FOLD HERE →

115351

LICENCE NO.: | WELL NAME AND NO.:

OPERATOR: | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: | UNIQUE ID.:

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

DAILY CHECKS (OPR. / R.M.)

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

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

YEAR | MONTH | DAY

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

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

WEATHER

TEMPERATURE °C
CURRENT CONDITIONS
WIND DIRECTION
ROAD

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP
MIDDLE | MIDDLE
BOTTOM | BOTTOM

RENTALS/SERVICES — MORN. | DAY | EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	20:00	12	

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Lock up Rig, inspect Pipe.

March 5, 1999

NOTES

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	20:00		

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Inspect Pipe

March 6, 1999.

NOTES

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

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

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115410

LICENCE NO.:	WELL NAME AND NO.: SUNCOR Nkta K-77-60-50-122-30
OPERATOR: SUNCOR ENERGY	CONTRACTOR: Akita Drilling LTD
SURFACE LOCATION: K-77-60-50-122-30	UNIQUE ID.: 300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER: To see Jack.

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 19 | MONTH 03 | DAY 04

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

WEATHER

TEMPERATURE °C

CURRENT CONDITIONS

WIND DIRECTION

ROAD

LAST CASING TUBING OR LINER

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

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES — MORN | DAY | EVE

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN

WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Gary Patuck

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08.00	20:00	12	1	Load out Rig To haul To New rocksite For Canadian Forest

NOTES

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN

WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

DAY TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
8:00	20:00	12	1	Load Trucks & unload Trucks at rock site

NOTES

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN

WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

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

NOTES

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

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115409

LICENCE NO.:	WELL NAME AND NO.: Suncor Nethe K-77-60-50-122-30
OPERATOR: Suncor ENERGY	CONTRACTOR: AK-Tech Drilling LTD
SURFACE LOCATION: K-77-60-50-122-30	UNIQUE ID.: 300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

YEAR	MONTH	DAY
77	03	03

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

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

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)		RENTALS/SERVICES	MORN.	DAY	EVE.
NO.	TYPE				
SCREENS CHANGED ☐ YES ☐ NO					
TOP	TOP				
MIDDLE	MIDDLE				
BOTTOM	BOTTOM				

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	1	load out power end of rig and tanks

NOTES Held safety meeting prior to tear out

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

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

DAY TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	1	Unpin derrick, disassemble, load out. Load out matting

NOTES

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

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	20:00	12	1	Disassemble sub, Load out Trucks

NOTES

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

FOLD HERE →

115408

LICENCE NO.: | WELL NAME AND NO.: Sumror Nettle K-77-60-SD-122-30

OPERATOR: Sumror Energy | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: K-77-60-SD-122-30 | UNIQUE ID.: 77 300-K-060-500-122-30

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

DAILY CHECKS — OPR. / R.M.

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

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

YEAR: 99 | MONTH: 03 | DAY: 02

RIG NO.: 58

FUEL @ 8:00

RIG: 38 | BOILER:

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

LAST CASING TUBING OR LINER

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

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

TIME-HRS

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

TOTALS: 8 / 6 / 6 / 24

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP
MIDDLE | MIDDLE
BOTTOM | BOTTOM

RENTALS/SERVICES — MORN. | DAY. | EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

FROM	TO	DRLD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	05:00	5	22	Clean Tanks Tear out Top Drive
05:00			1	Tear out Rig To Move
	08:00	3		Tear out Rentals
				THANKS FOR THE GOOD JOB
				Rig Released To Move
				99.03.02 @ 0800 Hours
				Tim Brand

NOTES: T.D.S.-

BOILER: HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

FROM	TO	DRLD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Sam Patch

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00			1	Bridle up Tear out Floor Pre Fabs.
				Blow & Ant Freeze Drawworks water lines
				Tear out shop Pre Fabs, Pull out Floor Plates
				Ready Derrick To Lay over, Lay over Derrick.
	20:00	12	1	Pull Power cords, Rig out hydraulic lines

NOTES

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

FROM	TO	DRLD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800			1	Clean mud Tanks
				pull power cords to mud Tanks
				Break Steam & water lines
				Tear down Shop.
	20:00	12		load Pipe on Trucks

NOTES

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

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115407

LICENCE NO.:	WELL NAME AND NO.:
	Suncor Netla K-77-60-50-122-30
OPERATOR:	CONTRACTOR:
Suncor Energy	Akita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
K-77-60-50-122-30	300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

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

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

YEAR	MONTH	DAY
94	03	01

RIG NO. 50

FUEL @ 8:00

RIG 1.06 BOILER

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

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	177.8	161.7	34.2	ARCOMA	L80	154	1990.5	6.4	1989

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

TIME-HRS

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

TOTALS

8	SHALE SHAKER(S) NO.	TYPE
8	SCREENS CHANGED ☐ YES ☐ NO	
8	TOP	TOP
8	MIDDLE	MIDDLE
24	BOTTOM	BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE
MT SLC 3117			
MT ACC 32128			
Acc. oil 32			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
4600			152	80

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:00	3	12	Circulate casing in F/1900m - 1989m
03:00	08:00	5	5	Circulate hole clean, Prep to cement

NOTES √Crown Saver, deadline anchor, fastline clamp
T.D.'s .30

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Sulfacell	10 10 SX
Gardol	160 SX

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:45	3/4	5	Circulate, Clean up hole.
08:45	09:00	1/4	21	Safety meeting with Cementers
09:00			12	Rig up Cement head, Cement Casing.
	12:30	3 1/2		Plug down @ 12:00 hrs / Flush out B.O.P.'s
12:30	16:00	3 1/2	32	Ready To Lift Stack. Set Slips.
				Lead Cemented with 43 Tonnes 1:1-2 + .3% DL + .2% D46 + .1% B71. Cement To Surface 8m³
				Tail 12 Tonnes RFC + 1.2% B30 + .4% B71 + .2% D46
				Estimated Top 1800m

NOTES √Crown Saver, Fastline Clamp Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230		Cementing	

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:30	1/2	27	W/Cut casing
16:30	21:00	4 1/2	14	Nipple Down B.O.P.'s
21:00	23:00	2	24	Install well head
23:00	24:00	1	25	Rig out Top drive

NOTES √Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240			

FOLD HERE →

115352

LICENCE NO.: | WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: | UNIQUE ID.:

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

DAILY CHECKS

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

YEAR 19 | MONTH 02 | DAY 28

RIG NO. 58

FUEL @ 8:00

RIG | BOILER

LAST CASING TUBING OR LINER

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

WEATHER

TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS/SERVICES

	MORN.	DAY	EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Crew Flyte Delayed Due To Fog at Edm Int. Crew at Airport Fog 7 AM Take off Finally Took off at 3:00 PM

NOTES

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

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

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115406

LICENCE NO.:	WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30
OPERATOR: Suncor Energy	CONTRACTOR: AKita Drilling LTD
SURFACE LOCATION: K-77-60-50-122-30	UNIQUE ID.: 300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

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

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

YEAR 09 | MONTH 02 | DAY 28 | RIG NO. 58

FUEL @ 8:00 — RIG 1,34 | BOILER

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

LAST CASING TUBING OR LINER

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

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

TIME-HRS

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

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES
4	NO. 2 TYPE Derrick	MT SLC 28581
4	SCREENS CHANGED ☐ YES ☐ NO	MT ACC 31892
8	TOP / TOP	
8	MIDDLE / MIDDLE	
24	BOTTOM / BOTTOM	Acc. oil 32

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED @ / @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:45	3 3/4	22	Laydown D.P. (161 sgls) V/Flow
03:45	04:00	1/4	7	R/S Func. Top pipe 85sec
04:00	04:30	1/2	6	R.I.H 12 STDS
04:30	08:00		22	laydown 36 sgls D.P, 9 sgls H.W, 15 D.C

NOTES: V/Crown Saver, deadline anchor, fastline clamp
T.D.S. - .30

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230		laydown D.P.	

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

DAY TOUR

METRES DRILLED

FROM	TO	DRLD RM.R CORE C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1990	T.D.			

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

REDUCED PUMP SPEED @ / @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:00	1	12	Rig to Run Casing
09:00	10:45	1 3/4	23	Wait on Tong Truck
10:45	11:00	1/4	7	R/S Function Blind Rams 75sec/sk
11:00	11:45	3/4	12	Rig up Power Tongs.
11:45	12:00	1/4	21	Safety meeting.
12:00	16:00	4	12	Make up Shoe & Float, Run Casing

NOTES: V/Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240		Running casing	

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED @ / @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:30	1 1/2	12	Run Casing.
17:30	18:30	1	5	Break Circ Work & circulate casing.
18:30	19:15	3/4	12	Continue Running Casing
19:15	20:45	1 1/2	5	Break Circ. 1745
20:45	21:15	1/2	12	Run casing TO 1840
21:15	23:00	1 3/4	5	Rig up circ Tool & circ work tight hole
23:00	24:00	1	12	Circulate casing in to 1900m

NOTES: V/Crown Saver, deadline anchor, fastline clamp
T.D.S. - .30

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

FOLD HERE →

115405

LICENCE NO.: | WELL NAME AND NO.: Suncor Notla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: AKita Drilling LTD.

