

LICENCE NO.

WELL NAME & NO.

CNRL et al North Liard P-66-B

CONTRACTOR NAME

AKITA DRILLING LTD.

SURFACE LOCATION

60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

Craig Skubleny

CONTRACTOR NAME

AKITA DRILLING LTD.

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAVE LAUCK

DAILY CHECKS

(1.) Daily Walk Around Inspection

(2.) Detailed Inspection - Weedy (Using Check List)

(3.) H2S Signs Posted if Required

(4.) Well License & Risk Diagram Posted

(5.) Flare Lines Staked

(6.) BOP Drills Performed

(7.) Visually Inspect BOPs, Pore Lines & Degasser Lines

(1.) Rig Site Health & Safety Meeting (once/month)

(2.) CAODC Rig Safe Inspection Checklist (once/month)

(3.) Mast Inspection before Raising or Lowering

(4.) Crown Saver Checked

(5.) Motor Kils Checked

YEAR

2003

MONTH

3

DAY

31

LAST CASING TUBING OR LINER

Q.D. (mm)

M.V.I.D. (mm)

MASS (kg/m3)

GRADE

NO. of JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

RIG NO.

58

FUEL @ BOILERS

TEMPERATURE

DC/DP

DC/DP SIZE

MASS

GRADE

MINIMUM I.D.

T. JNT. O.D.

TYPE

THREADED

NO. of JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

EVENING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

SPUD DATE

2003/04/19

TIME

23:00

RIG RELEASE

2003/05/16

TIME

17:00

WELL TYPE

REENTRY

OPERATOR'S AFE

OP FUEL

KELLY BSHG

CONTRACTOR'S JOB NUM

58

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON DATAHUB

DRILLING CREW PAYROLL DATA

WELL NAME & NO.

CNRL et al North Liard P-66-B

YEAR

2003

MONTH

3

DAY

31

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME

AKITA DRILLING LTD.

RIG MANAGER

DAVE LAUCK

RIG NO.

58

PROVINCE

N.W.T.

CAMP

X

YES

NO

RIG SAFETY DAYS

2222

MORNING TOUR

FROM

0

TO

800

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

SCOTT LOWEN

4.00

SAL

DERRICK HAND

PATRICK BONNETROUGE

4.00

PB

MOTOR HAND

CAMILLE KOOTENAY

4.00

CK

FLOOR HAND

DARREN HAZENBERG

4.00

DH

FLOOR HAND

JASON MCKENZIE

4.00

JM

LEASE HAND

CLIFFORD BONNETROUGE

6.00

CB

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2222

DAY TOUR

FROM

800

TO

1600

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

ALLAN LICKOCH

16.00

AL

DERRICK HAND

JERRY FOLEY

16.00

JF

MOTOR HAND

VIRGIL NANAQUAWETUNG

16.00

VN

FLOOR HAND

MOISE PUNCH

16.00

MP

FLOOR HAND

EDWARD FRASER

16.00

EF

LEASE HAND

SEAN WOLOSCH

16.00

SW

SAFETY CO-ORDINATOR (A.D.)

DANIEL ALONSO

12.00

DA

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2

EVENING TOUR

FROM

1600

TO

2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

SCOTT LOWEN

4.00

SAL

DERRICK HAND

PATRICK BONNETROUGE

4.00

PB

MOTOR HAND

CAMILLE KOOTENAY

4.00

CK

FLOOR HAND

DARREN HAZENBERG

4.00

DH

FLOOR HAND

JASON MCKENZIE

4.00

JM

LEASE HAND

CLIFFORD BONNETROUGE

6.00

CB

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

Well Name: CNRL et al North Liard P-66-B

Operator: CANADIAN NATURAL RESOURCES LTD. Contractor: AKITA DRILLING LTD.

Surface Location: 60:35:55.00 S 123:41:25.00 W

Signature of Operator's Representative: Craig Skubleny Signature of Contractor's Rig Manager: DAVE LAUCK

Drilling Crew Payroll Data:

Well Name & No.	Year	Month	Day
CNRL et al North Liard P-66-B	2003	4	1

Operator	Contractor Name
CANADIAN NATURAL RESOURCES LTD.	AKITA DRILLING LTD.

Rig Manager	Rig No.
DAVE LAUCK	58

Province	Camp	Yes	No	Rig Safety Days
N.W.T.	☒	☐	☐	2223

Rate Schedule: ☒ REGULAR ☐ REPAIR ☐ INVERT

Crew Safety Days: 2223

Day Tour	From	To	Injuries
2223	800	1600	

Crew	Soc Ins. No.	Name	Hrs	Yes	No
DRILLER		SCOTT LOWEN	8.00		
DERRICK HAND		PATRICK BONNETROUGE	8.00		
MOTOR HAND		CAMILLE KOOTENAY	8.00		
FLOOR HAND		DARREN HAZENBERG	8.00		
FLOOR HAND		JASON MCKENZIE	8.00		
LEASE HAND		CLIFFORD BONNETROUGE	8.00		

Rate Schedule: ☒ REGULAR ☐ REPAIR ☐ INVERT

Crew Safety Days: 3

Evening Tour	From	To	Injuries
3	1600	2400	

Crew	Soc Ins. No.	Name	Hrs	Yes	No
DRILLER		SCOTT LOWEN	4.00		
DERRICK HAND		PATRICK BONNETROUGE	4.00		
MOTOR HAND		CAMILLE KOOTENAY	4.00		
FLOOR HAND		DARREN HAZENBERG	4.00		
FLOOR HAND		JASON MCKENZIE	4.00		
LEASE HAND		CLIFFORD BONNETROUGE	4.00		

Rate Schedule: ☒ REGULAR ☐ REPAIR ☐ INVERT

Crew Safety Days:

[illegible]

LICENCE NO.

WELL NAME & NO.

CNRL et al North Liard P-66-B

OPERATOR

CONTRACTOR NAME

CANADIAN NATURAL RESOURCES LTD.

AKITA DRILLING LTD.

SURFACE LOCATION

UNIQUE ID

60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

Craig Skubleny

DAVE LAUCK

DAY CHECKS

OPERATOR

YEAR

MONTH

DAY

RIG NO.

FUEL @ 08:00 HRS

LAST CASING TUBING OR LINER

RIG 178

TEMPERATURE

DC/DP

DC/DP SIZE

MASS

GRADE

MINIMUM I.D.

T-JNT O.D.

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

SHALE SHAKER(S)

RENTALS / SERVICES

MORN

DAY

EVE

(1.) Daily Wash Around Inspection

(2.) Detailed Inspection - Weekly (Using Check List)

(3.) H2S Signs Posted if Required

(4.) Well License & Stick Diagram Posted

(5.) Flare Lines Staked

(6.) BOP Drills Performed

(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines

(1.) Rig Site Health & Safety Meeting (once/week/month)

(2.) CAODC Rig Safety Inspection Checklist (once/week/month)

(3.) Mast Inspection before Raising or Lowering

(4.) Crown Saver Checked

(5.) Motor Kils Checked

CAODC

PASON DATAHUB

TIME DATE	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	TOTALS	SHALE SHAKER(S)				RENTALS / SERVICES			MORN	DAY	EVE
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG. & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DPL WORK	SAFETY MEETING	Wireline							NO.	TYPE	TYPE	Accum. MJ=						
																														SCREENS CHANGED	FLC	NEW USED						
MORN																							8.00					8.00										
DAY																							8.00					8.00										
EVE																							8.00					8.00										
TOTAL																							24.00					24.00										

NO.

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

Q.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN

DP.

STANDS

DP.

SINGLES

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

W.O. WIRELINERS & TESTERS TO FISH OUT WIRE

PUMPED METHANOL W/ PRESSURE TESTER

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

8.00

HRS RUN

BOILER pH

11.0

BOILER pH

STACK TEMP

200

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NOTES: CHECKED DEADMAN CLAMP

BOILER BLOW DOWNS, 2 @ 15sec

NO.

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

Q.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN

DP.

STANDS

DP.

SINGLES

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

PUMP METHANOL w/PRESSURE TESTER

Run 1 n w/Wireline & fishing out tool

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

8.00

HRS RUN

BOILER pH

10.5

BOILER pH

STACK TEMP

200

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NOTES: Checked; Fastline Clamp, Deadline Anchor, Breaks & Linkage

Blew down boilers twice

NO.

LENGTH

BIT RECORD

EVENING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

Q.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN

DP.

STANDS

DP.

SINGLES

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

PRESSURE TEST LUBRICATOR, RUN IN WITH WIRE LINE

FLOW THE WELL TO TRY AND CLEAN OUT FILL

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

8.00

HRS RUN

BOILER pH

10.0

BOILER pH

STACK TEMP

200

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NOTES: CHECKED CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR, BRAKES & LINKAGE

BOILER BLOW DOWN - 2x

LICENCE NO.		WELL NAME & a		CNRL et al North Liard P-66-B				DAILY CHECKS		YEAR 2003 MONTH 4 DAY 4		LAST CASINO TUBING OR LINER		O.D. (mm)		MIN.D. (mm)		MASS (kg/m3)		GRADE		NO. OF JOINTS		TOTAL LENGTH		KG TO CSG HEAD		SET AT (m)		SPUD DATE 2003/04/19		TIME 23:00																			
OPERATOR		CANADIAN NATURAL RESOURCES LTD.		AKITA DRILLING LTD.		CONTRACTOR NAME		RIG NO. 158		FUEL @ 08.00 HRS		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE				PUMP MANUFACTURER		STROKE LENGTH		RIG RELEASE 2003/05/16		TIME 17:00									
SURFACE LOCATION		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE				PUMP MANUFACTURER		STROKE LENGTH		WELL TYPE		RE-ENTRY									
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS		DO DP		OC / DP SIZE		MASS		GRADE		MINIMUM I.D.		T.J.M.T. O.D.		TYPE THREAD		NO. OF JOINTS		PUMP TYPE		PUMP MANUFACTURER		STROKE LENGTH		OPERATOR'S AFE		OP FUEL		KELLY BSHG		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		RIG SAFETY DAYS		PASON DATAHUB	
UNIQUE ID		60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER		RIG 164		BOILER		TEMPERATURE		CURRENT CONDITIONS																																					

LICENCE NO.

WELL NAME & NO.

CNRL et al North Liard P-66-B

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

SURFACE LOCATION

60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

Craig Skubleny

CONTRACTOR NAME

AKITA DRILLING LTD.

UNIQUE ID

SIGNATURE OF CONTRACTOR'S RIG MANAGER

GARY PATRICK

DAILY CHECKS

(1) Daily Walk Around Inspection

(2) Detailed Inspection - Weasby (Using Check List)

(3) HSE Signs Posted & Reviewed

(4) Well Licence & Stick Diagram Posted

(5) Flare Lines Staked

(6) BOP Drills Performed

(7) Visually Inspected BOPs- Flare Lines & Degasser Lines

(8) CAODC Rig Safety Inspection Checklist (monthly/monthly)

(9) Mast Inspection before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kills Checked

OPERATOR'S RIG NO.

58

TEMPERATURE

216

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

Q.D. (mm)

58

M.V.I.D. (mm)

58

MASS (kg/m3)

58

MAKE

GRADE

NO. OF JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

YEAR

2003

MONTH

4

DAY

5

CAODC

PASON DATAHUB

SPUD DATE

2003/04/19

TIME

23:00

RIG RELEASE

2003/05/16

TIME

17:00

WELL TYPE

RE-ENTRY

OPERATOR'S AFE

OP FUEL

KELLY BISHG

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

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	TOTALS	NO. TYPE	TYPE	Accum. MJ=	RENTALS / SERVICES	MORN	DAY	EVE
RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NEPPEL UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING	WHI COIL TUBING	8.00				8.00	NO. TYPE	TYPE	Accum. MJ=					
MORN																					8.00					8.00	140	TOP	TOP	Total MJ=				
DAY																					8.00					8.00	140	MIDDLE	MIDDLE					
EVE																					8.00					8.00	140	MIDDLE	MIDDLE					
TOTAL																					24.00					24.00	140	BOTTOM	BOTTOM					

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

Ti To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN (m)

D.P. STANDS

D.P. SINGLES

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME

DRILLER SIGNATURE

SPECIAL EVENT

SAFETY TOPIC

MEH

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

Ti To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN (m)

D.P. STANDS

D.P. SINGLES

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME

DRILLER SIGNATURE

SPECIAL EVENT

SAFETY TOPIC

MEH

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

EVENING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

Ti To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN (m)

D.P. STANDS

D.P. SINGLES

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME

DRILLER SIGNATURE

SPECIAL EVENT

SAFETY TOPIC

MEH

MACP

DRILLING CREW PAYROLL DATA										YEAR	MONTH	DAY								
WELL NAME & NO. CNRL et al North Liard P-66-B										2003	4	5								
OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR NAME AKITA DRILLING LTD.										RIG NO. 58										
RIG MANAGER GARY PATRICK										RIG SAFETY DAYS 2227										
PROVINCE N.W.T. CAMP ☒ YES ☐ NO																				
MORNING TOUR										FROM	TO	INJURIES								
										0	800									
CREW	SOC INS. NO.	NAME		HRS	YES	NO														
DRILLER		ALLAN LICKOCH		8.00		AL														
DERRICK HAND		JERRY FOLEY		8.00		JF														
MOTOR HAND		VIRGIL NANAQUAWETUNG		8.00		VN														
FLOOR HAND		MOISE PUNCH		8.00		MP														
FLOOR HAND		EDWARD FRASER		8.00		EF														
LEASE HAND		SEAN WOLOSCH		8.00		SW														

Well Name & No. CNRL et al North Liard P-66-B

Operator: Canadian Natural Resources Ltd. Contractor Name: Akita Drilling Ltd.

Surface Location: 60:35:55.00 S 123:41:25.00 W

Signature of Operator's Representative: Craig Skubleny

Signature of Contractor's Rig Manager: Gary Patrick

Drilling Crew Payroll Data: Morning Tour, Day Tour, Evening Tour

Drilling Crew: Allan Lickoch, Jerry Foley, Virgil Nanaquawetung, Moise Punch, Edward Fraser, Sean Wolosch

LICENCE NO.

WELL NAME & NO.

CONTRACTOR NAME

OPERATOR

SURFACE LOCATION

SIGNATURE OF OPERATOR'S REPRESENTATIVE

CNRL et al North Liard P-66-B

AKITA DRILLING LTD.

60:35:55.00 S 123:41:25.00 W

Craig Skubleny

GARY PATRICK

1. Daily Walk Around Inspection

2. Detailed Inspection - Weedy (Using Check List)

3. HSE Signs Posted & Required

4. Well License & Block Diagram Posted

5. Flare Lines Staked

6. SOP Data Performed

7. Visually Inspect SOPs- Flare Lines & Degasser Lines

8. CAODC Rig Safety Inspection Checklist (onshore/month)

9. Mast Inspection before Raising or Lowering

10. Crown Saver Checked

11. Motor Kill Checked

YEAR 2003 MONTH 4 DAY 7

RIG NO. 58

FUEL @ 08:00 HRS

BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

Q.D. (mm)

MW.I.D. (mm)

MASS (kg/m3)

MAKE

GRADE

NO. OF JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

LAST CASING TUBING OR LINER

DC/DP

DC/DP SIZE

MASS

GRADE

MINIMUM I.D.

T.JNT. Q.D.

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

F1000

EMSCO

254

F1000

EMSCO

254

DRILLING CREW PAYROLL DATA

WELL NAME & NO. CNRL et al North Liard P-66-B

YEAR 2003 MONTH 4 DAY 7

OPERATOR CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME AKITA DRILLING LTD.

RIG MANAGER GARY PATRICK

RIG NO. 58

PROVINCE N.W.T.

CAMP ☒ YES ☐ NO

RIG SAFETY DAYS 2228

MORNING TOUR FROM 0 TO 800

INJURIES

CREW SOC INS. NO. NAME HRS YES NO

DRILLER ALLAN LICKOCH 8.00 AL

DERRICK HAND JERRY FOLEY 8.00 JF

MOTOR HAND VIRGIL NANAQUAWETUNG 8.00 VN

FLOOR HAND MOISE PUNCH 8.00 MP

FLOOR HAND EDWARD FRASER 8.00 EF

LEASE HAND SEAN WOLOSCH 8.00 SW

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

DAY TOUR FROM 800 TO 1600

INJURIES

CREW SOC INS. NO. NAME HRS YES NO

DRILLER KEVIN VANDENBRAND 12.00 KV

WELLSITE COORDINATOR(A.D) JUSTIN KELLY 12.00 JK

DERRICK HAND JUSTIN AMYOTTE 12.00 JA

MOTOR HAND JESSY LESSARD 12.00 JL

FLOOR HAND STEVE McLAUGHLIN 12.00 SM

FLOOR HAND GREG ST.ARNAUD 12.00 GS

LEASE HAND VICTOR VACON 12.00 VV

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

EVENING TOUR FROM 1600 TO 2400

INJURIES

CREW SOC INS. NO. NAME HRS YES NO

DRILLER ALLAN LICKOCH 4.00 AL

DERRICK HAND JERRY FOLEY 4.00 JF

MOTOR HAND VIRGIL NANAQUAWETUNG 4.00 VN

FLOOR HAND MOISE PUNCH 4.00 MP

FLOOR HAND EDWARD FRASER 4.00 EF

LEASE HAND SEAN WOLOSCH 4.00 SW

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

DRILLING CREW PAYROLL DATA

WELL NAME & NO. CNRL et al North Liard P-66-B

YEAR 2003 MONTH 4 DAY 7

OPERATOR CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME AKITA DRILLING LTD.

RIG MANAGER GARY PATRICK

RIG NO. 58

PROVINCE N.W.T.

CAMP ☒ YES ☐ NO

RIG SAFETY DAYS 2228

MORNING TOUR FROM 0 TO 800

INJURIES

CREW SOC INS. NO. NAME HRS YES NO

DRILLER ALLAN LICKOCH 8.00 AL

DERRICK HAND JERRY FOLEY 8.00 JF

MOTOR HAND VIRGIL NANAQUAWETUNG 8.00 VN

FLOOR HAND MOISE PUNCH 8.00 MP

FLOOR HAND EDWARD FRASER 8.00 EF

LEASE HAND SEAN WOLOSCH 8.00 SW

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

DAY TOUR FROM 800 TO 1600

INJURIES

CREW SOC INS. NO. NAME HRS YES NO

DRILLER KEVIN VANDENBRAND 12.00 KV

WELLSITE COORDINATOR(A.D) JUSTIN KELLY 12.00 JK

DERRICK HAND JUSTIN AMYOTTE 12.00 JA

MOTOR HAND JESSY LESSARD 12.00 JL

FLOOR HAND STEVE McLAUGHLIN 12.00 SM

FLOOR HAND GREG ST.ARNAUD 12.00 GS

LEASE HAND VICTOR VACON 12.00 VV

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

EVENING TOUR FROM 1600 TO 2400

INJURIES

CREW SOC INS. NO. NAME HRS YES NO

DRILLER ALLAN LICKOCH 4.00 AL

DERRICK HAND JERRY FOLEY 4.00 JF

MOTOR HAND VIRGIL NANAQUAWETUNG 4.00 VN

FLOOR HAND MOISE PUNCH 4.00 MP

FLOOR HAND EDWARD FRASER 4.00 EF

LEASE HAND SEAN WOLOSCH 4.00 SW

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO.

WELL NAME & NO.
CNRL et al North Liard P-66-B

CONTRACTOR NAME
AKITA DRILLING LTD.

UNIQUE ID

DAILY CHECKS

(1.) Daily Walk Around Inspection

(2.) Detailed Inspection - Weekly (Using Check List)

(3.) HSE Sign Posted if Required

(4.) Well License & Stick Diagram Posted

(5.) Flare Lines Staked

(6.) BOP Data Performed

(7.) Visually Inspect BOPs, Flare Lines & Degasser Lines

(1.) Rig Site Health & Safety Meeting (am/noon/night)

(2.) CAODC Rig Safety Inspection Checklist (am/noon/night)

(3.) Mast Inspection before Raising or Lowering

(4.) Crown Saver Checked

(5.) Motor Kite Checked

YEAR

2003

MONTH

4

DAY

8

RIG NO.

58

FUEL @ 08:00 HRS

162

TEMPERATURE

DC/DP

DC/DP

SIZE

MASS

GRADE

MINIMUM I.D.

T. INT. O.D.

TYPE

THREAD

NO. of JOINTS

PUMP TYPE

F1000

EMSCO

254

F1000

EMSCO

254

LAST CASING TUBING OR LINER

SHAPE SHAKER(S)

RENTALS / SERVICES

MORN

DAY

EVE

SPUD DATE

2003/04/19

TIME

23:00

RIG RELEASE

2003/05/16

TIME

17:00

WELL TYPE

RE-ENTRY

OPERATORS AFE

KELLY BSHG

OP FUEL

CONTRACTORS JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON DATAHUB

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

SURFACE LOCATION

60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

Craig Skubleny

SIGNATURE OF CONTRACTOR'S RIG MANAGER

GARY PATRICK

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

TOTALS

NO. 1

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 2

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 3

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 4

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 5

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 6

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 7

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 8

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 9

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 10

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 11

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 12

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 13

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 14

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 15

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 16

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 17

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 18

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 19

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 20

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 21

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 22

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 23

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 24

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 25

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 26

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 27

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 28

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 29

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 30

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 31

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 32

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 33

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 34

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 35

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 36

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 37

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 38

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 39

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 40

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 41

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 42

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 43

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 44

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 45

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 46

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 47

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 48

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 49

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 50

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 51

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 52

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 53

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 54

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 55

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 56

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 57

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 58

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 59

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 60

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 61

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 62

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 63

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 64

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 65

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 66

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 67

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 68

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 69

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 70

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 71

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 72

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 73

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 74

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 75

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 76

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 77

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 78

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 79

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 80

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 81

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 82

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 83

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 84

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 85

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 86

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 87

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 88

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 89

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 90

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 91

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 92

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 93

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 94

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 95

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 96

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 97

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 98

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 99

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 100

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 101

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 102

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 103

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 104

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 105

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 106

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 107

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 108

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 109

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 110

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 111

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 112

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 113

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 114

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 115

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 116

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 117

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 118

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 119

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 120

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 121

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 122

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 123

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 124

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 125

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 126

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 127

TYPE

SCREENS

CHANGED

NO

NEW

USED

Accum. MJ=

9,042

Total MJ=

1,072,153

NO. 128

TYPE

SCREENS

CHANGED

NO

<

LICENCE NO.

WELL NAME & NO.

CONTRACTOR NAME

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

AKITA DRILLING LTD.

SURFACE LOCATION

60:35:55.00 S 123:41:25.00 W

UNIQUE ID

SIGNATURE OF OPERATOR'S REPRESENTATIVE

Craig Skubleny

SIGNATURE OF CONTRACTOR'S RIG MANAGER

GARY PATRICK

DAY CHECKS

(1) Daily Walk Around Inspection

(2) Detailed Inspection - Weekly (Using Check List)

(3) H2S Scribe Protocol If Required

(4) Well License & Stick Diagram Posted

(5) Flow Lines Stated

(6) BOP Drills Performance

(7) Visually Inspect BOPs- Flare Lines & Degasser Lines

(1) Rig Site Health & Safety Meeting (once/week/month)

(2) CADD Rig Safety Inspection Checklist (once/week/month)

(3) Mast Inspection before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kibb Checked

YEAR

2003

MONTH

4

DAY

9

RIG NO.

58

FUEL @ 06:00 HRS

BOILER

TEMPERATURE

DC/DP

DC/DP SIZE

MASS

GRADE

MINIMUM I.D.

T. INT. O.D.

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

LAST CASING TUBING OR LINER

Q.D. (mm)

M.V. I.D. (mm)

MASS (kg/m3)

GRADE

NO. OF JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

CAODC

PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)		RENTALS / SERVICES		MORN	DAY	EVE	
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	CONC MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	WAIT/ORDER	Backpressure/Wedge Plug						NO.	TYPE	DESCR				TYPE
MORN																							8.00			8.00		SCREENS CHANGED	NO	NEW USED					
DAY														1.50							0.25	2.50		3.75		8.00	140	TOP		175	TOP				
EVE																								4.00	4.00	8.00	140	MIDDLE		175	MIDDLE				
TOTAL														1.50							0.25	2.50		15.75	4.00	24.00	140	BOTTOM		175	BOTTOM				

NO.

BIT

LENGTH

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN (m)

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG

NO.

TYPE

DEBRICK

TYPE

FLC

Accum. MJ=

8,106

Total MJ=

1,072,217

NO.

SCREENS

CHANGED

NO

USED

TOP

175

MIDDLE

140

MIDDLE

175

BOTTOM

175

BOTTOM

175

TIME LOG

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BOTTOM

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Accum. MJ=

8,106

Total MJ=

1,072,217

NO.

SCREENS

CHANGED

NO

USED

TOP

175

MIDDLE

140

MIDDLE

175

BOTTOM

175

BOTTOM

175

TIME LOG

NO.

TYPE

DEBRICK

TYPE

FLC

Accum. MJ=

8,106

Total MJ=

1,072,217

NO.

SCREENS

CHANGED

NO

USED

TOP

175

MIDDLE

140

MIDDLE

175

BOTTOM

175

BOTTOM

175

TIME LOG

NO.

