

121131

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

TIME - HRS	CODE NO.																											TOTALS	SHALE SHAKER(S)		RENTALS/SERVICES		MORN	DAY
		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		NO.	TYPE				
	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIDC	TRIPS	RIG SERVICE	REPAIR RIG	OUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	TURN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DRL. WORK	SAFETY MTG.												
	MORN	8																																
	DAY																																	
	EVE																																	
	TOTAL																																	
																													SCREENS CHANGED ☐ YES ☐ NO					
																													TOP	TOP				
																													MIDDLE	MIDDLE				
																													BOTTOM	BOTTOM				

DRILLING ASSEMBLY (At End of Tour)			BIT RECORD										MUD RECORD				METRES DRILLED					TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
NO.	BIT	O.D. mm	LENGTH	BIT NO.					MUD TYPE	☐ WATER BASED		☐ OIL BASED		FROM	TO	DR-D RM-B CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)	FROM	TO	ELAP- TIME	CODE NO.							
				m	SIZE	(mm)				TIME					14 ⁰⁰	20 ⁰⁰			16 ⁰⁰	20 ⁰⁰	25		INSPECT MC + HWDSP.						
				m	IADC CODE				DENSITY															Help Team Camp out tomorrow.					
				m	MFG.					FUNNEL																			
				m	TYPE					W.L. (cm ²)																			
				m	SERIAL NO.					pH																			
				m	JETS	(mm)																							
				m	DEPTH OUT	(m)				MUD MATERIALS ADDED		SOLIDS CONTROL																	
				m	DEPTH IN	(m)				PRODUCT	AMOUNT X UNIT		DESILTER																
				m	TOTAL METRES DRILLED	(m)							HOURS RUN	INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)													
				m	TOTAL HOURS RUN																								
	D.P.	STANDS		m	CUTTING STRUCTURE						CENTRIFUGE																		
	D.P.	SINGLES		m	T ₁	T ₂	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.	HOURS RUN	INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)												
	KELLY DOWN			m	HOLE CONDITION																								
	TOTAL			m	HOLE DRAG																								
WT. OF DC			1200 daN		TORQUE AT BOTTOM								HOURS RUN	INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)			DRILLER SIGNATURE		HRS. RUN		BOILER ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.		
WT. OF STRING			1200 daN		FILL ON BOTTOM (m)														2000 daN		1								

121130

LICENCE NO.: 1886

WELL NAME AND NO.: Northrock #1 W. Fiddlers F-01

OPERATOR: Northrock Resources LTD.

CONTRACTOR: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd. and SAHTU OIL Incorporated

SURFACE LOCATION: F-01#64-50-125-45

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature]

DAILY CHECKS

(1) Daily Walk Around Inspection

(2) Detailed Inspection-Weekly (using checklist)

(3) H/S Signs Posted (if required)

(4) Well License & Stick Diagram Posted

(5) Flare Lines Staked

(6) BOP Drills Performed

(7) Visually Inspect BOP's - Flarelines & Degasser Lines

OPR. Initial

R.M. Initial

(1) Rig Site Health and Safety Meeting (once/week/monthly)

(2) C.A.O.D.C. Rig Safety Inspection Checklist (once/week/monthly)

(3) Mast Inspection Before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kits checked

OPR. Initial

R.M. Initial

YEAR: 2011

MONTH: 05

DAY: 11

LAST CASING TUBING OR LINER: 34.0 313 76.4 LT+L 2405 226 536 LT+L

O.D. (mm): 34.0 313

MIN. I.D. (mm): 76.4 536

kg/m: 2405 226

MAKE: LT+L

GRADE: J-55

NO. OF JOINTS: 34206

TOTAL (m) LENGTH: 5.20

KB. TO CSG HEAD (m): 4.2

SET AT (m): 337

TEMPERATURE: 15.8

DC/DP SIZE (mm): 135

LINEAR MASS (kg/m): 54

MIN. ID (mm): 158

TOOL JT O.D. (mm): 45

TYPE THREAD: 20

NO. OF JOINTS: 81280

PUMP TYPE: National

PUMP MANUFACTURER: 216

CURRENT CONDITIONS: 114NW 62.45

WIND DIRECTION: 69

ROAD: 14DP 2477 6412 92158 45XN 260

W. 158

E. 158

N. 45

S. 45

TIME HRS

CODE NO.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

OPER.

DRILL ACTUAL

REAMING

CORING

COND. MUD & CPG

TRIPS

RIG SERVICE

REPAIR RIG

CUT OFF LINE

DEV SURVEY

WIRE LOGS

RUN CASE & CEMENT

WAIT ON CEMENT

NEEDLE UP B.O.P.

TEST B.O.P.

DRILL STEM TEST

PLUG BACK

SQUEEZE CEMENT

FISHING

DR. WORK

SAFETY MTG.

MORN

DAY

EVE

TOTAL

2.5

3

2.5

2.5

DRILLING ASSEMBLY (At End of Tour)

NO.

BIT

O.D. (mm)

LENGTH

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

WT. OF STRING

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

DRILLING ASSEMBLY (At End of Tour)

NO.

BIT

O.D. (mm)

LENGTH

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

WT. OF STRING

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

DRILLING ASSEMBLY (At End of Tour)

NO.

BIT

O.D. (mm)

LENGTH

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

WT. OF STRING

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

METRES DRILLED

FROM

TO

DRD RMR CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 lbs)

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

FROM

TO

DRD RMR CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 lbs)

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

FROM

TO

DRD RMR CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 lbs)

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

FROM

TO

DRD RMR CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 lbs)

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TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

DRILLER SIGNATURE

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

121129

LICENCE NO. 1886

WELL NAME AND NO. NORTHROCK ETAL W. FALLSOME E-01

OPERATOR: NORTHROCK RESOURCES LTD

CONTRACTOR: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd and SAHTU OIL Incorporated

SURFACE LOCATION: F-01-24-80-125-45

UNIQUE ID:

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S RIG MANAGER

DAILY CHECKS

OPR. R.M.

YEAR MONTH DAY

LAST CASING TUBING OR LINER

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

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

CURRENT CONDITIONS

WIND DIRECTION

ROAD

TIME HOURS

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

DRILLING ASSEMBLY (At End of Tour)

BIT RECORD

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILLING ASSEMBLY (At End of Tour)

BIT RECORD

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILLING ASSEMBLY (At End of Tour)

BIT RECORD

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

121128

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

YEAR	MONTH	DAY	LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)	
RO. NO.				390	313	74.93	LT+C	355	3	43.66	5.20	412	
FUEL @ 8:00				244.5	226	63.6	LT+C	155	17	342	5.15	339	
HQ.	BOILER												
WEATHER	TEMPERATURE °C		OC/OP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JOINT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER		STROKE LTR. (mm)
	CURRENT CONDITIONS		DR158	135		59	158	114XH	20	SP80	NATIONAL		216
	WIND DIRECTION		DR114	62.45		69	158	114XH	57	SP80	NATIONAL		216
	ROAD		DR114	39.77	6+K	82.45	158	114XH	216				

[illegible][illegible][illegible]

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121127

LICENCE NO.: 1886 WELL NAME AND NO.: NORTH ROCK ET AL W. FALLSTONE F-01

OPERATOR: NORTH ROCK RESOURCES LTD CONTRACTOR: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd. and SAHTU OIL Incorporated

SURFACE LOCATION: F-01-GMA50-125-45

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

DAILY CHECKS

(1) Daily Walk Around Inspection

(2) Detailed Inspection Weekly (using checklist)

(3) HFS Signs Posted (if required)

(4) Well License & Stick Diagram Posted

(5) Flare Lines Staked

(6) BOP Drills Performed

(7) Visually Inspect BOP's - Flarelines & Degasser Lines

OPR. R.M.

(1) Rig Site Health and Safety Meeting (one/crew/month)

(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)

(3) Mast Inspection Before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kills checked

YEAR: 2022 MONTH: 03 DAY: 28

RIG NO: 51

FUEL @ 8:00

BOILER

TEMPERATURE °C

CURRENT CONDITIONS

WIND DIRECTION

ROAD

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

340 313 76.43 LT+C J55 3 42.06 5.20 H2

244.5 226 52.6 LT+C J55 27 312 5.00 337

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

60 158 135 58 158 11424 20 8P80 NATIONAL 216

116 114 12.45 69 158 11424 57 8P80 NATIONAL 216

DP 114 29.77 64.6 9245 158 11924 260

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	MORN	DAY	EVE
MORN	OPER	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	CONC. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF LINE	DEV. SURVEY	WIRE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR WORK	SAFETY MTG											
DAY																																	
EVE																																	
TOTAL																																	

DRILLING ASSEMBLY (At End of Tour) LENGTH: 25 m

BIT NO. 4

SIZE (mm) 222

IADC CODE

MFG. MUEBLES

TYPE 6.159

SERIAL NO. 6.3143

JETS (mm) 3x14.3

DEPTH OUT (m) 1400

DEPTH IN (m) 1097

TOTAL METRES DRILLED (m) 313

TOTAL HOURS RUN 414

CUTTING STRUCTURE

D.P. STANDS 1876.90

D.P. SINGLES 2

KELLY DOWN

TOTAL

WT. OF DC 1000 daN

WT. OF STRING 1000 daN

MUD RECORD

MUD TYPE WATER BASED OIL BASED

TIME 3:30

DENSITY kg/m³ 1150

FUNNEL VIS. - (S/L) 77

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT AMOUNT X UNIT

DESILTER

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

DRILLING ASSEMBLY (At End of Tour) LENGTH: 25 m

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P. STANDS

D.P. SINGLES

KELLY DOWN

TOTAL

WT. OF DC 1000 daN

WT. OF STRING 1000 daN

MUD RECORD

MUD TYPE WATER BASED OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT AMOUNT X UNIT

DESILTER

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

DRILLING ASSEMBLY (At End of Tour) LENGTH: 25 m

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P. STANDS

D.P. SINGLES

KELLY DOWN

TOTAL

WT. OF DC 1000 daN

WT. OF STRING 1000 daN

MUD RECORD

MUD TYPE WATER BASED OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

PRODUCT AMOUNT X UNIT

DESILTER

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

METRES DRILLED

FROM TO

1450

TIME LOG

FROM TO ELAP. TIME CODE NO.

0 245 27.6 6

245 345 1 5

345 400 25 7

400 800 4 6

REDUCED PUMP SPEED

DEVIATION SURVEY

DEPTH (m) DEVIATION (°) DIRECTION

NOTES

DRILLER SIGNATURE

HRS. RAN ph STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

FROM TO

1400

TIME LOG

FROM TO ELAP. TIME CODE NO.