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS

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

YEAR 94 | MONTH 02 | DAY 27

RIG NO. 58

FUEL @ 8:00

RIG 1.58 | BOILER

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

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	236.5	53.6	Prudential	J55	41	537.43	6.45	535

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	154.11	D.C	71	178	5 1/2 REG	21	F-1000	Emsco	356
127	74.35	H.W	76	165	5 1/2 XH	9			
127	29.02	E2	108	↓	↓	110	F-1000	Emsco	356
127	38.04	E3	101	↓	↓	142			

TIME-HRS

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

TOTALS

8	SHALE SHAKER(S) NO. 2 TYPE Derrick	FLC
8	SCREENS CHANGED ☐ YES ☑ NO	
8	TOP 210	TOP 84
8	MIDDLE 350	MIDDLE ↓
24	BOTTOM 350	BOTTOM ↓

RENTALS/SERVICES

	MORN	DAY	EVE
MT SLC 1329			
MT ACC. 30340			
on spool 1718m			
ACC. oil 32			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

CUTTING STRUCTURE: T_1 | T_0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

MORNING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
00:00	04:30	4 1/2	11
04:30			11
	08:00	3 1/2	

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Logs to bottom @0130 logger's depth, RMO
Laydown Run #1 Tools, Make up Run #2
DSI, G.R., MCD & R.S.H

NOTES ✓Crown Saver, deadline anchor, fastline clamp
T.D.S. - .40 ✓Chains in draworks

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT 222	O.D. (mm)	LENGTH
			.25 m
1	Bit sub		1.23 m
1	178 DC		9.39 m
1	Jars		4.86 m
2	178 D.C		19.12 m
1	X/O		1.42 m
9	H.W.		82.77 m
			m
	BHA		119.09 m
65	D.P.	STANDS	m
XY	D.P.	SINGLES	1880.10 m
Sticky	KELLY DOWN		8.94 m
	TOTAL		1990.20 m
WT. OF DC			1000 daN
WT. OF STRING	68000		1000 daN

BIT RECORD

BIT NO. 4 Clean Out | SIZE (mm) 222 | IADC CODE 437 | MFG. Smith | TYPE FIOTP | SERIAL NO. LT7043 | JETS (mm) OPEN | DEPTH OUT (m) | DEPTH IN (m) Clean out | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 17-20000↑ 10-12000↓ | TORQUE AT BOTTOM 6529 FT/LB | FILL ON BOTTOM (m) 0

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
Caustic	1 SX
Ex-cide	3 SUGS

SOLIDS CONTROL

DESILTER | CENTRIFUGE

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1990				

CIRCULATION PRESSURE (kPa) 5700 | PUMP NO. 1: LINER SIZE (mm) 152 | S.P.M. | PUMP NO. 2: LINER SIZE (mm) 152 | S.P.M. 90

REDUCED PUMP SPEED

4300 @ 1990 @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE Glenn Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	09:00	1	11
09:00	10:45	1 3/4	6
10:45	11:00	1/4	5
11:00	12:00	1	9
12:00	12:15	1/4	22
12:15	14:00	1 3/4	6
14:00	14:15	1/4	5
14:15	14:30	1/4	9
14:30	14:45	1/4	7
14:45	15:30	3/4	23
15:30	16:00	1/2	6

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

P.O.O.H. & Lay down Logging Tools.
Make up B.HA. R.I.H. TO 550m
Break Circ
Slip & cut 20m of Drill line.
B.O.P. Drill well secure Instr / Blaine T KELly
R.I.H. TO 1120m
Break Circulation.
Cut 20m Drill line.
RIS, Function Lower Rams 7 secs.
Pick up Drill pipe.
R.I.H. F-1320m - 14 10m Break Circ.

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT 222	O.D. (mm)	LENGTH
			.25 m
1	B.T sub		1.23 m
1	178 DC		9.39 m
1	Jar		4.86 m
2	178 DC		19.12 m
1	X/O		1.42 m
9	H.W.		82.77 m
			m
	BHA:		119.04 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			1000 daN
WT. OF STRING	68000		1000 daN

BIT RECORD

BIT NO. 4RR | SIZE (mm) 222 | IADC CODE 437 | MFG. Smith | TYPE FIOTP | SERIAL NO. LT7093 | JETS (mm) OPEN | DEPTH OUT (m) | DEPTH IN (m) Clean out | TOTAL METRES DRILLED (m) | TOTAL HOURS RUN

CUTTING STRUCTURE | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME 21:00 | DENSITY kg/m³ 1210 | FUNNEL VIS. - (S/L) | W.L. (cm³) 7.5 | pH 10.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	23 SX
Floplex	10 SX

SOLIDS CONTROL

DESILTER | CENTRIFUGE

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1990				

CIRCULATION PRESSURE (kPa) 5000 | PUMP NO. 1: LINER SIZE (mm) 152 | S.P.M. | PUMP NO. 2: LINER SIZE (mm) 152 | S.P.M. 90

REDUCED PUMP SPEED

4100 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
16:00			
	17:15	1 1/4	6
17:15	21:00	3 3/4	5
21:00	22:15	1 1/4	6
22:15	23:15	1	24
23:15		1/2	7
	23:45		
23:45	24:00	1/4	24

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

R.I.H. Break Circ every 10 stds Wash 20m
To Bottom, no Fill
Circulate & condition mud.
Pump out 10 STDS, Pull 2 STDS (NO pump)
✓Flow laydown D.P.
Change out Elevators (HYD.) Blow Top Drive Rig Service
Function Ann 21 sec
laydown D.P.

NOTES ✓Crown saver, deadline anchor, fastline clamp
T.D.S. - .30

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

115404

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LICENCE NO.:	WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30
OPERATOR: Suncor Energy	CONTRACTOR: Akita Drilling LTD.
SURFACE LOCATION: K-77-60-50-122-30	UNIQUE ID.: 300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection — Initial
(2) Detailed Inspection-Weekly (using checklist) — Initial
(3) H2S Signs Posted (if required) — Initial
(4) Well License & Stick Diagram Posted — Initial
(5) Flare Lines Staked — Initial
(6) BOP Drills Performed — Initial
(7) Visually Inspect BOP's - Flowlines & Degasser Lines — 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
99	02	26

RIG NO 58

FUEL @ 8:00 — RIG 1.88 — BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.5	53.6	Prudential	J55	41	537.43	6.45	535

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	154	DC	77	178	5" H90	21
127	74.35	H.W	78	165	5" XH	9
127	29.02	E2	108	↓	↓	110
127	38.09	E3	101			142

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME - HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTALS
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Handle Tools	Blow Mud line				
MORN.					1¼	6¼	¼			¼																	8
DAY					4	3¾	¼																				8
EVE.						3¼					4¼											1¼	¼				8
TOTAL					5¼	13¼	½			¼	4¼											1¼	¼				24

SHALE SHAKER(S)

NO. 2 TYPE Derrick
SCREENS CHANGED ☐ YES ☑ NO

TOP 210	TOP 84
MIDDLE 250	MIDDLE 84
BOTTOM 250	BOTTOM 84

RENTALS/SERVICES (MORN. / DAY / EVE.)

MI SLC · 10553
MI ACC. 28914
Acc. oil ·32

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT 222 O.D. mm	LENGTH
	BIT	.25 m
1	MTR	7.83 m
1	Float Sub	.51 m
1	UBHO	.64 m
2	NMDC	18.65 m
1	X/O	.30 m
5	178 DC	47.60 m
1	Jar	4.86 m
12	178 DC	114.39 m
1	X/O	1.42 m
9	H.W.	82.77 m
	BHA	279.22 m
	D.P. STANDS	m
	D.P. SINGLES	m
	KELLY DOWN	m
	TOTAL	m
WT. OF DC	29000	1000 daN
WT. OF STRING	80000	1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	1990
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	413
TOTAL HOURS RUN	81½

CUTTING STRUCTURE T_i	T_o	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
							T.D.	5.07

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³)
CENTRIFUGE — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

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

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
8900	152	90		

REDUCED PUMP SPEED: 6000 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1976	.56	178.42

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:00	1	5	Circulate up 1990 samples Analize
01:00	01:15	¼	10	Survey @ 1976 m
01:15			6	Pump out of hole 12 STDS √Flow P.O.H 35 STDS
	05:15	4		993m - √Flow,
05:15	05:30	¼	7	Rig Service, Func. Ann 20sec
05:30	07:00	1½	6	R.I.H F/993m, Break circ @ 1645
07:00	07:15	¼	5	Wash STDS down F/1645m - 1680m
07:15	08:00	¾	6	R.I.H. To 1800m

NOTES √Crown Saver, deadline anchor, fastline clamp

DRILLER SIGNATURE	BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	8			130000		

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	29000		1000 daN
WT. OF STRING	83000		1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	20000 ↑ 10000 ↓
TORQUE AT BOTTOM	10446
FILL ON BOTTOM (m)	0

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
Excide	3 JUGS

SOLIDS CONTROL

DESILTER — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³)
CENTRIFUGE — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1990				

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	S.P.M.	PUMP NO. 2 LINER SIZE (mm)	S.P.M.
8900	152	90	152	

REDUCED PUMP SPEED: 6000 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:30	½	6	R.I.H. F/1800m - 1970m
08:30	08:45	¼	5	Wash 20m To Bottom, no Fill
08:45	12:30	3¾	5	Circulate & work Pipe
12:30	12:45	¼	7	R/S Function upper pipe 7sec cls √BSPP.
12:45	14:15	1½	6	Pump out of Hole 12 stds Flow √ 15 stds
14:15	16:00	1¾	6	P.O.O.H. Flow √ @ 30 stds
				Strap out
				STRAP 1991.56 m
				Depth 1990.00 m
				Diff + 1.56 m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor.

DRILLER SIGNATURE	BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
Gary Patrick	8	10	240			

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³)
CENTRIFUGE — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³)

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	18:15	2¼	6	P.O.O.H. Flow √ @ H.W. out of Hole, strap out
18:15	19:30	1¼	22	Lay Down 2 D.C., Directional equip Blinds 7sec
19:30	19:45	¼	23	Blow mud line,
19:45			11	Rig up Schlumberger loggers
				Make up Tools = AIT, PLATFORM,
	24:00	4¼		SONIC, GR, & R.I.H.