TYPE

DEBRICK

TYPE

FLC

Accum. MJ=

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TIME LOG

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Total MJ=

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MIDDLE

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BOTTOM

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BOTTOM

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TIME LOG

NO.

TYPE

DEBRICK

TYPE

FLC

Accum. MJ=

8,106

Total MJ=

1,072,217

NO.

SCREENS

CHANGED

NO

USED

TOP

175

MIDDLE

140

MIDDLE

175

BOTTOM

175

BOTTOM

175

TIME LOG

NO.

TYPE

DEBRICK

TYPE

FLC

Accum. MJ=

8,10

LICENCE NO.

WELL NAME & NO.

CNRL et al North Liard P-66-B

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

SURFACE LOCATION

60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

Craig Skubleny

CONTRACTOR NAME

AKITA DRILLING LTD.

UNIQUE ID

SIGNATURE OF CONTRACTOR'S RIG MANAGER

GARY PATRICK

DAILY CHECKS

(1) Daily Walk Around Inspection

(2) Detailed Inspection - Weekly (Using Check List)

(3) H2S Signs Posted if Required

(4) Well Location & Block Diagram Posted

(5) Flare Lines Staked

(6) BOP Drive Performed

(7) Visually Inspect BOPs, Flare Lines & Degasser Lines

(1) Rig Site Health & Safety Meeting (enroute/mouth)

(2) CAODC Rig Safety Inspection Checklist (enroute/mouth)

(3) Mast Inspection before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kill Checked

YEAR 2003 MONTH 4 DAY 10

RIG NO. 58

RIG 129

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

Q.D. (mm)

M.N.I.D. (mm)

MASS (kg/m3)

MAKE

GRADE

NO. OF JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

SHALE SHAKER(S)

RENTALS / SERVICES

MORN

DAY

EVE

SPUD DATE 2003/04/19

TIME 23:00

RIG RELEASE 2003/05/16

TIME 17:00

WELL TYPE

REENTRY

OPERATOR'S AFE

OP FUEL

KELLY BSHG

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)			RENTALS / SERVICES		MORN	DAY	EVE																												
																												GROUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC				TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	BACK PRESSURE	PHASES	Taps/Int Well	WC TESTER	NO. 1	TYPE DERRICK	TYPE FLC	Accum. MJ= 9,106				
																																																												SCREENS CHANGED	NO	MONEY USED	Total MJ= 1,072,217
MORN																								3.50	4.50		8.00																																				
DAY															4.25							0.25	0.50		3.00		8.00	140	TOP	175	TOP																																
EVE																						0.25					6.50	140	MIDDLE	175	MIDDLE																																
TOTAL															9.50	1.00						0.50	0.50	3.50	7.50		22.50	140	BOTTOM	175	BOTTOM																																

NO.	LENGTH	BIT RECORD	MORNING TOUR	MUD RECORD	METRES DRILLED	TIME LOG
		BIT NO. SIZE ADC CODE MANUFACTURER TYPE SERIAL NO. JETS DEPTH OUT (m) DEPTH IN (m) TOTAL DRILLED (m) TOTAL HRS RUN CUTTING STRUCTURE TI To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN IN HRS D.P. STANDS D.P. SINGLES KELLY DOWN TOTAL WT. OF D.C. WT. OF STRING	MUD TYPE TIME DENSITY (kg/m3) FUNNEL VISCOSITY FLUID LOSS (cm3) PH MUD MATERIALS ADDED PRODUCT AMOUNT UNIT SOLIDS CONTROL CENTRIFUGE HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY BOILERS 1 2 HRS RUN 8.00 HRS RUN BOILER PH 10.5 BOILER PH STACK TEMP 165 STACK TEMP CIRCULATION PRESSURE MPa PUMP NO. 1 LINER SIZE SPM LINER SIZE SPM PUMP NO. 2 LINER SIZE SPM LINER SIZE SPM REDUCED PUMP SPEED DEVIATION SURVEYS DEPTH (m) DEVIATION DIRECTION DRILLER SIGNATURE ALLAN LICKOCH SPECIAL EVENT TIME / DEPTH	FROM TO D-R-C RPM WOB 0 330 3.50 23 330 800 4.50 24 800 DETAILS OF OPERATIONS IN SEQUENCE & REMARKS Pressure Test Well with Schlumberger Venting Well to Atmosphere NOTES : Checked; Fastline Clamp, Deadline Anchor, Breaks & Linkage Blew down boilers twice		

NO.	LENGTH	BIT RECORD	DAY TOUR	MUD RECORD	METRES DRILLED	TIME LOG
		BIT NO. SIZE ADC CODE MANUFACTURER TYPE SERIAL NO. JETS DEPTH OUT (m) DEPTH IN (m) TOTAL DRILLED (m) TOTAL HRS RUN CUTTING STRUCTURE TI To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN IN HRS D.P. STANDS D.P. SINGLES KELLY DOWN TOTAL WT. OF D.C. WT. OF STRING	MUD TYPE TIME DENSITY (kg/m3) FUNNEL VISCOSITY FLUID LOSS (cm3) PH MUD MATERIALS ADDED PRODUCT AMOUNT UNIT SOLIDS CONTROL CENTRIFUGE HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY BOILERS 1 2 HRS RUN 8.00 HRS RUN BOILER PH 10.0 BOILER PH STACK TEMP 195 STACK TEMP CIRCULATION PRESSURE MPa PUMP NO. 1 LINER SIZE SPM LINER SIZE SPM PUMP NO. 2 LINER SIZE SPM LINER SIZE SPM REDUCED PUMP SPEED DEVIATION SURVEYS DEPTH (m) DEVIATION DIRECTION DRILLER SIGNATURE KEVIN VANDENBRAND SPECIAL EVENT TIME / DEPTH	FROM TO D-R-C RPM WOB 800 1100 3.00 24 1100 1115 0.25 21 1115 1145 0.50 22 1145 1600 4.25 14 1600 DETAILS OF OPERATIONS IN SEQUENCE & REMARKS VENT WELL TO ATMOSPHERE SAFETY MTG. ON INSTALLING BACK PRESS. VALVE & NIPPLE UP. RIG UP TO - AND INSTALL BACK PRESSURE VALVE TAKE OFF WELL HEAD & NIPPLE UP B.O.P.		

NO.	LENGTH	BIT RECORD	EVENING TOUR	MUD RECORD	METRES DRILLED	TIME LOG
		BIT NO. SIZE ADC CODE MANUFACTURER TYPE SERIAL NO. JETS DEPTH OUT (m) DEPTH IN (m) TOTAL DRILLED (m) TOTAL HRS RUN CUTTING STRUCTURE TI To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN IN HRS D.P. STANDS D.P. SINGLES KELLY DOWN TOTAL WT. OF D.C. WT. OF STRING	MUD TYPE TIME DENSITY (kg/m3) FUNNEL VISCOSITY FLUID LOSS (cm3) PH MUD MATERIALS ADDED PRODUCT AMOUNT UNIT SOLIDS CONTROL CENTRIFUGE HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY BOILERS 1 2 HRS RUN 8.00 HRS RUN BOILER PH 10.0 BOILER PH CIRCULATION PRESSURE MPa PUMP NO. 1 LINER SIZE SPM LINER SIZE SPM PUMP NO. 2 LINER SIZE SPM LINER SIZE SPM REDUCED PUMP SPEED DEVIATION SURVEYS DEPTH (m) DEVIATION DIRECTION DRILLER SIGNATURE SPECIAL EVENT TIME / DEPTH	FROM TO D-R-C RPM WOB 1600 1615 0.25 21 1615 2030 4.25 14 2030 2130 1.00 14 2130 2300 1.50 2300 2400 1.00 15 2400 DETAILS OF OPERATIONS IN SEQUENCE & REMARKS SAFETY MTG. W/ LOCKHART & REVIEWED JSA (NIPPLE UP) NIPPLE UP BTM PIPE, BLIND & TOP PIPE RAMS, CHOKE LINES & KILL LINES HOOK UP FLARE TANK LAY OUT DEGASSER LINES WAIT ON PRESSURE TESTER (ROAD CLOSED TO TRAFFIC TILL 22:00HRS) DUE TO WEATHER CONDITIONS (SPRING THAW) TESTING BLIND RAMS TO 1500KPA LOW 21mPA HIGH NOTES : BOILER BLOW DOWNS 2 @ 15sec		

DRILLING CREW PAYROLL DATA			
WELL NAME & NO.	YEAR	MONTH	DAY
CNRL et al North Liard P-66-B	2003	4	10
OPERATOR	CONTRACTOR NAME		
CANADIAN NATURAL RESOURCES LTD.	AKITA DRILLING LTD.		
RIG MANAGER	RIG NO.		
GARY PATRICK	58		
PROVINCE	CAMP	YES	NO
N.W.T.	X		
RIG SAFETY DAYS		2231	

MORNING TOUR					
CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		ALLAN LICKOCH	8.00		AL
DERRICK HAND		JERRY FOLEY	8.00		JF
MOTOR HAND		VIRGIL NANAQUAWETUNG	8.00		VN
FLOOR HAND		MOISE PUNCH	8.00		MP
FLOOR HAND		EDWARD FRASER	8.00		EF
LEASE HAND		SEAN WOLOSCH	8.00		SW

RATE SCHEDULE	X	REGULAR	REPAIR	INVERT
CREW SAFETY DAYS				
11				

DAY TOUR					
CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		KEVIN VANDENBRAND	8.00		KV
DERRICK HAND		JUSTIN AMYOTTE	8.00		JA
MOTOR HAND		JESSY LESSARD	8.00		JL
FLOOR HAND		STEVE McLAUGHLIN	8.00		SM
FLOOR HAND		GREG ST. ARNAUD	8.00		GS
LEASE HAND		VICTOR VACON	8.00		VV

RATE SCHEDULE	X	REGULAR	REPAIR	INVERT
CREW SAFETY DAYS				
2231				

EVENING TOUR					
CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		SCOTT LOWEN	8.00		SAL
DERRICK HAND		TERRY SANDERSON	8.00		TS
MOTOR HAND		CAMILLE KOOTENAY	8.00		CK
FLOOR HAND		DARREN HAZENBERG	8.00		DH
FLOOR HAND		JASON MCKENZIE	8.00		JM
SAFETY CO-ORDINATOR (A.D)		DANIEL ALONSO	8.00		DA
LEASE HAND		CLIFFORD BONNETROUGE	8.00		CB

RATE SCHEDULE	X	REGULAR	REPAIR	INVERT
CREW SAFETY DAYS				

[illegible]

[illegible]

LICENCE NO.		WELL NAME & NO. CNRL et al North Liard P-66-B		DAILY CHECKS (1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Posted if Required (4) Well Licence & Block Diagram Posted (5) Flare Lines Slaked (6) BOP Data Performed (7) Visually Inspect BOP - Flare Lines & Driveline Lines										YEAR 2003 MONTH 4 DAY 13 REG NO. 158 FUEL @ 08.00 HRS RIG 157		LAST CASING TUBING OR LINER TEMPERATURE CURRENT CONDITIONS WIND DIRECTION ROAD CONDITION		Q.D. (mm) MIN. ID. MASS (kg/m) MAKE GRADE NO. OF JOINTS TOTAL LENGTH KB TO CSG HEAD SET AT (m)		SPUD DATE: 2003/04/19 TIME: 23:00 RIG RELEASE: 2003/05/16 TIME: 17:00 WELL TYPE: RE-ENTRY OPERATOR'S AFE KELLY BSHG CONTRACTOR'S JOB NUM TOUR SHEET SERIAL NUM VENDOR SOFTWARE VERSION		 PASON DATAHUB	
OPERATOR CANADIAN NATURAL RESOURCES LTD.		CONTRACTOR NAME AKITA DRILLING LTD.		UNIQUE ID 60:35:55.00 S 123:41:25.00 W										SIGNATURE OF CONTRACTOR'S RIG MANAGER DAVE LAUCK		SIGNATURE OF OPERATOR'S REPRESENTATIVE Craig Skubleny							

TIME	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	TOTALS	SHALE SHAKER(S)			RENTALS / SERVICES		MOBY	DAY	EVE	DRILLING CREW PAYROLL DATA					
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL. WORK	SAFETY MEETING	WAIT ON CONNECTION	WAIT ON CEMENT	WAGGERS	WASHERS	PERF. HAND	NO	TYPE 2	TYPE DEROCK	TYPE RLC	ACQUIT. MJ=	8,106			WELL NAME & NO.	YEAR	MONTH	DAY				
	MORN																					0.25	1.75	6.00				8.00	SCREENS CHANGED	YES	RIGHT USED	Total MJ=	1,072,217			CNRL et al North Lard P-66-B	2003	4	13			
	DAY																											8.00	140 TOP		175 TOP					CANADIAN NATURAL RESOURCES LTD.	AKITA DRILLING LTD.					
	EVE											2.50										0.50		2.75	2.25			8.00	140 MIDDLE		175 MIDDLE					DAVE LAUCK		50				
TOTAL											2.50										0.75	1.75	16.75	2.25			8.00	140 BOTTOM		175 BOTTOM					PROVINCE	N.W.T.	CAMP	X	YES	NO	R/O SAFETY DAYS	2234

[illegible]

[illegible]

Form content including sections for: WELL NAME & NO., OPERATOR, CONTRACTOR NAME, SURFACE LOCATION, DAILY CHECKS, DRILLING CREW PAYROLL DATA, and various drilling logs.

LICENCE NO.

WELL NAME & NO.
CNRL et al North Liard P-66-B

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE
Craig Skubleny

SIGNATURE OF CONTRACTOR'S RIG MANAGER
DAVE LAUCK

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) VCB Sign Posted if Required
(4.) Well Licence & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Data Performed
(7.) Visually Inspect BOPs: Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (once/month)
(2.) CADD Rig Safety Inspection Checklist (once/month)
(3.) Mast Inspection Before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

OPERATOR
CS DL
YEAR 2003 MONTH 4 DAY 16
RIG NO. 58
FUEL @ 08:00 HRS
LAST CASING TUBING OR LINER
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
WIND SPEED
ROAD CONDITION
MUD LOG

O.D. (mm)
MIN I.D. (mm)
MASS (kg/m3)
MAKE
GRADE
NO. OF JOINTS
TOTAL LENGTH
KB TO CSG HEAD
SET AT (m)
DC/DIP
DC/DIP SIZE
MASS
GRADE
MINIMUM I.D.
T. INT. O.D.
TYPE
THREAD
NO. OF JOINTS
PUMP TYPE
PUMP MANUFACTURER
STROKE LENGTH

SPUD DATE
2003/04/18
TIME
23:00
RIG RELEASE
2003/05/16
TIME
17:00
WELL TYPE
RE-ENTRY
OPERATOR'S AFE
KELLY BSHG
OP FUEL
CONTRACTOR'S JOB NUM
TOUR SHEET SERIAL NUM
ROAD SOFTWARE VERSION