0800 0930 1.5 6

0930 1030 1.5 22

1030 1600 5.5 11

REDUCED PUMP SPEED

DEVIATION SURVEY

DEPTH (m) DEVIATION (°) DIRECTION

NOTES

DRILLER SIGNATURE

HRS. RAN ph STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

FROM TO

1400

TIME LOG

FROM TO ELAP. TIME CODE NO.

1600 1945 3.5 11

1945 2300 3.5 23

2300 2400 1 6

REDUCED PUMP SPEED

DEVIATION SURVEY

DEPTH (m) DEVIATION (°) DIRECTION

NOTES

DRILLER SIGNATURE

HRS. RAN ph STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

121126

YEAR	MONTH	DAY	LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)	
80	03	07		RIG NO.	340	313	76.98	LT+C	J55	3	12.06	5.20	112
FUEL @ 8:00				244.5	226	536	LT+C	J55	27	342	6.15	337	
RIG													
BOILER													
WEATHER	TEMPERATURE °C			D.C./P. SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JO.T.O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE L/Hr. (mm)
	CURRENT CONDITIONS		DC 153	135		58	158	114 X H	20	SP80	NATIONAL	216	
	WIND DIRECTION		HW 114	62.45		69	158	114 X H	57	SP80	NATIONAL	216	
	ROAD		DP 124	29.77	LTF	90.5	158	116 X H	20				

[illegible]

121125

DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H/S Sign/ Posted (if required)	Initial	Initial
(4) Well License & Stork Diagram Posted	Initial	Initial
(5) Flame Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually Inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (see/rw/wh/rd)	Initial	Initial
(2) C A D C Rig Safety Inspection Checklist (see/rw/wh/rd)	Initial	Initial
(3) Maximum Depth Before Raising or Lowering	Initial	Initial
(4) Crown Saver Checked	Initial	Initial
(5) Motor Kills checked	Initial	Initial

TIME - HRS	CODE NO.																					22	23	24	25	26	TOTAL	SHALE SHAKER(S)		RENTALS/SERVICES		MORN	DAY	EVE		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21							NO	TYPE	SPD'S	MT				75.58	
MORN	OPER	RUN UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	CONO MUD & DISC	TRIPS	R/O SERVICE	REPAIR R/O	CUT OFF DRILL LINE	DEY SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WASH ON CEMENT	TRIPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PULG BACK	SQUEEZE CEMENT	FISHING	D/R WORK	SAFETY MTB.							8	NO. 2 TYPE B3x	SPD'S 5003	MT 11.5	75.58			
DAY		7.25						.25			.75																	8	SCREENS CHANGED	☐ YES ☐ NO	4 Hrs	180.518				
EVE		6.35				.5		.25			.5																	8	MIDDLE 190	MIDDLE 180						
TOTAL		21				.5		.75			1.75																	24	BOTTOM 190	BOTTOM 180						

METRES DRILLED					TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	D.R.D. R.P.M.	ROTARY R.P.M.	WT ON BIT (1000 lb)	FROM	TO	ELAP. TIME	CODE NO.		
1132	1201	69	50	15	0	15	.25	7	Rin SURVEY C/O LOWER MEPA-12 & REPP	
					15	7 ¹⁵	7	2	DRILL FL 1132 - 1201	
					7 ¹⁵	8 ⁰⁰	.75	.75	TOTAL SURVEY-13	
CIRCULATION PRESSURE (kPa)	PUMP NO. 1	LINER SIZE (mm)	S.P.M.	PUMP NO. 2	LINER SIZE (mm)	S.P.M.				
6500	152	110								
REDUCED PUMP SPEED										
1900	@	53	@							
DEVIATION SURVEY										
DEPTH (m)	DEVIATION (°)	DIRECTION								
1122	1.4	90.4								
1141	1.7	89.7								
1151	1.9	90.4								
1160	2.3	101.6								
					NOTES					
					V.C.H. SAVER, CRANKS + LINKAGES, GRABBER, ACTUATOR, TENSION ROPE SHOCK					
					B2 RUN - 28 S.A.S. PH 1.5 ST. W. 100% CONCENTRATION - 3 = 100% CONCENTRATION					
DRILLER SIGNATURE					BOILER HRS. RAN ph STACK TEMP.		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	M.A.C.P.
<i>[Signature]</i>					8 K.T. 450		60			2483

METRES DRILLED						TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	DR-D- RMB CORE-C	ROTARY R.P.M.	WT ON BIT (1000 lbs)	FROM	TO	ELAP TIME	CODE NO.					
1201	1251	50	95	15	2800	2815	25	7	Rig Set Up, C/O Amulet				
					2815	1530	7.25	2	Drill = 1201-1251				
					1530	1600	.5	10	Total Surveys				
CIRCULATION PRESSURE (kPa)		PUMP NO. 1		PUMP NO. 2									
		LINEAR SIZE (mm)	S.P.M.	LINEAR SIZE (mm)	S.P.M.								
6800		152 110											
REDUCED PUMP SPEED													
1400		@	54	@									
DEVIATION SURVEY													
DEPTH (m)		DEVIATION (°)		DIRECTION									
1188		2.5		103.4									
1193		1.8		108.6									
1208		1.6		108.6									
1236		3.0		109.3		Check for Fire Extinguishers							
NOTES													
✓ Crown Suck, Broken 91 Integs, Drag Line Anchors, Function Control													
✓ 2 Boilers Blows, DMSS + 2nd 2nd down Boilers, 2nd 2nd 2nd													
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.		
2nd 30th					HRS. RAN ph		STACK TEMP.						
					8		105 450				2483		

METRES DRILLED					TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	TD RMT. CORRECTION	ROTARY R.P.M.	WT. ON BIT (1000-lbs)	FROM	TO	ELAP. TIME	CODE NO.				
251	1295	44	90	15	1600	1830	2.5	2	Drill F/1251-1267			
					1730	1805	35	7	Rig Service. O/G HCR			
					1805	1930	75	2	Drill F/1267-1272			
					1930	2000	5	5	CIRC UP SAMPLE			
					2000	2330	35	2	DRILL F/1272-1295			
					2330	2400	5	10	TOTAL SUBMITS			
REDUCED PUMP SPEED												
2000	@	54	@									
DEVIATION SURVEY												
DEPTH (m)	DEVIATION (°)	DIRECTION										
1245	2.5	103.4										
1254	1.3	110.1										
1264	7.1	100.2										
1273	1	105.1										
NOTES					FORMATION RADIO ACTIVE SHALE							
					VERIFIED SAMPLER, BENCH MARK, LING, LOGS, DEADLINE ANCHORS, RIGGING, BENCH CORNS							
					H2 Boiler, Pumps, PH 1055T 450, PH 1055T 450, PH 1055T 450, PH 1055T 450							
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.	
[Signature]					HRS. RAN: 450		60				2399	

Face Stone F-01
Feb 6-12/00

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

YEAR	MONTH	DAY	LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)	
RIG NO.				340	313	76.43	LT+C	555	3	42.06	5.20	112	
FUEL @ 8:00				244.5	226	53.6	LT+C	555	27	342	5.05	337	
RIG	BOILER												
WEATHER	TEMPERATURE °C		D/C/P SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER		STROKE LTH. (mm)
	CURRENT CONDITIONS		DL 154	135		54	154	114 XH	20	8P 80	NATIONAL		216
	WIND DIRECTION		HW 114	62.45		69	154	114 XH	57	8P 80	NATIONAL		216
	ROAD		DP 114	29.77	6+E	92.45	154	114 XH	260				

DRILLING ASSEMBLY (At End of Tour)						BIT RECORD							MUD RECORD								METRES DRILLED					TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS				
NO.	BIT		O.D. mm	LENGTH	BIT NO.								MUD TYPE		☒ WATER BASED		☐ OIL BASED		FROM	TO	GRO. R.M.A. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)	FROM	TO	ELAP. TIME	CODE NO.							
	MOTOR	193	6.17	m	SIZE (mm)	222							TIME							1021	1087	66	30	15	0	15	25	7	R14 SERVICE C/O LOWER PIPELINES ✓ RSPP					
	FIS	165	.77	m	IADC CODE								DENSITY kg/m³								0	10		15	730	7.25	2	DRILL F/1021-1087						
	U.B.U.G.	162	.62	m	MFG.	HUGHES							FUNNEL VIS. - (SL)							CIRCULATION PRESSURE (kPa)	PUMP NO. 1	PUMP NO. 2		730	800	.5	10	SURVEYS						
1	N.H.D.C.	170	9.21	m	TYPE	A8661							W.L. (cm²)							LINER SIZE (mm)	S.P.M.	LINER SIZE (mm)	S.P.M.											
	X/O	171	.62	m	SERIAL NO.	ML64J							pH							6000	152	115												
10	DC	158	90.27	m	JETS (mm)	3x14.3													REDUCED PUMP SPEED															
10	KWDP	114	92.95	m	DEPTH OUT (m)	1087							MUD MATERIALS ADDED		SOLIDS CONTROL							1700	@	55	@									
				m	DEPTH IN (m)	353							PRODUCT		AMOUNT X UNIT		DESILTER							DEVIATION SURVEY										
				m	TOTAL METRES DRILLED (m)	734							SOOAASH		6 SX		HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)						DEPTH (m)	DEVIATION (°)	DIRECTION						
				m	TOTAL HOURS RUN	42.75							GFL		75 SX																			
HL	D.P.	STANDS	873.27	m	CUTTING STRUCTURE							CENTRIFUGE							NOTES															
	D.P.	SINGLES		m	1	2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.	CAUSTIC	2	SX	HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)						1008	2.8	105.1						
				m	3 2 WT A E I							ARS171																						
	KELLY DOWN		13.26	m	HOLE CONDITION													8	1030	1016	1465						1028	1.9	100.2	Dump + CLEAN TANKS mud up @ 1050				
	TOTAL		1087.29	m	HOLE DRAG 1.2-																						1037	2.2	99.	FORMATION SIATER RIVER				
WT.OF DC			20	1000 daN	TORQUE AT BOTTOM 2600																						1047	2.5	93.9	VCROWN SAVER, BOPMAST LINKAGE, DEAD END ARMERS, ELECTRIC REACTOR CHECK				
WT.OF STRING			45	1000 daN	FILL ON BOTTOM (m)																	DRILLER SIGNATURE					BOILER							
																											HRS. RAN ph STACK TEMP. MAXIMUM EXPERIENCED HOOKLOAD SAFETY TOPIC M.A.C.P.							
																						B					8 10.5 1100 GENERAL HOUSE K. COO							

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DAILY CHECKS	OPPL.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HFS Signs Plotted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) SOP Drills Performed	Initial	Initial
(7) Visually Inspect BOFs + Flarelines & Degreaser Lines	Initial	Initial
(8) Pig Site Health and Safety Meeting (once/crow/month)	Initial	Initial
(9) C.A.O.D.C. Pig Safety Inspection Checklist (once/1 month)	Initial	Initial
(10) Meet Inspection Before Raising or Lowering	Initial	Initial
(11) Driven Bore Checked	Initial	Initial
(12) Motor Kills checked	Initial	Initial