NOTES √Crown Saver, deadline anchor, fastline clamp
Held safety meeting prior to logging T.D.S. - .40

DRILLER SIGNATURE	BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
[signature]	8	10	230		logging	

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115403

LICENCE NO.:

WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30

OPERATOR: Suncor Energy

CONTRACTOR: Akita Drilling LTD.

SURFACE LOCATION: K-77-60-50-122-30

UNIQUE ID.: 300-K-77-060-500-122-30

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

YEAR 99 MONTH 07 DAY 25

RIG NO. 58

FUEL @ 8:00

RIG 1.40 BOILER

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

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
244.5	226.5	53.6	Prudential	J55	41	537.43	6.45	535

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	139.1	D.C.	71	178	5 1/2 REG	21
127	74.35	H-W	77	168	5" XH	9
127	69.02	E2	107	165	↓	110
127	38.09	E3	101	165	↓	142

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME-HRS

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

TOTALS: 8 / 8 / 8 / 24

SHALE SHAKER(S): NO. 2 TYPE Derrick; SCREENS CHANGED ☐ YES ☑ NO; TOP 310 TOP 84; MIDDLE 250 MIDDLE ↓; BOTTOM 250 BOTTOM ↓

RENTALS/SERVICES

	MORN	DAY	EVE
IRS SVC. 7337			
MT ACC-25696			
ACC. OIL, 32			

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D.mm	LENGTH
	BIT 222		.25 m
1	MTR		7.83 m
1	Float Sub		.51 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 D.C.		47.60 m
1	Jars		4.86 m
12	178 D.C		114.39 m
1	X/O		1.42 m
9	H.W.		82.77 m
		BHA	279.2 m
57	D.P.	STANDS	1632.57 m
	D.P.	SINGLES	m
Stickup	KELLY DOWN		4.79 m
	TOTAL		1907.00 m
WT. OF DC		24000	1000 daN
WT. OF STRING		74000	1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 G
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	—
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	330
TOTAL HOURS RUN	67 3/4

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

HOLE CONDITION

HOLE DRAG 16-20000 ↑ 14-16000 ↓

TORQUE AT BOTTOM 10446

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1215	1215	1215
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	8.0	8.0
pH	10.5	10.0	10.0
PVT M³	48.2	49.2	50.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	7 SX
Potassium	14 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1215	1180	1735
	centrifuge # 2.		
8	1215	1175	1710

MORNING TOUR

METRES DRILLED

FROM	TO	DRL'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1872	1907	35	30	20/22
	SLIDE MTR 70			23/26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9100			152	90

REDUCED PUMP SPEED: 5400 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1869.28	3.7	341.05
1878.73	2.9	348.74
1888.19	2.1	7.1

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	04:15	4 1/4	2	Drill 222 mm hole F/1872m-1892m
04:15	04:30	1/4	7	Rig Service Function Toppipe 8sec
04:30	07:15	2 3/4	2	Drill F/1892-1907m
07:15	08:00	3/4	10	Acc Survey Time.

NOTES √Crown Saver, deadline anchor, fastline clamp T.D.S. - .30 Function Remote Choke

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240	135000		3333

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D.mm	LENGTH
	BIT 222		.25 m
1	MOTOR		7.85 m
1	FLOAT SUB		.51 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA=	279.22 m
58	D.P.	STANDS	m
X	D.P.	SINGLES	1670.60 m
Stickup	KELLY DOWN		1.82 m
	TOTAL		1948.00 m
WT. OF DC		29000	1000 daN
WT. OF STRING		80000	1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3X15.9
DEPTH OUT (m)	—
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	371
TOTAL HOURS RUN	74 3/4

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

HOLE CONDITION

HOLE DRAG 14-16000 ↑ 13-15000 ↓

TORQUE AT BOTTOM 7835 FT/LBS

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	13:00
DENSITY kg/m³	1205	1200	1205
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.0	7.0	7.3
pH	10.0	10.5	10.5
PVT M³	51.2	51.8	51.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	17 SX
Potassium	25 SX
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1205	1190	1715
8	1205	1180	1725

DAY TOUR

METRES DRILLED

FROM	TO	DRL'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1907	1948	41	30+ MTR	20/22
	SLIDE MTR 90			25/29

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8600	152	90	152	

REDUCED PUMP SPEED: 6100 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1897.8	1.9	32.38
1906.9	2.2	54.17
1916.6	2.5	75.98
1926.2	2.8	86.41

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	15:00	7	2	Drill 222 mm hole F/1907m-1948m
15:00	16:00	1	10	Acc Survey Time.

NOTES √Crown Saver Fastline Clamp Deadline Anchor. Greased Crown & Blocks

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240	130000 DAN		3333 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.		O.D.mm	LENGTH
	BIT 222		.25 m
1	MTR		7.83 m
1	Float Sub		.51 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 D.C.		47.60 m
1	Jar		4.86 m
12	178 D.C		114.39 m
1	X/O		1.42 m
9	H.W.		82.77 m
		BHA	279.2 m
			1718.39 m
60	D.P.	STANDS	1670.60 m
	D.P.	SINGLES	m
	KELLY DOWN		7.61 m
	TOTAL		1990 m
WT. OF DC		29000	1000 daN
WT. OF STRING		80000	1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3X15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	413
TOTAL HOURS RUN	81 1/2

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

HOLE CONDITION

HOLE DRAG 1835 FT/LBS

TORQUE AT BOTTOM 16000↑ 21000↓

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	16:00	20:00	24:00
DENSITY kg/m³	1205	1205	1210
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	7.5	7.5
pH	10.5	10.0	10.0
PVT M³	51.5	50.0	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	12 SX
Floplex	9 SX
Caustic	1 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1205	1180	1720
8	1205	1175	1710

EVENING TOUR

METRES DRILLED

FROM	TO	DRL'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1948	1990	42	30	20/22
	SLIDE MTR 70			25/30

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8800	152	90	152	

REDUCED PUMP SPEED: 6100 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1945.3	2.0	104.03
1955.1	1.5	98.47
1974.16	.6	171.6

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	1/4	2	Drill 222 mm hole F/1948m-1949m
16:15	16:30	1/4	7	R/S, Function BTM pipe 7sec. C/B. √BOPP
16:30	23:00	6 1/2	2	Drill F/1949m-1990m
23:00	23:45	3/4	10	Acc. Surveys
23:45	24:00	1/4	5	Circulate up sample

NOTES √Crown Saver, fastline clamp, deadline anchor T.D.S. .40

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
6	10	240	124000		3333

FOLD HERE →

115402

LICENCE NO.:

WELL NAME AND NO.: Suncor Natla K-77-60-50-122-50

OPERATOR: Suncor Energy

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30

UNIQUE ID.: 300-K-77-060-500-122-30

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

(1) Daily Walk Around Inspection
(2) Detailed Inspection Weekly (using checklist)
(3) 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 Kills checked

YEAR 97 | MONTH 02 | DAY 24

RIG NO. 58

FUEL @ 8:00

RIG 1.78 | BOILER

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

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.5	53.6	Prudential	J55	41	537.43	6.45	535

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	154	DC	71	240	6⅝ REG	24			
	127	74.35	HW	78	160	4½ IF	9	F-1000	Emsco	254
	127	29.02	E2	108	165	/	110	F-1000	Emsco	254
	127	38.09	E3	108	165		142			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26	TOTALS
	MORN.		6½			½		¾			¼															8
	DAY		7¾					¼			1															8
	EVE.		7¼								¾															8
	TOTAL		21¾			½		1			2¼															24

SHALE SHAKER(S)

NO. 1 Derrick | TYPE Derrick

SCREENS CHANGED ☑ YES ☐ NO

TOP 210 | TOP 84

MIDDLE 250 | MIDDLE 84

BOTTOM 250 | BOTTOM 84

RENTALS/SERVICES

Total MJ 6597

Accum MJ 24953

Accum DL 2.32

DRILLING ASSEMBLY (At End of Tour)

NO.		BIT	O.D. mm	LENGTH
1				.25 m
1	MWD			7.83 m
1	Float Sub			.51 m
1	UBHO			.64 m
2	NMDC			18.65 m
1	X/O			.30 m
5	178 D.C			47.60 m
1	Jars			4.86 m
12	178 D.C			114.39 m
1	X/O			1.42 m
9	H.W.D.P			82.77 m
		BHA		274.26 m
15	D.P.	STANDS		1518 m
XX	D.P.	SINGLES		19.04 m
	STICK UP KELLY DOWN			3.26 m
	TOTAL			1813 m

WT. OF DC 29000 1000 daN

WT. OF STRING 75000 1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	236
TOTAL HOURS RUN	46 3/4

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 30-35000 15-20000

TORQUE AT BOTTOM 9141 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1195	1200	1200
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	7.6	8.0
pH	10.0	10.0	10.5
PVT m³	53.7	56.1	55.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	6 SXS
Potassium	27 SXS
Caustic	1 SX
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1200	1110	1770

#2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1200	1105	1760

MORNING TOUR

METRES DRILLED

FROM	TO	DR.D. RM.R. CORE.C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1782	1813	31	MTR 90	16/26
			50	24/5

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8700	152		152	90

REDUCED PUMP SPEED

5400 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1773.58	8.6	336.29
1783.09	8.3	336.54
1792.93	8.2	336.13

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	03:15	3¼	2	Drill 1782m - 1797m
03:15	03:45	½	5	Work Tight Hole
03:45	04:00	¼	7	R/S Function Annular 13 sec & BOP
04:00	07:15	3¼	2	Drill 1797m - 1813m
07:15	08:00	¾	10	Acc. Survey