CAODC
PASON DATAHUB

Craig Skubieny																DAVE LAUCK										MILJOY										SHALE SHAKER(S)										RENTALS / SERVICES			MORN			DAY			EVE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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	TOTALS	NO. 1 TYPE 2	NO. 2 TYPE 2	NO. 3 TYPE 2	NO. 4 TYPE 2	NO. 5 TYPE 2	NO. 6 TYPE 2	NO. 7 TYPE 2	NO. 8 TYPE 2	NO. 9 TYPE 2	NO. 10 TYPE 2	NO. 11 TYPE 2	NO. 12 TYPE 2	NO. 13 TYPE 2	NO. 14 TYPE 2	NO. 15 TYPE 2	NO. 16 TYPE 2	NO. 17 TYPE 2	NO. 18 TYPE 2	NO. 19 TYPE 2	NO. 20 TYPE 2	NO. 21 TYPE 2	NO. 22 TYPE 2	NO. 23 TYPE 2	NO. 24 TYPE 2	NO. 25 TYPE 2	NO. 26 TYPE 2	NO. 27 TYPE 2	NO. 28 TYPE 2	NO. 29 TYPE 2	NO. 30 TYPE 2	NO. 31 TYPE 2	NO. 32 TYPE 2	NO. 33 TYPE 2	NO. 34 TYPE 2	NO. 35 TYPE 2	NO. 36 TYPE 2	NO. 37 TYPE 2	NO. 38 TYPE 2	NO. 39 TYPE 2	NO. 40 TYPE 2	NO. 41 TYPE 2	NO. 42 TYPE 2	NO. 43 TYPE 2	NO. 44 TYPE 2	NO. 45 TYPE 2	NO. 46 TYPE 2	NO. 47 TYPE 2	NO. 48 TYPE 2	NO. 49 TYPE 2	NO. 50 TYPE 2	NO. 51 TYPE 2	NO. 52 TYPE 2	NO. 53 TYPE 2	NO. 54 TYPE 2	NO. 55 TYPE 2	NO. 56 TYPE 2	NO. 57 TYPE 2	NO. 58 TYPE 2	NO. 59 TYPE 2	NO. 60 TYPE 2	NO. 61 TYPE 2	NO. 62 TYPE 2	NO. 63 TYPE 2	NO. 64 TYPE 2	NO. 65 TYPE 2	NO. 66 TYPE 2	NO. 67 TYPE 2	NO. 68 TYPE 2	NO. 69 TYPE 2	NO. 70 TYPE 2	NO. 71 TYPE 2	NO. 72 TYPE 2	NO. 73 TYPE 2	NO. 74 TYPE 2	NO. 75 TYPE 2	NO. 76 TYPE 2	NO. 77 TYPE 2	NO. 78 TYPE 2	NO. 79 TYPE 2	NO. 80 TYPE 2	NO. 81 TYPE 2	NO. 82 TYPE 2	NO. 83 TYPE 2	NO. 84 TYPE 2	NO. 85 TYPE 2	NO. 86 TYPE 2	NO. 87 TYPE 2	NO. 88 TYPE 2	NO. 89 TYPE 2	NO. 90 TYPE 2	NO. 91 TYPE 2	NO. 92 TYPE 2	NO. 93 TYPE 2	NO. 94 TYPE 2	NO. 95 TYPE 2	NO. 96 TYPE 2	NO. 97 TYPE 2	NO. 98 TYPE 2	NO. 99 TYPE 2	NO. 100 TYPE 2	NO. 101 TYPE 2	NO. 102 TYPE 2	NO. 103 TYPE 2	NO. 104 TYPE 2	NO. 105 TYPE 2	NO. 106 TYPE 2	NO. 107 TYPE 2	NO. 108 TYPE 2	NO. 109 TYPE 2	NO. 110 TYPE 2	NO. 111 TYPE 2	NO. 112 TYPE 2	NO. 113 TYPE 2	NO. 114 TYPE 2	NO. 115 TYPE 2	NO. 116 TYPE 2	NO. 117 TYPE 2	NO. 118 TYPE 2	NO. 119 TYPE 2	NO. 120 TYPE 2	NO. 121 TYPE 2	NO. 122 TYPE 2	NO. 123 TYPE 2	NO. 124 TYPE 2	NO. 125 TYPE 2	NO. 126 TYPE 2	NO. 127 TYPE 2	NO. 128 TYPE 2	NO. 129 TYPE 2	NO. 130 TYPE 2	NO. 131 TYPE 2	NO. 132 TYPE 2	NO. 133 TYPE 2	NO. 134 TYPE 2	NO. 135 TYPE 2	NO. 136 TYPE 2	NO. 137 TYPE 2	NO. 138 TYPE 2	NO. 139 TYPE 2	NO. 140 TYPE 2	NO. 141 TYPE 2	NO. 142 TYPE 2	NO. 143 TYPE 2	NO. 144 TYPE 2	NO. 145 TYPE 2	NO. 146 TYPE 2	NO. 147 TYPE 2	NO. 148 TYPE 2	NO. 149 TYPE 2	NO. 150 TYPE 2	NO. 151 TYPE 2	NO. 152 TYPE 2	NO. 153 TYPE 2	NO. 154 TYPE 2	NO. 155 TYPE 2	NO. 156 TYPE 2	NO. 157 TYPE 2	NO. 158 TYPE 2	NO. 159 TYPE 2	NO. 160 TYPE 2	NO. 161 TYPE 2	NO. 162 TYPE 2	NO. 163 TYPE 2	NO. 164 TYPE 2	NO. 165 TYPE 2	NO. 166 TYPE 2	NO. 167 TYPE 2	NO. 168 TYPE 2	NO. 169 TYPE 2	NO. 170 TYPE 2	NO. 171 TYPE 2	NO. 172 TYPE 2	NO. 173 TYPE 2	NO. 174 TYPE 2	NO. 175 TYPE 2	NO. 176 TYPE 2	NO. 177 TYPE 2	NO. 178 TYPE 2	NO. 179 TYPE 2	NO. 180 TYPE 2	NO. 181 TYPE 2	NO. 182 TYPE 2	NO. 183 TYPE 2	NO. 184 TYPE 2	NO. 185 TYPE 2	NO. 186 TYPE 2	NO. 187 TYPE 2	NO. 188 TYPE 2	NO. 189 TYPE 2	NO. 190 TYPE 2	NO. 191 TYPE 2	NO. 192 TYPE 2	NO. 193 TYPE 2	NO. 194 TYPE 2	NO. 195 TYPE 2	NO. 196 TYPE 2	NO. 197 TYPE 2	NO. 198 TYPE 2	NO. 199 TYPE 2	NO. 200 TYPE 2	NO. 201 TYPE 2	NO. 202 TYPE 2	NO. 203 TYPE 2	NO. 204 TYPE 2	NO. 205 TYPE 2	NO. 206 TYPE 2	NO. 207 TYPE 2	NO. 208 TYPE 2	NO. 209 TYPE 2	NO. 210 TYPE 2	NO. 211 TYPE 2	NO. 212 TYPE 2	NO. 213 TYPE 2	NO. 214 TYPE 2	NO. 215 TYPE 2	NO. 216 TYPE 2	NO. 217 TYPE 2	NO. 218 TYPE 2	NO. 219 TYPE 2	NO. 220 TYPE 2	NO. 221 TYPE 2	NO. 222 TYPE 2	NO. 223 TYPE 2	NO. 224 TYPE 2	NO. 225 TYPE 2	NO. 226 TYPE 2	NO. 227 TYPE 2	NO. 228 TYPE 2	NO. 229 TYPE 2	NO. 230 TYPE 2	NO. 231 TYPE 2	NO. 232 TYPE 2	NO. 233 TYPE 2	NO. 234 TYPE 2	NO. 235 TYPE 2	NO. 236 TYPE 2	NO. 237 TYPE 2	NO. 238 TYPE 2	NO. 239 TYPE 2	NO. 240 TYPE 2	NO. 241 TYPE 2	NO. 242 TYPE 2	NO. 243 TYPE 2	NO. 244 TYPE 2	NO. 245 TYPE 2	NO. 246 TYPE 2	NO. 247 TYPE 2	NO. 248 TYPE 2	NO. 249 TYPE 2	NO. 250 TYPE 2	NO. 251 TYPE 2	NO. 252 TYPE 2	NO. 253 TYPE 2	NO. 254 TYPE 2	NO. 255 TYPE 2	NO. 256 TYPE 2	NO. 257 TYPE 2	NO. 258 TYPE 2	NO. 259 TYPE 2	NO. 260 TYPE 2	NO. 261 TYPE 2	NO. 262 TYPE 2	NO. 263 TYPE 2	NO. 264 TYPE 2	NO. 265 TYPE 2	NO. 266 TYPE 2	NO. 267 TYPE 2	NO. 268 TYPE 2	NO. 269 TYPE 2	NO. 270 TYPE 2	NO. 271 TYPE 2	NO. 272 TYPE 2	NO. 273 TYPE 2	NO. 274 TYPE 2	NO. 275 TYPE 2	NO. 276 TYPE 2	NO. 277 TYPE 2	NO. 278 TYPE 2	NO. 279 TYPE 2	NO. 280 TYPE 2	NO. 281 TYPE 2	NO. 282 TYPE 2	NO. 283 TYPE 2	NO. 284 TYPE 2	NO. 285 TYPE 2	NO. 286 TYPE 2	NO. 287 TYPE 2	NO. 288 TYPE 2	NO. 289 TYPE 2	NO. 290 TYPE 2	NO. 291 TYPE 2	NO. 292 TYPE 2	NO. 293 TYPE 2	NO. 294 TYPE 2	NO. 295 TYPE 2	NO. 296 TYPE 2	NO. 297 TYPE 2	NO. 298 TYPE 2	NO. 299 TYPE 2	NO. 300 TYPE 2	NO. 301 TYPE 2	NO. 302 TYPE 2	NO. 303 TYPE 2	NO. 304 TYPE 2	NO. 305 TYPE 2	NO. 306 TYPE 2	NO. 307 TYPE 2	NO. 308 TYPE 2	NO. 309 TYPE 2	NO. 310 TYPE 2	NO. 311 TYPE 2	NO. 312 TYPE 2	NO. 313 TYPE 2	NO. 314 TYPE 2	NO. 315 TYPE 2	NO. 316 TYPE 2	NO. 317 TYPE 2	NO. 318 TYPE 2	NO. 319 TYPE 2	NO. 320 TYPE 2	NO. 321 TYPE 2	NO. 322 TYPE 2	NO. 323 TYPE 2	NO. 324 TYPE 2	NO. 325 TYPE 2	NO. 326 TYPE 2	NO. 327 TYPE 2	NO. 328 TYPE 2	NO. 329 TYPE 2	NO. 330 TYPE 2	NO. 331 TYPE 2	NO. 332 TYPE 2	NO. 333 TYPE 2	NO. 334 TYPE 2	NO. 335 TYPE 2	NO. 336 TYPE 2	NO. 337 TYPE 2	NO. 338 TYPE 2	NO. 339 TYPE 2	NO. 340 TYPE 2	NO. 341 TYPE 2	NO. 342 TYPE 2	NO. 343 TYPE 2	NO. 344 TYPE 2	NO. 345 TYPE 2	NO. 346 TYPE 2	NO. 347 TYPE 2	NO. 348 TYPE 2	NO. 349 TYPE 2	NO. 350 TYPE 2	NO. 351 TYPE 2	NO. 352 TYPE 2	NO. 353 TYPE 2	NO. 354 TYPE 2	NO. 355 TYPE 2	NO. 356 TYPE 2	NO. 357 TYPE 2	NO. 358 TYPE 2	NO. 359 TYPE 2	NO. 360 TYPE 2	NO. 361 TYPE 2	NO. 362 TYPE 2	NO. 363 TYPE 2	NO. 364 TYPE 2	NO. 365 TYPE 2	NO. 366 TYPE 2	NO. 367 TYPE 2	NO. 368 TYPE 2	NO. 369 TYPE 2	NO. 370 TYPE 2	NO. 371 TYPE 2	NO. 372 TYPE 2	NO. 373 TYPE 2	NO. 374 TYPE 2	NO. 375 TYPE 2	NO. 376 TYPE 2	NO. 377 TYPE 2	NO. 378 TYPE 2	NO. 379 TYPE 2	NO. 380 TYPE 2	NO. 381 TYPE 2	NO. 382 TYPE 2	NO. 383 TYPE 2	NO. 384 TYPE 2	NO. 385 TYPE 2	NO. 386 TYPE 2	NO. 387 TYPE 2	NO. 388 TYPE 2	NO. 389 TYPE 2	NO. 390 TYPE 2	NO. 391 TYPE 2	NO. 392 TYPE 2	NO. 393 TYPE 2	NO. 394 TYPE 2	NO. 395 TYPE 2	NO. 396 TYPE 2	NO. 397 TYPE 2	NO. 398 TYPE 2	NO. 399 TYPE 2	NO. 400 TYPE 2	NO. 401 TYPE 2	NO. 402 TYPE 2	NO. 403 TYPE 2	NO. 404 TYPE 2	NO. 405 TYPE 2	NO. 406 TYPE 2	NO. 407 TYPE 2	NO. 408 TYPE 2	NO. 409 TYPE 2	NO. 410 TYPE 2	NO. 411 TYPE 2	NO. 412 TYPE 2	NO. 413 TYPE 2	NO. 414 TYPE 2	NO. 415 TYPE 2	NO. 416 TYPE 2	NO. 417 TYPE 2	NO. 418 TYPE 2	NO. 419 TYPE 2	NO. 420 TYPE 2	NO. 421 TYPE 2	NO. 422 TYPE 2	NO. 423 TYPE 2	NO. 424 TYPE 2	NO. 425 TYPE 2	NO. 426 TYPE 2	NO. 427 TYPE 2	NO. 428 TYPE 2	NO. 429 TYPE 2	NO. 430 TYPE 2	NO. 431 TYPE 2	NO. 432 TYPE 2	NO. 433 TYPE 2	NO. 434 TYPE 2	NO. 435 TYPE 2	NO. 436 TYPE 2	NO. 437 TYPE 2	NO. 438 TYPE 2	NO. 439 TYPE 2	NO. 440 TYPE 2	NO. 441 TYPE 2	NO. 442 TYPE 2	NO. 443 TYPE 2	NO. 444 TYPE 2	NO. 445 TYPE 2	NO. 446 TYPE 2	NO. 447 TYPE 2	NO. 448 TYPE 2	NO. 449 TYPE 2	NO. 450 TYPE 2	NO. 451 TYPE 2	NO. 452 TYPE 2	NO. 453 TYPE 2	NO. 454 TYPE 2	NO. 455 TYPE 2	NO. 456 TYPE 2	NO. 457 TYPE 2	NO. 458 TYPE 2	NO. 459 TYPE 2	NO. 460 TYPE 2	NO. 461 TYPE 2	NO. 462 TYPE 2	NO. 463 TYPE 2	NO. 464 TYPE 2	NO. 465 TYPE 2	NO. 466 TYPE 2	NO. 467 TYPE 2	NO. 468 TYPE 2	NO. 469 TYPE 2	NO. 470 TYPE 2	NO. 471 TYPE 2	NO. 472 TYPE 2	NO. 473 TYPE 2	NO. 474 TYPE 2	NO. 475 TYPE 2	NO. 476 TYPE 2	NO. 477 TYPE 2	NO. 478 TYPE 2	NO. 479 TYPE 2	NO. 480 TYPE 2	NO. 481 TYPE 2	NO. 482 TYPE 2	NO. 483 TYPE 2	NO. 484 TYPE 2	NO. 485 TYPE 2	NO. 486 TYPE 2	NO. 487 TYPE 2	NO. 488 TYPE 2	NO. 489 TYPE 2	NO. 490 TYPE 2	NO. 491 TYPE 2	NO. 492 TYPE 2	NO. 493 TYPE 2	NO. 494 TYPE 2	NO. 495 TYPE 2	NO. 496 TYPE 2	NO. 497 TYPE 2	NO. 498 TYPE 2	NO. 499 TYPE 2	NO. 500 TYPE 2	NO. 501 TYPE 2	NO. 502 TYPE 2	NO. 503 TYPE 2	NO. 504 TYPE 2	NO. 505 TYPE 2	NO. 506 TYPE 2	NO. 507 TYPE 2	NO. 508 TYPE 2	NO. 509 TYPE 2	NO. 510 TYPE 2	NO. 511 TYPE 2	NO. 512 TYPE 2	NO. 513 TYPE 2	NO. 514 TYPE 2	NO. 515 TYPE 2	NO. 516 TYPE 2	NO. 517 TYPE 2	NO. 518 TYPE 2	NO. 519 TYPE 2	NO. 520 TYPE 2	NO. 521 TYPE 2	NO. 522 TYPE 2	NO. 523 TYPE 2	NO. 524 TYPE 2	NO. 525 TYPE 2	NO. 526 TYPE 2	NO. 527 TYPE 2	NO. 528 TYPE 2	NO. 529 TYPE 2	NO. 530 TYPE 2	NO. 531 TYPE 2	NO. 532 TYPE 2	NO. 533 TYPE 2	NO. 534 TYPE 2	NO. 535 TYPE 2	NO. 536 TYPE 2	NO. 537 TYPE 2	NO. 538 TYPE 2	NO. 539 TYPE 2	NO. 540 TYPE 2	NO. 541 TYPE 2	NO. 542 TYPE 2	NO. 543 TYPE 2	NO. 544 TYPE 2	NO. 545 TYPE 2	NO. 546 TYPE 2	NO. 547 TYPE 2	NO. 548 TYPE 2	NO. 549 TYPE 2	NO. 550 TYPE 2	NO. 551 TYPE 2	NO. 552 TYPE 2	NO. 553 TYPE 2	NO. 554 TYPE 2	NO. 555 TYPE 2	NO. 556 TYPE 2	NO. 557 TYPE 2	NO. 558 TYPE 2	NO. 559 TYPE 2	NO. 560 TYPE 2	NO. 561 TYPE 2	NO. 562 TYPE 2	NO. 563 TYPE 2	NO. 564 TYPE 2	NO. 565 TYPE 2	NO. 566 TYPE 2	NO. 567 TYPE 2	NO. 568 TYPE 2	NO. 569 TYPE 2	NO. 570 TYPE 2	NO. 571 TYPE 2	NO. 572 TYPE 2	NO. 573 TYPE 2	NO. 574 TYPE 2	NO. 575 TYPE 2	NO. 576 TYPE 2	NO. 577 TYPE 2	NO. 578 TYPE 2	NO. 579 TYPE 2	NO. 580 TYPE 2	NO. 581 TYPE 2	NO. 582 TYPE 2	NO. 583 TYPE 2	NO. 584 TYPE 2	NO. 585 TYPE 2	NO. 586 TYPE 2	NO. 587 TYPE 2	NO. 588 TYPE 2	NO. 589 TYPE 2	NO. 590 TYPE 2	NO. 591 TYPE 2	NO. 592 TYPE 2	NO. 593 TYPE 2	NO. 594 TYPE 2	NO. 595 TYPE 2	NO. 596 TYPE 2	NO. 597 TYPE 2	NO. 598 TYPE 2	NO. 599 TYPE 2	NO. 600 TYPE 2	NO. 601 TYPE 2	NO. 602 TYPE 2	NO. 603 TYPE 2	NO. 604 TYPE 2	NO. 605 TYPE 2	NO. 606 TYPE 2	NO. 607 TYPE 2	NO. 608 TYPE 2	NO. 609 TYPE 2	NO. 610 TYPE 2	NO. 611 TYPE 2	NO. 612 TYPE 2	NO. 613 TYPE 2	NO. 614 TYPE 2	NO. 615 TYPE 2	NO. 616 TYPE 2	NO. 617 TYPE 2	NO. 618 TYPE 2	NO. 619 TYPE 2	NO. 620 TYPE 2	NO. 621 TYPE 2	NO. 622 TYPE 2	NO. 623 TYPE 2	NO. 624 TYPE 2	NO. 625 TYPE 2	NO. 626 TYPE 2	NO. 627 TYPE 2	NO. 628 TYPE 2	NO. 629 TYPE 2	NO. 630 TYPE 2	NO. 631 TYPE 2	NO. 632 TYPE 2	NO. 633 TYPE 2	NO. 634 TYPE 2	NO. 635 TYPE 2	NO. 636 TYPE 2	NO. 637 TYPE 2	NO. 638 TYPE 2	NO. 639 TYPE 2	NO. 640 TYPE 2	NO. 641 TYPE 2	NO. 642 TYPE 2	NO. 643 TYPE 2	NO. 644 TYPE 2	NO. 645 TYPE 2	NO. 646 TYPE 2	NO. 647 TYPE 2	NO. 648 TYPE 2	NO. 649 TYPE 2	NO. 650 TYPE 2	NO. 651 TYPE 2	NO. 652 TYPE 2	NO. 653 TYPE 2	NO. 654 TYPE 2	NO. 655 TYPE 2	NO. 656 TYPE 2	NO. 657 TYPE 2	NO. 658 TYPE 2	NO. 659 TYPE 2	NO. 660 TYPE 2	NO. 661 TYPE 2	NO. 662 TYPE 2	NO. 663 TYPE 2	NO. 664 TYPE 2	NO. 665 TYPE 2	NO. 666 TYPE 2	NO. 667 TYPE 2	NO. 668 TYPE 2	NO. 669 TYPE 2	NO. 670 TYPE 2	NO. 671 TYPE 2	NO. 672 TYPE 2	NO. 673 TYPE 2	NO. 674 TYPE 2	NO. 675 TYPE 2	NO. 676 TYPE 2	NO. 677 TYPE 2	NO. 678 TYPE 2	NO. 679 TYPE 2	NO. 680 TYPE 2	NO. 681 TYPE 2	NO. 682 TYPE 2	NO. 683 TYPE 2	NO. 684 TYPE 2	NO. 685 TYPE 2	NO. 686 TYPE 2	NO. 687 TYPE 2	NO. 688 TYPE 2	NO. 689 TYPE 2	NO. 690 TYPE 2	NO. 691 TYPE 2	NO. 692 TYPE 2	NO. 693 TYPE 2	NO. 694 TYPE 2	NO. 695 TYPE 2	NO. 696 TYPE 2	NO. 697 TYPE 2	NO. 698 TYPE 2	NO. 699 TYPE 2	NO. 700 TYPE 2	NO. 701 TYPE 2	NO. 702 TYPE 2	NO. 703 TYPE 2	NO. 704 TYPE 2	NO. 705 TYPE 2	NO. 706 TYPE 2	NO. 707 TYPE 2	NO. 708 TYPE 2	NO. 709 TYPE 2	NO. 710 TYPE 2	NO. 711 TYPE 2	NO. 712 TYPE 2	NO. 713 TYPE 2	NO. 714 TYPE 2	NO. 715 TYPE 2	NO. 716 TYPE 2	NO. 717 TYPE 2	NO. 718 TYPE 2	NO. 719 TYPE 2	NO. 720 TYPE 2	NO. 721 TYPE 2	NO. 722 TYPE 2	NO. 723 TYPE 2	NO. 724 TYPE 2	NO. 725 TYPE 2	NO. 726 TYPE 2	NO. 727 TYPE 2	NO. 728 TYPE 2	NO. 729 TYPE 2	NO. 730 TYPE 2	NO. 731 TYPE 2	NO. 732 TYPE 2	NO. 733 TYPE 2	NO. 734 TYPE 2	NO. 735 TYPE 2	NO. 736 TYPE 2	NO. 737 TYPE 2	NO. 738 TYPE 2	NO. 739 TYPE 2	NO. 740 TYPE 2	NO. 741 TYPE 2	NO. 742 TYPE 2	NO. 743 TYPE 2	NO. 744 TYPE 2	NO. 745 TYPE 2	NO. 746 TYPE 2	NO. 747 TYPE 2	NO. 748 TYPE 2	NO. 749 TYPE 2	NO. 750 TYPE 2	NO. 751 TYPE 2	NO. 752 TYPE 2	NO. 753 TYPE 2	NO. 754 TYPE 2	NO. 755 TYPE 2	NO. 756 TYPE 2	NO. 757 TYPE 2	NO. 758 TYPE 2	NO. 759 TYPE 2	NO. 760 TYPE 2	NO. 761 TYPE 2	NO. 762 TYPE 2	NO. 763 TYPE 2	NO. 764 TYPE 2	NO. 765 TYPE 2	NO. 766 TYPE 2	NO. 767 TYPE 2	NO. 768 TYPE 2	NO. 769 TYPE 2	NO. 770 TYPE 2	NO. 771 TYPE 2	NO. 772 TYPE 2	NO. 773 TYPE 2	NO. 774 TYPE 2	NO. 775 TYPE 2	NO. 776 TYPE 2	NO. 777 TYPE 2	NO. 778 TYPE 2	NO. 779 TYPE 2	NO. 780 TYPE 2	NO. 781 TYPE 2	NO. 782 TYPE 2	NO. 783 TYPE 2	NO. 784 TYPE 2	NO. 785 TYPE 2	NO. 786 TYPE 2	NO. 787 TYPE 2	NO. 788 TYPE 2	NO. 789 TYPE 2	NO. 790 TYPE 2	NO. 791 TYPE 2	NO. 792 TYPE 2	NO. 793 TYPE 2	NO. 794 TYPE 2	NO. 795 TYPE 2	NO. 796 TYPE 2	NO. 797 TYPE 2	NO. 798 TYPE 2	NO. 799 TYPE 2	NO. 800 TYPE 2	NO. 801 TYPE 2	NO. 802 TYPE 2	NO. 803 TYPE 2	NO. 804 TYPE 2	NO. 805 TYPE 2	NO. 806 TYPE 2	NO. 807 TYPE 2	NO. 808 TYPE 2	NO. 809 TYPE 2	NO. 810 TYPE 2	NO. 811 TYPE 2	NO. 812 TYPE 2	NO. 813 TYPE 2	NO. 814 TYPE 2	NO. 815 TYPE 2	NO. 816 TYPE 2	NO. 817 TYPE 2	NO. 818 TYPE 2	NO. 819 TYPE 2	NO. 820 TYPE 2	NO. 821 TYPE 2	NO. 822 TYPE 2	NO. 823 TYPE 2	NO. 824 TYPE 2	NO. 825 TYPE 2	NO. 826 TYPE 2	NO. 827 TYPE 2	NO. 828 TYPE 2	NO. 829 TYPE 2	NO. 830 TYPE 2	NO. 831 TYPE 2	NO. 832 TYPE 2	NO. 833 TYPE 2	NO. 834 TYPE 2	NO. 835 TYPE 2	NO. 836 TYPE 2	NO. 837 TYPE 2	NO. 838 TYPE 2	NO. 839 TYPE 2	NO. 840 TYPE 2	NO. 841 TYPE 2	NO. 842 TYPE 2	NO. 843 TYPE 2	NO. 844 TYPE 2	NO. 845 TYPE 2	NO. 846 TYPE 2	NO. 847 TYPE 2	NO. 848 TYPE 2	NO. 849 TYPE 2	NO. 850 TYPE 2	NO. 851 TYPE 2	NO. 852 TYPE 2	NO. 853 TYPE 2	NO. 854 TYPE 2	NO. 855 TYPE 2	NO. 856 TYPE 2	NO. 857 TYPE 2	NO. 858 TYPE 2	NO. 859 TYPE 2	NO. 860 TYPE 2	NO. 861 TYPE 2	NO. 862 TYPE 2	NO. 863 TYPE 2	NO. 864 TYPE 2	NO. 865 TYPE 2	NO. 866 TYPE 2	NO. 867 TYPE 2	NO. 868 TYPE 2	NO. 869 TYPE 2	NO. 870 TYPE 2	NO. 871 TYPE 2	NO. 87

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	MORNING TOUR	MUD RECORD	METRES DRILLED	TIME LOG									
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED	OIL BASED	FROM	TO	D-R-C	RPM	WOB	FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
			SIZE				2728.00					0	145	1.75	6	PICK UP DRILL COLLARS.
			WDC CODE									145	300	1.25	6	TRIP OUT OF HOLE & PICK UP SCRAPER.
			MANUFACTURER									300	415	1.25	6	MAKE UP SCRAPER & RUN BACK IN HOLE
			TYPE									415	800	3.75	6	PICK UP HWDP & DRILL PIPE.
			SERIAL NO.									800				
			JETS													
			DEPTH OUT (m)													
			DEPTH IN (m)													
			TOTAL DRILLED (m)													
			TOTAL HRS RUN													
			CUTTING STRUCTURE													
			Ti To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN HRS													
			D.P. STANDS													
			D.P. SINGLES													
			KELLY DOWN													
			TOTAL													
			WT. OF D.C.													
			WT. OF STRING													

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	DAY TOUR	MUD RECORD	METRES DRILLED	TIME LOG									
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED	OIL BASED	FROM	TO	D-R-C	RPM	WOB	FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
			SIZE				2728.00					800	815	0.25	21	SAFETY MTG.
			WDC CODE									815	1415	6.00	22	PIU 127mm D.P. & RIH to 2720m W/ FI CANADA CREW
			MANUFACTURER									1415	1445	0.50	23	RIG OUT LAY DOWN CREW
			TYPE									1445	1600	1.25	24	WORK 9-5/8" CSG SCRAPER if 2688m to 2719m
			SERIAL NO.									1600				
			JETS													
			DEPTH OUT (m)													
			DEPTH IN (m)													
			TOTAL DRILLED (m)													
			TOTAL HRS RUN													
			CUTTING STRUCTURE													
			Ti To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN HRS													
			D.P. STANDS													
			D.P. SINGLES													
			KELLY DOWN													
			TOTAL													
			WT. OF D.C.													
			WT. OF STRING													

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	EVENING TOUR	MUD RECORD	METRES DRILLED	TIME LOG									
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED	OIL BASED	FROM	TO	D-R-C	RPM	WOB	FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
			SIZE				2728.00					1600	2200	6.00	6	TRIP OUT OF HOLE
			WDC CODE									2200	2215	0.25	21	SAFETY MTG. WITH WIRE LINE
			MANUFACTURER									2215	2400	1.75	11	RIG UP SCHLUMBERGER WIRE LINE AND RUN IN HOLE WITH PLUG
			TYPE													
			SERIAL NO.													
			JETS													
			DEPTH OUT (m)													
			DEPTH IN (m)													
			TOTAL DRILLED (m)													
			TOTAL HRS RUN													
			CUTTING STRUCTURE													
			Ti To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN HRS													
			D.P. STANDS													
			D.P. SINGLES													
			KELLY DOWN													
			TOTAL													
			WT. OF D.C.													
			WT. OF STRING													

DRILLING CREW PAYROLL DATA									
WELL NAME & NO. CNRL et al North Liard P-66-B									
YEAR 2003 MONTH 4 DAY 16									
OPERATOR CANADIAN NATURAL RESOURCES LTD.									
CONTRACTOR NAME AKITA DRILLING LTD.									
RIG MANAGER DAVE LAUCK									
RIG NO. 58									
PROVINCE N.W.T.									
CAMP X YES NO									
RIG SAFETY DAYS 2237									

MORNING TOUR						FROM	0	TO	800	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO						
DRILLER		GARY PATRICK	8.00		GP						
ASSIST DRILLER		KEVIN VANDENBRAND	8.00		KV						
DERRICK HAND		JUSTIN AMYOTTE	8.00		JA						
MOTOR HAND		JESSY LESSARD	8.00		JL						
FLOOR HAND		STEVE McLAUGHLIN	8.00		SM						
FLOOR HAND		GREG ST.ARNAUD	8.00		GS						
LEASE HAND		VICTOR VACON	8.00		VV						

RATE SCHEDULE	REGULAR	REPAIR	X	INVERT
CREW SAFETY DAYS				
DRIVERS				

DAY TOUR						FROM	800	TO	1600	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO						
DRILLER		SCOTT LOWEN	12.00		SAL						
DERRICK HAND		MIKE WIEBE	12.00		MW						
MOTOR HAND		DARREN HAZENBERG	12.00		DH						
FLOOR HAND		JASON MCKENZIE	12.00		JM						
FLOOR HAND		CLIFFORD BONNETROUGE	12.00		CB						
SAFETY CO-ORDINATOR (A.D)		DANIEL ALONSO	12.00		DA						

RATE SCHEDULE	REGULAR	REPAIR	X	INVERT
CREW SAFETY DAYS				
DRIVERS				

EVENING TOUR						FROM	1600	TO	2400	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO						
DRILLER		GARY PATRICK	4.00		GP						
ASSIST DRILLER		KEVIN VANDENBRAND	4.00		KV						
DERRICK HAND		JUSTIN AMYOTTE	4.00		JA						
MOTOR HAND		JESSY LESSARD	4.00		JL						
FLOOR HAND		STEVE McLAUGHLIN	4.00		SM						
FLOOR HAND		GREG ST.ARNAUD	4.00		GS						
LEASE HAND		VICTOR VACON	4.00		VV						

RATE SCHEDULE	REGULAR	REPAIR	X	INVERT
CREW SAFETY DAYS				
DRIVERS				

[illegible]

[illegible]

[illegible]

[illegible]

Form content including well name, operator, location, rig details, logs, and crew information.

[illegible]

[illegible]

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

CONTRACTOR NAME
AKITA DRILLING LTD.