YEAR	MONTH	DAY	LAST	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL (m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
80	02	04	CASING	340	313	76.93	LT+C	J55	3	47.66	9.20	4.2
FIG. NO.	51		TUBING	244.5	226	53.6	LT+C	J55	27	342	9.05	337
FUEL @ 8:00			OR									
FIG.	BOILER		LINER									

WEATHER	TEMPERATURE	°C	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT. O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	CURRENT CONDITIONS		DC 126	135		58	154	114XH	20	SP 80	NATIONAL	216
	WIND DIRECTION		H=114	12.45		69	154	114XH	57	SP 80	NATIONAL	216
	ROAD		DP 114	22.77	LINE 91W	157	114XH	260				

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METRES DRILLED					TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	UPD. PER CENT CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 gms)	FROM	TO	ELAP. TIME	CODE NO.		
737	840	103	50	15	0	15	25	7	Rib SCARCE C/O UPPER PIPE RINGS VRSP	
					15	700	6.75	7	DRILL F/737-840	
					700	800	1	10	TOTAL SURVEYS	
CIRCULATION PRESSURE (KPa)		PUMP NO. 1		PUMP NO. 2						
		LINE SIZE (mm)	S.P.M.	LINE SIZE (mm)	S.P.M.					
5900		152	115							
REDUCED PUMP SPEED										
1200		@	55	@						
DEVIATION SURVEY										
DEPTH (m)	DEVIATION (°)	DIRECTION								
733	1.4	59.7								
742	1.4	59.7								
751	1.7	50.5								
761	1.7	51.3								
750	2.2	76.12								
754	2.4	100.4								
799	1.5	113.6								
808	1.9	95.3								
					FORMATION LITTLE BEAR					
					FUNCTION BEARER CHOK					
					NOTES					
					V-CROWN SAVED, REARERS LUBRICANT, DEADLINE ADVISORY, ALL VIL MACH.					
					#2 BONE 2 BRAS PH 10.5 ST 450 BLOWDOWN ROBERTS 242120 LUBRIC					
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	
					HRS. RAN	ph	STACK TEMP.			M.A.C.P.
					8	15	450			2818

METRES DRILLED						TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	D.R.D. R.M.R. CORE-C	ROTARY F.P.M.	WT. ON BIT (1000 gals)	FROM	TO	ELAP. TIME	CODE /NO			
840	936	96	50	15	0800	1815	25	7	Rigs - view LAD Annular		
					0815	1445	15	2	Drill = 1840-936		
					1445	1500	30	22	BoP Drill		
					1500	1600	1	10	Total surveys		
CIRCULATION PRESSURE (kPa)		PUMP NO. 1		PUMP NO. 2							
		LINE SIZE (mm)	S.P.M.	LINE SIZE (mm)	S.P.M.						
6000		152	115	152							
REDUCED PUMP SPEED											
1500		@	55	@							
DEVIATION SURVEY											
DEPTH (m)		DEVIATION (°)		DIRECTION							
840		2.0		118.5							
847		2.0		128.3							
857		1.7		140.5							
		1.2		131							
876		1.9		125.5							
886		1.4		124.1							
895		1.3		123.5							
904		1.2		122.9							
913		1.8		120.1							
DRILLER SIGNATURE						BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	
Jeddy Bank						HRS. RAN ph STACK TEMP.				M.A.C.P.	
						8 125 450				2810	

METRES DRILLED					TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	(R.D. / R.M.F. / CORE-C)	ROTARY R.P.M.	WT. ON BIT (1000 LBS)	FROM	TO	ELAP. TIME	CODE NO.		
936	1021	SS	90	15	1600	1645	75	2	Drill F/936-946	
					1645	1700	35	7	Rig service c/o UPPER PIPE Rm.	
					1700	1945	275	2	Drill F/946-974	
					1945	2000	25	22	B.O.P. DRILL	
					2000	2300	3	8	Drill F/974-1021	
					2300	2400	70		TOTAL SURVEYS	
REDUCED PUMP SPEED										
1700	@	55	@							
DEVIATION SURVEY										
DEPTH (m)		DEVIATION (°)		DIRECTION						
924 / 932		2.8 / 1.6		75.3 / 51.6						
942 / 952		4.5 / 1.9		92.5 / 98.8						
961 / 971		1.6 / 2.0		41.3 / 13.6						
980 / 989		2.4 / 2.8		14.4 / 100.2						
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	
P. R. S.					HRS. RAN 0		STACK TEMP. 1055 450		M.A.C.P. 415	
									2734	

WEATHER	YEAR	MONTH	DAY	LAST	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)	
	RIG NO.	51			CASING	740	313	26.13	LT+C	J-55	3	4206	5.20	42
	FUEL @ 8:00				TUBING	2445	226	59.6	LT+C	J-55	27	342	5.05	332
					OR									
	RIG				LINER									
	BOLLER													
TEMPERATURE °C	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JOI D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH (mm)				
	CURRENT CONDITIONS	158	135		58	158 4x4	20	8-P-80	National	216				
	WIND DIRECTION	HW114	6245		69	158 4x4	57	8-P-80	National	216				
	ROAD	HW114	6245	1.5	69	158 4x4	57	8-P-80	National	216				
		HW114	6245	1.5	69	158 4x4	57	8-P-80	National	216				

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121121

DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection Weekly (using checklist)	Initial	Initial
(3) HPS Sign Posted (if required)	Initial	Initial
(4) Well Licensor & Stick Diagram Posted	Initial	Initial
(5) Flare Line Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flowlines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (once/mo/week)	Initial	Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/6months)	Initial	Initial
(3) Must Inspection Before Raising or Lowering	Initial	Initial
(4) Crown Saver Checked	Initial	Initial
(5) Motor Kills checked	Initial	Initial

YEAR MONTH DAY			LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)	
RIG NO.	FUEL @ 8:00												
RIG			BOILER										
WEATHER	TEMPERATURE		°C	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JOINT D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH (mm)
	CURRENT CONDITIONS			DC 158	135		58	158	4 1/2 x 14	20	8-P-80	National	216
	WIND DIRECTION			HW 114	62.45		69	158	4 1/2 x 14	57	8-P-80	National	216
	ROAD			DP 114	29.77	G+E	9245	158	4 1/2 x 14	360			

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MORNING TOUR

METRES DRILLED						TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS	
FROM	TO	DRI. PM-B. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000-lb)	FROM	TO	ELAP. TIME	CODE NO.			
353					02 ³⁰	02 ³⁰	25 14		Nipple Up B.O.P		
					02 ³⁰	06 ³⁰	4 15		Rig up Pump Truck and Press Test B.O.P		
CIRCULATION PRESSURE (kPa)		PUMP NO. 1		PUMP NO. 2		Blindrams and all stuck and Manifold Valves					
		LINE SIZE (mm)	S.P.M.	LINE SIZE (mm)	S.P.M.	Spin 1400 Low 21000 High kPa 10 min					
		152		152		06 ³⁰	08 ⁰⁰	15 22	Pickup Tools		
REDUCED PUMP SPEED											
		@		@							
DEVIATION SURVEY											
DEPTH (m)		DEVIATION (°)		DIRECTION							
						NOTES					
						Blowdown Boilers 3x each = 120L Fluid					
						1/2 Boiler ran Bhrs PH 10.5 ST 450° for 46140cm					
DRILLER SIGNATURE						BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	
						HRS. RAN	ph	STACK TEMP.			M.A.C.P.
						R 10.5	450°				

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD								MUD RECORD				
NO.	BIT		LENGTH	BIT NO.		3				MUD TYPE		☐ WATER BASED ☐ OIL BASED				
	HUBER		195	SIZE (mm)		222				TIME						
	FIS		.77	IADC CODE						DENSITY kg/m ³						
	WBHO		.62	MFG.		HUGES				FUNNEL VIS. - (SL)						
	1 HMDG		9.21	TYPE		A96 61				W.L. (cm ³)						
	XFO		.62	SERIAL NO.		H-6643				pH						
	10 DC		91.27	JETS (mm)		3x14.3										
	10 HMDG		92.95	DEPTH OUT (m)		102				MUD MATERIALS ADDED		SOLIDS CONTROL				
				DEPTH IN (m)		353				PRODUCT		AMOUNT X UNIT				
				TOTAL METRES DRILLED (m)								DESILTER				
				TOTAL HOURS RUN								HOURS RUN INTAKE DENSITY (kg/m ³) OVERFLOW DENSITY (kg/m ³) UNDERFLOW DENSITY (kg/m ³)				
7	D.P.	STANDS	132.74	CUTTING STRUCTURE								CENTRIFUGE				
	D.P.	SINGLES	3000	T	T _g	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.	HOURS RUN INTAKE DENSITY (kg/m ³) OVERFLOW DENSITY (kg/m ³) UNDERFLOW DENSITY (kg/m ³)			
	KELLYDOWN		13.26	HOLE CONDITION												
	TOTAL		347.39	HOLE DRAG												
WT. OF DC		20	1000 g/m	TORQUE AT BOTTOM								HOURS RUN INTAKE DENSITY (kg/m ³) OVERFLOW DENSITY (kg/m ³) UNDERFLOW DENSITY (kg/m ³)				
WT. OF STRING		37	1000 g/m	FILL ON BOTTOM (m)												

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DRILLING ASSEMBLY (At End of Tour)				BIT RECORD				MUD RECORD						
NO.	BIT	O.D. (mm)	LENGTH	BIT NO.				MUD TYPE	☒ WATER BASED	☐ OIL BASED				
	MATER		.25 m	3				TIME						
	FIS		6.07 m	SIZE (mm)	222			DENSITY kg/m ³						
	WBHO		.77 m	AXO CODE				FUNNEL VIS. - (S/L)						
	1 N.M.O.C.		.62 m	MPG	1426 MES			W.L. (cm ²)						
	XIO		9.21 m	TYPE	A 96 61			pH						
	DC		.62 m	SERIAL NO.	M66 4 J									
10	DD		90.27 m	JETS (mm)	3/8 11.3									
10	WDPP		42.45 m	DEPTH OUT (m)				MUD MATERIALS ADDED	SOLIDS CONTROL					
				DEPTH IN (m)	353			PRODUCT	AMOUNT X UNIT					
				TOTAL METRES DRILLED (m)	117			DESILTER						
				TOTAL HOURS RUN	4.5			HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)				
13	D.P.	STANDS	247.16 m	CUTTING STRUCTURE				CENTRIFUGE						
				T ₁	T ₂	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.		
8	D.P.	SINGLES	9.45 m					26						
KELLYDOWN			13.26 m	HOLE CONDITION							8	10%	1000	1900
TOTAL			430.71 m	HOLE DRAG 7.300										
WT. OF DC		20	1000 g/m	TORQUE AT BOTTOM 2500							HOURS RUN			
WT. OF STRING		30	1000 g/m	FILL ON BOTTOM (m) 2.50							INTAKE DENSITY (kg/m ³)			
											OVERFLOW DENSITY (kg/m ³)			
											UNDERFLOW DENSITY (kg/m ³)			