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240			

DRILLING ASSEMBLY (At End of Tour)

NO.		BIT	O.D. mm	LENGTH
1	MTR			7.83 m
1	Float Sub			.51 m
1	UBHO			.64 m
2	NMDC			18.65 m
1	X/O			.30 m
5	178 D.C			47.60 m
1	Jars			4.86 m
12	178 D.C			114.39 m
1	X/O			1.42 m
9	H.W.			82.77 m
		BHA		274.26 m
55	D.P.	STANDS		1575.34 m
	D.P.	SINGLES		m
	STICK UP KELLY DOWN			8.56 m
	TOTAL			1846 m

WT. OF DC 29000 1000 daN

WT. OF STRING 75000 1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	269
TOTAL HOURS RUN	53½

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG 30000 30000

TORQUE AT BOTTOM 10446 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1200	1200	1205
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	8.0	8.0
pH	10.5	10.0	10.0
PVT m³	54.5	54.3	53.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	11 SX
Potassium	31 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1200	1170	1730

centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1200	1180	1745

DAY TOUR

METRES DRILLED

FROM	TO	DR.D. RM.R. CORE.C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1813	1846	33	30	16/22
		MTR	90	20/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8900			152	90

REDUCED PUMP SPEED

5400 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1802.26	8.4	336.84
1811.78	7.86	337.40
1821.37	7.2	336.13
1830.98	6.5	337.54

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
04:00	13:15	5¼	2	Drill F/1813m - 1834m
13:15	13:30	¼	7	R/S Func. Dot. Type 8 sec
13:30	15:00	1½	2	Drill F/1834 - 1846m
15:00	16:00	1	10	Acc. Surveys

NOTES ✓Crown Saver, deadline anchor. Fastline clamp T.D.S - .30 ✓Hydraworks Bolts

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	235	125000		3385

DRILLING ASSEMBLY (At End of Tour)

NO.		BIT	O.D. mm	LENGTH
1	MTR			7.83 m
1	Float Sub			.51 m
1	UBHO			.64 m
2	NMDC			18.65 m
1	X/O			.30 m
5	178 D.C			47.60 m
1	Jars			4.86 m
12	178 D.C			114.39 m
1	X/O			1.42 m
9	H.W.			82.77 m
		BHA		274.26 m
55	D.P.	STANDS		1575.34 m
XX	D.P.	SINGLES		19.13 m
	STICK UP KELLY DOWN			1.69 m
	TOTAL			1872 m

WT. OF DC 29000 1000 daN

WT. OF STRING 78000 1000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	295
TOTAL HOURS RUN	60¾

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM 9141 FT/LB

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1210	1210	1210
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	7.0	7.5
pH	9.5	10.0	10.0
PVT m³	51.9	52.7	55.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	1 SX
Potassium	32 SX
Floplex	14 SX
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1210	1160	1580
8	1210	1170	1730

EVENING TOUR

METRES DRILLED

FROM	TO	DR.D. RM.R. CORE.C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1846	1872	26	30	18/20
		MTR 90		22/26

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9200			152	90

REDUCED PUMP SPEED

5500 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1840.56	6.1	341.76
1850.10	5.8	343.16
1859.69	4.9	345.37

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	23:15	7¼	2	Drill 222mm hole F/1846m - 1872
23:15	24:00	¾	10	Acc surveys

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10		135 000		

115401

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LICENCE NO.:	WELL NAME AND NO.:
	Suncor Natla K-77-60-50-122-30

OPERATOR:	CONTRACTOR:
Suncor Energy	Akita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
K-77-60-50-122-30	300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER: [illegible]

DAILY CHECKS (OPR. / R.M.)

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

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

(Most check lines carry handwritten initials.)

YEAR	MONTH	DAY
99	02	23

RIG NO. 58

FUEL @ 8:00 — RIG 1,41 — BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.5	53.6	Prudential	J55	41	537.43	6.45	535

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	139.1	DC	77	178	5 3/4 IF	21
127	74.35	HW	78	160	4½ IF	9
127	29.07	E8	108	165	|	110
127	33.07	E3	108	165		142

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME - HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTALS
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.						
MORN.		7					1/4			3/4																	8
DAY		6¼					1/4			1½																	8
EVE.		6¼			3/4					1																	8
TOTAL		19½			3/4		½			3¼																	24

SHALE SHAKER(S)

NO. 2 TYPE Derrick FLC

SCREENS CHANGED ☐ YES ☒ NO

TOP	210	TOP	84
MIDDLE	250	MIDDLE	84
BOTTOM	250	BOTTOM	84

RENTALS/SERVICES (MORN / DAY / EVE)

Total MJ 24378
Accum MJ 6015
Accum OIL = 0.32

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	MOTOR		7.83 m
1	FLT SUB		.51
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
	BHA		279.22 m
50	D.P.	STANDS	1431.69 m
X	D.P.	SINGLES	9.82 m
	STICK UP / KELLY DOWN		4.73 m
	TOTAL		1716 m
	WT. OF DC		29000 (1000 daN)
	WT. OF STRING		70 000 (1000 daN)

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3 X 15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	139
TOTAL HOURS RUN	27¾

CUTTING STRUCTURE T1	T2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	Slips 35000↑ 15000↓ / Rotate 15000↑ 9000↓
TORQUE AT BOTTOM	9100 FT. LBS.
FILL ON BOTTOM (m)	

MUD RECORD — MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1190	1185	1190
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.7	7.6	8.0
pH	10.0	10.0	10.0
PVT m³	52.6	54.2	54.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	5 sx
Potassium	28 sx
Caustic	1 sk

SOLIDS CONTROL

	HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
DESILTER				
CENTRIFUGE	8	1190	1070	1740
#2	8	1190	1070	1660

METRES DRILLED

FROM	TO	DRLD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1685	1716	31	MTR 90	14/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7600	152	90	152	

REDUCED PUMP SPEED — 4600 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1677.68	23.7	350.2
1687.33	22.6	350.9
1696.91	20.3	351.6

TIME LOG / DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM	TO	ELAP. TIME	CODE NO.	DETAILS
00:00	02:45	2¾	2	Drill 1685m - 1697m
02:45	03:00	1/4	7	R/S function BTM Pipe 8sec √RSPP
03:00	07:15	4¼	2	Drill 1697m - 1716m
07:15	08:00	3/4	10	Acc. Surveys

NOTES: √ crown Saver, fastline Clamp, Deadline Anchor

DRILLER SIGNATURE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	235	105000	ORIENTATION	3438

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT 222	O.D. mm	LENGTH
			.25 m
1	MTR		7.83
1	Float sub		.51 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30
5	178 D.C		47.60 m
1	Jars		4.86 m
12	178 D.C.		114.39 m
1	X/O		1.42 m
9	H.W.		82.77 m
	BHA		279.22 m
51	D.P.	STANDS	1460.45 m
XX	D.P.	SINGLES	19.27 m
	STICK UP / KELLY DOWN		7.94 m
	TOTAL		1751 m
	WT. OF DC		29 000 (1000 daN)
	WT. OF STRING		73000 (1000 daN)

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	174
TOTAL HOURS RUN	34

CUTTING STRUCTURE T1	T2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	27000↑ 18000↓
TORQUE AT BOTTOM	9800FT/LBS
FILL ON BOTTOM (m)	

MUD RECORD — MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1185	1190	1195
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	8.0	8.0
pH	10.0	10.0	10.0
PVT M³	48.2	50.1	56.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Visplex	4 sx
Floplex	16 sx
Potassium	48 sx
Pre-mix	6 m³
Caustic	1 sx

SOLIDS CONTROL

	HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
DESILTER				
CENTRIFUGE	8	1195	1165	1730
centrifuge #2	8	1195	1170	1710

METRES DRILLED

FROM	TO	DRLD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1716	1751	35	30	20/22
			MTR 90	22/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8400			152	90

REDUCED PUMP SPEED — 5200 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1706.73	18.9	348.79
1716.18	18.7	350.11
1725.67	18.5	344.57
1716	check shot	Dir correction 345.7
1731 1735.26	CK. shot 16.9	346.68

TIME LOG / DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM	TO	ELAP. TIME	CODE NO.	DETAILS
08:00	12:45	4¾	2	Drill 222mm hole F/1716m - 1739m
12:45	13:00	1/4	7	Rig Service, function Top pipe 8sec
13:00	14:30	1½	2	Drill 1739m - 1751m
14:30	16:00	1½	10	Acc. Surveys.

NOTES: √ Crown Saver, deadline anchor, fastline clamp, function Remote choke

DRILLER SIGNATURE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240	110000		3438

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	MOTOR		7.83 m
1	FLT. SUB		.51
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	JARS		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
	BHA		279.22 m
53	D.P.	STANDS	1578.00 m
	D.P.	SINGLES	m
	Stick up / KELLY DOWN		15.22 m
	TOTAL		1782 m
	WT. OF DC		[illegible] (1000 daN)
	WT. OF STRING		[illegible] (1000 daN)

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	205
TOTAL HOURS RUN	40¼

CUTTING STRUCTURE T1	T2	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	[illegible]
TORQUE AT BOTTOM	[illegible] FT. LBS.
FILL ON BOTTOM (m)	

MUD RECORD — MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1190	1195	1195
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	7.2	8.0
pH	10.0	10.5	10.5
PVT M³	56.4	53.4	54.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	5 sks
Potassium	20 sks
Soda Ash	1 sx

SOLIDS CONTROL

	HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
DESILTER				
CENTRIFUGE	8	1195	1110	1640
	8	1195	1110	1630

METRES DRILLED

FROM	TO	DRLD RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1751	1782	31	30	20/22
			MTR 90	23/25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8400	152		152	90

REDUCED PUMP SPEED — 5200 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1740.6	CK. shot	
1744.94	15.2	344.57
1754.41	12.8	346.68
1764.05	10.2	344.57

TIME LOG / DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM	TO	ELAP. TIME	CODE NO.	DETAILS
16:00	21:45	5¾	2	Drill 222mm hole F/1751m - 1778m
21:45	22:30	3/4	5	Work tight hole
22:30	23:00	½	2	Drill 1778m
23:00	24:00	1	10	Acc. Surveys

NOTES: √ Crown Saver, Deadline Anchor, Fastline clamp

DRILLER SIGNATURE

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	235	110 000		3438

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115400

LICENCE NO.: | WELL NAME AND NO.: Suncor Natla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS (OPR. / R.M.)