UNIQUE ID
303P666040123300

SIGNATURE OF CONTRACTORS RIG MANAGER
GARY PATRICK

SIGNATURE OF OPERATORS REPRESENTATIVE
S DeBusschere/C Skubleny

1. Daily Walk Around Inspection

2. Disabled Inspection - Weekly (Using Check List)

3. HOS Sign Posted if Required

4. Well Licence & Stick Diagram Posted

5. Flare Lines Staked

6. BOP Data Performed

7. Visually Inspect BOPs- Flare Lines & Degasser Lines

1. Rig Site Health & Safety Meeting (once/month)

2. CADCOC Rig Safety Inspection Checklist (once/month)

3. Mast Inspection before Raising or Lowering

4. Crown Saver Checked

5. Motor Kill Checked

YEAR: 2003 MONTH: 4 DAY: 26

QIPD R.M. D/S: GP

RIG NO: 58

FUEL @ 08:00 HRS

BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

Q.D. (mm): 244.5

M.V. LD. (mm): 59.50

MASS (kg/m3): 244.5

GRADE: E-2

MINIMUM LD.: 95

T. INT. Q.D.: 127

TYPE THREAD: 4.5IF

NO. OF JOINTS: 178

PUMP TYPE: F1000

PUMP MANUFACTURER: EMSCO

STROKE LENGTH: 254

NO. TO CSG HEAD: 2384.80

TOTAL LENGTH: 2384.80

KB TO CSG HEAD: 6.57

SET AT (ft): 2384.80

SPUD DATE: 2003/04/19

TIME: 23:00

RIG RELEASE: 2003/05/16

TIME: 17:00

WELL TYPE:

REG-ENTRY:

OPERATORS AFE:

KELLY BSH:

OP FUEL:

CONTRACTORS JOB NUM:

TOUR SHEET SERIAL NUM:

VENDOR SOFTWARE VERSION:

CADDC

PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)	RENTALS / SERVICES	MORN	DAY	EVE
GROUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CSC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOSS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DR. WORK	SAFETY MEETING	Handle Tools											
MORN				1.50	6.50																0.25						8.00	NO. TYPE OF SCREENS CHANGED	TYPE OF DESICCANT	Accum. MJ = 713		
DAY					7.75																						8.00	84	TOP	Total MJ= 1,131.390		
EVE		2.75		1.75	2.25			0.75													0.50						8.00	84	MIDDLE	THIS WELL = 105.25		
TOTAL		2.75		3.25	16.50			0.75													0.25	0.50					24.00	84	BOTTOM			

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	MORNING TOUR	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1	BIT	O.D. 0.25	BIT NO. #1	MUD TYPE	WATER BASED	OIL BASED ☒	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
1	MOTOR	173 7.78	SIZE 216.0	TIME				0 115 1.25 6
1	FLAT SUB	167 0.92	WDC CODE 5 4 7	DENSITY (kg/m3)				115 200 0.75 5
1	NM MULESHOE SUB	161 0.86	MANUFACTURER HUGHES CHRISTENSEN	FUNNEL VISCOSITY				200 430 2.50 6
1	MWD NMDC	160 8.94	TYPE HR-S38C	FLUID LOSS (cm3)				430 515 0.75 5
1	FIN CUTTER	164 0.65	SERIAL NO. 6014195	pH				515 800 2.75 6
2	FLEX MONEL	157 16.25						800
1	X.O.	156 0.68						
3	H.W.D.P.	127 27.82						
1	X.O.	161 0.47						
1	JAR	171 4.49						
1	X.O.	171 0.49						
42	H.W.D.P.	127 390.24						
	BHA = 461.84							
178	E-2 D.P. = 1701.60							
74	Stick E3 DP = 702.73							
84	D.P.	STANDS 2695.25						
	D.P.	SINGLES						
	KELLY DOWN	-7.09						
	TOTAL	3150.00						
	WT. OF D.C.	27						
	WT. OF STRING	103						

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	DAY TOUR	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1	BIT	O.D. 0.25	BIT NO. #1	MUD TYPE	WATER BASED	OIL BASED ☒	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
1	MOTOR	173 7.88	SIZE 216.0	TIME				800 1115 3.25 6
1	FLAT SUB	167 0.92	WDC CODE 5 4 7	DENSITY (kg/m3)				1115 1130 0.25 21
1	NM MULESHOE SUB	161 0.86	MANUFACTURER HUGHES CHRISTENSEN	FUNNEL VISCOSITY				1130 1600 4.50 6
1	MWD NMDC	160 8.94	TYPE HR-S38C	FLUID LOSS (cm3)				1600
1	FIN CUTTER	164 0.65	SERIAL NO. 6014195	pH				
2	FLEX MONEL	157 16.25						
1	X.O.	156 0.68						
3	H.W.D.P.	127 27.82						
1	X.O.	161 0.47						
1	JAR	171 4.49						
1	X.O.	171 0.49						
42	H.W.D.P.	127 390.24						
	BHA = 461.84							
178	E-2 D.P. = 1701.60							
74	Stick E3 DP = 702.73							
84	D.P.	STANDS 2695.25						
	D.P.	SINGLES						
	KELLY DOWN	-7.09						
	TOTAL	3150.10						
	WT. OF D.C.	27						
	WT. OF STRING	103						

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	EVENING TOUR	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1	BIT	O.D. 0.25	BIT NO. #2	MUD TYPE	WATER BASED	OIL BASED ☒	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
1	MOTOR	173 7.88	SIZE 212.7	TIME				1600 1715 1.25 6
1	FLAT SUB	167 0.92	WDC CODE 5 3 7	DENSITY (kg/m3)				1715 1800 0.75 9
1	NM MULESHOE SUB	161 0.86	MANUFACTURER HUGHES CHRISTENSEN	FUNNEL VISCOSITY				1800 1900 1.00 6
1	MWD NMDC	160 8.94	TYPE MX DS 35CGD	FLUID LOSS (cm3)				1900 1930 0.50 5
1	FIN CUTTER	164 0.65	SERIAL NO. 6004814	pH				1930 2045 1.25 5
2	FLEX MONEL	157 16.25						2045 2115 0.50 22
1	X.O.	156 0.68						2115 2400 2.75 3
3	H.W.D.P.	127 27.82						2400
1	X.O.	161 0.47						
1	JAR	171 4.49						
1	X.O.	171 0.49						
42	H.W.D.P.	127 390.24						
	BHA = 461.84							
178	E-2 D.P. = 1701.60							
74	Stick E3 DP = 702.73							
84	D.P.	STANDS 2695.25						
	D.P.	SINGLES						
	KELLY DOWN	-7.19						
	TOTAL	3150.00						
	WT. OF D.C.	27						

DRILLING CREW PAYROLL DATA									
WELL NAME & NO.		CNRL et al North Liard P-66-B		YEAR	2003	MONTH	4	DAY	26
OPERATOR		CANADIAN NATURAL RESOURCES LTD.		CONTRACTOR NAME		AKITA DRILLING LTD.			
RIG MANAGER		GARY PATRICK		RIG NO.		58			
PROVINCE		N.W.T.		CAMP	☒ YES	☐ NO	RIG SAFETY DAYS		
								2247	
MORNING TOUR		FROM	0	TO	800	INJURIES			
CREW	SOC INS. NO.	NAME		HRS		YES	NO		
DRILLER		ALLAN LICKOCH		8.00			AL		
DERRICK HAND		JERRY FOLEY		8.00			JF		
MOTOR HAND		VIRGIL NANAQUAWETUNG		8.00			VN		
FLOOR HAND		MOISE PUNCH		8.00			MP		
FLOOR HAND		SEAN WOLOSCH		8.00			SW		
LEASE HAND		JEFF SAULTEAUX		8.00			JS		
							</		

Form content including well name, rig details, logs, and crew information.

[illegible]

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

CONTRACTOR NAME
AKITA DRILLING LTD.

UNIQUE ID
303P666040123300

SIGNATURE OF CONTRACTORS RIG MANAGER
GARY PATRICK

SIGNATURE OF OPERATORS REPRESENTATIVE
S DeBusschere/C Skubleny

1. Daily Walk Around Inspection

2. Disabled Inspection - Weekly (Using Check List)

3. HOS Sign Posted if Required

4. Well Licence & Stick Diagram Posted

5. Flare Lines Staked

6. BOP Data Performed

7. Visually Inspect BOPs- Flare Lines & Degasser Lines

1. Rig Site Health & Safety Meeting (once/month)

2. CADCOC Rig Safety Inspection Checklist (once/month)

3. Mast Inspection before Raising or Lowering

4. Crown Saver Checked

5. Motor Kill Checked

YEAR: 2003 MONTH: 4 DAY: 26

QIPD R.M. D/S: GP

RIG NO: 58

FUEL @ 08:00 HRS

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

Q.D. (mm): 244.5

M.V. LD. (mm): 59.50

MASS (kg/m3): 244.5

GRADE: E-2

MINIMUM LD.: 95

T. INT. Q.D.: 127

TYPE THREAD: 4.5IF

NO. OF JOINTS: 178

PUMP TYPE: F1000

PUMP MANUFACTURER: EMSCO

STROKE LENGTH: 254

NO. TO CSG HEAD: 2384.80

TOTAL LENGTH: 2384.80

KB TO CSG HEAD: 6.57

SET AT (ft): 2384.80

SPUD DATE: 2003/04/19

RIG RELEASE: 2003/05/16

WELL TYPE:

OPERATORS AFE:

KELLY BSH:

CONTRACTORS JOB NUM:

TOUR SHEET SERIAL NUM:

VENDOR SOFTWARE VERSION:

TIME: 23:00

TIME: 17:00

RE-ENTRY:

OP FUEL:

PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)		RENTALS / SERVICES		MORN	DAY	EVE	
	GROUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CSC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOSS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DR. WORK	SAFETY MEETING	Handle Tools													
MORN					1.50	6.50																					8.00		NO. 2	TYPE 1	TYPE 2	Accum. MJ = 713			
DAY						7.75																					8.00	84	NO. 2	TYPE 1	TYPE 2	Total MJ = 1,131.390			
EVE			2.75		1.75	2.25			0.75													0.25	0.50				8.00	84	TOP	84	TOP	TOP DRIVE ROTATING Hrs. = 6.00			
TOTAL			2.75		3.25	16.50			0.75													0.25	0.50				24.00	84	BOTTOM	84	BOTTOM	THIS WELL = 105.25			

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	MORNING TOUR	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1	BIT	O.D. 0.25	BIT NO. #1	MUD TYPE	WATER BASED	OIL BASED ☒	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
1	MOTOR	173 7.78	SIZE 216.0	TIME				0 115 1.25 6
1	FLAT SUB	167 0.92	WDC CODE 5 4 7	DENSITY (kg/m3)				115 200 0.75 5
1	NM MULESHOE SUB	161 0.86	MANUFACTURER HUGHES CHRISTENSEN	FUNNEL VISCOSITY				200 430 2.50 6
1	MWD NMDC	160 8.94	TYPE HR-S38C	FLUID LOSS (cm3)				430 515 0.75 5
1	FIN CUTTER	164 0.65	SERIAL NO. 6014195	pH				515 800 2.75 6
2	FLEX MONEL	157 16.25						800
1	X.O.	156 0.68						
3	H.W.D.P.	127 27.82						
1	X.O.	161 0.47						
1	JAR	171 4.49						
1	X.O.	171 0.49						
42	H.W.D.P.	127 390.24						
	BHA = 461.84							
178	E-2 D.P. = 1701.60							
74	Stick E3 DP = 702.73							
84	D.P.	STANDS 2695.25						
	D.P.	SINGLES						
	KELLY DOWN	-7.09						
	TOTAL	3150.00						
	WT. OF D.C.	27						
	WT. OF STRING	103						

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	DAY TOUR	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1	BIT	O.D. 0.25	BIT NO. #1	MUD TYPE	WATER BASED	OIL BASED ☒	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
1	MOTOR	173 7.88	SIZE 216.0	TIME				800 1115 3.25 6
1	FLAT SUB	167 0.92	WDC CODE 5 4 7	DENSITY (kg/m3)				1115 1130 0.25 21
1	NM MULESHOE SUB	161 0.86	MANUFACTURER HUGHES CHRISTENSEN	FUNNEL VISCOSITY				1130 1600 4.50 6
1	MWD NMDC	160 8.94	TYPE HR-S38C	FLUID LOSS (cm3)				1600
1	FIN CUTTER	164 0.65	SERIAL NO. 6014195	pH				
2	FLEX MONEL	157 16.25						
1	X.O.	156 0.68						
3	H.W.D.P.	127 27.82						
1	X.O.	161 0.47						
1	JAR	171 4.49						
1	X.O.	171 0.49						
42	H.W.D.P.	127 390.24						
	BHA = 461.84							
178	E-2 D.P. = 1701.60							
74	Stick E3 DP = 702.73							
84	D.P.	STANDS 2695.25						
	D.P.	SINGLES						
	KELLY DOWN	-7.09						
	TOTAL	3150.10						
	WT. OF D.C.	27						
	WT. OF STRING	103						

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	EVENING TOUR	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1	BIT	O.D. 0.25	BIT NO. #2	MUD TYPE	WATER BASED	OIL BASED ☒	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
1	MOTOR	173 7.88	SIZE 212.7	TIME				1600 1715 1.25 6
1	FLAT SUB	167 0.92	WDC CODE 5 3 7	DENSITY (kg/m3)				1715 1800 0.75 9
1	NM MULESHOE SUB	161 0.86	MANUFACTURER HUGHES CHRISTENSEN	FUNNEL VISCOSITY				1800 1900 1.00 6
1	MWD NMDC	160 8.94	TYPE MX DS 35CGD	FLUID LOSS (cm3)				1900 1930 0.50 5
1	FIN CUTTER	164 0.65	SERIAL NO. 6004814	pH				1930 2045 1.25 5
2	FLEX MONEL	157 16.25						2045 2115 0.50 22
1	X.O.	156 0.68						2115 2400 2.75 3
3	H.W.D.P.	127 27.82						2400
1	X.O.	161 0.47						
1	JAR	171 4.49						
1	X.O.	171 0.49						
42	H.W.D.P.	127 390.24						
	BHA = 461.84							
178	E-2 D.P. = 1701.60							
74	Stick E3 DP = 702.73							
84	D.P.	STANDS 2695.25						
	D.P.	SINGLES						
	KELLY DOWN	-7.19						
	TOTAL	3150.00						
	WT. OF D.C.	27						

DRILLING CREW PAYROLL DATA									
WELL NAME & NO. CNRL et al North Liard P-66-B									
YEAR 2003 MONTH 4 DAY 26									
CONTRACTOR NAME AKITA DRILLING LTD.									
OPERATOR CANADIAN NATURAL RESOURCES LTD.									
RIG MANAGER GARY PATRICK									
PROVINCE N.W.T. CAMP X YES NO RIG SAFETY DAYS 2247									
MORNING TOUR FROM 0 TO 800 INJURIES									
CREW	SOC INS. NO.	NAME	HRS	YES	NO				
DRILLER		ALLAN LICKOCH	8.00		AL				
DERRICK HAND		JERRY FOLEY	8.00		JF				
MOTOR HAND		VIRGIL NANAQUAWETUNG	8.00		VN				
FLOOR HAND		MOISE PUNCH	8.00		MP				
FLOOR HAND		SEAN WOLOSCH	8.00		SW				
LEASE HAND		JEFF SAULTEAUX	8.00		JS				
RATE SCHEDULE REGULAR REPAIR X INVERT									
CREW SAFETY DAYS DRIVERS									
1									
DAY TOUR FROM 800 TO 1600 INJURIES									
CREW	SOC INS. NO.	NAME	HRS	YES	NO				
DRILLER		KEVIN VANDENBRAND	12.00		KV				
DERRICK HAND		JUSTIN AMYOTTE	12.00		JA				
MOTOR HAND		JESSY LESSARD	12.00		JL				
FLOOR HAND		STEVE McLAUGHLIN	12.00		SM				
FLOOR HAND		GREG ST. ARNAUD	12.00		GS				
LEASE HAND		VICTOR VACON	12.00		VV				
WELL SITE CO-ORDINATOR		GARY WILLIAMS	12.00		GW				
RATE SCHEDULE REGULAR REPAIR X INVERT									
CREW SAFETY DAYS DRIVERS									
2247									
EVENING TOUR FROM 1600 TO 2400 INJURIES									
CREW	SOC INS. NO.	NAME	HRS	YES	NO				
DRILLER		ALLAN LICKOCH	4.00		AL				
DERRICK HAND		JERRY FOLEY	4.00		JF				
MOTOR HAND		VIRGIL NANAQUAWETUNG	4.00		VN				
FLOOR HAND		MOISE PUNCH	4.00		MP				
FLOOR HAND		SEAN WOLOSCH	4.00		SW				
LEASE HAND		JEFF SAULTEAUX	4.00		JS				
RATE SCHEDULE REGULAR REPAIR X INVERT									
CREW SAFETY DAYS DRIVERS									

[illegible]

[illegible]

LICENSE NO.
2922

WELL NAME & NO

CNRL et al North Liard P-66-B

SURFACE LOCATION
60°35'55.00 S 123°41'25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE
S DeBusschere/C Skubleny

CONTRACTOR NAME
AKITA DRILLING LTD.

UNIQUE ID
303P666040123300

SIGNATURE OF CONTRACTOR'S RIG MANAGER
GARY PATRICK

DAILY CHECKS
(1) Daily Walk Around Inspection
(2) Detailed Inspection - Weekly (Using Check List)
(3) HGS Sign Posted if Required
(4) Well License & Back Diagram Filled
(5) Flare Lines Staked
(6) BOP Data Performed
(7) Visually Inspect BOP's Flare Lines & Depressor Lines
(1) Rig Site Health & Safety Meeting (once/monthly)
(2) CADC/Rig Safe Inspection Checklist (one/monthly)
(3) Mast Inspection before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kilo Checked

OCCUPANCY DIS GP
DIS GP
DIS GP
DIS GP
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

YEAR MONTH DAY
2003 4 29

LAST CASINO TUBING OR LINER
OD (mm)
MWD (mm)
MASS (kg/m³)

GRADE
NO. # JOINTS
TOTAL LENGTH
KB TO CSO HEAD
SET AT (m)

RIG NO.
FUEL @ 08:00 HRS
BOILER
REG 198
DC/D SIZE
MASS
GRADE
MINIMUM I.D.
T ANT O.B.
TYPE THREADED
NO. # JOINTS
PUMP TYPE
PUMP MANUFACTURER
STROKE LENGTH

OPERATORS AFE
KELLY BHGD
CONTRACTORS JOB NUM
TOUR SHEET SERIAL NUM
VENDOR SOFTWARE VERSION

PASON DATAHUB

DRILLING CREW PAYROLL DATA
WELL NAME & NO CNRL et al North Liard P-66-B YEAR 2003 MONTH 4 DAY 29
OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR NAME AKITA DRILLING LTD.
RIG MANAGER GARY PATRICK REG NO. 58
PROVINCE N.W.T. CAMP YES NO RIG SAFETY DAYS 2250

MORNING TOUR FROM 0 TO 800 INJURIES
CREW SOC INS. NO. NAME HRS YES NO
DRILLER ALLAN LICKCOCH 8.00 AL
DERRICK HAND JERRY FOLEY 8.00 JF
MOTOR HAND VIRGIL NANAAQUAWETUNG 8.00 VN
FLOOR HAND MOISE PUNCH 8.00 MP
SEAN WOLOSCH 8.00 SW
LEASE HAND JEFF SAULTEAUX 8.00 JS

CREW SAFETY DAYS DRIVERS
4

DAY TOUR FROM 800 TO 1600 INJURIES
CREW SOC INS. NO. NAME HRS YES NO
DRILLER KEVIN VANDENBRAND 12.00 KV
DERRICK HAND JUSTIN AMYOTTE 12.00 JA
MOTOR HAND JESSY LESSARD 12.00 JL
FLOOR HAND STEVE McLAUGHLIN 12.00 SM
FLOOR HAND GREG ST.ARNAUD 12.00 GS
LEASE HAND VICTOR VACON 12.00 VV
WELL SITE CO-ORDINATOR GARY WILLIAMS 12.00 GW

RATE SCHEDULE REGULAR REPAIR X INVERT
Crew Safety Days Drivers
2250

EVENING TOUR FROM 1600 TO 2400 INJURIES
CREW SOC INS. NO. NAME HRS YES NO
DRILLER ALLAN LICKCOCH 4.00 AL
DERRICK HAND JERRY FOLEY 4.00 JF
MOTOR HAND VIRGIL NANAAQUAWETUNG 4.00 VN
FLOOR HAND MOISE PUNCH 4.00 MP
FLOOR HAND SEAN WOLOSCH 4.00 SW
LEASE HAND JEFF SAULTEAUX 4.00 JS

RATE SCHEDULE REGULAR REPAIR X INVERT
Crew Safety Days Drivers

[illegible]

[illegible]

Form content including: License No., Well Name, Contractor Name, Surface Location, Operator, Canadian Natural Resources Ltd., Akita Drilling Ltd., 303P666040123300, Dave Lauck, Drilling Crew Payroll Data, Morning Tour, Mud Record, Metres Drilled, Time Log, Evening Tour, Mud Record, Metres Drilled, Time Log.



PASON DATAHUB

DRILLING CREW PAYROLL DATA									
WELL NAME & NO.		YEAR		MONTH		DAY			
CNRL et al North Liard P-66-B		2003		5		5			
OPERATOR		CONTRACTOR NAME							
CANADIAN NATURAL RESOURCES LTD.		AKITA DRILLING LTD.							
RIG MANAGER				RIG NO.		58			
DAVE LAUCK									
PROVINCE		CAMP		YES		NO		RIG SAFETY DAYS	
N.W.T.		☒		☐		☐		2256	

MORNING TOUR		FROM	0	TO	800	INJURIES	
CREW	SOC INS. NO.	NAME		HRS		YES	NO
DRIILLER		GARY PATRICK		8.00			GP
ASSIST DRIILLER		KEVIN VANDENBRAND		8.00			KV
DERRICK HAND		JUSTIN AMYOTTE		8.00			JA
MOTOR HAND		JESSY LESSARD		8.00			JL
FLOOR HAND		STEVE McLAUGHLIN		8.00			SM
FLOOR HAND		GREG ST. ARNAUD		8.00			GS
LEASE HAND		VICTOR VACON		8.00			VV
RATE SCHEDULE		X	REGULAR		REPAIR		INVERT.
CREW SAFETY DAYS			DRIVERS				
2256							

DAY TOUR		FROM	800	TO	1600	INJURIES	
CREW	SOC INS. NO.	NAME		HRS		YES	NO
DRIILLER		SCOTT LOWEN		12.00			SAL
DERRICK HAND		MIKE WIEBE		12.00			MV
MOTOR HAND		DARREN HAZENBERG		12.00			DH
FLOOR HAND		CLIFFORD BONNETROUSE		7E.00			CB
FLOOR HAND		DAVID HARPER		12.00			DH
LEASE HAND		AMMON JENSEN		12.00			AJ
SAFETY CO-ORDINATOR(A.D.)		DANIEL ALONSO		12.00			DA

EVENING TOUR		FROM	1600	TO	2400	INJURIES	
CREW	SOC INS. NO.	NAME		HRS		YES	NO
DRILLER		GARY PATRICK		4.00			GP
ASSIST DRILLER		KEVIN VANDENBRAND		4.00			KV
DERRICK HAND		JUSTIN AMYOTTE		4.00			JA
MOTOR HAND		JESSY LESSARD		4.00			JL
FLOOR HAND		STEVE McLAUGHLIN		4.00			SM
FLOOR HAND		GREG ST. ARNAUD		4.00			GS
LEASE HAND		VICTOR VACON		4.00			VV
RATE SCHEDULE	X	REGULAR		REPAIR		INVERT	
CREW SAFETY DAYS			DRIVERS				

[illegible]

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	TOTALS	SHALE SHAKER(S)			RENTALS / SERVICES			MORN	DAY	EVE	
	RISUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	CONC MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPLLE UP S.O.P.	TEST T.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	PICK UP TOOLS	NO TYPE 2	PERROW	FLC	Accum. MJ = 1,922		SCREENS CHANGED	YES	NEWLY USED	Total MJ= 1,178.958						
MORN						5.50			0.75		0.25											1.50					8.00										
DAY	0.50				6.00		0.25			0.50											0.75						8.00	175	TOP	175	TOP	TOP DRIVE ROTATING Hrs. = 10.5					
EVE	7.00									1.00																	8.00	175	MIDDLE	175	MIDDLE	THIS WELL = 165.75					
TOTAL	7.50				6.00	5.50	0.25		0.75	1.50	0.25										0.75	1.50				24.00	175	BOTTOM	175	BOTTOM							

DRILLING CREW PAYROLL DATA					
WELL NAME & NO.	YEAR	MONTH	DAY		
CHRL et al North Liard P-56-B	2003	5	6		
OPERATOR	CONTRACTOR NAME				
CANADIAN NATURAL RESOURCES LTD.	AKITA DRILLING LTD.				
RIG MANAGER				RIG NO.	
DAVE LAUCK				58	
PROVINCE	CAMP	☒ YES	☐ NO	RIG SAFETY DAYS	
N.W.T.				2257	

NO.		DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH	BIT RECORD				MORNING TOUR				MUD RECORD				METRES DRILLED				TIME LOG																												
1		BIT		O.D.	0.20	BIT NO.		MILL		4		MUD TYPE		WATER BASED		☒		☐		FROM		TO		D-R-C		RPM		WOB		FROM		TO		ELAPSED TIME		CODE		DETAILS OF OPERATIONS IN SEQUENCE & REMARKS											
1		MOTOR			7.31	SIZE		154.0		152.4		TIME								3206.01								0		15		0.25		11		RIG OUT WIRELINE TRUCK													
1		F.LOAT SUB			0.91					5		DENSITY (kg/m3)																15		145		1.50		22		PICK UP DIRECTIONAL TOOLS													
1		NM MULESHOE SUB			0.90	WDC CODE				5		FUNNEL VISCOSITY																145		615		4.50		6		TRIP IN HOLE FLOW CHECK @ 268m-1121m ,2010m., 2600m.													
1		MWD NMDC			8.88	MANUFACTURER		HUGHES CHRISTENSEN				FLUID LOSS (cm3)																615		700		0.75		9		CUT OFF 20m. OF DRILL LINE, CHECKED CROWN SAVER. 440m. LEFT ON SPOOL.													
1		FIN CUTTER			0.66	TYPE		STX - 30				pH																700		800		1.00		6		TRIP IN HOLE FLOW CHECK & FILL PIPE @3200m.													
1		FLEX MONEL			9.43	SERIAL NO.		1112		5029626		PVT.m3																800																					
9		H.W.D.P.			83.09					O		P		MUD MATERIALS ADDED		AMOUNT		UNIT		SOLIDS CONTROL				CIRCULATION PRESSURE MPa		PUMP NO. 1		PUMP NO. 2																					
1		JAR			3.97	JETS				E		N																																					
42		H.W.D.P			365.94	DEPTH OUT (m)								HOURS RUN		INTAKE DENSITY (kg/m3)		OVER FLOW DENSITY		UNDER FLOW DENSITY				LINER SIZE		SPM		LINER SIZE		SPM																			
		BHA= 510.93				DEPTH IN (m)		3206.00		3206.00																																							
63		(21st) 89mm DP			69	TOTAL DRILLED (m)								HOURS RUN		INTAKE DENSITY (kg/m3)		OVER FLOW DENSITY		UNDER FLOW DENSITY				REDUCED PUMP SPEED		@		@																					
1		X.O			161	TOTAL HRS RUN																																											
		TOTAL 89mm D.P. & HWD= 1123.84												HOURS RUN		INTAKE DENSITY (kg/m3)		OVER FLOW DENSITY		UNDER FLOW DENSITY				DEPTH (m)		DEVIATION		DIRECTION																					
														TI		To		MDC		LOC		BRG		GAGE		ODC		REASON PULLED		TOTAL RUN minHR																			
178		(59Xsds) E2 D.P.			127	1701.60																																											
13		D.P.				STANDS								1		HRS RUN		4.00		HRS RUN																		NOTES: CHECKED CROWN SAVER, FASTLINE CLAMP, DEADMAN ANCHOR, BRAKES & LINKAGE											
2		D.P.				SINGLES								2		HRS RUN		4.00		HRS RUN																		BOILER BLOW DOWN - 3s. ACCUMULATOR OIL LEVEL= 32 cm.											
		KELLY DOWN			-8.85																																	FUNCTION TESTED BOTH FLARE KNITERS.											
		TOTAL			3206.01																																	REVIEWED JSA ON PICKING UP TOOLS, TRIPPING IN HOLE & , SLIP & CUT DRILL LINE.											
		WT. OF D.C			14																																												
		WT. OF CEMENT			90																																												
						HOLE DRAG																																											
						TORQUE AT BOTTOM																																											
						FILL ON BOTTOM (m)																																											
																																		</															