METRES DRILLED					TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	D.R.D. P.M.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 lbs)	FROM	TO	ELAP. TIME	CODE NO.				
353	470	117	50	10-12	1600	1645	75	24	DRAIN OUT CEMENT, FLOAT + SINK + 1 SURVEY			
					1645	1800	125	15	WACKEE PRESSURE TEST			
					1800	1930	5	2	DRILL F/363-366			
					1930	1945	15	3	RIG SERVICE			
					1945	2100	25	2	Drill F/366-423			
					2100	2145	25	23	B.O.P. Drill			
					2145	2300	15	2	Drill F/423-470			
					2300	2400	1	10	Total Surveys			
CIRCULATION PRESSURE (kPa)					PUMP NO. 1		PUMP NO. 2					
		LINE IN SIZE (mm)	S.P.M.	LINE IN SIZE (mm)	S.P.M.							
5000		152	115	152								
REDUCED PUMP SPEED												
800		@	55	@								
DEVIATION SURVEY												
DEPTH (m)		DEVIATION (°)		DIRECTION								
363		2.2		81.2								
382		2.1		74.9								
395		2.3		77.7								
439		1.9		66.5								
448		1.8		62.9								
NOTES												
Formation Little Bear Functional Remote Choke Accident 40m Drillstring, Drillpipe and 95' Breaker and Linkage Drillstring B.H.S. 3x40 = 1200' Drill # 2 Driller run B.H.S. 11x5 = 1100'												
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.	
HRS. RUN		ph		STACK TEMP.								
11.5		450		475		475		475		2818		

121120

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

YEAR	MONTH	DAY	LAST	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
RIG NO.	51		CASING	340	313	2.43	LT+C	J-55	3	447.66	5.20	42
	FUEL @ 8:00		TUBING	244.5	226	5.6	LT+C	J-55	27	337	5.05	342.00
RIG	BOILER		OR									
			LINER									

W E A T H E R	TEMPERATURE	°C	DC/DP SIZE	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
CURRENT CONDITIONS	22.25	29.6	21	225	7H-90	2	8P-80	Natural	216			
WIND DIRECTION	21.58	135	58	158	1/2x14	3	8P-80	Natural	216			
ROAD	HW 114	62.45	65	158	1/2x14	57						

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			
	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT-OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPLER UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.									MORN	DAY	EVE	
MORN.						4							7										Weld Pools					8	NO TYPE	3000				
DAY					55								225									25						8	SCREENS CHANGED	☐ YES ☐ NO				
EVE													4	2									2					8	TOP	TOP				
TOTAL					95								625	4	2							25		2				24	BOTTOM	BOTTOM				

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD				
NO.	LENGTH		MUD TYPE										☒ WATER BASED		☐ OIL BASED			
BIT	O.D. (mm)		BIT NO.									MUD TYPE						
			SIZE (mm)									TIME	0500	0600				
10 D.C	158	90.27	IADC CODE									DENSITY kg/m ³	11.75	11.65				
10 11.40 D.P	114	92.95	MFG.									FUNNEL VIS. - (S/L)	50	50				
			TYPE									W.L. (cm ³)						
			SERIAL NO.									pH	8.5	8				
			JETS (mm)									PH	18.8	20.0				
			DEPTH OUT (m)									MUD MATERIALS ADDED		SOLIDS CONTROL				
			DEPTH IN (m)									PRODUCT	AMOUNT X UNIT	DESILTER				
			TOTAL METRES DRILLED (m)											HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)	
			TOTAL HOURS RUN															
7	D.P.	STANDS	132.25	CUTTING STRUCTURE				B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE					
	D.P.	SINGLES		T ₁	T ₂	MDC	LOC						HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)		
KELLY DOWN			HOLE CONDITION															
TOTAL			HOLE DRAG															
WT. OF DC			22	TORQUE AT BOTTOM										HOURS RUN				
WT. OF STRING				FILL ON BOTTOM (m)														

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DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD							
NO.	BIT	O.D. mm	LENGTH											MUD TYPE		☐ WATER BASED		☐ OIL BASED			
			m	BIT NO.								TIME									
			m	SIZE (mm)								DENSITY kg/m ³									
			m	IADC CODE								FUNNEL									
			m	MFG.								W.L. (cm ³)									
			m	TYPE								pH									
			m	SERIAL NO.																	
			m	JETS (mm)																	
			m	DEPTH OUT (m)								MUD MATERIALS ADDED		SOLIDS CONTROL							
			m	DEPTH IN (m)								PRODUCT		AMOUNT X UNIT		DESILTER					
			m	TOTAL METRES DRILLED (m)												HOURS RUN		INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)	
			m	TOTAL HOURS RUN																	
	D.P.	STANDS	m	CUTTING STRUCTURE		B		Gage	ODC	Reason Pulled	Total Run m/hr.			CENTRIFUGE							
	D.P.	SINGLES	m	T ₁	T ₂	MDC	LOC							HOURS RUN		INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)			
	KELLY DOWN		m	HOLE CONDITION																	
	TOTAL		m	HOLE DRAG																	
WT. OF DC			1000 gms	TORQUE AT BOTTOM												HOURS RUN		INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)	
WT. OF STRING			1000 gms	FILL ON BOTTOM (m)																	

METRES DRILLED						TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS							
FROM	TO	D.D. RM-R CORE-C	ROTARY R.P.M.	WT ON BIT (1000 daN)	FROM	TO	ELAP TIME	CODE NO							
353					8 ⁰⁰	13 ³⁰	5.5	5	CIRC + WORK CSG. WAIT ON CEMENTERS						
					13 ³⁰	13 ⁴⁵	25	21	SAFETY MEETING						
CIRCULATION PRESSURE (kPa)	PUMP NO. 1	PUMP NO. 2			13 ⁴⁵	16 ⁰⁰	2.25	12	RIG TO + CEMENT + CMT						
	LINER SIZE (mm)	S.P.M.	LINER SIZE (mm)	S.P.M.											
1100	152	45			CMT - Pump Lines w/water Press Test To 14 MPa, Pump 21m³ OR Aftch Sec + 12% BWDW D44 + 5.7% D65 + .5% D13 = 23% D46 w/100% excess, DISPLACE w/13m³ WATER Bump Plug To 3.5 MPa OVER CIRC PRESS Plug On 1600 HRS - 5m³ CMT RETURN										
REDUCED PUMP SPEED															
	@		@												
DEVIATION SURVEY															
DEPTH (m)	DEVIATION (°)	DIRECTION													
DRILLER SIGNATURE															
					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.				
					HRS. RAN	ph	STACK TEMP.								
					8	1.5	450								

DRILLING ASSEMBLY (At End of Tour)						BIT RECORD							MUD RECORD						
NO.			LENGTH									MUD TYPE	☒ WATER BASED	☐ OIL BASED					
	BIT	O.D. (mm)	m	BIT NO.															
			m	SIZE (mm)								TIME							
			m	IADC CODE								DENSITY kg/m ³							
			m	MFG.								FUNNEL VIS. - (S/L)							
			m	TYPE								W.L. (cm ²)							
			m	SERIAL NO.								pH							
			m	JETS (mm)															
			m	DEPTH OUT (m)								MUD MATERIALS ADDED		SOLIDS CONTROL					
			m	DEPTH IN (m)								PRODUCT		AMOUNT X UNIT					
			m	TOTAL METRES DRILLED (m)								<i>Nypora 6 ex</i>		HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLO DENSITY (kg/m ³)		
			m	TOTAL HOURS RUN															
	D.P.	STANDS	m	CUTTING STRUCTURE		T _r	T _a	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr,	<i>Emurillo 3 ex</i>	CENTRIFUGE			
	D.P.	SINGLES	m													HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLO DENSITY (kg/m ³)
	KELLY DOWN		m	HOLE CONDITION															
	TOTAL		m	HOLE DRAG															
WT.OF DC			1000 gms	TORQUE AT BOTTOM											HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLO DENSITY (kg/m ³)	
WT.OF STRING			1000 gms	FILL ON BOTTOM (m)															

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LICENCE NO.:	WELL NAME AND NO.:
OPERATOR:	CONTRACTOR:
SURFACE LOCATION:	UNIQUE ID:
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

YEAR	MONTH	DAY	LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL (m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
RIG NO.												
FUEL @ 8:00												
RIG												
W E A T H E R												
TEMPERATURE												
CURRENT CONDITIONS												
WIND DIRECTION												
ROAD												

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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CPG	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SERVICE	WIRE LINE LOGS	REIN. CASE & CEMENT	WAT. ON CEMENT	TRIPLE UP B.O.P.	TEST. B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MFG.							NO. TYPE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

NO.	DRILLING ASSEMBLY (At End of Tour)	LENGTH	BIT NO.	BIT RECORD	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATION IN SEQUENCE AND REMARKS									
2	BIS	1.22	35	2	WATER BASED	08:00	04:00	06:00	240	307	67	185	5-B	00:30	5.2	Drill F/240-246	
2	D.C.	285	10.60	311	DENSITY	11.40	1105	1135	240	307	67	185	5-B	00:30	5.2	Drill F/240-246	
10	X10	.44	FDSSHC	W.L. (cm)	40	35	40	6400	152	90	152	90	03:00	03:00	25.7	Rig Service ✓ Packer and Linage	
10	X10	.81	FDSSHC	PH	1	9	8.5	6400	152	90	152	90	03:00	03:00	25.7	Drill F/246-274	
10	HWDP	114	92.95	3x 12.7	MUD MATERIALS ADDED	23.8	25.6	26.1	6400	152	90	152	90	03:00	03:00	25.7	Survey @ 261m
5	D.P.	STANDS	95.05	3x 12.7	DESILTER	8	11.00	11.00	6400	152	90	152	90	03:00	03:00	25.7	Drill F/274-284
5	D.P.	SINGLES	95.05	3x 12.7	CENTRIFUGE	8	11.00	11.00	6400	152	90	152	90	03:00	03:00	25.7	Survey @ 284m
5	KELLY DOWN	7.31	3x 12.7	3x 12.7	DESILTER	8	11.00	11.00	6400	152	90	152	90	03:00	03:00	25.7	Drill F/284-303
5	TOTAL	307.00	3x 12.7	3x 12.7	DESILTER	8	11.00	11.00	6400	152	90	152	90	03:00	03:00	25.7	Drill F/303-307
5	WT.OFDC	22	3x 12.7	3x 12.7	DESILTER	8	11.00	11.00	6400	152	90	152	90	03:00	03:00	25.7	Drill F/303-307
5	WT.OF STRING	31	3x 12.7	3x 12.7	DESILTER	8	11.00	11.00	6400	152	90	152	90	03:00	03:00	25.7	Drill F/303-307

