROWN SAVER - DEADMAN ANCHOR FASTLINE CLAMP BRAKE LINKAGE

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
20	—	—	110,000	Kudzu -	1498 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.35 m
1	Motor		8.99 m
1	Float Sub		.76 m
1	Restrictor sub		.71 m
2	NMDC	228	18.75 m
1	Shock Sub		3.86 m
3	DC	228	27.69 m
1	Jar		5.32 m
5	DC	228	45.78 m
1	X/O		1.38 m
9	DC	178	84.48 m
1 3	X/O HWDP	127	1.41 27.15 m
		BHA:	226.53 m
62	D.P.	STANDS	m
X	D.P.	SINGLES	1778.65 m
	KELLYDOWN		m
	TOTAL		2005.00 m
WT. OF DC	33000	1000 daN	
WT. OF STRING	89000	1000 daN	

BIT RECORD

BIT NO.	20CRR
SIZE (mm)	311
IADC CODE	4 3 7
MFG.	REED
TYPE	EHP43H
SERIAL NO.	KH7469
JETS (mm)	3x22.2
DEPTH OUT (m)	—
DEPTH IN (m)	1967
TOTAL METRES DRILLED (m)	38
TOTAL HOURS RUN	38¼

CUTTING STRUCTURE: T, T₀, MDC, LOC, B, Gage, ODC, Reason Pulled, Total Run m/hr.

HOLE CONDITION

HOLE DRAG 10-15000 Sliding
TORQUE AT BOTTOM 9500 FT/LBS
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1625	1620	1620
FUNNEL VIS. - (S/L)	76	74	76
W.L. (cm³)	6.5	7.4	6.0
pH	10.5	10.5	10
PVT m³	92.5	93.4	93.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Starpak	2 sxs
Drispac-R	1 sx

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
0			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
2000	2005	5	65	32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14700	152	85	152	85

REDUCED PUMP SPEED

5800 @ 85 @ 1004m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
1600	2030	4½	2	DRILL F/2000m - 2004m
2030	2100	½	7	RIG FUNCTION ANNULAR 19 SECS, ✓ RSTP.
2100	2130	½	20	ORIENT TOOL FACE
2130	2300	1½	22	WORK ON PUMP #2, CIRCULATED, WORK PIPE.
2300	2315	¼	20	ORIENT TOOL FACE.
2315	2400	¾	2	DRILL F/2004m - 2005m

Changed 1 Suction Seat and 2 suction Valves in Pump #2

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor, Brakes & Linkage

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
0	—	—	105000 DAN	Camp Power Plant	1533 KPA

RECEIVED
OCT 16 2000

Oct 11/00