MORNING TOUR		FROM	0	TO	800	INJURIES	
CREW	SOC INS. NO.	NAME		HRS		YES	NO
DRIILLER		GARY PATRICK		8.00			GP
ASSIST DRIILLER		KEVIN VANDENBRAND		8.00			KV
DERRICK HAND		JUSTIN AMYOTTE		8.00			JA
MOTOR HAND		JESSY LESSARD		8.00			JL
FLOOR HAND		STEVE McLAUGHLIN		8.00			SM
FLOOR HAND		GREG ST.ARNAUD		8.00			GS
LEASE HAND		VICTOR VACON		8.00			VV
RATE SCHEDULE	X	REGULAR		REPAIR		INVERT	
CREW SAFETY DAYS			DRIVERS				
2257							

NO.		DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH	BIT RECORD		DAY TOUR		MUD RECORD		METRES DRILLED					TIME LOG									
BIT		O.D.	BIT NO.		4		MUD TYPE		WATER BASED ☒ OIL BASED ☐		FROM	TO	D-R-C	RPM	WOB	FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS					
1	MOTOR	7.31	SIZE		152.4		TIME		800	1100	1400	3206.00	3220.00	D	15	6	800	845	0.75	21	SAFETY MTG. & BOP DRILL PRIOR TO DRLG AHEAD				
1	FLOAT SUB	0.91	MDC CODE		5 3 7		DENSITY (kg/m ³)		1010	1010	1020						845	1445	6.00	5	CIRC & COND MUD				
1	NM MULESHOE SUB	0.90	MANUFACTURER		HUGHES CHRISTENSEN		FUNNEL VISCOSITY		37	36	40						1445	1500	0.25	7	RIG SERVICE, FUNCTIONED TOP PIPE RAMS CO 6sec				
1	MWD NMDC	8.88	TYPE		STX - 30		FLUID LOSS (cm ³)		15.0	15.0	11.0						1500	1530	0.50	2	DRLG 152mm HOLE 1' 3206m to 3220m				
1	FIN CUTTER	0.66	SERIAL NO.		5029626		PH		10.5	10.5	10.5						1530	1600	0.50	10	DEV. SURVEY (accumulated time)				
1	FLEX MONEL	9.43	JETS		O P		MUD MATERIALS ADDED				CIRCULATION PRESSURE KPa		PUMP NO. 1		PUMP NO. 2										
1	FLEX MONEL	9.46	E N				PRODUCT		AMOUNT	UNIT	CENTRIFUGE		LINER SIZE		SPM	LINER SIZE		SPM							
8	H.W.D.P.	83.09	DEPTH OUT (m)				CAL CARB 325		120	SX	HOURS RUN	INTAKE DENSITY (kg/m ³)	OVER FLOW DENSITY	UNDER FLOW DENSITY	10000	127.0	95	127.0	0						
1	JAR	3.97	DEPTH IN (m)		3206.00		CAUSTIC		2	SX	REDUCED PUMP SPEED		2300		50	3255									
42	H.W.D.P.	355.94	TOTAL DRILLED (m)		14.00		DRISPAK		12	SX	DEVIATION SURVEYS		DEPTH (m)		DEVIATION	DIRECTION									
	BHA= 510.93		TOTAL HRS RUN		0.50		KELZAN		12	SX	3210.00		60.30	181.6											
63	(21std) 89mm DP	89	512.57	CUTTING STRUCTURE		SODIUM SULPHITE		10	SX	BOILERS		3220.00		59.90	181.9										
1	X.O.	161	0.34	T1		To	MDC	LOC	BRO	GAGE	ODC	REASON PULLED	TOTAL RUN min/hr	1		2									
	TOTAL 89mm D.P. & HWD= 1123.84			HOLE CONDITION		CAL CARB "O"		56	SX	HRS RUN		4.00	HRS RUN												
178	(59Xstd) E2 D.P.	127	1701.60	HOLE DRAG		22 UP 18 DN ROTATE W/PUMP		TORQUE AT BOTTOM		11000	BOILER PH		10.5	BOILER PH											
14	D.P.	STANDS	418.03	FILL ON BOTTOM (m)		0.00		STACK (m)		195	STACK TEMP														
2	D.P.	SINGLES		DRILLER SIGNATURE		SCOTT LOWEN		SPECIAL EVENT																	
	KELLY DOWN	-23.29	SAFETY TOPIC		MEH		MAOP																		
	TOTAL	3220.00	TIME / DEPTH		195		19300																		
	WT. OF D.C.	14																							
	WT. OF 2220' W.P.	22																							

DAY TOUR		FROM	800	TO	1600	INJURIES	
CREW	SOC INS. NO.	NAME		HRS		YES	NO
DRILLER		SCOTT LOWEN		12.00			SAL
DERRICK HAND		MIKE WIEBE		12.00			MW
MOTOR HAND		DARREN HAZENBERG		12.00			DH
FLOOR HAND		CLIFFORD BONNETROUGE		12.00			CB
FLOOR HAND		DAVID HARPER		12.00			DH
LEASE HAND		AMMON JENSEN		12.00			AJ
SAFETY CO-ORDINATOR(A.D.)		DANIEL ALONSO		12.00			DA
RATE SCHEDULE	X	REGULAR		REPAIR		INVERT	
Crew SAFETY DAYS		DRIVERS					
2257							

NO.		DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH	BIT RECORD						EVENING TOUR			MUD RECORD			METRES DRILLED					TIME LOG										
		BIT		O.D.	BIT NO.	SIZE						MUD TYPE	☒ WATER BASED ☐ OIL BASED		FROM	TO	D-R-C	RPM	WOB	FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS								
1		MOTOR		7.31	SIZE	152.4						TIME	1700 2000 2300		3220.00	3306.00	D	15	8	1900	2300	7.00	2	DRLG 152mm HOLE / 3220m to 3306m.								
1		FLOAT SUB		0.91	WDC CODE	5 3 7						DENSITY (kg/m ³)	1020 1015 1020							2300	2400	1.00	10	ACCUMULATED SURVEY TIMES								
1		NM MULESHOE SUB		0.90	MANUFACTURER	HUGHES CHRISTENSEN						FUNNEL VISCOSITY	40 41 41																			
1		MWDMDC		8.88	STX - 30							FLUID LOSS (cm ³)	11.0 10.5 10.5																			
1		FIN CUTTER		0.66	TYPE							pH	11.0 10.5 10.5																			
1		FLEX MONEL		9.43	SERIAL NO.	5029626						PVT	116.90 115.90 115.10																			
1		FLEX MONEL		9.46																												
9		H.W.D.P.		82.97	O P							MUD MATERIALS ADDED			SOLIDS CONTROL			CIRCULATION PRESSURE kPa	PUMP NO. 1		PUMP NO. 2											
1		JAR		3.97	E N							PRODUCT	AMOUNT	UNIT	CENTRIFUGE			LINER SIZE	SPM	LINER SIZE	SPM											
42		H.W.D.P.		386.24	DEPTH OUT (m)	3306.00						HOURS RUN	INTAKE DENSITY (kg/m ³)	OVER FLOW DENSITY	UNDER FLOW DENSITY	9000	127.0	0	127.0	95												
		BHA= 510.93		DEPTH IN (m)	3206.00													REDUCED PUMP SPEED														
63		(2) 89mm DP		89 612.57	TOTAL DRILLED (m)	100.00						HOURS RUN	INTAKE DENSITY (kg/m ³)	OVER FLOW DENSITY	UNDER FLOW DENSITY								@	0	@							
1		X-95		161 0.34	TOTAL HRS RUN	7.50													DEVIATION SURVEYS													
		TOTAL 89mm D.P. & HWOP= 1123.84			CUTTING STRUCTURE												DEPTH (m)	DEVIATION		DIRECTION												
					TI	To	MDC	LOC	BRG	GAGE	OC	REASON PULLED	TOTAL RUN minHR				BOILERS			3247.51	52.26	178.1										
178		(58x9ids) Ez D.P.		127 1701.60										1			2			3257.06	51.00	176.1	NOTES : CHECKED CRWON SAVER, FASTLINE CLAMP, DEADMAN ANCHOR, BRAKES & LINKAGE									
17		D.P.		STANDS 503.63																3266.50	47.50	177.1	BOILER BLOW DOWN - 3x									
2		D.P.		SINGLES																3285.00	45.20	180.0	REVIEWED JSA ON CHANGING TONG DIES									
		KELLY DOWN		-23.07	HOLE CONDITION									HRS RUN			4.00	HRS RUN														
		TOTAL		3306.00	HOLE DRAG 22000 UP - 18000 DOWN									BOILER pH			10.0	BOILER pH														
					TORQUE AT BOTTOM 10900															DRILLER SIGNATURE												
																				SPECIAL EVENT												
																				SAFETY TOPIC												
																				NEH												
																				MACI												

EVENING TOUR		FROM	1600	TO	2400	INJURIES	
CREW	SOC INS. NO.	NAME		HRS		YES	NO
DRILLER		GARY PATRICK		4.00			GP
ASSIST DRILLER		KEVIN VANDENBRAND		4.00			KV
DERRICK HAND		JUSTIN AMYOTTE		4.00			JA
MOTOR HAND		JESSY LESSARD		4.00			JL
FLOOR HAND		STEVE McLAUGHLIN		4.00			SM
FLOOR HAND		GREG ST.ARNAUD		4.00			GS
LEASE HAND		VICTOR VACON		4.00			VV
RATE SCHEDULE	X	REGULAR		REPAIR			INVERT
CREW SAFETY DAYS		DRIVERS					

LICENCE NO. 1922
WELL NAME & NO. CNRL et al North Liard P-66-B

OPERATOR CANADIAN NATURAL RESOURCES LTD.
CONTRACTOR NAME AKITA DRILLING LTD.
SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W
SIGNATURE OF OPERATOR'S REPRESENTATIVE S DeBusschere/C Skubleny
SIGNATURE OF CONTRACTOR'S RIG MANAGER DAVE LAUCK

- DAILY CHECKS
- (1) Daily Work Around Inspection
 - (2) Detailed Inspection - Weekly (Using Check List)
 - (3) H2S Signs Posted & Required
 - (4) Well Licence & Block Diagram Required
 - (5) Flow Line Rated
 - (6) BOP Drive Performed
 - (7) Visually Inspect BOPs: Flare Lines & Degasser Lines
 - (8) Rig Site Health & Safety Meeting (once/month)
 - (9) CADC Rig Sales Inspection Checklist (once/month)
 - (10) Main Inspection before Raising or Lowering
 - (11) Crown Saver Checked
 - (12) Motor Kib Checked

DATE	TIME	WELL	WELL NO.	WELL TYPE	WELL STATUS	WELL DEPTH	WELL DIRECTION	WELL RIG	WELL RIG NO.	WELL RIG TYPE	WELL RIG MANUFACTURER	WELL RIG STROKE LENGTH	WELL RIG SERIAL NO.	WELL RIG VERSION
2003	58													
2003	58													
2003	58													
2003	58													
2003	58													
2003	58													
2003	58													
2003	58													
2003	58													
2003	58													

SPUD DATE	TIME	WELL	WELL NO.	WELL TYPE	WELL STATUS	WELL DEPTH	WELL DIRECTION	WELL RIG	WELL RIG NO.	WELL RIG TYPE	WELL RIG MANUFACTURER	WELL RIG STROKE LENGTH	WELL RIG SERIAL NO.	WELL RIG VERSION
2003/04/19	23:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													
2003/05/16	17:00													



PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)			RENTALS / SERVICES			MORN	DAY	EVE
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & IRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DR. WORK	SAFETY MEETING	BACK REAM	LAYDOWN	DRIFT/TURN/RELINE	NO. 1 SCREENS CHANGED	TYPE 1 (PERF)		TYPE 2 (RC)	NEWLY USED	Accum. MJ = 6,513	Total MJ= 1,187,393	TOP DRIVE ROTATING Hrs. = 6.50				
MORN		3.00			1.75	2.25	0.25			0.75																8.00										
DAY			2.00		1.00	3.25															0.25	1.50				8.00	175	TOP	175	TOP						
EVE					4.50						2.00										0.50		1.00			8.00	175	MIDDLE	175	MIDDLE						
TOTAL	3.00	2.00			2.75	10.00	0.25			0.75	2.00										0.75	1.50	1.00			24.00	175	BOTTOM	175	BOTTOM						

[illegible]

Well Name: CNRL et al North Liard P-66-B

Operator: CANADIAN NATURAL RESOURCES LTD. / AKITA DRILLING LTD.

Surface Location: 60:35:55.00 S 123:41:25.00 W

Signature of Operator's Representative: S DeBusschere/C Skubleny

Signature of Contractor's Rig Manager: DAVE LAUCK

Drilling Crew Payroll Data: Includes crew list with names, roles, and hours.

Drilling Log: Detailed record of drilling operations including bit records, mud logs, and time logs.

LICENCE NO. 1922 WELL NAME & NO. CNRL et al North Liard P-66-B CONTRACTOR NAME AKITA DRILLING LTD. SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W SIGNATURE OF OPERATOR'S REPRESENTATIVE S DeBusschere/C Skubleny DAVE LAUCK

Table with 26 columns (CODE NO. 1-26) and 2 rows (MORN, EVE) showing drilling progress metrics like RIGUP & TEARDOWN, DRILL ACTUAL, REAMING, CORING, etc.

MORNING TOUR BIT RECORD, MUD RECORD, METRES DRILLED, TIME LOG. Includes fields for BIT NO., LENGTH, MUD TYPE, DENSITY, and detailed time logs with remarks.

DAY TOUR BIT RECORD, MUD RECORD, METRES DRILLED, TIME LOG. Includes fields for BIT NO., LENGTH, MUD TYPE, DENSITY, and detailed time logs with remarks.

EVENING TOUR BIT RECORD, MUD RECORD, METRES DRILLED, TIME LOG. Includes fields for BIT NO., LENGTH, MUD TYPE, DENSITY, and detailed time logs with remarks.

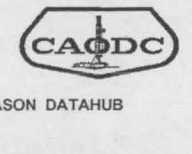
SPUD DATE, RIG RELEASE, WELL TYPE, OPERATOR'S AFE, KELLER BSHG, CONTRACTOR'S JOB NUM, TOUR SHEET SERIAL NUM, VENDOR SOFTWARE VERSION.

DRILLING CREW PAYROLL DATA table with columns for WELL NAME & NO., YEAR, MONTH, DAY, OPERATOR, CONTRACTOR NAME, RIG MANAGER, PROVINCE, CAMP, YES/NO, RIG SAFETY DAYS.

MORNING TOUR CREW table with columns for CREW, SOC INS. NO., NAME, HRS, YES, NO. Lists crew members like SCOTT LOWEN, MIKE WIEBE, etc.

DAY TOUR CREW table with columns for CREW, SOC INS. NO., NAME, HRS, YES, NO. Lists crew members like ALLAN LICKOCH, JERRY FOLEY, etc.

EVENING TOUR CREW table with columns for CREW, SOC INS. NO., NAME, HRS, YES, NO. Lists crew members like SCOTT LOWEN, MIKE WIEBE, etc.



CONTRACT NO. 1922						WELL NAME & ID CNRL et al North Liard P-66-B					
OPERATOR CANADIAN NATURAL RESOURCES LTD.						CONTRACTOR NAME AKITA DRILLING LTD.					
SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W						UNIQUE ID 303P666040123300					
SIGNATURE OF OPERATOR'S REPRESENTATIVE S DeBusschere/C Skubleny						SIGNATURE OF CONTRACTOR'S RIG MANAGER DAVE LAUCK					
DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) HDS Signs Posted & Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Isolated (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (8.) CROWN SAVER CHECKED (9.) Motor Kils Checked OPERATOR SIGNATURE DATE TIME LOCATION RIG NO. 115 FUEL @ 08:00 HRS BOILER TEMPERATURE CURRENT CONDITIONS WIND DIRECTION ROAD CONDITION O.D. (mm) 244.5 M.W.D. (mm) 177.8 MASS (kg/m3) 59.50 GRADE 224.0 MINIMUM L.D. 95 T.JNT. O.D. 127 TYPE THREAD 4.5IF NO. OF JOINTS 178 PUMP TYPE F1000 PUMP MANUFACTURER EMSCO STROKE LENGTH 254 LAST CASING TUBING OR LINER MAKE Hydril 521 L-80 44 615.24 6.57 3204.30											
DRILLING CREW PAYROLL DATA											
WELL NAME & NO. CNRL et al North Liard P-66-B YEAR 2003 MONTH 5 DAY 11											
OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR NAME AKITA DRILLING LTD.											
RIG MANAGER DAVE LAUCK RIG NO. 58											
PROVINCE N.W.T. CAMP X YES NO RIG SAFETY DAYS 2262											
MORNING TOUR FROM 0 TO 800 INJURES											
CREW SOC INS. NO. NAME HRS YES NO											
DRILLER SCOTT LOWEN 8.00 SAL											
DERRICK HAND MIKE WIEBE 8.00 MW											
MOTOR HAND DARREN HAZENBERG 8.00 DH											
FLOOR HAND CLIFFORD BONNETROUGE 8.00 CB											
FLOOR HAND DAVID HARPER 8.00 DH											
LEASE HAND AMMON JENSEN 8.00 AJ											
RATE SCHEDULE X REGULAR REPAIR INVERT											
CREW SAFETY DAYS DRIVERS											
2262											
DAY TOUR FROM 800 TO 1600 INJURES											
CREW SOC INS. NO. NAME HRS YES NO											
DRILLER ALLAN LICKOCH 12.00 AL											
DERRICK HAND JERRY FOLEY 12.00 JF											
MOTOR HAND VIRGIL NANAQUAWETUNG 12.00 VN											
FLOOR HAND MOISE PUNCH 12.00 MP											
FLOOR HAND SEAN WOLOSCH 12.00 SW											
LEASE HAND JEFF SAULTEAUX 12.00 JS											
SAFETY CO-ORDINATOR(A.D.) DANIEL ALONSO 12.00 DA											
RATE SCHEDULE X REGULAR REPAIR INVERT											
CREW SAFETY DAYS DRIVERS											
2262											
EVENING TOUR FROM 1600 TO 2400 INJURES											
CREW SOC INS. NO. NAME HRS YES NO											
DRILLER SCOTT LOWEN 4.00 SAL											
DERRICK HAND MIKE WIEBE 4.00 MW											
MOTOR HAND DARREN HAZENBERG 4.00 DH											
FLOOR HAND CLIFFORD BONNETROUGE 4.00 CB											
FLOOR HAND DAVID HARPER 4.00 DH											
LEASE HAND AMMON JENSEN 4.00 AJ											
RATE SCHEDULE X REGULAR REPAIR INVERT											
CREW SAFETY DAYS DRIVERS											

LICENCE NO.
1922

WELL NAME & NO
CNRL et al North Liard P-66-B

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE
Craig Skubleny

SIGNATURE OF CONTRACTOR'S RIG MANAGER
DAVE LAUCK

(1) Daily Walk Around Inspection
(2) Detailed Inspection - Weekly (Using Check List)
(3) H2S Signs Posted if Required
(4) Well Location & Back Diagram Posted
(5) Flare Lines Stated
(6) BOP Drive Performed
(7) Visually Inspect BOPs: Flare Lines & Dogear Lines
(8) CAODC Rig Safety Inspection Checklist (monthly/annually)
(9) Mast Inspection before Raising or Lowering
(10) Crown Saver Checked
(11) Motor Kite Checked

YEAR 2003 MONTH 5 DAY 12

LAST CASING TUBING OR LINER
O.D. (mm) 244.5
I.D. (mm) 224.0
MASS (kg/m) 59.50
Hytel 521

GRADE L-80
NO. OF JOINTS 44
TOTAL LENGTH 615.24
KB TO CSG HEAD 6.57
SET AT (m) 3204.30

TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

DC/DP SIZE 127
MASS 29.08
GRADE E-2
MINIMUM I.D. 95
T. ATT. O.D. 127
TYPE 4.5IF
NO. OF JOINTS 178
PUMP TYPE F1000
PUMP MANUFACTURER EMSCO
STROKE LENGTH 254

SHALE SHAKER(S)
RENTALS / SERVICES
MORN DAY EVE

SPUD DATE 2003/04/19
RIG RELEASE 2003/05/16
WELL TYPE
OPERATOR'S AFE
KELLY BSHG
CONTRACTOR'S JOB NUM
TOUR SHEET SERIAL NUM
VENDOR SOFTWARE VERSION

TIME 23:00
TIME 17:00
RE-ENTRY
OP FUEL
RIG SAFETY DAYS 2263

CAODC
PASON DATAHUB

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	TOTALS
		RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL/STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DPL WORK	SAFETY MEETING	HANDLE TO ORDER					
	MORN					2.00	3.00					2.50											0.50					8.00
	DAY							0.25				1.00											4.75					8.00
	EVE					3.25	4.25																0.50					8.00
	TOTAL					5.25	9.25	0.25				3.50											1.00	4.75				24.00

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN IN/HR

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

HOLE CONDITION

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

CENTRIFUGE

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SCOTT LOWEN

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN IN/HR

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

HOLE CONDITION

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

CENTRIFUGE

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

ALLAN LICKOCH

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

EVENING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN IN/HR

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

HOLE CONDITION

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

CENTRIFUGE

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

[illegible]

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	TOTALS	SHALE SHAKER(S)				RENTALS / SERVICES			MORN	DAY	EVE	
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	CONO MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING	L/D DP	PACKER	PRESSURE	TEST/ANAL	NO 2		TYPE DERRICK	TYPE F/LC	NO 2	TYPE DERRICK	TYPE F/LC	NO 2	TYPE DERRICK				TYPE F/LC
	SCREENS CHANGED	NO	HOW USED	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE		BOTTOM	TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM				TOP
MORN						7.25	0.25																		0.50		8.00											Accum. MJ = 16,182
DAY						2.75															0.25		2.75		2.25		8.00	175	TOP	175	TOP					Total MJ= 1,220,131		
EVE					2.25	4.25															0.25		0.25	0.50	0.50		8.00	175	MIDDLE	175	MIDDLE					THIS WELL = 178.0		
TOTAL					2.25	14.25	0.25														0.50		3.00	0.50	3.25		24.00	175	BOTTOM	175	BOTTOM							

NO.		DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH	BIT RECORD				MORNING TOUR				MUD RECORD				METRES DRILLED				TIME LOG																			
BIT		D.D.	BIT NO.						MUD TYPE		WATER BASED		OIL BASED		FROM	TO	D-R-C	RPM	WOB	FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS																
1	MILL	0.84	SIZE						TIME											0	45	0.75	6	FINISH LAY DOWN 75jts of DP																
1	SCRAPPER	0.99	WADC CODE						DENSITY (kg/m3)											45	100	0.25	25	RIG OUT FI CANADA & FLOW CHECK																
1	X.O.	0.43	MANUFACTURER						FUNNEL VISCOSITY											100	115	0.25	7	RIG SERVICE, FUNCTIONED TOP PIPE RAMS C/O 6sec																
78	89mm DP	758.32	TYPE						FLUID LOSS (cm3)											115	400	2.75	6	TRIP OUT OF HOLE to 750m; FLOW CHECK @ 1250m & 750m																
1	X.O.	0.55	SERIAL NO.						pH											400	430	0.50	6	RIH W/ 17stds of 89mm HWDP																
					JETS				MUD MATERIALS ADDED				SOLIDS CONTROL				CIRCULATION PRESSURE KPa		PUMP NO. 1		PUMP NO. 2																			
					DEPTH OUT (m)				PRODUCT				AMOUNT				UNIT				LINER SIZE		SPM		LINER SIZE		SPM													
					DEPTH-IN (m)																																			
					TOTAL DRILLED (m)																																			
					TOTAL HRS RUN																																			
					CUTTING STRUCTURE																																			
					TI				T ₂				MDC				LOC				BRG				GAGE				ODC				REASON PULLED				TOTAL RUN MIN			
					D.P.				STANDS																															
					D.P.				SINGLES																															
					KELLY DOWN																																			
					TOTAL				761.13																															
					WT. OF D.C.																																			
					WT. OF STRING																																			
					HOLE CONDITION																																			
					HOLE DRAG																																			
					TORQUE AT BOTTOM																																			
					FILL ON BOTTOM (m)																																			
					BOILER PH																																			
					STACK TEMP																																			
					DRILLER SIGNATURE																																			
					SCOTT LOWEN																																			
					SPECIAL EVENT																																			
					TIME / DEPTH																																			
					SAFETY TORC																																			
					MEL																																			
					MACP																																			
					JSA-LAY DOWN PIPE																																			
					140																																			