NO.	DRILLING ASSEMBLY (At End of Tour)	LENGTH	BIT NO.	BIT RECORD	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATION IN SEQUENCE AND REMARKS									
2	BIS	1.22	35	2	WATER BASED	09:00	12:00	14:00	307	341	34	185	5-B	08:00	12:15	4.15	DRILL F/307-332
2	D.C.	225	14.20	311	DENSITY	11.35	1140	1140	307	341	34	185	5-B	08:00	12:15	4.15	Rig Service
10	X10	.44	FDSSHC	W.L. (cm)	52	60	50	6400	152	90	152	90	03:00	03:00	25.7	Drill F/332-341	
10	X10	.81	FDSSHC	PH	9.5	9.5	9.5	6400	152	90	152	90	03:00	03:00	25.7	WIPER TRIP	
10	DC	158	90.27	3x 12.7	MUD MATERIALS ADDED	22.5	22.5	23.0	6400	152	90	152	90	03:00	03:00	25.7	Drill F/341-350
10	HWDP	114	92.95	3x 12.7	DESILTER	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/350-353
6	D.P.	STANDS	114.17	3x 12.7	CENTRIFUGE	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
6	D.P.	SINGLES	9.01	3x 12.7	CENTRIFUGE	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
6	KELLY DOWN	13.21	3x 12.7	3x 12.7	CENTRIFUGE	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
6	TOTAL	341.64	3x 12.7	3x 12.7	CENTRIFUGE	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
6	WT.OFDC	22	3x 12.7	3x 12.7	CENTRIFUGE	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
6	WT.OF STRING	32	3x 12.7	3x 12.7	CENTRIFUGE	45	5X	1140	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353

NO.	DRILLING ASSEMBLY (At End of Tour)	LENGTH	BIT NO.	BIT RECORD	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATION IN SEQUENCE AND REMARKS									
2	BIS	1.22	35	2	WATER BASED	16:00	17:30	18:00	341	353	12	185	5-B	16:00	17:30	1.5	DRILL F/341-350
2	DC	225	14.20	311	DENSITY	11.45	1145	1145	341	353	12	185	5-B	16:00	17:30	1.5	Rig Service
10	X10	.44	FDSSHC	W.L. (cm)	65	65	65	6400	152	90	152	90	03:00	03:00	25.7	Drill F/350-353	
10	X10	.81	FDSSHC	PH	9.0	9.0	9.0	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353	
10	DC	158	90.27	3x 12.7	MUD MATERIALS ADDED	23.5	23.5	23.5	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
10	HWDP	114	92.95	3x 12.7	DESILTER	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
7	D.P.	STANDS	132.25	3x 12.7	CENTRIFUGE	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
7	D.P.	SINGLES	9.36	3x 12.7	CENTRIFUGE	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
7	KELLY DOWN	6.55	3x 12.7	3x 12.7	CENTRIFUGE	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
7	TOTAL	353	3x 12.7	3x 12.7	CENTRIFUGE	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
7	WT.OFDC	22	3x 12.7	3x 12.7	CENTRIFUGE	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353
7	WT.OF STRING	32	3x 12.7	3x 12.7	CENTRIFUGE	16	16	16	6400	152	90	152	90	03:00	03:00	25.7	Drill F/353-353

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LICENCE NO.:	WELL NAME AND NO.:
OPERATOR:	CONTRACTOR:
SURFACE LOCATION:	UNIQUE ID.:
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S REPRESENTATIVE:

DAILY CHECKS	OPR.	R.M.
(1) Daily Wash Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) HHS Signage Posted (if required)	Initial	Initial
(4) Well License & Stock Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's - Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (once/week/month)		Initial
(2) C.A.D.D.C. Rig Safety/Inspection Checklist (once/week/month)		Initial
(3) Mast Inspection Before Hoisting or Lowering		Initial
(4) Green Signal Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY	LAST	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
RIG NO.	51		CASING	340	313	76.43	LT.C	J-55	3	42.06		42.06
FUEL @ 8:00			TUBING OR									
RIG	BOILER		LINER									
WEATHER	TEMPERATURE °C		OD/ID SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JOINT D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	CURRENT CONDITIONS		Ø 225	286		74	225	7/16-20	2	8-P-80	Natural	216
	WIND DIRECTION		Ø 158	135		58	158	1/2"x11	20	8-P-80	Natural	216
	ROAD		Hwy 111	62.45		69	158	1/2"x11	57			

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
	OPERL	RHS UP & TEAR DOWN	DRIILL ACTUAL	REAMING	CORINO	CORIO MUD & GRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRIILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE A CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRIILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	GPR WORK	SAFETY MTG.					
	MORN		3.5				.25				.25												w.o. SHAKER Shut Shab Drill bit 2 OF .5				
	DAY		6.75				.25				1												.75				
	EVE		4.25				1.35	.25			.75																
	TOTAL		15				.5	1.75	.25		2												2.75 .5 .75				
		T O T A L																									
		SHALE SHAKE(S)																									
		RENALS/SERVICES																									
		NO TYPE PEX SCRA MJ 10/16 AMJ 1742-76																									
		SCREENS CHANGED YES NO																									
		TOP TOP																									
		MIDDLE MIDDLE																									
		BOTTOM BOTTOM																									

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD				MUD RECORD					
NO.	BIT	C.D. mm	LENGTH	BIT NO				MUD TYPE	☒ WATER BASED	☐ OIL BASED			
	B/S		35	SIZE (mm)	311			TIME	0800	0100	0600		
2	D.C	225	18.60	IADC CODE				DENSITY kg/m ³	1100	1100	1055		
	X/O		.44	MFQ	Smith			FUNNEL VIS. - (S/L)	43	39	35		
	X/O		.81	TYPE	MFDSSH			W.L. (cm ²)					
4	D.C	158	36.16	SERIAL NO.	LS9150			pH	8	8	9		
				JETS (mm)	3x 12.7			RT ₁₀₀		21.3			
				DEPTH OUT (m)	—			MUD MATERIALS ADDED		SOLIDS CONTROL			
				DEPTH IN (m)	42			PRODUCT	AMOUNT X UNIT	DESILTER			
				TOTAL METRES DRILLED (m)	28			Sawdust	104x	HOURS RUN	INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)
				TOTAL HOURS RUN	3.5			Gel	155x				
	D.P.	STANDS		CUTTING STRUCTURE				CENTRIFUGE					
	D.P.	SINGLES		T ₁	T ₂	MDC	LOC	B	Gage	ODC	Reasons Pulled	Total Pmt m/hr.	
KELLY DOWN				13.26				HOLE CONDITION					
TOTAL				70.84				HOLE DRAG					
WT. OF DC		19	1000 gals	TORQUE AT BOTTOM		1650		HOURS RUN		INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)	
WT. OF STRING		19	1500 gals	FILL ON BOTTOM (m)		2.6							

MORNING TOUR

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM	TO	DRD / RPAR / CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)	FROM	TO	ELAP. TIME	CODE NO.		
42	70	2B	60-100	3-5		0245	25	22	Wait on Shale	
					0245	0315	5	23	Shovel Shale around conductor	
CIRCULATION PRESSURE (kPa)	PUMP NO. 1	PUMP NO. 2			0315	0400	75	24	Drill Out Last	
	LINE SIZE (mm)	S.P.M.	LINE SIZE (mm)	S.P.M.	0400	0545	125	2	Drill F/42-52	
	152		152	55	0545	0600	25	7	Rig Service c/o Lower Kellycock	
REDUCED PUMP SPEED					0600	0700	1	2	Drill F/52-61	
	@		@		0700	0715	25	10	Survey @ 49m	
DEVIATION SURVEY					0715	0800	75	2	Drill F/61-70	
DEPTH (m)	DEVIATION (°)	DIRECTION								
49	3°									
					NOTES					
					✓ Crowsaw, Deadline Anchors, Poles and Linkage					
					#2 Boiler on Bldg PH 10-5 STMSO. Steamdown Boilers 3x = 120L Fluid					
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	
					HRS. RAN ph		STACK TEMP.		M.A.C.P.	
					8 15 450					

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD								MUD RECORD			
NO.	BIT	O.D. (mm)	LENGTH (m)	BIT NO.					MUD TYPE		☒ WATER BASED		☐ OIL BASED		
	BIS		1.35	SIZE (mm)	311				TIME	09:00	12:00	15:00			
2	D.C.	225	18.60	IADC CODE					DENSITY kg/m ³	1125	1130	1140			
	X/O		.90	MFG.	Smith				FUNNEL VIS. - (S/L)	36	38	45			
	X/O		.81	TYPE	MFDSSH				W.L. (cm)						
10	DC	150	98.27	SERIAL NO.	LS 9150				pH	8.5	8.5	9.0			
				JETS (mm)	3 x 12.7				PVT	22.4	21.8	28.1			
				DEPTH OUT (m)	1W				MUD MATERIALS ADDED		SOLIDS CONTROL				
				DEPTH IN (m)	4.2				PRODUCT	AMOUNT X UNIT		DESILTER			
				TOTAL METRES DRILLED (m)	148				GEL	25	SK	HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)
				TOTAL HOURS RUN	10.25				CAUSTIC	1	SK	4	1140	1135	1340
3	D.P.	STANDS	56.00	CUTTING STRUCTURE				Reason Plugged	Total Run m/hr.	CENTRIFUGE					
	D.P.	SINGLES	9.28	T ₁	T ₂	MDC	LOC			B	Gage	ODC	HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)
	KELLY DOWN		13.26	HOLE CONDITION							6	1140	1110	1940	
	TOTAL		110.27	HOLE DRAG					2-5						
WT. OF DC	22		1000 kg	TORQUE AT BOTTOM					2400			HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)
WT. OF STRING	26		1000 kg	FILL ON BOTTOM (m)											