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

YEAR 77 | MONTH 02 | DAY 22

RIG NO. 58

FUEL @ 8:00

RIG 1.71 | BOILER

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

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.5	53.6	Prudential	J55	41	537.43	6.45	535

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	179.1	D/E	78	196	5 1/2 FH	9	F-1000	Emsco	254
	127	79.35	HW	78	160	4 1/2 IF				
	127	29.02	E2	109	145	1	110	F-1000	Emsco	254
	127	38.69	E3	108	165		142			

TIME-HRS

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

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN.	DAY	EVE.
8	NO. 2 TYPE Derrick FLC	Total MI 23719			
8	SCREENS CHANGED ☐ YES ☒ NO	Alcum MI 5354			
8	TOP 210 / TOP 84				
8	MIDDLE 250 / MIDDLE 84				
24	BOTTOM 250 / BOTTOM 84	Alcum 0.1 - .32			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	BIT		.25
1	MOTOR		7.83
1	Float Sub		.51
1	UBHO		.64
2	NMDC		18.65
1	X/O		.30
5	178 DC		47.60
1	JARS		4.86
12	178 DC		114.39
1	X/O		1.42
9	HWDP		82.77
	BHA =		279.22
49	D.P.	STANDS	1402.78
	D.P.	SINGLES	
	KELLY DOWN		17.00
	TOTAL		1665
WT. OF DC			29000 daN
WT. OF STRING			68000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	88
TOTAL HOURS RUN	17 1/2

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr. = 5.03

HOLE CONDITION

HOLE DRAG 100000 ↑ 80000 ↓

TORQUE AT BOTTOM 10700 FT. LBS.

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1175	1180	1180
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.3	6.6	7.6
pH	10.5	10.5	10.5
PVT m³	50.5	47.4	51.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	18 sx 5
Potassium	40 sx 5

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1180	1090	1340

centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1180	1085	1700

MORNING TOUR

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1630	1665	35	MTR 90	20 5/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9800	152	90	152	

REDUCED PUMP SPEED

5100 @ 56 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1619.93	26.2	341.76
1629.64	25.6	341.76
1639.15	25.5	341.05
1648.63	25.0	341.76

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:45	2 3/4	2	Drill 1630m - 1643m
02:45	03:00	1/4	7	K/S function Remote Choke ✓RSPP
03:00	07:00	4	2	Drill 1643m - 1665m
07:00	08:00	1	10	Acc. Surveys

NOTES: ✓Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	78000		3490

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	BIT 222		.25
1	MTR		7.83
1	Float Sub		.51
1	UBHO		.64
2	NMDC		14.65
1	X/O		.30
5	178 D.C		47.60
1	Jars		4.86
12	178 D.C		114.39
1	X/O		1.42
9	H.W.		82.77
	BHA		279.22
	D.P.	STANDS	
44	D.P.	SINGLES	1402.78
	KELLY DOWN		1.00
	TOTAL		1681
WT. OF DC			29000 daN
WT. OF STRING			68000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	104
TOTAL HOURS RUN	20

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 120000 ↑ 130000 ✓

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1185	T	
FUNNEL VIS. - (S/L)		R	
W.L. (cm³)	7.0	1	
pH	10.5		P
PVT m³	53.2		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	1 sx
Floplex	5 sx
Potassium	27 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

cent #2

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

DAY TOUR

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1665	1681	16	MTR 90	2 3/25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9400	152	90		

REDUCED PUMP SPEED

5200 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1658.32	24.3	343.16
1668		
1668	23.9	336.68

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	10:30	2 1/2	2	Drill 222mm hole F/1665m 1681m
10:30	11:15	3/4	10	Acc. Surveys
11:15			6	Pump out 5 STDS D.P. ✓Flow, P.O.H
	13:00	1 3/4		15 STDS.
13:00	13:15	1/4	7	Rig Service. func. Ann 21sec. Blow mud line
13:15	16:00	2 3/4	6	P.O.H 25 STDS ✓Flow, P.O.H ✓Flow @ H.W.T.
				Trip Record Cal 9.57 m³
				Act 10.02 m³
				Diff +.45 m³

NOTES: ✓Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			105000	Blocks / Regulations	3490

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH m
1	motor		.25
1	Float sub		.51
1	UBHO		.64
2	NMDC		18.65
1	X/O		.30
5	178 DC		47.60
1	Jars		4.86
12	178 DC		114.39
1	X/O		1.42
9	HWDP		82.77
	BHA		279.22
47	D.P.	STANDS	
xx	D.P.	SINGLES	1402.11
	KELLY DOWN		14.53
	TOTAL		1685
WT. OF DC			29000 daN
WT. OF STRING			68000 daN

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	108
TOTAL HOURS RUN	20 3/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 130000 ↑ 100000 ✓

TORQUE AT BOTTOM

FILL ON BOTTOM (m) NIL

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME			24 hr
DENSITY kg/m³			1175
FUNNEL VIS. - (S/L)			
W.L. (cm³)			7.2
pH			9.5
PVT m³			52.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

EVENING TOUR

METRES DRILLED

FROM	TO	DRLD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1681	1685	4	MTR 90	2 3/25

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9800	152	90	152	

REDUCED PUMP SPEED

4800 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:00	1	6	P.U.H BHA ✓Flow on Bank, Blinds 7 sec
17:00			20	✓Bit + motor, set angle on motor to 2.125°
	17:45	3/4		Service MWD
17:45	18:15	1/2	21	Hold safety meeting w/crew + Akita Field Sup.
18:15	22:30	4 1/4	6	✓Flow R.I.H. to 1624 Flow ✓ 830m
22:30	22:45	1/4	5	Brk. C.i.c. @ 1684m Wash to 1711m.
22:45	23:15	1/2	20	Orient motor & Survey
23:15	24:00	3/4	2	Drill 1681m - 1685

NOTES: ✓Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	235			3464

FOLD HERE →

115399

LICENCE NO.: | WELL NAME AND NO.: Suncor Natla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS

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

YEAR 99 | MONTH 08 | DAY 21

RIG NO.: 58

FUEL @ 8:00

RIG 2.06 | BOILER

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

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.5	53.6	Prudential	J55	41	537.43	6.45	535

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	154.1	DC	71	197	4½ IF	9	F-1000	Emsco	254
	127	74.35	HW	78	160	4½ IF	9	F-1000	Emsco	254
	127	29.02	E2	105	165		110	F-1000	Emsco	254
	127	38.09	E3	108	165		142			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Handle Tools				
MORN.						5	¼															2¾				
DAY		3½			½	2½	¼			½										¾						
EVE.		7¼								¾																
TOTAL		10¾			½	7¼	½			1¼										¾		2¾				

TOTALS

8	NO. 2	TYPE Derrick	FLC
8	SCREENS CHANGED ☑ YES ☐ NO		
8	TOP 210	TOP 84	
8	MIDDLE 250	MIDDLE 84	
24	BOTTOM 350	BOTTOM 84	

SHALE SHAKER(S)

RENTALS/SERVICES

Total MJ 21546
Accum MJ 3485
Accum. Oil = .32

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	Motor		7.53 m
1	Float Sub		.51 m
1	NBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA =	279.22 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m

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

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3 x 15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	
TOTAL HOURS RUN	

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1577				

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
TK²	Record	
Cal	11.84	
Mea	12.11	
Diff	.27	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	04:00	4	6	P.O.O.H. Flow ✓ 20; HW, out of hole
04:00	05:00	1	22	Lay Down MWD Tool, Break Bit & Motor
05:00	06:45	1¾	22	Pu motor & orient motor & MWD Tools
06:45	07:00	¼	7	Rig Service, function Blind Rams & Sec.
07:00	08:00	1	6	Make up Bit #3 & R.I.H.