[illegible][illegible]

DRILLING CREW PAYROLL DATA						
WELL NAME & NO	YEAR	MONTH	DAY			
CNR1 et al North Liard P-6-B	2003	5	13			
OPERATOR	CONTRACTOR NAME					
CANADIAN NATURAL RESOURCES LTD.	AKITA DRILLING LTD.					
RIG MANAGER				RIG NO.		
DAVE LAUCK				58		
PROVINCE	CAMP	☒ YES	☐ NO	RIG SAFETY DAYS		
N.W.T.				2264		

[illegible]

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
2264						

[illegible]

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
2264						

EVENING TOUR		FROM	1600	TO	2400	INJURIES	
CREW	SOC INS. NO.	NAME		HRS	YES	NO	
DRILLER		SCOTT LOWEN		4.00		SAL	
DERRICK HAND		MIKE WIEBE		4.00		MW	
MOTOR HAND		DARREN HAZENBERG		4.00		DH	
FLOOR HAND		CLIFFORD BONNETROUGE		5.00		CB	
FLOOR HAND		DAVID HARPER		4.00		DH	
LEASE HAND		AMMON JENSEN		4.00		AJ	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				

[illegible]

[illegible]

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE
WOODY WIHOVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER
DAVE LAUCK

DAILY CHECKS
(1) Daily Walk Around Inspection
(2) Detailed Inspection - Weekly (Using Check List)
(3) H2S Signs Posted if Required
(4) Well Licence & Block Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOPs - Flare Lines & Degasser Lines
(8) Motor Kills Checked

DEPT. 64
RIG NO. 58
FUEL @ 08:00 HRS
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

LAST CASING TUBING OR LINER
O.D. (mm)
I.D. (mm)
MASS (kg/m3)
MAKE
GRADE
NO. OF JOINTS
TOTAL LENGTH
KB TO CSG HEAD
SET AT (m)

SHALES SHAKERS(S)
RENTALS / SERVICES
MORN
DAY
EVE

SPUD DATE
2003/04/19
TIME
23:00

RIG RELEASE
2003/05/16
TIME
17:00

WELL TYPE
RE-ENTRY

OPERATOR'S AFE
KELLY BSHG
OP FUEL

CONTRACTOR'S JOB NUM
TOUR SHEET SERIAL NUM
VENDOR SOFTWARE VERSION

CADDC
PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)			RENTALS / SERVICES			MORN	DAY	EVE
		RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	LAND TUBING PRESS TEST	RIG OUT EQUIP	SMITH HEADCHANGE R				NO. TYPE	TYPE	PLC	Accum. MJ = 0					
																													SCREENS CHANGED	NEW/ USED							
																															TOP	TOP					
																															MIDDLE	MIDDLE					
MORN															3.50								0.50	0.50	1.00	1.00	1.50	8.00									
DAY															7.75							0.25						8.00	175		175						
EVE		5.00													3.00													8.00	175		175						
TOTAL		5.00													14.25							0.25	0.50	0.50	1.00	1.00	1.50	24.00	175		175						

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDR

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN mHR

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

MORNING TOUR

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

METRES DRILLED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

0

30

0.50

22

LAND TUBING & TIGHTEN PACKING NUTS

30

100

0.50

23

PRESSURE TEST SET TOOL

100

200

1.00

24

BREAK DOWN LANDING JIS & RIG OUT CSG EQUIPMENT

200

300

1.00

25

RIG OUT SMITH ROTATING HEAD

300

430

1.50

26

CHANGE BTM PIPE RAMS BACK TO 5'

430

800

3.50

14

BLOW OUT LINES

430

800

3.50

14

RIG OUT BTM & TOP KILL LINES

TIME LOG

NO. 1 TYPE

DERRICK

TYPE

FLC

Accum. MJ = 0

SCREENS CHANGED

NEW USED

Total MJ= 1,224,348

TOP

MIDDLE

BOTTOM

TOP DRIVE ROTATING Hrs. = 0

THIS WELL = 178.0

DRILLER SIGNATURE

SCOTT LOWEN

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDR

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN mHR

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

DAY TOUR

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

METRES DRILLED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800

815

0.25

21

SAFETY MTG. (Review JSA Nipple Down B.O.P.s

815

1300

4.75

14

NIPPLE DOWN B.O.P.

1300

1600

3.00

14

INSTALL WELL HEAD & PRESSURE TESTED

1600

TIME LOG

NO. 1 TYPE

DERRICK

TYPE

FLC

Accum. MJ = 0

SCREENS CHANGED

NEW USED

Total MJ= 1,224,348

TOP

MIDDLE

BOTTOM

TOP DRIVE ROTATING Hrs. = 0

THIS WELL = 178.0

DRILLER SIGNATURE

ALLAN LICKOCH

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDR

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN mHR

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

EVENING TOUR

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

METRES DRILLED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

1600

1900

3.00

14

Pressure Test Well Head

1900

2400

5.00

1

RIG OUT TOP DRIVE

2400

TIME LOG

NO. 1 TYPE

DERRICK

TYPE

FLC

Accum. MJ = 0

SCREENS CHANGED

NEW USED

Total MJ= 1,224,348

TOP

MIDDLE

BOTTOM

TOP DRIVE ROTATING Hrs. = 0

THIS WELL = 178.0

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

DRILLING CREW PAYROLL DATA									
WELL NAME & NO. CNRL et al North Liard P-66-B									
YEAR 2003									
MONTH 5									
DAY 16									
OPERATOR CANADIAN NATURAL RESOURCES LTD.									
CONTRACTOR NAME AKITA DRILLING LTD.									
RIG MANAGER DAVE LAUCK									
RIG NO. 58									
PROVINCE N.W.T.									
CAMP X YES NO									
RIG SAFETY DAYS 2267									

MORNING TOUR					FROM	0	TO	800	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO					
DRILLER		SCOTT LOWEN	8.00		SAL					
DERRICK HAND		MIKE WIEBE	8.00		MW					
MOTOR HAND		DARREN HAZENBERG	8.00		DH					
FLOOR HAND		CLIFFORD BONNETROUGE	8.00		CB					
FLOOR HAND		DAVID HARPER	8.00		DH					

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2267

DAY TOUR					FROM	800	TO	1600	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO					
DRILLER		ALLAN LICKOCH	12.00		AL					
DERRICK HAND		JERRY FOLEY	12.00		JF					
MOTOR HAND		VIRGIL NANAQUAWETUNG	12.00		VN					
FLOOR HAND		MOISE PUNCH	12.00		MP					
FLOOR HAND		SEAN WOLOSCH	12.00		SW					
LEASE HAND		JEFF SAULTEAUX	12.00		JS					
SAFETY CO-ORDINATOR(A.D.)		DANIEL ALONSO	12.00		DA					

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2267

EVENING TOUR					FROM	1600	TO	2400	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO					
DRILLER		SCOTT LOWEN	4.00		SAL					
DERRICK HAND		MIKE WIEBE	4.00		MW					
MOTOR HAND		DARREN HAZENBERG	4.00		DH					
FLOOR HAND		CLIFFORD BONNETROUGE	4.00		CB					
FLOOR HAND		DAVID HARPER	4.00		DH					

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

[illegible]

LICENCE NO.

1922

WELL NAME & ID

CNRL et al North Liard P-66-B

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

SURFACE LOCATION

60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

WOODY WIHOVE

CONTRACTOR NAME

AKITA DRILLING LTD.

UNIQUE ID

303P666040123300

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAVE LAUCK

DAILY CHECKS

(1) Daily Walk Around Inspection
(2) Detailed Inspection - Weekly (Using Check List)
(3) HGS Signage Posted if Required
(4) Well Licence & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drive Performed
(7) Visually Inspect BOP+ Flare Lines & Degasser Lines
(8) CADC Rig Safety Inspection Checklist (once/month)
(9) Mast Inspection before Raising or Lowering
(10) Crown Sheave Checked
(11) Motor Killy Checked

OILFIELD WELL LOG

YEAR: 2003 MONTH: 5 DAY: 19

RIG NO. 58

FUEL @ 08:00 HRS

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

O.D. (mm)

M.V.I.D. (mm)

M.A.S. (kg/m3)

GRADE

T.JNT. O.D.

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

LAST CASING TUBING OR LINER

244.5

224.0

59.50

177.8

159.4

38.69

Hyril 521

L-80

44

615.24

6.57

2589.06

2589.06

3204.30

TIME-HOURS

MORN

DAY

EVE

TOTAL

8.00

8.00

8.00

24.00

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

TOTALS

SHALE SHAKER(S)

RENTALS / SERVICES

MORN

DAY

EVE

RIGUP & TEARDOWN

DRILL ACTUAL

REAMING

CORING

COND MUD & CIRC

TRIPS

RIG SERVICE

REPAIR RIG

CUT OFF DRILL LINE

DEV SURVEY

WIRELINE LOGS

RUN CSG & CEMENT

WAIT ON CEMENT

NIPPLE UP B.O.P.

TEST B.O.P.

DRILLSTEM TEST

PLUG BACK

SQUEEZE CEMENT

FISHING

DIRL WORK

SAFETY MEETING

SCREENS CHANGED

NEW USED

TOP

MIDDLE

BOTTOM

Accum. MJ = 0

Total MJ= 1,224.348

TOP DRIVE ROTATING Hrs. = 0

THIS WELL = 178.0

NO.

BIT

O.D.

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

FROM

TO

ELAPSED TIME

CODE

Rig Out & Clean Rig

BIT NO.

SIZE

IADC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

TI

To

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN mHR

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

CIRCUULATION PRESSURE kPa

PUMP NO. 1

PUMP NO. 2

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SCOTT LOWEN

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

BIT

O.D.

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

FROM

TO

ELAPSED TIME

CODE

Rig Out & clean Rig

Clean Up Lease

SEND CREWS OUT ON CREW PLANE.

GARY PATRICK & GREG ST ARNAUD CAME IN TO OPERATE THE RIG WHILE SERVICING THE WELL.

run main generator for 16 hours today

BIT NO.

SIZE

IADC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

TI

To

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN mHR

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

CIRCUULATION PRESSURE kPa

PUMP NO. 1

PUMP NO. 2

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

ALLAN LICKOCH

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

BIT

O.D.

LENGTH

BIT RECORD

EVENING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

FROM

TO

ELAPSED TIME

CODE

Rig Out & Clean Up Rig

BIT NO.

SIZE

IADC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

TI

To

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN mHR

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

CIRCUULATION PRESSURE kPa

PUMP NO. 1

PUMP NO. 2

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

CAODC

PASON DATAHUB

DRILLING CREW PAYROLL DATA

WELL NAME & NO.

CNRL et al North Liard P-66-B

YEAR

2003

MONTH

5

DAY

19

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME

AKITA DRILLING LTD.

RIG MANAGER

DAVE LAUCK

RIG NO.

58

PROVINCE

N.W.T.

CAMP

X

YES

NO

RIG SAFETY DAYS

2270

MORNING TOUR

FROM

0

TO

800

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

SCOTT LOWEN

8.00

SAL

DERRICK HAND

MIKE WIEBE

8.00

MW

MOTOR HAND

DARREN HAZENBERG

8.00

DH

FLOOR HAND

CLIFFORD BONNETROUGE

8.00

CB

FLOOR HAND

DAVID HARPER

8.00

DH

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2270

DAY TOUR

FROM

800

TO

1600

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

ALLAN LICKOCH

12.00

AL

DRILLER

GARY PATRICK

12.00

GP

DERRICK HAND

JERRY FOLEY

12.00

JF

MOTOR HAND

VIRGIL NANAQUAWETUNG

12.00

VN

MOTOR HAND

GREG ST ARNAUD

12.00

GS

FLOOR HAND

MOISE PUNCH

12.00

MP

FLOOR HAND

SEAN WOLOSCH

12.00

SW

LEASE HAND

JEFF SAULTEAUX

12.00

JS

SAFETY CO-ORDINATOR(A.D.)

DANIEL ALONSO

12.00

DA

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2270

EVENING TOUR

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

CONTRACTOR NAME
AKITA DRILLING LTD.

UNIQUE ID
303P666040123300

SIGNATURE OF CONTRACTOR'S RIG MANAGER

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

DAILY CHECKS
(1) Daily Well Around Inspection
(2) Detailed Inspection - Weekly (Using Check List)
(3) H2S Signs Posted if Required
(4) Well License & Block Diagram Posted
(5) Plans Lines Stated
(6) BOP Tests Performed
(7) Weekly Inspect BOPs, Plans Lines & Doghouse Lines
(1) Rig Site Health & Safety Meeting (once/week/month)
(2) CADC Rig Safety Inspection Checklist (once/week/month)
(3) Mast Inspection before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kite Checked

WELL DATA
LAST CASING TUBING OR LINER
O.D. (mm)
I.D. (mm)
MASS (kg/m)
GRADE
NO. OF JOINTS
TOTAL LENGTH
KB TO CSG HEAD
SET AT (m)
RIG NO. 58
FUEL @ 08:00 HRS
KILERS
177.8
159.4
38.69
Hyll 521
L-80
44
615.24
6.57
3204.30
TEMPERATURE
CURRENT CONDITIONS
DC/DP
DC/DP
MASS
GRADE
MINIMUM I.D.
T. AT O.D.
TYPE
NO. OF JOINTS
PUMP TYPE
PUMP MANUFACTURER
STROKE LENGTH
127
29.08
E-2
95
127
4.5IF
178
F1000
EMSCO
254
127
38.10
SS-95
89
127
4.5IF
55
F1000
EMSCO
254
127
38.10
SLICK E-29
127
4.5IF
74

WELL LOG
SHALE SHAKER(S)
RENTALS / SERVICES
MORN
DAY
EVE
NO. TYPE
1 DERRICK
2 SCREENS
3 NEW
4 CHANGED
5 USED
Accum. MJ = 0
Total MJ = 1,224,348
TOP DRIVE ROTATING Hrs = 0
THIS WELL = 178.0



PASON DATAHUB

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	TOTALS	SHALE SHAKER(S)			RENTALS / SERVICES			MORN	DAY	EVE	
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	MONITOR WELL						NO. 1	TYPE 2	TYPE 3	TYPE 4	Accum. MJ = 0					
TIME																																					
MORN																																					
DAY																																					
EVE																																					
TOTAL																																					
																							</														

NO. BIT O.D. LENGTH

BIT RECORD
BIT NO.
SIZE
IADC CODE
MANUFACTURER
TYPE
SERIAL NO.
JETS
DEPTH OUT (m)
DEPTH IN (m)
TOTAL DRILLED (m)
TOTAL HRS RUN
CUTTING STRUCTURE
Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN HRS

MUD TYPE WATER BASED OIL BASED
TIME
DENSITY (kg/m3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH
MUD MATERIALS ADDED
PRODUCT AMOUNT UNIT
SOLIDS CONTROL
CENTRIFUGE
HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY
REDUCED PUMP SPEED
DEVIATION SURVEYS
DEPTH (m) DEVIATION DIRECTION
BOILERS
1 2
HRS RUN 0.00 HRS RUN
BOILER PH BOILER PH
STACK TEMP STACK TEMP
DRILLER SIGNATURE
SPECIAL EVENT
TIME / DEPTH

METRES DRILLED
FROM TO D-R-C RPM WOB
FROM TO ELAPSED TIME CODE
DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG
SHALE SHAKER(S)
RENTALS / SERVICES
MORN DAY EVE
NO. TYPE
1 DERRICK
2 SCREENS
3 NEW
4 CHANGED
5 USED
Accum. MJ = 0
Total MJ = 1,224,348
TOP DRIVE ROTATING Hrs = 0
THIS WELL = 178.0

D.P. STANDS
D.P. SINGLES

HOLE CONDITION

KELLY DOWN
TOTAL
WT. OF D.C.
WT. OF STRING

DRILLING ASSEMBLY (AT END OF TOUR)
BIT O.D. LENGTH
BIT RECORD
BIT NO.
SIZE
IADC CODE
MANUFACTURER
TYPE
SERIAL NO.
JETS
DEPTH OUT (m)
DEPTH IN (m)
TOTAL DRILLED (m)
TOTAL HRS RUN
CUTTING STRUCTURE
Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN HRS
HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

DAY TOUR
MUD RECORD
MUD TYPE WATER BASED OIL BASED
TIME
DENSITY (kg/m3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH
MUD MATERIALS ADDED
PRODUCT AMOUNT UNIT
SOLIDS CONTROL
CENTRIFUGE
HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY
REDUCED PUMP SPEED
DEVIATION SURVEYS
DEPTH (m) DEVIATION DIRECTION
BOILERS
1 2
HRS RUN 0.00 HRS RUN
BOILER PH BOILER PH
STACK TEMP STACK TEMP
DRILLER SIGNATURE
SPECIAL EVENT
TIME / DEPTH

METRES DRILLED
FROM TO D-R-C RPM WOB
FROM TO ELAPSED TIME CODE
DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG
MONITOR WELL PRESSURES WHILE WAITING ON ENDLESS TUBING UNIT.
DOING RIG REPAIRS & PREVENTATIVE MAINTENANCE.
CHANGED OIL IN BOTH CAMP LIGHT PLANTS.
FUELED UP LIGHTPLANTS & INCINERATOR.
WASHING MUD OFF DERRICK.
RUNNING MAIN GENERATOR TO OPERATE WATER & HYDRAULIC PUMPS.
run generator for 5 hours today.

NO. BIT O.D. LENGTH

BIT RECORD
BIT NO.
SIZE
IADC CODE
MANUFACTURER
TYPE
SERIAL NO.
JETS
DEPTH OUT (m)
DEPTH IN (m)
TOTAL DRILLED (m)
TOTAL HRS RUN
CUTTING STRUCTURE
Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN HRS

MUD TYPE WATER BASED OIL BASED
TIME
DENSITY (kg/m3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH
MUD MATERIALS ADDED
PRODUCT AMOUNT UNIT
SOLIDS CONTROL
CENTRIFUGE
HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY
REDUCED PUMP SPEED
DEVIATION SURVEYS
DEPTH (m) DEVIATION DIRECTION
BOILERS
1 2
HRS RUN 0.00 HRS RUN
BOILER PH BOILER PH
STACK TEMP STACK TEMP
DRILLER SIGNATURE
SPECIAL EVENT
TIME / DEPTH

METRES DRILLED
FROM TO D-R-C RPM WOB
FROM TO ELAPSED TIME CODE
DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG
MONITOR WELL PRESSURES WHILE WAITING ON ENDLESS TUBING UNIT.
DOING RIG REPAIRS & PREVENTATIVE MAINTENANCE.
CHANGED OIL IN BOTH CAMP LIGHT PLANTS.
FUELED UP LIGHTPLANTS & INCINERATOR.
WASHING MUD OFF DERRICK.
RUNNING MAIN GENERATOR TO OPERATE WATER & HYDRAULIC PUMPS.
run generator for 5 hours today.

D.P. STANDS
D.P. SINGLES

HOLE CONDITION

KELLY DOWN
TOTAL
WT. OF D.C.
WT. OF STRING

DRILLING ASSEMBLY (AT END OF TOUR)
BIT O.D. LENGTH
BIT RECORD
BIT NO.
SIZE
IADC CODE
MANUFACTURER
TYPE
SERIAL NO.
JETS
DEPTH OUT (m)
DEPTH IN (m)
TOTAL DRILLED (m)
TOTAL HRS RUN
CUTTING STRUCTURE
Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN HRS
HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

DAY TOUR
MUD RECORD
MUD TYPE WATER BASED OIL BASED
TIME
DENSITY (kg/m3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH
MUD MATERIALS ADDED
PRODUCT AMOUNT UNIT
SOLIDS CONTROL
CENTRIFUGE
HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY
REDUCED PUMP SPEED
DEVIATION SURVEYS
DEPTH (m) DEVIATION DIRECTION
BOILERS
1 2
HRS RUN 0.00 HRS RUN
BOILER PH BOILER PH
STACK TEMP STACK TEMP
DRILLER SIGNATURE
SPECIAL EVENT
TIME / DEPTH

METRES DRILLED
FROM TO D-R-C RPM WOB
FROM TO ELAPSED TIME CODE
DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG
MONITOR WELL PRESSURES WHILE WAITING ON ENDLESS TUBING UNIT.
DOING RIG REPAIRS & PREVENTATIVE MAINTENANCE.
CHANGED OIL IN BOTH CAMP LIGHT PLANTS.
FUELED UP LIGHTPLANTS & INCINERATOR.
WASHING MUD OFF DERRICK.
RUNNING MAIN GENERATOR TO OPERATE WATER & HYDRAULIC PUMPS.
run generator for 5 hours today.

NO. BIT O.D. LENGTH

BIT RECORD
BIT NO.
SIZE
IADC CODE
MANUFACTURER
TYPE
SERIAL NO.
JETS
DEPTH OUT (m)
DEPTH IN (m)
TOTAL DRILLED (m)
TOTAL HRS RUN
CUTTING STRUCTURE
Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN HRS

MUD TYPE WATER BASED OIL BASED
TIME
DENSITY (kg/m3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH
MUD MATERIALS ADDED
PRODUCT AMOUNT UNIT
SOLIDS CONTROL
CENTRIFUGE
HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY
REDUCED PUMP SPEED
DEVIATION SURVEYS
DEPTH (m) DEVIATION DIRECTION
BOILERS
1 2
HRS RUN 0.00 HRS RUN
BOILER PH BOILER PH
STACK TEMP STACK TEMP
DRILLER SIGNATURE
SPECIAL EVENT
TIME / DEPTH

METRES DRILLED
FROM TO D-R-C RPM WOB
FROM TO ELAPSED TIME CODE
DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG
MONITOR WELL PRESSURES WHILE WAITING ON ENDLESS TUBING UNIT.
DOING RIG REPAIRS & PREVENTATIVE MAINTENANCE.
CHANGED OIL IN BOTH CAMP LIGHT PLANTS.
FUELED UP LIGHTPLANTS & INCINERATOR.
WASHING MUD OFF DERRICK.
RUNNING MAIN GENERATOR TO OPERATE WATER & HYDRAULIC PUMPS.
run generator for 5 hours today.

D.P. STANDS
D.P. SINGLES

HOLE CONDITION

KELLY DOWN
TOTAL
WT. OF D.C.
WT. OF STRING

DRILLING ASSEMBLY (AT END OF TOUR)
BIT O.D. LENGTH
BIT RECORD
BIT NO.
SIZE
IADC CODE
MANUFACTURER
TYPE
SERIAL NO.
JETS
DEPTH OUT (m)
DEPTH IN (m)
TOTAL DRILLED (m)
TOTAL HRS RUN
CUTTING STRUCTURE
Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN HRS
HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

DAY TOUR
MUD RECORD
MUD TYPE WATER BASED OIL BASED
TIME
DENSITY (kg/m3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH
MUD MATERIALS ADDED
PRODUCT AMOUNT UNIT
SOLIDS CONTROL
CENTRIFUGE
HOURS RUN INTAKE DENSITY OVER FLOW DENSITY UNDER FLOW DENSITY
REDUCED PUMP SPEED
DEVIATION SURVEYS
DEPTH (m) DEVIATION DIRECTION
BOILERS
1 2
HRS RUN 0.00 HRS RUN
BOILER PH BOILER PH
STACK TEMP STACK TEMP
DRILLER SIGNATURE
SPECIAL EVENT
TIME / DEPTH

METRES DRILLED
FROM TO D-R-C RPM WOB
FROM TO ELAPSED TIME CODE
DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

TIME LOG
MONITOR WELL PRESSURES WHILE WAITING ON ENDLESS TUBING UNIT.
DOING RIG REPAIRS & PREVENTATIVE MAINTENANCE.
CHANGED OIL IN BOTH CAMP LIGHT PLANTS.
FUELED UP LIGHTPLANTS & INCINERATOR.
WASHING MUD OFF DERRICK.
RUNNING MAIN GENERATOR TO OPERATE WATER & HYDRAULIC PUMPS.
run generator for 5 hours today.