METRES DRILLED						TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	DR-D PM-F CORE-C	ROTARY R.P.M.	WT ON BIT (1000 daN)	FROM	TO	ELAP TIME	CODE NO					
70	190	120	180	10	800	900	1	2	DRILL F/70-89				
					900	915	25	7	RIG SERVICE 410 UPPER HILL TRACK				
					915	930	25	10	SURVEY 419				
					930	1100	15	2	DRILL F/89-115				
					1100	1115	25	10	SURVEY 4107				
REDUCED PUMP SPEED					1115	1245	1.5	2	DRILL F/115-143				
	@		@		1245	1300	25	10	SURVEY @ 136				
DEVIATION SURVEY					1300	1430	1.5	2	DRILL F/143-171				
DEPTH (m)	DEVIATION (°)	DIRECTION			1430	1445	25	10	SURVEY				
79	.75				1445	1600	1.25	2	DRILL F/171-190				
107	.5												
136	.25												
160	.75												
NOTES					LUBRICATED CROWN, BLANKETS & SHIVES								
					✓ PRACTICE KINKAGE, DEADLINE ANCHORS								
					22 BOLTER BARS PH 10" ST 450 BLEND DOWN BOLTERS 24133 120 L FLUID								
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.		
					HRS. RAN	ph.	STACK TEMP.						
					8	105	450						

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD				MUD RECORD						
NO	LENGTH			BIT NO.			MUD TYPE		☒ WATER BASED ☐ OIL BASED					
	BIT	O.D. mm	-35	SIZE	(mm)	3 1/4	3 1/4	TIME	14.00	22.30				
2	B/S	225	18.00	IADC CODE				DENSITY	kg/m ³ 1135	1175				
	X 10		114	MFG	SMITH	SMITH		FUNNEL	40	40				
	X 10		91	TYPE	MFDSH	FDSSH		VIS. - (SA)						
10	DL	158	90.27	SERIAL NO.	LS 9150	LK 3979		WL (cm)						
10	W.D.P	114	92.95	JETS	(mm) 3/16 x 1/8	2 x 1/8		pH	8.5	8.5				
				DEPTH OUT	(m) 217			MUD MATERIALS ADDED	SOLIDS CONTROL					
				DEPTH IN	(m) 42	217		PRODUCT	AMOUNT X UNIT	DESILTER				
	B/A		201.04	TOTAL METRES DRILLED	(m) 175	23		HOURS RUN	INTAKE DENSITY (kgm.)	OVERFLOW DENSITY (kgm.)				
				TOTAL HOURS RUN	13.5	1.5		8	1135	1135 1390				
1	D.P.	STANDS	1887	CUTTING STRUCTURE			B	Gage	ODC	Reason Pulled	Total Run m/hr.			
X	D.P.	SINGLES	9.65	T ₁	T ₂	MDC	LOC							
	KELLYDOWN		6.84	HOLE CONDITION							8	1175	1140	1900
	TOTAL		240.00	HOLE DRAG							2 - 500			
WT. OF DC			22	TORQUE AT BOTTOM							1000			
WT. OF STRING			28	FILL ON BOTTOM (m)							200			

METRES DRILLED					TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS					
FROM	TO	D&D R&P CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 psi)	FROM	TO	ELAP TIME	CODE NO.				
190	240	50	180	8.10	11:00	17:00	1	2	DRILL F/190-199			
			185	3.5	17:00	17:15	.25	10	Rig SERVICE			
					17:15	17:30	.25	10	SURVEY @			
					17:30	18:45	1.15	2	DRILL F/199-208			
41700	152	90	152	90	18:45	19:00	.25	10	SURVEY			
REDUCED PUMP SPEED					19:00	20:00	1	2	DRILL F/208-217			
	@		@		20:00	20:45	.25	3	Circ + Work Pipe			
DEVIATION SURVEY					20:45	22:00	1.15	6	Trip Out Pit			
DEPTH (m)	DEVIATION (°)	DIRECTION			22:00	22:15	.25	5	Circ + Work Pipe			
185	3.1				22:15	23:30	1.15	2	DRILL F/217-236			
205	1°				23:30	23:45	.25	10	Survey @ 223m			
223	15°				23:45	24:00	.25	2	DRILL F/236-240			
					NOTES ✓ Tool Line Analysis, Forks and Linkage Acc'd 140cm #2600, can E-Hrs PH 10.5 SF450° Bldg. Boling 3: 1000 F/100							
DRILLER SIGNATURE					BOILER ph STACK TEMP.		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.	
					8 105 450		9000					



121117

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	TOTAL	SHALE SHAKER(S)		RENTALS/SERVICES		MORN	DAY	EVE	
		OPER.	RIG UP & TEST DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	TRIPPLE UP B.L.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SOULSECE CEMENT	FISHING	DR. WORK	SAFETY MTG.	Well 1	Well 2	Well 3	Well 4		NO.	TYPE	SCREENS CHANGED	YES ☒ NO ☐				TOP
MORN						1							125	2	25								1.25		7.75				8	8	2X	500				
DAY																25													8	8						
EVE													1												1.5	5.5			8	8						
TOTAL						1							225	2	25	25								1.25		9.25	5.5		24	24						

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121116

LICENCE NO.:	WELL NAME AND NO.:
OPERATOR:	CONTRACTOR:
SURFACE LOCATION:	UNIQUE:
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

YEAR	MONTH	DAY	LAST	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
2010	01	28	CASING	340		7.43		J-55	3	42.66		
RIG NO.	51		TUBING OR LINER									
W. TEMP.	°C		DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
CURRENT CONDITIONS	22.25		28	28		74	225	5/8x9	2	8-P-80	Natural	216
WIND DIRECTION	158		135	58	158	1 1/4x4	20	8-P-80	Natural	216		
ROAD	HW 114		62.45	69	114	1 1/4x4	57					

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	SHAPE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING CORING	COND. MUD & GELS	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOSS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.													
MORN.		0.25			4.75																							8	SCREENS CHANGED	YES	NO		
DAY			5.5		1.5	1																						8	TOP	TOP	100		
EVE				1.25		4.75	2.5																					8	MIDDLE	MIDDLE	100		
TOTAL		3.25			10.75	2.5																						24	BOTTOM	BOTTOM	100		

DRILLING ASSEMBLY (At End of Tour)		LENGTH		BIT RECORD		MUD RECORD	
NO.	BIT	O.D. (mm)	LENGTH (m)	BIT NO.	SIZE (mm)	MUD TYPE	TIME
1	BIS	1.22	1.22	1A	311	WATER BASED	09:00
2	DC	225	18.60	2A	311	OIL BASED	12:00
	X10	.81	.81				15:00
	DC	8.62	8.62				18:00
							20:00
							22:00
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							462:00
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DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H/S Signs Posted (if required)	Initial	Initial
(4) Well License & Stick Diagram Posted	Initial	Initial
(5) Flare Lines Staked	Initial	Initial
(6) BOP Drills Performed	Initial	Initial
(7) Visually inspect BOP's • Flarelines & Degasser Lines	Initial	Initial
(1) Rig Site Health and Safety Meeting (one/crew/month)		Initial
(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)		Initial
(3) Mast Inspection Before Raising or Lowering		Initial
(4) Crown Saver Checked		Initial
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY	LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT	
RIG NO.													
FUEL @ 8:00													
RIG	BOILER												
WEATHER	TEMPERATURE	°C	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STR. LTH.	
	CURRENT CONDITIONS		2 22x	286		74	225	1084-90	2	B-P-80	National	21	
	WIND DIRECTION		2 158	135		58	158	14X4	20	B-P-80	National	21	
	ROAD		114	62.45		6980	158	14X4	57				

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD															
NO.	BIT		O.D. mm	LENGTH	BIT RECORD										MUD TYPE		☐ WATER BASED		☐ OIL BASED										
					BIT NO.								TIME																
					SIZE (mm)								DENSITY kg/m ³																
					IADC CODE								FUNNEL VIS. - (S/L)																
					MFG.								W.L. (cm ²)																
					TYPE								pH																
					SERIAL NO.																								
					JETS (mm)																								
					DEPTH OUT (m)								MUD MATERIALS ADDED		SOLIDS CONTROL														
					DEPTH IN (m)								PRODUCT		AMOUNT X UNIT		DESILTER												
					TOTAL METRES DRILLED (m)												HOURS RUN		INTAKE DENSITY (kg/m ³)		OVERFLOW DENSITY (kg/m ³)		UNDERFLOW DENSITY (kg/m ³)						
					TOTAL HOURS RUN																								
	D.P.		STANDS		CUTTING STRUCTURE		T ₁	T ₂	T ₃	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE												
	D.P.		SINGLES														HOURS RUN		INTAKE DENSITY (kg/m ³)		OVERFLOW DENSITY (kg/m ³)		UNDERFLOW DENSITY (kg/m ³)						
	KELLY DOWN				HOLE CONDITION																								
	TOTAL				HOLE DRAG																								
WT. OF DC				1000 daN	TORQUE AT BOTTOM												HOURS RUN							INTAKE DENSITY (kg/m ³)		OVERFLOW DENSITY (kg/m ³)		UNDERFLOW DENSITY (kg/m ³)	
WT. OF STRING				1000 daN	FILL ON BOTTOM (m)																								

METRES DRILLED					TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS				
FROM	TO	D.R.D. R.M.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 gms)	FROM	TO	ELAP. TIME	CODE NO.					
					300	200	8	1	Rings p.				
CIRCULATION PRESSURE (kPa)	PUMP NO. 1		PUMP NO. 2										
	LINER SIZE (mm)	S.P.M.	LINER SIZE (mm)	S.P.M.									
REDUCED PUMP SPEED													
	@		@										
DEVIATION SURVEY													
DEPTH (m)	DEVIATION (°)		DIRECTION										
NOTES													
DRILLER SIGNATURE					Bohrer 8 Hrs.								
					BOILER HRS. RAN ph			MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.	
Solid Rock					8								

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD						
NO.	BIT		O.D. mm	LENGTH	MUD TYPE ☐ WATER BASED ☐ OIL BASED															
				m	BIT NO.								TIME							
				m	SIZE (mm)								DENSITY kg/m ³							
				m	IADC CODE								FUNNEL VIS. - (S/L)							
				m	MFG.								W.L. (cm ³)							
				m	TYPE								pH							
				m	SERIAL NO.															
				m	JETS (mm)															
				m	DEPTH OUT (m)						MUD MATERIALS ADDED		SOLIDS CONTROL							
				m	DEPTH IN (m)						PRODUCT		AMOUNT X UNIT		DESILTER					
				m	TOTAL METRES DRILLED (m)										HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)		
				m	TOTAL HOURS RUN															
	D.P.	STANDS		m	CUTTING STRUCTURE		T ₁	T ₂	T ₃	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE			
	D.P.	SINGLES		m											HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)		
KELLY DOWN				m	HOLE CONDITION															
TOTAL				m	HOLE DRAG															
WT. OF DC			1500 gph		TORQUE AT BOTTOM												HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)
WT. OF STRING			1500 gph		FILL ON BOTTOM (m)															