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	230			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	MTR		7.83 m
1	Float Sub		.51 m
1	NBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 D.C		47.60 m
1	Jars		4.86 m
12	178 D.C		114.39 m
1	X/O		1.42 m
9	H.W.		82.77 m
		BHA =	279.22 m
46	D.P.	STANDS	1316.99 m
X	D.P.	SINGLES	9.60 m
Stick Up	KELLY DOWN		8.81 m
	TOTAL		1597 m

WT. OF DC: 24000 (1000 daN)
WT. OF STRING: 67000 (1000 daN)

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3/15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	20
TOTAL HOURS RUN	3½

CUTTING STRUCTURE: T_I | T_O | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.: 5.7

HOLE CONDITION

HOLE DRAG: 130001 ↑ 130001 ↓
TORQUE AT BOTTOM: 8800 FT/LBS
FILL ON BOTTOM (m): Nil

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	08:00	04:00	08:00
DENSITY kg/m³	1190	1190	1190
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	8.0	8.5
pH	10.0	10.0	10.5
PVTM³	45.6	46.0	45.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	2 sx
Floplex	9 sx
Potassium	23 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1190	1130	1740
	Cent #2		
8	1190	1160	1765

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1577	1597	20	30	14/30
		D. MR	90	24/32

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9200	152	90		

REDUCED PUMP SPEED

5400 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1572.61	26.5	338.24
1582.21	25.2	338.95

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:30	½	6	R.I.H TO 565 m
08:30	09:00	½	20	Conduct shallow Test
09:00			6	R.I.H TO 970 m Tag, break circ, wash to 984 m
	11:00	2		R.I.H. TO 1300 break circ. R.I.H TO 1528 m
11:00	11:30	½	5	Break circ + Wash ream F/1528 - 1577 m
11:30	11:45	¼	20	Correct Tod face
11:45	13:30	1¾	2	Dr. 11 222mm hole F/1577m - 1586m
13:30	13:45	¼	7	Rig Service, function Bot pipe 8sec
13:45	15:30	1¾	2	Dr. 11 1586m - 1597 m
15:30	16:00	½	10	Acc. Surveys

NOTES: ✓ Crown Saver, deadline anchor, fastline clamp function Remote choke

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			85000		3438

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Motor		7.53 m
1	Float Sub		.51 m
1	NBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA	279.22 m
47	D.P.	STANDS	m
XX	D.P.	SINGLES	1364.42 m
Stick Up	KELLY DOWN		13.64 m
	TOTAL		1630 m

WT. OF DC: 24000 (1000 daN)
WT. OF STRING: 67000 (1000 daN)

BIT RECORD

BIT NO.	3
SIZE (mm)	222
IADC CODE	4 3 7 C
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7094
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1577
TOTAL METRES DRILLED (m)	53
TOTAL HOURS RUN	10¾

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

HOLE CONDITION

HOLE DRAG: Gauge ↑ Tight ↓
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	20:00	22:00	24:00
DENSITY kg/m³	1190	1190	1190
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.5	8.2	8.0
pH	10.0	10.5	10.5
PVTM³	42.2	49.1	50.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	10 sx
Resdrill	25 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8		1165	1165
	2x		
8		1165	1165

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1597	1630	33	30	18/70
		D. MR	90	24/24

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9400	152	90		

REDUCED PUMP SPEED

5400 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1591.81	28.3	339.65
1601.39	27.9	340.35
1610.64	27.2	340.35

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	23:15	7¼	2	Drill 222mm hole F/1597m - 1630m
23:15	24:00	¾	10	Acc. Surveys

NOTES: Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	235	75000		3438

FOLD HERE →

115398

LICENCE NO.: | WELL NAME AND NO.: Suncor Natla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS (OPR. Initial / R.M. Initial)

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

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

YEAR 11 | MONTH 02 | DAY 20 | RIG NO. 56

FUEL @ 8:00 | RIG 82 | BOILER

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.6	53.1	Prudential	J55	41	537.43	6.45	535

WEATHER	
TEMPERATURE °C	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	154.7	DC	71	178	6 5/8 REG	9
127	74.35	HW	76	140	4½ IF	9
127	29.02	E2	108	165	1	110
127	39.09	E3	108	165		142

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME-HRS

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

Screens

TOTALS

NO.	TYPE
8	Derrick FLC
8	SCREENS CHANGED ☑ YES ☐ NO
8	TOP 210 ✓ / TOP 84
8	MIDDLE 250 ✓ / MIDDLE 84
24	BOTTOM 250 ✓ / BOTTOM 84

SHALE SHAKER(S)

RENTALS/SERVICES

	MORN	DAY	EVE
Total MJ 20433			
Accum MJ 2072			
Accum oil = .32			

DRILLING ASSEMBLY (At End of Tour)

NO.			LENGTH
	BIT	O.D. mm	.25 m
1	MOTOR		7.83 m
1	Float Sub UBHO		.51 .64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		89.77 m
	BHA =		279.22 m
45	D.P.	STANDS	m
XX	D.P.	SINGLES	1250.15 m
	KELLY DOWN		15.22 m
	TOTAL		1514 m
WT. OF DC			24000 1000 daN
WT. OF STRING			67000 1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	3 x 15.9
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	409
TOTAL HOURS RUN	70 1/4

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
								5.82

HOLE CONDITION

HOLE DRAG 4-8000↑ 2-5000↓

TORQUE AT BOTTOM 8100 FT./LBS.

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1180	1180	1175
FUNNEL VIS. - (S/L)			
W.L. (cm³)	6.4	6.0	8.0
pH	10.5	10.0	10.5
PVT m³	49.4	55.5	50.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	1/144
Caustic	1 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
9	1175	1030	1430
	#2		
8	1175	1175	1310

MORNING TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1484	1514	30	30	15/19
		MTR	90	19/22

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8900	152	90	152	

REDUCED PUMP SPEED

5600 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1477.34	29.8	336.13
1486.94	30.4	337.75
1498.17	29.7	336.84

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:00	1	2	Drill 1484m - 1491m
01:00	01:15	1/4	7	RR Function Annular 195ec ✓ RSPP
01:15	07:15	6	2	Drill 1491m - 1514m
07:15	08:00	3/4	10	Acc. Surveys

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	235			5518

DRILLING ASSEMBLY (At End of Tour)

NO.			LENGTH
	BIT 222	O.D. mm	.25 m
1	MTR		7.83 m
1	Float Sub UBHO		.51 .64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 D.C.		47.60 m
1	Jars		4.86 m
12	178 D.C.		114.39 m
1	X/O		1.42 m
9	H.W.D.P.		89.77 m
	BHA =		279.22 m
45	D.P.	STANDS	1288.28 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		16.50 m
	TOTAL		1551 m
WT. OF DC			29000 1000 daN
WT. OF STRING			67000 1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	3 x 15.9
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	446
TOTAL HOURS RUN	77

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
								5.8

HOLE CONDITION

HOLE DRAG 10000↑ 9000↓

TORQUE AT BOTTOM 9000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1180	1180	1180
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	7.5	7.8
pH	10.5	10.0	10.0
PVT m³	51.0	50.3	51.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	1 sx
Floplex	9 sx
Potassium	375x

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1180	1155	1710
	cent #2		
8	1180	1180	1730

DAY TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1514	1551	37	30	14/19
		Slide	90	19/20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9000	152	90		

REDUCED PUMP SPEED

5700 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1505.78	28.46	337.25
1515.37	27.8	335.93
1525.04	28.1	334.73
1534.91	29.3	334.73

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	14:30	6½	2	Drill 222mm hole F/1514m - 1548m
14:30	14:45	1/4	7	Rig Service Func. Top pipe 8sec
14:45	15:00	1/4	2	Drill 1548 - 1551m
15:00	16:00	1	10	Acc. Surveys

NOTES ✓Crown Saver, deadline anchor, fastline clamp
Held environmental meeting w/crew, function remote choke

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	240	75000	Waste Management	3490

DRILLING ASSEMBLY (At End of Tour)

NO.			LENGTH
	BIT	O.D. mm	.25 m
1	motor		7.83 m
1	Float Sub UBHO		.51 .64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
7	HWDP		89.77 m
	BHA =		278.22 m
45	D.P.	STANDS	m
XX	D.P.	SINGLES	1367.39 m
Stick up	KELLY DOWN		9.61 m
	TOTAL		1577 m
WT. OF DC			29000 1000 daN
WT. OF STRING			67000 1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	3 x 15.9
DEPTH OUT (m)	1577
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	472
TOTAL HOURS RUN	82½

CUTTING STRUCTURE T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.
3	3	WT	A	E	I	NO	TD	5.7

HOLE CONDITION

HOLE DRAG 2-10000↑ 4-8000↓

TORQUE AT BOTTOM 10 900

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	
DENSITY kg/m³	1190	1190	
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	7.06	
pH	10.0	10.0	
PVT m³	50.4	51.2	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	10sxs

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

FROM	TO	DRD RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1551	1577	26	30	17/19
		Slide	90	19/20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9700	152	90		

REDUCED PUMP SPEED

5700 @ 50 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1543.97	29.7	336.5
1553.50	29.2	336.84
1563.01	28.8	337.59

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:30	1½	2	Drill F/1551 - 1558m
17:30	17:45	1/4	22	Change shaker screens
17:45	21:45	4	2	Drill F/1558 - 1577m
21:45	22:30	3/4	10	Acc. Surveys
22:30	24:00	1½	6	P.O.O.H. Pump out 75 stds

NOTES ✓Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					5438

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115397

LICENCE NO.: | WELL NAME AND NO.: Suncor Natla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS (OPR. / R.M.)