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003

MONTH
5

DAY
20

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR NAME
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
X YES
NO

RIG SAFETY DAYS
2271

MORNING TOUR
FROM 0 TO 800
INJURIES
CREW SOC INS. NO. NAME HRS YES NO

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS
DRIVERS

DAY TOUR
FROM 800 TO 1600
INJURIES
CREW SOC INS. NO. NAME HRS YES NO

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS
DRIVERS

EVENING TOUR
FROM 1600 TO 2400
INJURIES
CREW SOC INS. NO. NAME HRS YES NO

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS
DRIVERS

LICENCE NO. 1922		WELL NAME & NO. CNRL et al North Liard P-66-B		CONTRACTOR AKITA DRILLING LTD.		UNIQUE ID 303P666040123300		SIGNATURE OF CONTRACTOR'S RIG MANAGER		SIGNATURE OF OPERATOR'S REPRESENTATIVE		DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Staked (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (1.) Rig Site Health & Safety Meeting (weekly/monthly) (2.) CAODC Rig Safety Inspection Checklist (weekly/monthly) (3.) Mast Inspection before Raising or Lowering (4.) Crown Saver Checked (5.) Motor Kils Checked		YEAR 2003 MONTH 5 DAY 21		RIG NO. 58		LAST CASING TUBING OR LINER		O.D. (mm) 244.5 224.0 59.50		M.N. I.D. (mm) 177.8 159.4 38.69		MASS (kg/m3)		MAVE		GRADE		NO. of JOINTS		TOTAL LENGTH		KB TO CSD HEAD		SET AT (m)		SPUD DATE 2003/04/19		TIME 23:00		RIG RELEASE 2003/05/16		TIME 17:00		WELL TYPE		RE-ENTRY		OPERATOR'S AFE		KELLY BSHG		OF FUEL		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		VENDOR SOFTWARE VERSION		CAODC		PASON			
OPERATOR CANADIAN NATURAL RESOURCES LTD.		SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		CONTRACTOR AKITA DRILLING LTD.		UNIQUE ID 303P666040123300		SIGNATURE OF CONTRACTOR'S RIG MANAGER		SIGNATURE OF OPERATOR'S REPRESENTATIVE		DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Staked (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (1.) Rig Site Health & Safety Meeting (weekly/monthly) (2.) CAODC Rig Safety Inspection Checklist (weekly/monthly) (3.) Mast Inspection before Raising or Lowering (4.) Crown Saver Checked (5.) Motor Kils Checked		YEAR 2003 MONTH 5 DAY 21		RIG NO. 58		LAST CASING TUBING OR LINER		O.D. (mm) 244.5 224.0 59.50		M.N. I.D. (mm) 177.8 159.4 38.69		MASS (kg/m3)		MAVE		GRADE		NO. of JOINTS		TOTAL LENGTH		KB TO CSD HEAD		SET AT (m)		SPUD DATE 2003/04/19		TIME 23:00		RIG RELEASE 2003/05/16		TIME 17:00		WELL TYPE		RE-ENTRY		OPERATOR'S AFE		KELLY BSHG		OF FUEL		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		VENDOR SOFTWARE VERSION		CAODC		PASON	
OPERATOR CANADIAN NATURAL RESOURCES LTD.		SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		CONTRACTOR AKITA DRILLING LTD.		UNIQUE ID 303P666040123300		SIGNATURE OF CONTRACTOR'S RIG MANAGER		SIGNATURE OF OPERATOR'S REPRESENTATIVE		DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Staked (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (1.) Rig Site Health & Safety Meeting (weekly/monthly) (2.) CAODC Rig Safety Inspection Checklist (weekly/monthly) (3.) Mast Inspection before Raising or Lowering (4.) Crown Saver Checked (5.) Motor Kils Checked		YEAR 2003 MONTH 5 DAY 21		RIG NO. 58		LAST CASING TUBING OR LINER		O.D. (mm) 244.5 224.0 59.50		M.N. I.D. (mm) 177.8 159.4 38.69		MASS (kg/m3)		MAVE		GRADE		NO. of JOINTS		TOTAL LENGTH		KB TO CSD HEAD		SET AT (m)		SPUD DATE 2003/04/19		TIME 23:00		RIG RELEASE 2003/05/16		TIME 17:00		WELL TYPE		RE-ENTRY		OPERATOR'S AFE		KELLY BSHG		OF FUEL		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		VENDOR SOFTWARE VERSION		CAODC		PASON	
OPERATOR CANADIAN NATURAL RESOURCES LTD.		SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		CONTRACTOR AKITA DRILLING LTD.		UNIQUE ID 303P666040123300		SIGNATURE OF CONTRACTOR'S RIG MANAGER		SIGNATURE OF OPERATOR'S REPRESENTATIVE		DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Staked (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (1.) Rig Site Health & Safety Meeting (weekly/monthly) (2.) CAODC Rig Safety Inspection Checklist (weekly/monthly) (3.) Mast Inspection before Raising or Lowering (4.) Crown Saver Checked (5.) Motor Kils Checked		YEAR 2003 MONTH 5 DAY 21		RIG NO. 58		LAST CASING TUBING OR LINER		O.D. (mm) 244.5 224.0 59.50		M.N. I.D. (mm) 177.8 159.4 38.69		MASS (kg/m3)		MAVE		GRADE		NO. of JOINTS		TOTAL LENGTH		KB TO CSD HEAD		SET AT (m)		SPUD DATE 2003/04/19		TIME 23:00		RIG RELEASE 2003/05/16		TIME 17:00		WELL TYPE		RE-ENTRY		OPERATOR'S AFE		KELLY BSHG		OF FUEL		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		VENDOR SOFTWARE VERSION		CAODC		PASON	
OPERATOR CANADIAN NATURAL RESOURCES LTD.		SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		CONTRACTOR AKITA DRILLING LTD.		UNIQUE ID 303P666040123300		SIGNATURE OF CONTRACTOR'S RIG MANAGER		SIGNATURE OF OPERATOR'S REPRESENTATIVE		DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Staked (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (1.) Rig Site Health & Safety Meeting (weekly/monthly) (2.) CAODC Rig Safety Inspection Checklist (weekly/monthly) (3.) Mast Inspection before Raising or Lowering (4.) Crown Saver Checked (5.) Motor Kils Checked		YEAR 2003 MONTH 5 DAY 21		RIG NO. 58		LAST CASING TUBING OR LINER		O.D. (mm) 244.5 224.0 59.50		M.N. I.D. (mm) 177.8 159.4 38.69		MASS (kg/m3)		MAVE		GRADE		NO. of JOINTS		TOTAL LENGTH		KB TO CSD HEAD		SET AT (m)		SPUD DATE 2003/04/19		TIME 23:00		RIG RELEASE 2003/05/16		TIME 17:00		WELL TYPE		RE-ENTRY		OPERATOR'S AFE		KELLY BSHG		OF FUEL		CONTRACTOR'S JOB NUM		TOUR SHEET SERIAL NUM		VENDOR SOFTWARE VERSION		CAODC		PASON	
OPERATOR CANADIAN NATURAL RESOURCES LTD.		SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W		SIGNATURE OF OPERATOR'S REPRESENTATIVE		CONTRACTOR AKITA DRILLING LTD.		UNIQUE ID 303P666040123300		SIGNATURE OF CONTRACTOR'S RIG MANAGER		SIGNATURE OF OPERATOR'S REPRESENTATIVE		DAILY CHECKS (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List) (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted (5.) Flare Lines Staked (6.) BOP Data Performed (7.) Visually Inspect BOPs: Flare Lines & Degasser Lines (1.) Rig Site Health & Safety Meeting (weekly/monthly) (2.) CAODC Rig Safety Inspection Checklist (weekly/monthly) (3.) Mast Inspection before Raising or Lowering (4.) Crown Saver Checked (5.) Motor Kils Checked		YEAR 2003 MONTH 5 DAY 21		RIG NO. 58		LAST CASING TUBING OR LINER		O.D. (mm) 244.5 224.0 59.50		M.N. I.D. (mm) 177.8 159.4 38.69		MASS (kg/m3)		MAVE		GRADE		NO. of JOINTS		TOTAL LENGTH		KB TO CSD HEAD		SET AT (m)</																													

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Well Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Stick Diagram Posted
(5.) Flow Lines Started
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs- Flow Lines & Degasser Lines

(1.) Rig Site Health & Safety Meeting (once/twice/month)
(2.) CAODC Rig Safety Inspection Checklist (once/twice/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

YEAR
2003

MONTH
5

DAY
22

RIG NO.
58

FUEL @ 08:00 HRS
RIG
BOILER

TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

Q.D.
(mm)
244.5
177.8

MIN ID.
(mm)
224.0
159.4

MASS
(kg/m3)
59.50
38.69

MAKE
Hyll 521

GRADE
L-80

NO. OF JOINTS
44

TOTAL LENGTH
2589.06
615.24

XS TO CSG HEAD
2589.06
6.57

SET AT (m)
3204.30

DC / DP
SIZE
127

MASS
29.08

GRADE
E-2

MINIMUM I.D.
85

T. JNT
O.D.
127

TYPE
THREAD
4.5IF

NO. OF JOINTS
178

PUMP TYPE
F1000

PUMP MANUFACTURER
EMSCO

STROKE
LENGTH
254

DC / DP
SIZE
127

MASS
38.10

GRADE
SS-85

MINIMUM I.D.
89

T. JNT
O.D.
127

TYPE
THREAD
4.5IF

NO. OF JOINTS
74

PUMP TYPE
F1000

PUMP MANUFACTURER
EMSCO

STROKE
LENGTH
254



PASON

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	TOTALS
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CHG	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOSS	RUN CSG & CEMENT	WAIT ON CEMENT	WIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRILL WORK	SAFETY MEETING	Rig in service					
MORN																											12.00
DAY																											12.00
TOTAL																											12.00

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003

MONTH
5

DAY
22

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
☒ YES ☐ NO

RIG SAFETY DAYS
2273

NO.

DRILLING ASSEMBLY
(AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRO

GAGE

ODC

REASON PULLED

TOTAL RUN m/hr

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (m)

TORQUE AT BOTTOM

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

RIG UP ENDLESS TUBING UNIT (SCHLUMBERGER) & TESTERS (WESPRO).
LOAD OUT RENTAL HWDP & CEMENTERS EQUIPMENT.

RAN MAIN GENERATOR FOR 12 HOURS TODAY TO RIG UP ENDLESS TUBING
& HANG THE INJECTOR.

RAN SMALL LIGHTPLANT(SUZU) 12 HOURS @ NIGHT WHILE RIG WATCHING

NOTES : CHECKED FASTLINE CLAMP, DEADLINE ANCHOR, BRAKES & LINKAGE.

MORNING TOUR

FROM 0

TO 1200

INJURIES

CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		GARY PATRICK	12.00		GP
MOTOR HAND		GREG ST.ARNAUD	12.00		GS

NO.

DRILLING ASSEMBLY
(AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRO

GAGE

ODC

REASON PULLED

TOTAL RUN m/hr

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (m)

TORQUE AT BOTTOM

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2

DAY TOUR

FROM 1200

TO 2400

INJURIES

CREW	SOC INS. NO.	NAME	HRS	YES	NO
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RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO. 1922 WELL NAME & NO. CNRL et al North Liard P-66-B

OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR AKITA DRILLING LTD.

SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE 303P666040123300

DAILY CHECKS

(1) Daily Walk Around Inspection
(2) Detailed Inspection - Weekly (Using Check List)
(3) H2S Signs Posted if Required
(4) Well License & Stick Diagram Posted
(5) Flare Lines Staked
(6) BOP Drills Performed
(7) Visually Inspect BOPs - Flare Lines & Degasser Lines

(1) Rig Site Health & Safety Meeting (one/twice/month)
(2) CAODC Rig Safety Inspection Checklist (one/twice/month)
(3) Mast Inspection before Raising or Lowering
(4) Crown Saver Checked
(5) Motor Kils Checked

YEAR 2003 MONTH 5 DAY 23

RIG NO. 58

FUEL @ 08:00 HRS

RIG 62 BOILER

TEMPERATURE CURRENT CONDITIONS 127 29.08 E-2 85 127 4.5IF 178 F1000 EMSCO 254

WIND DIRECTION 127 38.10 SS-95 89 127 4.5IF 55 F1000 EMSCO 254

ROAD CONDITION 127 38.10 SLICK 389 127 4.5IF 74

O.D. (mm) 244.5 224.0 59.50

M.I.D. (mm) 177.8 159.4 38.89

MASS (kg/m3) 59.50

MAKE Hynd 521

GRADE L-80

NO. OF JOINTS 44

TOTAL LENGTH 615.24

KB TO CSG HEAD 6.57

SET AT (m) 3204.30

SHALE SHAKER (S) NO. 2 TYPE DERICK TYPE FLC

RENTALS / SERVICES Accut. MJ = 0

MORNING DAY

SPUD DATE 2003/04/19 TIME 23:00

RIG RELEASE 2003/05/16 TIME 17:00

WELL TYPE RE-ENTRY

OPERATOR'S AFE

KELLY BSHG OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION



PASON

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	TOTALS	SHALE SHAKER (S)		RENTALS / SERVICES		MORNING	DAY	
TIME PERIOD		RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING	SERVICE WELL							NO. 2	TYPE DERRICK	TYPE FLC	Accum. MJ = 0		
	MORN																							12.00					12.00	SCREENS CHANGED	NEW USED	Total MJ= 1,224,348			
	DAY																													TOP	TOP	TOP DRIVE ROTATING Hrs. = 0			
																														MIDDLE	MIDDLE	THIS WELL = 178.0			
	TOTAL																							12.00					12.00	BOTTOM	BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO. CNRL et al North Liard P-66-B YEAR 2003 MONTH 5 DAY 23

OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR AKITA DRILLING LTD.

RIG MANAGER GARY PATRICK RIG NO. 58

PROVINCE N.W.T. CAMP ☒ YES ☐ NO RIG SAFETY DAYS 2274

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	MORNING TOUR	MUD RECORD	METRES DRILLED	TIME LOG
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED ☐ OIL BASED ☐	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
			SIZE	TIME			800 2000 12.00 22
			WDC CODE	DENSITY (kg/m3)			2000
			MANUFACTURER	FUNNEL VISCOSITY			
			TYPE	FLUID LOSS (cm3)			
			SERIAL NO.	pH			
			JETS				
			DEPTH OUT (m)	MUD MATERIALS ADDED	SOLIDS CONTROL	CIRCULATION PRESSURE kPa	
			DEPTH IN (m)	PRODUCT AMOUNT UNIT	CENTRIFUGE	PUMP NO. 1 LINER SIZE SPM	
			TOTAL DRILLED (m)		HOURS RUN INTAKE DENSITY (kg/m3) OVER FLOW DENSITY UNDER FLOW DENSITY	REDUCED PUMP SPEED	
			TOTAL HRS RUN				
			CUTTING STRUCTURE				
			Ti To MDC LOC BRG GAGE DOC REASON PULLED TOTAL RUN m/hr				
			DRILL PIPE STANDS	HOLE CONDITION			
			DRILL PIPE SINGLES	HOLE DRAG			
			KELLY DOWN	TORQUE AT BOTTOM			
			TOTAL				
			WT. OF D.C.	FILL ON BOTTOM (m)			
			WT. OF STRING				

MORNING TOUR FROM 0 TO 1200 INJURIES

CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		GARY PATRICK	12.00		GP
MOTOR HAND		GREG ST ARNAUD	12.00		GS

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	DAY TOUR	MUD RECORD	METRES DRILLED	TIME LOG
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED ☐ OIL BASED ☐	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
			SIZE	TIME			
			WDC CODE	DENSITY (kg/m3)			
			MANUFACTURER	FUNNEL VISCOSITY			
			TYPE	FLUID LOSS (cm3)			
			SERIAL NO.	pH			
			JETS				
			DEPTH OUT (m)	MUD MATERIALS ADDED	SOLIDS CONTROL	CIRCULATION PRESSURE kPa	
			DEPTH IN (m)	PRODUCT AMOUNT UNIT	CENTRIFUGE	PUMP NO. 1 LINER SIZE SPM	
			TOTAL DRILLED (m)		HOURS RUN INTAKE DENSITY (kg/m3) OVER FLOW DENSITY UNDER FLOW DENSITY	REDUCED PUMP SPEED	
			TOTAL HRS RUN				
			CUTTING STRUCTURE				
			Ti To MDC LOC BRG GAGE DOC REASON PULLED TOTAL RUN m/hr				
			DRILL PIPE STANDS	HOLE CONDITION			
			DRILL PIPE SINGLES	HOLE DRAG			
			KELLY DOWN	TORQUE AT BOTTOM			
			TOTAL				
			WT. OF D.C.	FILL ON BOTTOM (m)			

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

3

DAY TOUR FROM 1200 TO 2400 INJURIES

CREW	SOC INS. NO.	NAME	HRS	YES	NO
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RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO. 1922 WELL NAME & NO. CNRL et al North Liard P-66-B

OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR AKITA DRILLING LTD.

SURFACE LOCATION 60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE 303P666040123300

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAILY CHECKS

(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) HGS Signs Posted if Required
(4.) Well Licence & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Daily Performance
(7.) Visually Inspect BOPs, Flare Lines & Degasser Lines

(1.) Rig Site Health & Safety Meeting (one/week/month)
(2.) CADCDC Rig Safety Inspection Checklist (one/week/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

YEAR 2003 MONTH 5 DAY 24

RIG NO. 58

FUEL @ 08:00 HRS

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

O.D. (mm) 244.5 177.8

M.V.D. (mm) 224.0 159.4

MASS (kg/m3) 59.50 38.89

MAKE Hyatt 521

GRADE L-80

NO. OF JOINTS 44

TOTAL LENGTH 2589.06

KB TO CSG HEAD 6.57

SET AT (m) 3204.30

SHALE SHAKER (S)

RENTALS / SERVICES

MORNING

DAY

SPUD DATE 2003/04/19 TIME 23:00

RIG RELEASE 2003/05/16 TIME 17:00

WELL TYPE

RE-ENTRY

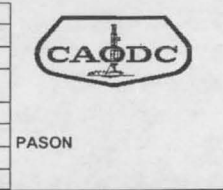
OPERATOR'S AFE

KELLY BONG

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION



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	TOTALS
GROUP & TEARDOWN																											
DRILL ACTUAL																											
REAMING																											
CORING																											
COND MUD & CHC																											
TRIPS																											
RIG SERVICE																											
REPAIR RIG																											
CUT OFF DRILL LINE																											
DEV. SURVEY																											
WIRELINE LOGS																											
RUN CSG & CEMENT																											
WAIT ON CEMENT																											
NIPPLE UP B.O.P.																											
TEST B.O.P.																											
DRILLSTEM TEST																											
PLUG BACK																											
SQUEEZE CEMENT																											
FISHING																											
DR. WORK																											
SAFETY MEETING																											
RIG WATCH																											
TOTALS																											

DRILLING CREW PAYROLL DATA

WELL NAME & NO. CNRL et al North Liard P-66-B

YEAR 2003 MONTH 5 DAY 24

OPERATOR CANADIAN NATURAL RESOURCES LTD. CONTRACTOR AKITA DRILLING LTD.

RIG MANAGER GARY PATRICK RIG NO. 58

PROVINCE N.W.T. CAMP X YES NO RIG SAFETY DAYS 2275

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800 2000 12.00 22 RIG WATCH.

CLEANING DRILLING MUD OFF DERRICK.

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m) DEVIATION DIRECTION

NOTES:

DRILLER SIGNATURE GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEAL

MACP

CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		GARY PATRICK	12.00		GP
MOTOR HAND		GREG ST. ARNAUD	12.00		GS

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m) DEVIATION DIRECTION

NOTES:

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEAL

MACP

CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		GARY PATRICK	12.00		GP
MOTOR HAND		GREG ST. ARNAUD	12.00		GS

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) HSES Signs Posted if Required
(4.) Well Licence & Stock Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (one/week/month)
(2.) CADC Rig Safety Inspection Checklist (one/night/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kite Checked

QPR
R.M.
RIG NO.
FUEL @ 08:00 HRS
RIG NO.
BOILER
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

YEAR
2003
MONTH
5
DAY
27

LAST CASING TUBING OR LINER
O.D.
244.5
I.D.
224.0
MASS
59.50
MAKE
Hytel 521
GRADE
L-80
NO. OF JOINTS
44
TOTAL LENGTH
615.24
KB TO CSG HEAD
6.57
SET AT (ft)
3204.30

MASS
177.8
GRADE
159.4
MINIMUM I.D.
38.69
T. INT. O.D.
127
TYPE
4.5IF
NO. OF JOINTS
178
PUMP TYPE
F1000
PUMP MANUFACTURER
EMSCO
STROKE LENGTH
254

MASS
244.5
GRADE
224.0
MINIMUM I.D.
38.69
T. INT. O.D.
127
TYPE
4.5IF
NO. OF JOINTS
178
PUMP TYPE
F1000
PUMP MANUFACTURER
EMSCO
STROKE LENGTH
254

PASON

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	TOTALS
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CHC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRUG LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P	TEST B.O.P	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING	Rig watch					
MORN																						12.00					12.00
DAY																											
TOTAL																						12.00					12.00

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003
MONTH
5
DAY
27

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
☒ YES
☐ NO

RIG SAFETY DAYS
2278

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (ft)

DEPTH IN (ft)

TOTAL DRILLED (ft)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

To

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN HRS

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TORQUE AT BOTTOM

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (ft)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (g/cm3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (ft)

DEPTH IN (ft)

TOTAL DRILLED (ft)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

To

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN HRS

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TORQUE AT BOTTOM

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (ft)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (g/cm3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

MORNING TOUR

FROM 0

TO 1200

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

GARY PATRICK

12.00

GP

MOTOR HAND

GREG ST.ARNAUD

12.00

GS

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

8

DAY TOUR

FROM 1200

TO 2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

2278

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) HOS Signs Posted if Required
(4.) Well Licence & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Data Performed
(7.) Visually Inspect BOPs - Flare Lines & Degasser Lines
(8.) Rig Site Health & Safety Meeting (one/twice/month)
(9.) CAODC Rig Safety Inspection Checklist (one/twice/month)
(10.) Mast Inspection before Raising or Lowering
(11.) Crown Saver Checked
(12.) Motor Kils Checked

YEAR
2003

MONTH
5

DAY
28

LAST CASING TUBING OR LINER
244.5 224.0 59.50
177.8 159.4 38.69 Hyfil 521

NO. OF JOINTS
44

TOTAL LENGTH
2589.06

NO. TO CSD HEAD
6.57

SET AT (m)
3204.30

TEMPERATURE
CURRENT CONDITIONS
127 29.08 E-2 95 127 4.5IF 178 F1000 EMSCO
WIND DIRECTION
127 38.10 SS-95 89 127 4.5IF 55 F1000 EMSCO
ROAD CONDITION
127 38.10 SLICK E 39 127 4.5IF 74

SHALE SHAKER (S)
NO. TYPE DERRICK TYPE FLC
SCREENS CHANGED NEW USED
TOP TOP
MIDDLE MIDDLE
BOTTOM BOTTOM

RENTALS / SERVICES
Accum. MJ = 0
Total MJ = 1,224,348
TOP DRIVE ROTATING Hrs. = 0
THIS WELL = 178.0

MORNING
DAY

CAODC

PASON

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	TOTALS	SHALE SHAKER (S)			RENTALS / SERVICES		MORNING	DAY	DRILLING CREW PAYROLL DATA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DR. WORK	SAFETY MEETING	Rig watch								NO.	TYPE	TYPE	Accum. MJ = 0			WELL NAME & NO.	YEAR	MONTH	DAY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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DAY																															MIDDLE	MIDDLE	THIS WELL = 178.0			RIG MANAGER			58																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
TOTAL																							12.00								BOTTOM	BOTTOM				PROVINCE		CAMP	X YES	NO	RIG SAFETY DAYS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN IN/HR

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

WT. OF D.C.

WT. OF STRING

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MAOP

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

RIG WATCH

DEGREASE & CLEAN INSIDE SUB.

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

NOTES

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

9

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN IN/HR

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

WT. OF D.C.

WT. OF STRING

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MAOP

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER PH

BOILER PH

STACK TEMP

STACK TEMP

NOTES

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs- Flare Lines & Degusser Lines
(1.) Rig Site Health & Safety Meeting (one/crow/month)
(2.) CAODC Rig Safety Inspection Checklist (one/high/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kilts Checked

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

YEAR 2003 MONTH 5 DAY 30

RIG NO. 58

FUEL @ 08:00 HRS

BOILER

TEMPERATURE 19

CURRENT CONDITIONS partly cloudy

WIND DIRECTION S.E.

ROAD CONDITION ROUGH

DC/DP

DC/DP SIZE

MASS

GRADE

MINIMUM I.D.

T. JNT. O.D.

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

O.D. (mm)

MIN I.D. (mm)

MASS (kg/m3)

MAKE

GRADE

NO. OF JOINTS

TOTAL LENGTH

HB TO CSG HEAD

SET AT (ft)

SPUD DATE 2003/04/19

TIME 23:00

RIG RELEASE 2003/05/16

TIME 17:00

WELL TYPE

RE-ENTRY

OPERATOR'S AFE

KELLY BSHG

OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON

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	TOTALS	SHAKE SHAKER (S)		RENTALS / SERVICES		MORNING	DAY	
TIME H R M S S E C		RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSQ & CEMENT	WAIT ON CEMENT	NIPPLE UP & O.P.	TEST S.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL. WORK	SAFETY MEETING	Rig watch								NO. 2	TYPE DERICK	TYPE FLC	Accum. MJ = 0	
																															SCREENS CHANGED	NEW USED	Total MJ= 1,224,348		
																															TOP	TOP	TOP DRIVE ROTATING Hrs. = 0		
MORN																								12.00					12.00		MIDDLE	MIDDLE	THIS WELL = 178.0		
DAY																																			
TOTAL																								12.00					12.00		BOTTOM	BOTTOM			

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (ft)

DEPTH IN (ft)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN m/hr

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (ft)

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

RIG WATCH

FIX FUEL LEAK ON SUITCASE & FUEL PUMPS.