METRES DRILLED						TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS							
FROM	TO	D.P.D. R.M.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 gms)		FROM	TO	ELAP. TIME	CODE NO.								
						08 ⁰⁰	16 ⁰⁰	8 22		Wet on Water Due to Road COND							
CIRCULATION PRESSURE (kPa)		PUMP NO. 1		PUMP NO. 2													
		LINER SIZE (mm)	S.P.M.	LINER SIZE (mm)	S.P.M.												
REDUCED PUMP SPEED																	
@ @																	
DEVIATION SURVEY																	
DEPTH (m)		DEVIATION (°)		DIRECTION													
						HOLD PRESPOD MTC											
						NOTES											
						8 hrs #2 Boiler PH 10.5 SS 450"											
DRILLER SIGNATURE						BOILER		MAXIMUM EXPERIENCED HOOKLOAD			SAFETY TOPIC			M.A.C.P.			
						HRS. RAN	ph	STACK TEMP.									
						8	10.5	450"									

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD								MUD RECORD					
NO.	BIT	Q.D. mm.	LENGTH	BIT NO.	1		1A		MUD TYPE	☒ WATER BASED	☐ OIL BASED						
	BIS		1.22 m	SIZE (mm)	444.5		311		TIME			24.00					
	DE		9.48 m	IADC CODE					DENSITY kg/m ³			1050					
	X10		.44 m	MFG.	SMITH		RICKO		FUNNEL VIS. - (S/L)			28					
	X10		.81 m	TYPE	SDSCE		HP 1364		W.L. (cm ²)			-					
				SERIAL NO.	XH 5805		RC 1244		pH			9.0					
				JETS (mm)	3x19		3x17.5										
				DEPTH OUT (m)			IN		MUD MATERIALS ADDED		SOLIDS CONTROL						
				DEPTH IN (m)	0		0		PRODUCT	AMOUNT X UNIT	DESILTER						
				TOTAL METRES DRILLED (m)			25				HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)			
				TOTAL HOURS RUN													
	D.P.	STANDS		CUTTING STRUCTURE				B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE				
	D.P.	SINGLES		T ₁	T ₂	MDC	LOC						HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)	
	KELLY DOWN		1226 m	HOLE CONDITION													
	TOTAL		24.56 m	HOLE DRAG													
WT. OF DC			1000 daN	TORQUE AT BOTTOM										HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)
WT. OF STRING			1000 daN	FILL ON BOTTOM (m)													

METRES DRILLED					TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS		
FROM	TO	DR.D. R.M.B. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 lbs)	FROM	TO	ELAP. TIME	CODE NO.			
0	25	25	1100	2	1600	1645	.75	22	WAIT ON WATER DUE TO ROAD COND		
					1645	1700	.25	24	DRILL MOUSE HOLE		
					1700	2015	3.25	23	WAIT ON VAC TRUCK		
					2015	2115	1	24	DRILL RAT HOLE		
					2115	2400	2.75	2	RIG TO SPUD + DRILL 311mm HOLE		
REDUCED PUMP SPEED											
	@		@						STOPPED AT 20.00		
DEVIATION SURVEY											
DEPTH (m)	DEVIATION (°)	DIRECTION									
DRILLER SIGNATURE					NOTES						
					#3 BOILER 8ARS PHASE 1 ST450 PREHEATING BOILERS 2X32 1206 FLUID						
					BOILER HRS. RAN ph STACK TEMP.					MAXIMUM EXPERIENCED HOOKLOAD SAFETY TOPIC	
					5 105 450						

121114

DAILY CHECKS	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial _____	Initial _____
(2) Detailed Inspection-Weekly (using checkcard)	Initial _____	Initial _____
(3) HPS Signs Posted (if required)	Initial _____	Initial _____
(4) Well License & Stick Diagram Posted	Initial _____	Initial _____
(5) Flame Lines Staked	Initial _____	Initial _____
(6) BOP Drills Performed	Initial _____	Initial _____
(7) Visually inspect BOP's - Flowlines & Degasser Lines	Initial _____	Initial _____
(1) Rig Site Health and Safety Meeting (one/week/month)	Initial _____	Initial _____
(2) C A D D C Rig Safety Inspection Checklist (one/1month)	Initial _____	Initial _____
(3) Must inspection Before Raising or Lowering	Initial _____	Initial _____
(4) Crown Saver Checked	Initial _____	Initial _____
(5) Motor Kills checked	Initial _____	Initial _____

[illegible]

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
		RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	HIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIRL WORK	SAFETY MTG.								NO.	TYPE				
	MORN																												8	SCREENS CHANGED	☐ YES ☒ NO				
	DAY																						25	8	7.75				8	TOP	TOP				
	EVE																								8					8	MIDDLE	MIDDLE			
	TOTAL																						25	8	15.75				16	BOTTOM	BOTTOM				

MORNING TOUR

METRES DRILLED						TIME LOG				DETAILS OF OPERATION IN SEQUENCE AND REMARKS	
FROM	TO	D.R.D. R.M.R. CODE-G	ROTARY R.P.M.	WT. ON BIT (1000-lbs)	FROM	TO	ELAP. TIME	CODE NO.			
					2400	2800	8	22	Rig WATCH		
CIRCULATION PRESSURE (kPa)		PUMP NO. 1		PUMP NO. 2		Fire up 2 Boilers Change oil in Comp Genset.					
		LINER SIZE (mm)		S.P.M.							LINER SIZE (mm)
REDUCED PUMP SPEED											
@ @											
DEVIATION SURVEY											
DEPTH (m)		DEVIATION (°)		DIRECTION							
NOTES											
						2 2800 hrs					
DRILLER SIGNATURE						BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC	
2000 Block						HRS. RAN	ph	STACK TEMP.			M.A.C.P.
						8					

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121113

LICENCE NO:	WELL NAME AND NO.:
121113	Blackrock et al E-Vetore E-01
OPERATOR:	CONTRACTOR:
Northwick Resources Ltd	AKITA/SAHTU DRILLING,
SURFACE LOCATION:	UNIQUE ID:
E-01-14-50-125-45	a joint venture of AKITA Drilling Ltd.
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S HIG MANAGER:

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

YEAR	MONTH	DAY	LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
2010	7	25										
RIG NO.	51	FUEL @ 8:00										
RIG	BOILER											
W E A T H E R	TEMPERATURE °C	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)	
	CURRENT CONDITIONS											
	WIND DIRECTION											
	ROAD											

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	MORN	DAY	EVE
	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	PEAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOSS	PLAN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.											
MORN																																	
DAY																																	
EVE																																	
TOTAL																																	

NO.	DRILLING ASSEMBLY (At End of Tour)	LENGTH	BIT RECORD	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
	BIT	O.D. (mm)	BIT NO.	MUD TYPE ☐ WATER BASED ☐ OIL BASED	FROM	TO	
			SIZE (mm)	TIME			
			IADC CODE	DENSITY kg/m ³			
			MFG.	FUNNEL VIS. - (S/L)			
			TYPE	W.L. (cm ³)			
			SERIAL NO.	pH			
			JETS (mm)				
			DEPTH OUT (m)				
			DEPTH IN (m)				
			TOTAL METRES DRILLED (m)				
			TOTAL HOURS RUN				
	D.P.	STANDS	CUTTING STRUCTURE				
	D.P.	SINGLES	MDC LOC B Gage ODC Reason Pulled Total Run m/hr.				
	KELLYDOWN						
	TOTAL						
WT.OFDC			HOLE DRAG				
WT.OFSTRING			TORQUE AT BOTTOM				
			FILL ON BOTTOM (m)				

NO.	DRILLING ASSEMBLY (At End of Tour)	LENGTH	BIT RECORD	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
	BIT	O.D. (mm)	BIT NO.	MUD TYPE ☐ WATER BASED ☐ OIL BASED	FROM	TO	
			SIZE (mm)	TIME			
			IADC CODE	DENSITY kg/m ³			
			MFG.	FUNNEL VIS. - (S/L)			
			TYPE	W.L. (cm ³)			
			SERIAL NO.	pH			
			JETS (mm)				
			DEPTH OUT (m)				
			DEPTH IN (m)				
			TOTAL METRES DRILLED (m)				
			TOTAL HOURS RUN				
	D.P.	STANDS	CUTTING STRUCTURE				
	D.P.	SINGLES	MDC LOC B Gage ODC Reason Pulled Total Run m/hr.				
	KELLYDOWN						
	TOTAL						
WT.OFDC			HOLE DRAG				
WT.OFSTRING			TORQUE AT BOTTOM				
			FILL ON BOTTOM (m)				

NO.	DRILLING ASSEMBLY (At End of Tour)	LENGTH	BIT RECORD	MUD RECORD	METRES DRILLED	TIME LOG	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
	BIT	O.D. (mm)	BIT NO.	MUD TYPE ☐ WATER BASED ☐ OIL BASED	FROM	TO	
			SIZE (mm)	TIME			
			IADC CODE	DENSITY kg/m ³			
			MFG.	FUNNEL VIS. - (S/L)			
			TYPE	W.L. (cm ³)			
			SERIAL NO.	pH			
			JETS (mm)				
			DEPTH OUT (m)				
			DEPTH IN (m)				
			TOTAL METRES DRILLED (m)				
			TOTAL HOURS RUN				
	D.P.	STANDS	CUTTING STRUCTURE				
	D.P.	SINGLES	MDC LOC B Gage ODC Reason Pulled Total Run m/hr.				
	KELLYDOWN						
	TOTAL						
WT.OFDC			HOLE DRAG				
WT.OFSTRING			TORQUE AT BOTTOM				
			FILL ON BOTTOM (m)				

121111

LICENCE NO.: 1874

WELL NAME AND NO.: Northrock et al East Mackay 1-77

OPERATOR: Northrock Resources Ltd.

CONTRACTOR: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd. and SAHTU OIL Incorporated

SURFACE LOCATION: 1-77-64-50-125-30

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature]

SIGNATURE OF CONTRACTOR'S RIG MANAGER: [Signature]

DAILY CHECKS

OPR. R.M.

(1) Daily Walk Around Inspection

(2) Detailed Inspection-Weekly (using checklist)

(3) H/S Signs Posted (if required)

(4) Well License & Stick Diagram Posted

(5) Flare Lines Staked

(6) BOP Drills Performed

(7) Visually inspect BOP's - Flarelines & Degasser Lines

(1) Rig Site Health and Safety Meeting (one/crew/month)

(2) C.A.O.D.C. Rig Safety Inspection Checklist (one/rig/month)

(3) Mast Inspection Before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kill checked

YEAR: 05

MONTH: 1

DAY: 25

RIG NO.: 51

FUEL @ 8:00

BOILER

TEMPERATURE °C

DC/DP SIZE (mm)

LINEAR MASS (kg/m)

GRADE

MIN. ID (mm)

TOOL JT O.D. (mm)

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LTH. (mm)

LAST CASING TUBING OR LINER

O.D. (mm)

MIN. I.D. (mm)

kg/m

MAKE

GRADE

NO. OF JOINTS

TOTAL(m) LENGTH

KB. TO CSG HEAD (m)

SET AT (m)

W.E.A.T.H.E.R.