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

(1) Rig Site Health and Safety Meeting (one/crew/month)
(2) G.A.D.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 79 | MONTH 02 | DAY 19 | RIG NO. 58 | FUEL @ 8:00 | RIG 1.86 | BOILER

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

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.5	53.6	Prudential	J-55	41	537.43	6.45	535

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	154.1	D	77	194	5H90	21			
127	74.35	HW	78	160	4½IF	9	F-1000	Emsco	254
127	29.02	E2	108	165		110	F-1000	Emsco	254
127	38.09	E3	105	145		142			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
MORN.			6¾					¼			1														
DAY			6¾					¼			1														
EVE.			7								1														
TOTAL			20½					½			3														

TOTALS: 8 / 8 / 8 / 24

SHALE SHAKER(S): NO. 2 TYPE Derrick FLC; SCREENS CHANGED ☐ YES ☒ NO; TOP 210 / MIDDLE 250 / BOTTOM 250; TOP 44 / MIDDLE 44 / BOTTOM 44

RENTALS/SERVICES: Total MT 19835; Accum MT 1474; Accum Oil: .32

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1			.25 m
1	motor		7.83 m
1	Float Sub		.97 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	x/o		.30 m
5	178 DC		47.60 m
1	Jars		9.86 m
12	178 DC		114.39 m
1	x/o		1.42 m
9	HWDP		82.77 m
		BHA:	274.22 m
39	D.P.	STANDS	m
XX	D.P.	SINGLES	1135.53 m
stick up	KELLY DOWN		6.75 m
	TOTAL		1408 m

WT. OF DC 29000 (1000 daN) | WT. OF STRING 46000 (1000 daN)

BIT RECORD

BIT NO. 2 | SIZE (mm) 222 | IADC CODE 4 3 7 | MFG. Smith | TYPE FIDTP | SERIAL NO. LT7093 | JETS (mm) 3x15.9 | DEPTH OUT (m) | DEPTH IN (m) 1105 | TOTAL METRES DRILLED (m) 303 | TOTAL HOURS RUN 49½

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr. 6.12

HOLE CONDITION: HOLE DRAG 2-40000↑ 2-40000↓ | TORQUE AT BOTTOM 7500 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	01:00	04:00	06:00
DENSITY kg/m³	1150	1150	1165
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.6	8.4	7.6
pH	10.0	10.0	10.0
PVT m³	47.4	47.4	47.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
FLOPLEX	19 sx
Potassium	30 sx
Gel	45 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1165	1030	1740

#2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1165	1070	1650

METRES DRILLED

FROM	TO	DRD/RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1373	1408	35	30	16/19
			MTR 90	15/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7800	152		152	90

REDUCED PUMP SPEED: 4900 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1362.5	28.7	337.54
1371.9	27.2	338.24
1381.6	26.5	334.02
1391.13	26.4	333.30

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	05:00	5	2	Drill 1373m - 1395m
05:00	05:15	¼	7	R/S Function Top Pipe & Sec VRSPP
05:15	07:00	1¾	2	Drill F/1395m - 1408m
07:00	08:00	1	10	Accumulated Surveys

NOTES: √Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	230	70 000		3569

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1		.25 m	
1	MTR		7.83 m
1	Float Sub		.97 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	x/o		.30 m
5	178 D.C		47.60 m
1	Jars		9.86 m
12	178 D.C		114.39 m
1	x/o		1.42 m
9	H.W.		82.77 m
		BHA	274.22 m
41	D.P.	STANDS	1173.99 m
	D.P.	SINGLES	m
STICK UP	KELLY DOWN		10.21 m
	TOTAL		1443 m

WT. OF DC 29000 (1000 daN) | WT. OF STRING 46000 (1000 daN)

BIT RECORD

BIT NO. 2 | SIZE (mm) 222 | IADC CODE 4 3 7 | MFG. Smith | TYPE FIDTP | SERIAL NO. LT7093 | JETS (mm) 3x15.9 | DEPTH OUT (m) | DEPTH IN (m) 1105 | TOTAL METRES DRILLED (m) 338 | TOTAL HOURS RUN 56¼

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr. 6.0

HOLE CONDITION: HOLE DRAG 8000↑ 9000↓ | TORQUE AT BOTTOM 7500 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1175	1180	1180
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.0	7.0	7.5
pH	9.5	10.0	10.0
PVT m³	48.5	48.4	50.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	20 sx
Floplex	15 sx
Potassium	46 sx
Caustic	3 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
7½	1180	1130	1740

Cent #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1135	1135	1710

METRES DRILLED

FROM	TO	DRD/RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1408	1443	35	30	17/18
		slide	90	18/20

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8800	152		152	90

REDUCED PUMP SPEED: 5100 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1400.75	26.9	332.62
1410.34	27.3	334.73
1419.96	28.0	334.73
1429.55	28.7	334.88

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	12:15	4¼	2	Drill 222mm hole F/1408m - 1433m
12:15	12:30	¼	7	Rig Service, Function Bottom Pipe & sec
12:30	15:00	2½	2	Drill F/1433 - 1443m
15:00	16:00	1	10	Acc. surveys

NOTES: √Crown Saver, deadline anchor, fastline clamp Function Remote choke √Grease crowns Blocks

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	235			3440

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1		.25 m	
1	Motor		7.83 m
1	Float Sub		.97 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	x/o		.30 m
5	178 DC		47.60 m
1	Jars		9.86 m
12	178 DC		114.39 m
1	x/o		1.42 m
9	HWDP		82.77 m
		BHA:	274.22 m
42	D.P.	STANDS	m
X	D.P.	SINGLES	1212.12 m
stick up	KELLY DOWN		7.34 m
	TOTAL		1484 m

WT. OF DC 29000 (1000 daN) | WT. OF STRING 46000 (1000 daN)

BIT RECORD

BIT NO. 2 | SIZE (mm) 222 | IADC CODE 4 3 7 | MFG. Smith | TYPE FIDTP | SERIAL NO. LT7093 | JETS (mm) 3x15.9 | DEPTH OUT (m) | DEPTH IN (m) 1105 | TOTAL METRES DRILLED (m) 378 | TOTAL HOURS RUN 65¼

CUTTING STRUCTURE: T1 | To | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG 4-60000↑ 2-40000↓ | TORQUE AT BOTTOM 7200 FT/LBS | FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1185	1185	1185
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	7.8	6.5
pH	10.0	10.5	10.5
PVT m³	52.3	52.1	49.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	7 sx
Potassium	15 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1175	1070	1720

#2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1185	1080	1720

METRES DRILLED

FROM	TO	DRD/RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1443	1484	41	30	19/20
		slide	90	19/22

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9000			152	90

REDUCED PUMP SPEED: 5200 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1439.21	28.2	335.43
1448.90	27.6	334.73
1458.60	28.0	334.02
1467.94	28.9	335.43

DRILLER SIGNATURE:

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	23:00	7	2	Drill 222mm hole F/1443m - 1484m
23:00	24:00	1	10	Acc. Surveys

NOTES: √ crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	230	71000		3464

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115396

LICENCE NO.:

WELL NAME AND NO.: Suncor Nella K-77-60-50-122-30

OPERATOR: Suncor Energy

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30

UNIQUE ID.: 300-K-77-060-500-122-30

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER: Dave Lauck

DAILY CHECKS (OPR. Initial / R.M. Initial)

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

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

YEAR 12 MONTH 02 DAY 16

RIG NO.: 58

FUEL @ 8:00

RIG 1.58 BOILER

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB TO CSG HEAD (m)	SET AT (m)
244.5	236.6	53.6	Prudential	J55	41	537.43	6.45	535

WEATHER

	°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)
TEMPERATURE		146	147	DE	77	178	5 1/2 FH	21			
CURRENT CONDITIONS		127	74.35	HW	78	160	4 1/2 IF	9	F-1000	Emsco	254
WIND DIRECTION		127	29.02	E2	108	165		110	F-1000	Emsco	254
ROAD		127	38.09	E2	108	165		142			

TIME-HRS

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

TOTALS

	SHALE SHAKER(S)	RENTALS/SERVICES	MORN	DAY	EVE
8	NO. 2 TYPE Derrick FLC	TMJ 19518			
8	SCREENS CHANGED ☐ YES ☒ NO	AMJ 1157			
8	TOP 210 TOP 84				
8	MIDDLE 250 MIDDLE 84				
24	BOTTOM 250 BOTTOM 84	Accum Pil .39			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	Motor		7.43 m
1	Float Sub UBHO		.51 .64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA =	279.22 m
35	D.P.	STANDS	1001.05 m
XX	D.P.	SINGLES	19.47 m
	KELLY DOWN		1.74 m
	TOTAL		1298 m
WT. OF DC		29 000	1000 daN
WT. OF STRING		67 000	1000 daN

BIT RECORD

BIT NO.	R
SIZE (mm)	222
IADC CODE	437
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	15.9 x 3
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	193
TOTAL HOURS RUN	29 1/2

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

HOLE CONDITION

HOLE DRAG 4-6000↑ 2-4000↓

TORQUE AT BOTTOM 7000 FT. LB.

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1145	1145	1155
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.7	8.0	7.2
pH	10.0	10.0	10.5
PVT m³	52.0	52.9	54.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	17 sx
Potassium	35 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1155	1150	1170

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1155	1150	1170

MORNING TOUR

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1251	1298	47	30	17/18
			Slide	15/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7200	152		152	90

REDUCED PUMP SPEED

4500 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1232.6	22.7	343.57
1246.7	23.9	344.57
1256.5	25.0	345.98
1266.2	26.2	347.38
1276.0	27.1	347.79

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:15	1/4	10	Survey @ 1237.6
00:15	01:15	1	2	Drill 1251m - 1260m
01:15	01:30	1/4	7	R/S Function Remote choke VRSPP
01:30	01:45	1/4	10	Survey @ 1246.7
01:45	03:00	1 1/4	2	Drill 1260m - 1270m
03:00	03:15	1/4	10	Survey @ 1256.5
03:15	04:45	1 1/2	2	Drill 1270m - 1280m
04:45	05:00	1/4	10	Survey @ 1266.2
05:00	06:15	1 1/4	2	Drill 1280m - 1290m
06:15	06:30	1/4	10	Survey @ 1276.0
06:30	08:00	1 1/2	2	Drill 1290m - 1298m

NOTES: √crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
6	10	240	73000 daN		3622 kPa

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT 222	O.D. mm	LENGTH
1	BIT		.25 m
1	MTR		7.83 m
1	Float sub		.51 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 D.C		47.60 m
1	Jars		4.86 m
12	178 D.C		114.39 m
1	X/O		1.42 m
9	H.W.D.		82.77 m
		BHA	279.22 m
37	D.P.	STANDS	1059.09 m
	D.P.	SINGLES	m
	KELLY DOWN		3.31 m
	TOTAL		1335 m
WT. OF DC		29000	1000 daN
WT. OF STRING		67000	1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	437
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	230
TOTAL HOURS RUN	36