WASH FLOOR PLATES & UNDERNEATH ON SUB.

PAINT BLOCKS & BRIDLE LINE BECKET.

NOTES:

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (ft)

DEPTH IN (ft)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

ODC

REASON PULLED

TOTAL RUN m/hr

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (ft)

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR 2003 MONTH 5 DAY 30

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP ☒ YES ☐ NO

RIG SAFETY DAYS
2281

MORNING TOUR

FROM 0

TO 1200

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

GARY PATRICK

12.00

GP

MOTOR HAND

GREG ST.ARNAUD

12.00

GS

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

11

DAY TOUR

FROM 1200

TO 2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Stick Diagram Posted
(5.) Flare Lines Stated
(6.) SCOP Data Performed
(7.) Visually Inspected BOPs - Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (one/one month)
(2.) CAODC Rig Safety Inspection Checklist (one/one month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

YEAR
2003

MONTH
5

DAY
31

LAST CASING TUBING OR LINER
244.5
224.0
59.50
177.8
159.4
38.69
Hyril 521
L-80
44
615.24
6.57
3204.30

NO. OF JOINTS
2589.06
615.24
6.57
3204.30

SET AT (m)
2589.06
615.24
6.57
3204.30

TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION
127
29.08
E-2
95
127
4.5IF
178
F1000
EMSCO
254
127
38.10
SS-85
89
127
4.5IF
55
F1000
EMSCO
254
127
38.10
SLICK E-389
127
4.5IF
74

DC / OP SIZE
DC / OP SIZE
MASS
GRADE
MINIMUM I.D.
T. JNT. O.D.
TYPE
THREAD
NO. OF JOINTS
PUMP TYPE
PUMP MANUFACTURER
STROKE LENGTH
127
29.08
E-2
95
127
4.5IF
178
F1000
EMSCO
254
127
38.10
SS-85
89
127
4.5IF
55
F1000
EMSCO
254
127
38.10
SLICK E-389
127
4.5IF
74

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

UNIQUE ID
303P666040123300

SIGNATURE OF CONTRACTOR'S RIG MANAGER

SPUD DATE
2003/04/19

TIME
23:00

RIG RELEASE
2003/05/16

TIME
17:00

WELL TYPE

RE-ENTRY

OPERATOR'S AFE

KELLY BSHG.

OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON

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	TOTALS	SHALE SHAKER (S)		RENTALS / SERVICES		MORNING	DAY		
TIME HRS		RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP S.O.P.	TEST S.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIRL WORK	SAFETY MEETING	Rig wash							NO	TYPE	TYPE	Accum. MJ = 0			
																													2	DEROSK	FLC	Total MJ= 1,224,348				
																														SCREENS CHANGED	NEW USED		TOP	TOP	TOP DRIVE ROTATING Hrs. = 0	
	MORN																							12.00							MIDDLE	MIDDLE	THIS WELL = 178.0			
	DAY																																			
	TOTAL																						12.00						12.00		BOTTOM	BOTTOM				

NO. DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

ADC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

DOC

REASON PULLED

TOTAL RUN m/hr

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800

2000

12.00

22

RIG WATCH.

repair, clean & paint rig.

NOTES:

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO. DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

ADC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1

T2

MDC

LOC

BRG

GAGE

DOC

REASON PULLED

TOTAL RUN m/hr

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

NOTES:

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003

MONTH
5

DAY
31

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
☒ YES ☐ NO

RIG SAFETY DAYS
2282

MORNING TOUR

FROM
0

TO
1200

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

GARY PATRICK

12.00

GP

MOTOR HAND

GREG ST. ARNAUD

12.00

GS

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

12

DAY TOUR

FROM
1200

TO
2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) HCS Signs Posted if Required
(4.) Well License & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs-Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (one/crowmonth)
(2.) CADC Rig Safety Inspection Checklist (one/crowmonth)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

YEAR
2003

MONTH
6

DAY
1

RIG NO.
58

FUEL @ 08:00 HRS

BOILER

TEMPERATURE

DC / DP SIZE

MASS

GRADE

MINIMUM L.D.

T. JNT. O.D.

TYPE THREAD

NO. of JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

LAST CASING TUBING OR LINER

O.D. (mm)

M.N.L.D. (mm)

MASS (kg/m3)

MAKE

GRADE

NO. of JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

O.D. (mm)

M.N.L.D. (mm)

MASS (kg/m3)

MAKE

GRADE

NO. of JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

SPUD DATE
2003/04/19

TIME
23:00

RIG RELEASE
2003/05/16

TIME
17:00

WELL TYPE

RE-ENTRY

OPERATOR'S AFE

KELLY BSHG

OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CADDC

PASON

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	TOTALS
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	Rig watch					
MORN																						12.00					12.00
DAY																											
TOTAL																						12.00					12.00

SHALE SHAKER (S)	RENTALS / SERVICES	MORNING	DAY
NO. 2 TYPE FLC Accum. MJ = 0 SCREENS CHANGED NEW USED TOP MIDDLE BOTTOM	Total MJ = 1,224,348 TOP DRIVE ROTATING Hrs. = 0 THIS WELL = 178.0		

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003

MONTH
6

DAY
1

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
☒ YES ☐ NO

RIG SAFETY DAYS
2283

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	MORNING TOUR	MUD RECORD	METRES DRILLED	TIME LOG
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED ☐ OIL BASED ☐	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
			SIZE	TIME			DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
			ADC CODE	DENSITY (kg/m3)			RIG WATCH
			MANUFACTURER	FUNNEL VISCOSITY			repair ,clean & paint rig.
			TYPE	FLUID LOSS (cm3)			
			SERIAL NO.	pH			
			JETS				
			DEPTH OUT (m)	MUD MATERIALS ADDED	SOLIDS CONTROL	CIRCULATION PRESSURE kPa	
			DEPTH IN (m)	PRODUCT	AMOUNT	UNIT	
			TOTAL DRILLED (m)				
			TOTAL HRS RUN				
			CUTTING STRUCTURE				
			Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN m/hr				
			HOLE CONDITION				
	DRILL PIPE STANDS		HOLE DRAG				
	DRILL PIPE SINGLES		TORQUE AT BOTTOM				
	KELLY DOWN		FILL ON BOTTOM (m)				
	TOTAL						
	WT. OF D.C.						
	WT. OF STRING						

MORNING TOUR	FROM	TO	INJURIES
	0	1200	
CREW	SOC INS. NO.	NAME	HRS YES NO
DRILLER		GARY PATRICK	12.00 GP
MOTOR HAND		GREG ST.ARNAUD	12.00 GS

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH	BIT RECORD	DAY TOUR	MUD RECORD	METRES DRILLED	TIME LOG
	BIT	O.D.	BIT NO.	MUD TYPE	WATER BASED ☐ OIL BASED ☐	FROM TO D-R-C RPM WOB	FROM TO ELAPSED TIME CODE
			SIZE	TIME			DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
			ADC CODE	DENSITY (kg/m3)			
			MANUFACTURER	FUNNEL VISCOSITY			
			TYPE	FLUID LOSS (cm3)			
			SERIAL NO.	pH			
			JETS				
			DEPTH OUT (m)	MUD MATERIALS ADDED	SOLIDS CONTROL	CIRCULATION PRESSURE kPa	
			DEPTH IN (m)	PRODUCT	AMOUNT	UNIT	
			TOTAL DRILLED (m)				
			TOTAL HRS RUN				
			CUTTING STRUCTURE				
			Ti To MDC LOC BRG GAGE OOC REASON PULLED TOTAL RUN m/hr				
			HOLE CONDITION				
	DRILL PIPE STANDS		HOLE DRAG				
	DRILL PIPE SINGLES		TORQUE AT BOTTOM				
	KELLY DOWN		FILL ON BOTTOM (m)				
	TOTAL						
	WT. OF D.C.						

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

13

DAY TOUR

FROM 1200 TO 2400

INJURIES

CREW	SOC INS. NO.	NAME	HRS	YES	NO
------	--------------	------	-----	-----	----

RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS

DRIVERS

DAILY CHECKS	
(1.)	Daily Walk Around Inspection
(2.)	Detailed Inspection - Weekly (Using Check List)
(3.)	H2S Signs Posted If Required
(4.)	Well Licence & Stick Diagram Posted
(5.)	Flare Lines Staked
(6.)	BOF Drills Performed
(7.)	Visually Inspect BOFPs- Flare Lines & Degasser Lines
(1.)	Rg Site Health & Safety Meeting (one/crew/month)
(2.)	CADDIC Rg Safety Inspection Checklist (one/month)
(3.)	Well Inspection before Raising or Lowering
(4.)	Crown Saver Checked
(5.)	Motor Kils Checked

SPUD DATE	2003/04/19	TIME	23:00
RIG RELEASE	2003/05/16	TIME	17:00
WELL TYPE		RE-ENTRY	
OPERATOR'S AFE			
KELLY BSHG		OP FUEL	
CONTRACTOR'S JOB NUM			
TOUR SHEET SERIAL NUM			
VENDOR SOFTWARE VERSION			



DRILLING CREW PAYROLL DATA					
WELL NAME & NO.			YEAR	MONTH	DAY
CNRL et al North Liard P-66-B			2003	6	2
OPERATOR		CONTRACTOR			
CANADIAN NATURAL RESOURCES		AKTA DRILLING LTD.			
RIG MANAGER			RIG NO.		
GARY PATRICK			58		
PROVINCE	CAMP	☒ YES ☐ NO		RIG SAFETY DAYS	
N.W.T.				2284	

[illegible][illegible]

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) HOS Signs Posted if Required
(4.) Well Licence & Stack Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Daily Performed
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (once/month)
(2.) CAODC Rig Safety Inspection Checklist (once/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Vibs Checked

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

YEAR
2003

MONTH
6

DAY
3

LAST CASING TUBING OR LINER
244.5 224.0 59.50 177.8 159.4 38.69 Hydr 521 L-80 44 2589.06 615.24 6.57 3204.30

TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

DC / DP SIZE
127 29.08 E-2 95 127 4.5IF 178 F1000 EMSOO 254

MASS
MINIMUM I.D.
T JNT O.D.
TYPE
NO. OF JOINTS
PUMP TYPE
PUMP MANUFACTURER
STROKE LENGTH

NO. OF JOINTS
TOTAL LENGTH
KB TO CSG HEAD
SET AT (ft)

SPUD DATE
2003/04/19
TIME
23:00

RIG RELEASE
2003/05/16
TIME
17:00

WELL TYPE
RE-ENTRY

OPERATOR'S AFE

KELLY BSHG
OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON

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	TOTALS
RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CMC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NEEDLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DR WORK	SAFETY MEETING	Rig watch						
MORN																						12.00				12.00	
DAY																											
TOTAL																						12.00				12.00	

NO. DRILLING ASSEMBLY (AT END OF TOUR) LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

Q.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (ft)

DEPTH IN (ft)

TOTAL DRILLED (ft)

TOTAL HRS RUN

CUTTING STRUCTURE

T1 T2 MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN MIN

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800 2000 12.00 22

RIG WATCH.

organize rig move with wayne & our office.

clean back of mud tanks. tear out rig for move.

changed out water pumps.

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m) DEVIATION DIRECTION

NOTES:

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO. DRILLING ASSEMBLY (AT END OF TOUR) LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

BIT

O.D.

BIT NO.

SIZE

WDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (ft)

DEPTH IN (ft)

TOTAL DRILLED (ft)

TOTAL HRS RUN

CUTTING STRUCTURE

T1 T2 MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN MIN

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TOTAL

WT. OF D.C.

WT. OF STRING

MUD TYPE

WATER BASED

OIL BASED

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m) DEVIATION DIRECTION

NOTES:

DRILLER SIGNATURE

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003

MONTH
6

DAY
3

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
GARY PATRICK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
X YES NO

RIG SAFETY DAYS
2285

MORNING TOUR

FROM
0

TO
1200

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

GARY PATRICK

12.00

GP

MOTOR HAND

GREG ST.ARNAUD

12.00

GS

RATE SCHEDULE
X REGULAR REPAIR INVERT

CREW SAFETY DAYS

DRIVERS

15

DAY TOUR

FROM
1200

TO
2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

RATE SCHEDULE
X REGULAR REPAIR INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

SIGNATURE OF OPERATOR'S REPRESENTATIVE

CONTRACTOR
AKITA DRILLING LTD.

UNIQUE ID
303P666040123300

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well License & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs: Flare Liner & Degasser Lines
(1.) Rig Site Health & Safety Meeting (one/crew/month)
(2.) CAODC Rig Safety Inspection Checklist (one/crew/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kills Checked

YEAR 2003 MONTH 6 DAY 4

RIG NO. 58

FUEL @ 08:00 HRS

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

O.D. (mm) 244.5

M.V.I.D. (mm) 224.0

MASS (kg/m3) 59.50

GRADE

NO. OF JOINTS

TOTAL LENGTH

KB TO CSG HEAD

SET AT (m)

LAST CASING TUBING OR LINER

177.8

159.4

38.69

Hyll 521

L-80

44

615.24

6.57

3204.30

2589.06

2589.06

3204.30

MASS

GRADE

MINIMUM I.D.

T.JNT. O.D.

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LENGTH

127

29.08

E-2

95

127

4.5IF

178

F1000

EMSCO

254

127

38.10

SS-95

89

127

4.5IF

55

F1000

EMSCO

254

127

38.10

SUCKER

127

4.5IF

74

SPUD DATE

2003/04/19

TIME

23:00

RIG RELEASE

2003/05/16

TIME

17:00

WELL TYPE

OPERATOR'S AFE

RE-ENTRY

KELLY BSHG

OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON

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	TOTALS
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	CONO MUD & CRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	HIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING	Rig watch					
MORN																						12.00					12.00
DAY																											
TOTAL																						12.00					12.00

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800

2000

12.00

22

Rig watch.

Tear out & ready rig for move on Friday.

Pull water pump cords. Blow out & knock off water lines.

finish rigging out mud tanks.

squeegee out water & mud tanks.

start emptying fuel tank. checked air strip & rack site.

put away tools & equipment.

NOTES:

DRILLER SIGNATURE

GARY PATRICK

SPECIAL EVENT

TIME / DEPTH

SAFETY TOPIC

MEHL

MACP

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

1200

DRILLER SIGNATURE

SPECIAL EVENT

SAFETY TOPIC

MEHL

MACP

DRILLING CREW PAYROLL DATA

WELL NAME & NO.

CNRL et al North Liard P-66-B

YEAR

2003

MONTH

6

DAY

4

OPERATOR

CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR

AKITA DRILLING LTD.

RIG NO.

58

RIG MANAGER

GARY PATRICK

PROVINCE

N.W.T.

CAMP

X

YES

NO

RIG SAFETY DAYS

2286

MORNING TOUR

FROM

0

TO

1200

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

DRILLER

GARY PATRICK

12.00

GP

MOTOR HAND

GREG ST.ARNAUD

12.00

GS

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

16

DAY TOUR

FROM

1200

TO

2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well License & Stock Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (once/week/month)
(2.) CAODC Rig Safety Inspection Checklist (once/week/month)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

SURFACE LOCATION
60:35:55.00 S 123:41:25.00 W

UNIQUE ID
303P666040123300

SIGNATURE OF OPERATOR'S REPRESENTATIVE
DAVE LAUCK

SIGNATURE OF CONTRACTOR'S RIG MANAGER

YEAR 2003 MONTH 6 DAY 5

RIG NO. 58

FUEL @ 08:00 HRS

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

O.D. (mm) 244.5

M.V.D. (mm) 224.0

MASS (kg/m3) 59.50

MAKE Hyatt 521

GRADE L-80

NO. OF JOINTS 44

TOTAL LENGTH 2589.06

NO. TO CSG HEAD 6.57

SET AT (m) 3204.30

SPUD DATE 2003/04/19

TIME 23:00

RIG RELEASE 2003/05/16

TIME 17:00

WELL TYPE

RE-ENTRY

OPERATOR'S AFE

KELLY BSHG

OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CAODC

PASON

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	TOTALS
RIGUP & TEARDOWN																											
DRILL ACTUAL																											
REAMING																											
CORING																											
COND MUD & CIRC																											
TRIPS																											
RIG SERVICE																											
REPAIR RIG																											
CUT OFF DRILL LINE																											
DEV. SURVEY																											
WIRELINE LOGS																											
RUN CSG & CEMENT																											
WAIT ON CEMENT																											
NIPPLE UP B.O.P.																											
TEST B.O.P.																											
DRILLSTEM TEST																											
PLUG BACK																											
SQUEEZE CEMENT																											
FISHING																											
DR. WORK																											
SAFETY MEETING																											
MORNING	12.00																										12.00
DAY																											
TOTAL	12.00																										12.00

SHALE SHAKER (S)	RENTALS / SERVICES	MORNING	DAY
NO. TYPE 1 DERRICK	Accum. MJ = 0		
SCREENS CHANGED	Total MJ= 1,224,348		
TOP	TOP DRIVE ROTATING Hrs = 0		
MIDDLE	THIS WELL = 178.0		
BOTTOM			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR 2003 MONTH 6 DAY 5

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
DAVE LAUCK

RIG NO.
58

PROVINCE
N.W.T.

CAMP ☒ YES ☐ NO

RIG SAFETY DAYS
2287

NO. DRILLING ASSEMBLY (AT END OF TOUR) LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

BIT O.D.

BIT NO.

SIZE

MDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1 To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN HRS

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TORQUE AT BOTTOM

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

GARY PATRICK

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800

2000

12.00

1

Prepared derrick to lay over, finished rigging out floor.

Inspected derrick prior to laying it over.

Derrick down @ 14:00 hrs. hang & unspool blocks.

Pull power cords for generator & drawworks.

Knock apart air fuel & hydraulic lines.

Pick up garbage & finish securing equipment for move.

Pumped out fuel tank.

NOTES: Checked fastline clamp, deadline anchor, brakes & linkage.

NO. DRILLING ASSEMBLY (AT END OF TOUR) LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

BIT O.D.

BIT NO.

SIZE

MDC CODE

MANUFACTURER

TYPE

SERIAL NO.

JETS

DEPTH OUT (m)

DEPTH IN (m)

TOTAL DRILLED (m)

TOTAL HRS RUN

CUTTING STRUCTURE

T1 To MDC LOC BRG GAGE ODC REASON PULLED TOTAL RUN HRS

HOLE CONDITION

DRILL PIPE STANDS

DRILL PIPE SINGLES

KELLY DOWN

TORQUE AT BOTTOM

WT. OF D.C.

WT. OF STRING

FILL ON BOTTOM (m)

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m3)

FUNNEL VISCOSITY

FLUID LOSS (cm3)

pH

MUD MATERIALS ADDED

PRODUCT

AMOUNT

UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m3)

OVER FLOW DENSITY

UNDER FLOW DENSITY

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)

DEVIATION

DIRECTION

BOILERS

1

2

HRS RUN

0.00

HRS RUN

BOILER pH

BOILER pH

STACK TEMP

STACK TEMP

DRILLER SIGNATURE

FROM

TO

D-R-C

RPM

WOB

FROM

TO

ELAPSED TIME

CODE

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

1200

NOTES:

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

MORNING TOUR						FROM 0	TO 1200	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO				
DRILLER		GARY PATRICK	12.00		GP				
DRILLER		ALLAN LICKOCH	12.00		AL				
DRILLER		KEVIN VANDENBRAND	12.00		KV				
DERRICK HAND		JERRY FOLEY	12.00		JF				
DERRICK HAND		VIRGIL NANAQUAWETUNG	12.00		VN				
MOTOR HAND		STEVE McLAUGHLIN	12.00		SM				
MOTOR HAND		GREG ST.ARNAUD	12.00		GS				
FLOOR HAND		MOISE PUNCH	12.00		MP				
FLOOR HAND		JEFF SAULTEAUX	12.00		JS				
RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT									
CREW SAFETY DAYS									
17									
DAY TOUR						FROM 1200	TO 2400	INJURIES	
CREW	SOC INS. NO.	NAME	HRS	YES	NO				
DRILLER		ALLAN LICKOCH							
DERRICK HAND		JERRY FOLEY							
MOTOR HAND		VIRGIL NANAQUAWETUNG							
FLOOR HAND		MOISE PUNCH							
FLOOR HAND		JEFF SAULTEAUX							
RATE SCHEDULE ☒ REGULAR ☐ REPAIR ☐ INVERT									
CREW SAFETY DAYS									

LICENCE NO.
1922

WELL NAME & NO.
CNRL et al North Liard P-66-B

DAILY CHECKS
(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) HOS Signs Posted & Required
(4.) Well License & Stick Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspect BOPs: Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (once a week/month)
(2.) CADCDC Rig Safety Inspection Checklist (once a week/month)
(3.) Meet Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kils Checked

YEAR
2003

MONTH
6

DAY
7

LAST CASING TUBING OR LINER
244.5 224.0 59.50
177.8 159.4 38.69

Q.D. (mm)
244.5

M.N. ID. (mm)
224.0

MASS (kg/m3)
59.50

MAKE
Hyll 521

GRADE
L-80

NO. OF JOINTS
44

TOTAL LENGTH
615.24

KB TO CSG HEAD
6.57

SET AT (m)
3204.30

RIG NO.
58

FUEL @ 08:00 HRS
177.8

BOILER

TEMPERATURE
127

DC/OP SIZE
29.08

MASS
E-2

GRADE
95

T. INT. OD
127

TYPE THREAD
4.5IF

NO. OF JOINTS
178

PUMP TYPE
F1000

PUMP MANUFACTURER
EMSCO

STROKE LENGTH
254

CURRENT CONDITIONS
127

WIND DIRECTION
127

ROAD CONDITION
127

SLICK E-39

127

4.5IF

74

F1000

EMSCO

254

SPUD DATE
2003/04/19

TIME
23:00

RIG RELEASE
2003/05/16

TIME
17:00

WELL TYPE

RE-ENTRY

OPERATORS AFE

KELLY BSHG

OP FUEL

CONTRACTOR'S JOB NUM

TOUR SHEET SERIAL NUM

VENDOR SOFTWARE VERSION

CANADIAN NATURAL RESOURCES LTD.

AKITA DRILLING LTD.

303P666040123300

DAVE LAUCK

CONTRACTOR

UNIQUE ID

SIGNATURE OF CONTRACTOR'S RIG MANAGER

CONTRACTOR

UNIQUE ID

SIGNATURE OF CONTRACTOR'S RIG MANAGER

CONTRACTOR

UNIQUE ID

SIGNATURE OF CONTRACTOR'S RIG MANAGER



PASON

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	TOTALS
TIME HRS	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	HIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL WORK	SAFETY MEETING						
MORN	11.75																				0.25						12.00
DAY																											
TOTAL	11.75																				0.25						12.00

SHALE SHAKER (S)	RENTALS / SERVICES	MORNING	DAY
NO. TYPE	TYPE		
2 DERRICK	FLC		
SCREENS CHANGED	NEW USED		
TOP	TOP		
MIDDLE	MIDDLE		
BOTTOM	BOTTOM		

DRILLING CREW PAYROLL DATA

WELL NAME & NO.
CNRL et al North Liard P-66-B

YEAR
2003

MONTH
6

DAY
7

OPERATOR
CANADIAN NATURAL RESOURCES LTD.

CONTRACTOR
AKITA DRILLING LTD.

RIG MANAGER
DAVE LAUCK

RIG NO.
58

PROVINCE
N.W.T.

CAMP
☒ YES ☐ NO

RIG SAFETY DAYS
2289

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

MORNING TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

800 815 0.25 21 SAFETY MTG.

815 2000 11.75 1 LOAD TRUCKS & UNLOAD TRUCKS @ RACK SITE.

2000 TEAR OUT WELLSITE TRAILERS & LOAD OUT SAME.

FLY CREWS BACK TO EDMONTON VIA NORTH CARIBOO.

DRILLER SIGNATURE

GARY PATRICK

TIME / DEPTH

SAFETY TOPIC

MEHL

WACP

CREW	SOC INS. NO.	NAME	HRS	YES	NO
DRILLER		GARY PATRICK	12.00		GP
DRILLER		ALLAN LICKOCH	12.00		AL
DRILLER		KEVIN VANDENBRAND	12.00		KV
DERRICK HAND		JERRY FOLEY	12.00		JF
DERRICK HAND		VIRGIL NANAQUAWETUNG	12.00		VN
MOTOR HAND		STEVE McLAUGHLIN	12.00		SM
MOTOR HAND		GREG ST-ARNAUD	12.00		GS
FLOOR HAND		MOISE PUNCH	12.00		MP
FLOOR HAND		JEFF SAULTEAUX	12.00		JS

NO.

DRILLING ASSEMBLY (AT END OF TOUR)

LENGTH

BIT RECORD

DAY TOUR

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

1200

DRILLER SIGNATURE

SAFETY TOPIC

MEHL

WACP

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS

19

DAY TOUR

FROM 1200

TO 2400

INJURIES

CREW

SOC INS. NO.

NAME

HRS

YES

NO

RATE SCHEDULE

X

REGULAR

REPAIR

INVERT

CREW SAFETY DAYS

DRIVERS