TEMPERATURE °C

DC/DP SIZE (mm)

LINEAR MASS (kg/m)

GRADE

MIN. ID (mm)

TOOL JT O.D. (mm)

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LTH. (mm)

TIME HOURS

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

OPER.

RIG UP & TEAR DOWN

DRILL ACTUAL

REAMING CORING

COND. MUD & CIRC.

TRIPS

RIG SERVICE

REPAIR RIG

CUT OFF DRILL LINE

DEV. SURVEY

WIRE LINE LOGS

RUN CASE & CEMENT

WAIT ON CEMENT

NIPPLE UP B.O.P.

TEST B.O.P.

DRILL STEM TEST

PLUG BACK

SQUEEZE CEMENT

FISHING

DIR. WORK

SAFETY MTG.

DRILLING ASSEMBLY (At End of Tour)

LENGTH

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

1000 daN

WT. OF STRING

1000 daN

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

DRILLING ASSEMBLY (At End of Tour)

LENGTH

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

1000 daN

WT. OF STRING

1000 daN

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

DRILLING ASSEMBLY (At End of Tour)

LENGTH

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

1000 daN

WT. OF STRING

1000 daN

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY kg/m³

FUNNEL VIS. - (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM

TO

DR-D R.M.P. CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 daN)

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

BOILER

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM

TO

DR-D R.M.P. CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 daN)

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

BOILER

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM

TO

DR-D R.M.P. CORE-C

ROTARY R.P.M.

WT. ON BIT (1000 daN)

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

LINEAR SIZE (mm)

S.P.M.

LINEAR SIZE (mm)

S.P.M.

REDUCED PUMP SPEED

@

@

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

BOILER

HRS. RAN

ph

STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

CONTRACTOR: **AKITA/SAHTU DRILLING,**
UNIQUE: **a joint venture of AKITA Drilling Ltd**
and SAHTU OIL Incorporated
SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

OPR.		R.M.
Initial		Initial
Initial		Initial
Initial		Initial
Initial		Initial
Initial		Initial
Initial		Initial
Initial		Initial
Initial		Initial
S)		Initial
y/month)		Initial
		Initial
		Initial
		Initial

YEAR	MONTH	DAY	LAST	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL (m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
RIG NO.	51		CASING	341	316	71.6	Prudential	J-55	3	43.21		93
FUEL @ 8:00			TUBING	244.5	226	53.2	Prudential	J-55	49	616		615
RIG	BOILER		OR LINER									
WEATHER	TEMPERATURE	°C.	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (m)
	CURRENT CONDITIONS		158 DC	135		58	158	4.5 x 14	20	B-P-80	National	210
	WIND DIRECTION		114 HW	62.5		61	158	4.5 x 14	60	B-P-80	National	210
	ROAD		114 DP	24.77	158	62	158	4.5 x 14	20			

TIME - HRS	CODE NO.																											TOTALS	SHALE SHAKER(S)		RENTALS/SERVICES		MONTH	DAY	F
		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		NO.	TYPE					
	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAT. ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.									8	32x	500x		
MORN.							2.25	2.35						4.75				.75													8	SCREENS CHANGED	☒ YES ☐ NO		
DAY		4.5					2.5	2.5						2.5																	8	TOP	TOP		
EVE		8																													8	MIDDLE	MIDDLE		
TOTAL		17.5					4.75	5						5				.75													34	BOTTOM	BOTTOM		

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD								
NO.	BIT	O.D. mm.	LENGTH											MUD TYPE		☐ WATER BASED		☐ OIL BASED				
			m	BIT NO.								TIME										
			m	SIZE (mm)								DENSITY kg/m ³										
			m	IADC CODE								FUNNEL VIS. - (S/L)										
			m	MFG.								W.L. (cm ³)										
			m	TYPE								pH										
			m	SERIAL NO.																		
			m	JETS (mm)																		
			m	DEPTH OUT (m)								MUD MATERIALS ADDED		SOLIDS CONTROL								
			m	DEPTH IN (m)								PRODUCT		AMOUNT X UNIT		DESILTER						
			m	TOTAL METRES DRILLED (m)												HOURS RUN		INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)		
			m	TOTAL HOURS RUN																		
	O.P.	STANDS		CUTTING STRUCTURE		T ₁		T ₂	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE						
	O.P.	SINGLES														HOURS RUN		INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)		
KELLY DOWN				HOLE CONDITION																		
TOTAL				HOLE DRAG																		
WT.OF DC			1000 gN	TORQUE AT BOTTOM												HOURS RUN				INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)
WT.OF STRING			1000 gN	FILL ON BOTTOM (m)																		

METRES DRILLED						TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS			
FROM	TO	D.R.O. F.M.P. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 lbs)	FROM	TO	ELAP. TIME	CODE NO.			
					0	120	1.5	6	Laydown DP 67 singles		
					120	0215	.75	17	Pump Plug #3		
					0215	0300	.75	6	Moist 10 grs		
CIRCULATION PRESSURE (kPa)	PUMP NO. 1		PUMP NO. 2		0300	0315	.25	15	Rig Service		
	LINER SIZE (mm)	S.P.M.	LINER SIZE (mm)	S.P.M.	0315	0800	1.75	13	Wait on Cement		
REDUCED PUMP SPEED											
	@		@								
DEVIATION SURVEY											
DEPTH (m)	DEVIATION (°)		DIRECTION								
					NOTES 1. Crown saver, Dead line anchors, Brakes & Linkages #2 Bailer Blows DH 125 LT MJ 10750 AMJ 173430						
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.
Judd Black					HRS.	RAM	ph	STACK TEMP.			
					8	125	450				

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD				
NO.	BIT		O.D. mm.	LENGTH											MUD TYPE ☐ WATER BASED ☐ OIL BASED			
				m	BIT NO.								TIME					
				m	SIZE (mm)								DENSITY kg/m ³					
				m	IADC CODE								FUNNEL VIS. - (S/L)					
				m	MPG.								W.L. (cm ³)					
				m	TYPE								pH					
				m	SERIAL NO.													
				m	JETS (mm)													
				m	DEPTH OUT (m)								MUD MATERIALS ADDED		SOLIDS CONTROL			
				m	DEPTH IN (m)								PRODUCT		AMOUNT X UNIT			
				m	TOTAL METRES DRILLED (m)										DESILTER			
				m	TOTAL HOURS RUN										HOURS RUN	INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)
	D.P.	STANDS		m	CUTTING STRUCTURE				B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE				
				m	T ₁	T ₂	MDC	LOC						HOURS RUN	INTAKE DENSITY (g/cm ³)	OVERFLOW DENSITY (g/cm ³)	UNDERFLOW DENSITY (g/cm ³)	
	D.P.	SINGLES		m														
	KELLYDOWN			m	HOLE CONDITION													
	TOTAL			m	HOLE DRAG													
WT. OF DC				1000 g/m	TORQUE AT BOTTOM													
WT. OF STRING				1000 g/m	FILL ON BOTTOM (m)													

METRES DRILLED					TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS				
FROM	TO	D.R. R.M. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)	FROM	TO	ELAP. TIME	CODE NO.			
					08 ⁰⁰	08 ¹⁵	25	Y3	W.O.C		
					08 ¹⁵		25	X	Run in Test Plug #3 and Layout all RP		
CIRCULATION PRESSURE (kPa)	PUMP NO. 1		PUMP NO. 2			10 ¹⁵	25		2nd 1st Drilling		
LINER SIZE (mm)	S.P.M.		LINER SIZE (mm)	S.P.M.	10 ¹⁵	11 ⁰⁰	25	T	Big Service 40 H.C.R 1cc		
					11 ⁰⁰	11 ³⁰	25	M	plug #4 = 10 meter PP/scarf		
REDUCED PUMP SPEED					11 ³⁰	14 ⁰⁰	25	I	Test cut R.O.P		
	@		@		14 ⁰⁰	16 ⁰⁰	2	I	Test out Rig		
DEVIATION SURVEY					Tapped Plug #3 @ 58cm.						
DEPTH (m)	DEVIATION (°)	DIRECTION			All Plug Pumped w/ AFC + 1.1% @ 30 + .4% O.I.						
					+ 0.2 To 0.46 + .5% D.G.S						
					NOTES						
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC		M.A.C.P.
					HRS. RUN	ph	STACK TEMP.				

DRILLING ASSEMBLY (At End of Tour)				BIT RECORD										MUD RECORD						
NO.	BIT	O.D. mm	LENGTH	BIT NO.											MUD TYPE	☐ WATER BASED	☐ OIL BASED			
			m	SIZE	(mm)										TIME					
			m	IADC CODE										DENSITY kg/m ³						
			m	MPG.											FUNNEL VIS. - (S/L)					
			m	TYPE											W.L. (cm ³)					
			m	SERIAL NO.											pH					
			m	JETS	(mm)															
			m	DEPTH OUT	(m)										MUD MATERIALS ADDED		SOLIDS CONTROL			
			m	DEPTH IN	(m)										PRODUCT	AMOUNT X UNIT	DESILTER			
			m	TOTAL METRES DRILLED	(m)												HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)
			m	TOTAL HOURS RUN																
	D.P.	STANDS	m	CUTTING STRUCTURE					B	Gage	ODC	Reason Pulled	Total Run m/hr.	CENTRIFUGE						
	D.P.	SINGLES	m	T _r	T _g	MDC	LOC							HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)			
KELLY DOWN			m	HOLE CONDITION																
TOTAL			m	HOLE DRAG																
WT.OF DC			1500 psi	TORQUE AT BOTTOM												HOURS RUN	INTAKE DENSITY (kg/m ³)	OVERFLOW DENSITY (kg/m ³)	UNDERFLOW DENSITY (kg/m ³)	
WT.OF STRING			1000 psi	FILL ON BOTTOM (m)																

METRES DRILLED		TIME LOG		DETAILS OF OPERATION IN SEQUENCE AND REMARKS					
FROM	TO	D.R. R.M.A CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 gms)	FROM	TO	ELAP. TIME	CODE NO.	
					16 ⁰⁰	24 ⁰⁰	8	1	Pier cut Rq last cutting. Check Bore.
CIRCULATION PRESSURE (kPa)	PUMP NO. 1:		PUMP NO. 2						
LINER SIZE (mm)	S.P.M.	LINER SIZE (mm)	S.P.M.						
REDUCED PUMP SPEED									
@		@							
DEVIATION SURVEY									
DEPTH (m)	DEVIATION (°)	DIRECTION							
DRILLER SIGNATURE					BOILER		MAXIMUM EXPERIENCED HOOKLOAD		SAFETY TOPIC
					HRS. RUN	ph	STACK TEMP.		M.A.C.P.
Jada Work					8				

Full Store F.OI
Jan 24-29/60