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

HOLE CONDITION

HOLE DRAG 4-6000↑ 2-4000↓

TORQUE AT BOTTOM 7200 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1145	1150	1155
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	8.0	8.0
pH	10.0	10.0	10.5
PVT m³	56.6	56.6	51.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	2 sx
Floplex	8 sx
Potassium	144 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1155	1730	1720

Cent #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1155	1135	1150

DAY TOUR

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1298	1335	37	30	17/18
			Slide	17/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8000			152	90

REDUCED PUMP SPEED

4600 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1285.74	27.9	348.09
1295.44	28.5	346.68
1305.15	28.7	344.57
1314.72	28.9	341.05

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
06:00	12:15	4 1/4	2	Drill 222mm hole F/1298m - 1319m
12:15	12:30	1/4	22	BOP drill well secure 90sec, Amt 21sec
12:30	12:45	1/4	7	Rig Service function top pipe 85sec
12:45	15:00	2 1/4	2	Drill F/1319 - 1335m
15:00	16:00	1	10	Acc. Surveys

NOTES: √crown Saver, deadline anchor, fast line clamp
Held safety meeting w/crew

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8				Table observation	3648

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	motor		7.43 m
1	Float Sub UBHo		.51 .64 m
2	NMDC		18.65 m
1	X/o		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/o		1.42 m
9	HWDP		82.77 m
		BHA =	279.22 m
38	D.P.	STANDS	m
X	D.P.	SINGLES	1097.37 m
Stick-up	KELLY DOWN		3.59 m
	TOTAL		1373 m
WT. OF DC		29000	1000 daN
WT. OF STRING		67000	1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	437
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	268
TOTAL HOURS RUN	42 3/4

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

HOLE CONDITION

HOLE DRAG 4-6000↑ 2-4000↓

TORQUE AT BOTTOM 7500 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1160	1155	1155
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	7.5	8.4
pH	10.5	10.5	10.0
PVT m³	52.2	48.2	48.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floyd-x	2 sx
Potassium	17 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1155	1110	1710

Centrifuge #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1155	1030	1420

EVENING TOUR

METRES DRILLED

FROM	TO	DRLG RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1335	1373	38	30	17/18
			Slide	17/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7800	152		152	90

REDUCED PUMP SPEED

4600 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1324.31	29.2	334.24
1334.0	29.6	336.40
1343.3	29.8	337.54
1353.0	29.8	340.35

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	19:45	3 3/4	2	Drill 222mm hole F/1335 - 1357m
19:45	20:00	1/4	22	BOP Drill Well Secure 1mn.
20:00	23:00	3	2	Drill 1357m - 1373m
23:00	24:00	1	10	Acc. Surveys

NOTES: √crown Saver fastline Clamp Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	230	75000		3622

FOLD HERE →

115395

LICENCE NO.: | WELL NAME AND NO.: SUNCOR MEDIA K-77-60-50-122-30

OPERATOR: SUNCOR Energy | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS

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

YEAR 99 | MONTH 02 | DAY 17

RIG NO. 58

FUEL @ 8:00

RIG 1.21 | BOILER

WEATHER: TEMPERATURE −15 °C; CURRENT CONDITIONS Snow; WIND DIRECTION —; ROAD Snow/Ice

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.6	53.6	Prudential	J55	41	537.43	6.45	535

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	154.1	D6	77	178	5½ FH	21			
	127	74.35	H.W.	78	160	4½ IF	9	F-1000	Emsco	254
	127	29.02	E2	108	165	5½	110	F-1000	Emsco	254
	127	29.02	E3	109	165	5½	142			

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26	TOTALS
	MORN.		6¾					¼			1															8
	DAY		6¾					¼			1															8
	EVE.		6¾					¼			1¼															8
	TOTAL		20¼					½			3¼															24

SHALE SHAKER(S)

NO. 2 | TYPE Derrick | Derrick

SCREENS CHANGED ☐ YES ☒ NO

TOP 210 | TOP 84

MIDDLE 250 | MIDDLE 84

BOTTOM 280 | BOTTOM 84

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ - 19176			
AMJ - 819			
Accumoil - 40			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	motor		7.83 m
1	Float sub UBHO		51.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	H.W.D.P.		82.77 m
	BHA: 279.22 m		
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		1155 m
WT. OF DC	39000	1000 daN	
WT. OF STRING	64.000	1000 daN	

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Smith
TYPE	F1OTP
SERIAL NO.	LT7093
JETS (mm)	3X15.9
DEPTH OUT (m)	—
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	50
TOTAL HOURS RUN	9½

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

HOLE CONDITION

HOLE DRAG 2-3000↑ 2-3000↓

TORQUE AT BOTTOM 4570 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1155	1165	1155
FUNNEL VIS. - (S/L)			
W.L. (cm³)	9.0	8.5	8.2
pH	10.0	10.0	9.5
PVT m3	43.8	47.3	48.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	26 SX
Potassium	28 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1165	1150	

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1165	1150	1470

MORNING TOUR

METRES DRILLED

FROM	TO	DRD/RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1117	1155	38	30	13/17

CIRCULATION PRESSURE (kPa): 6100

PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
152		152	90

REDUCED PUMP SPEED

3900 @ 1145m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1111.39	3.1	347.8
1121.46	4.4	344.6
1131.02	5.7	351.6
1141.8	7.3	348

DRILLER SIGNATURE

Gary Peterson

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:00	2	2	Drill 222 mm hole F/1117m - 1126m
02:00	02:15	¼	10	Survey @ 1111m
02:15	04:15	2	2	Drill F/1126m - 1136m
04:15	04:30	¼	10	Survey @ 1121.46m
04:30	06:00	1½	2	Drill F/1136m - 1145m
06:00	06:15	¼	7	R/S Function Lower Pipe Rams 7 secs √RSPP
06:15	06:30	¼	10	Survey @ 1131.02m
06:30	07:45	1¼	2	Drill F/1145m - 1155m
07:45	08:00	¼	10	Survey @ 1141.8m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	330	64 000 DAN		3595 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	motor		7.83 m
1	Float sub UBHO		51.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
	BHA = 279.22 m		
32	D.P.	STANDS	914.92 m
X	D.P.	SINGLES	9.68 m
	KELLY DOWN		1.82 m
	TOTAL		1202 m
WT. OF DC	29000	1000 daN	
WT. OF STRING	65000	1000 daN	

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7
MFG.	Smith
TYPE	F1OTP
SERIAL NO.	LT7093
JETS (mm)	15.9 x 3
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	97
TOTAL HOURS RUN	16¼

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

HOLE CONDITION

HOLE DRAG 2-4000↑ 2000↓

TORQUE AT BOTTOM 4500

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1155	1150	1150
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.0	7.0	8.0
pH	9.5	10.5	10.0
PVT m3	53.2	51.8	55.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	8 SX
Potassium	4 SX
Caustic	1 SX
Visplex	2 SXS

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1150	1130	1665

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1150	1130	1620

DAY TOUR

METRES DRILLED

FROM	TO	DRD/RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1155	1202	47	30	17/18
			Slide	13/15

CIRCULATION PRESSURE (kPa): 6100

PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
152		152	90

REDUCED PUMP SPEED

3800 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1151.3	8.9	348.0
1161.0	10.1	348.7
1170.9	11.2	348.0
1180.1	12.0	349.4

DRILLER SIGNATURE

Ken

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:30	1½	2	Drill 1155m - 1165m
09:30	09:45	¼	10	Survey @ 1151m
09:45	11:30	1¾	2	Drill 1165m - 1175m
11:30	11:45	¼	10	Survey @ 1161m
11:45	13:00	1¼	2	Drill 1175m - 1184m
13:00	13:15	¼	10	Survey @ 1170.8
13:15	14:30	1¼	2	Drill 1184m - 1194m
14:30	14:45	¼	10	Survey @ 1180m
14:45	15:45	1	2	Drill 1194m - 1202m
15:45	16:00	¼	7	Rig Service, Function Ann 30sec

NOTES √Crown Saver Fastline Clamp Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8			69000		3648

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	BIT		.25 m
1	MTR		7.83 m
1	Float sub		.51 m
1	UBHO		.64 m
2	NMDC		18.65 m
1	X/O		.30 m
5	178 D.C.		47.60 m
1	Jars		4.86 m
12	178 D.C.		114.39 m
1	X/O		1.42 m
9	H.W.		82.77 m
	BHA 279.22 m		
34	D.P.	STANDS	m
X	D.P.	SINGLES	981.53 m
Stuck up	KELLY DOWN		9.75 m
	TOTAL		1251 m
WT. OF DC	29000	1000 daN	
WT. OF STRING	65000	1000 daN	

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7
MFG.	Smith
TYPE	F1OTP
SERIAL NO.	LT7093
JETS (mm)	3x15.9
DEPTH OUT (m)	
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	146
TOTAL HOURS RUN	23

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

HOLE CONDITION

HOLE DRAG 2-4000↑ 2-4000↓

TORQUE AT BOTTOM 6000 FT/LBS

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1155	1145	1150
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.5	8.0	9.0
pH	10.0	10.0	10.0
PVT m³	52.6	53.0	54.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Viscoplex	6 SX
Caustic	1 SX
Floplex	20 SXS
Potassium	20 SXS

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1145	1125	1750

CENT #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1145	1130	1810

EVENING TOUR

METRES DRILLED

FROM	TO	DRD/RMR CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1202	1251	49	30	17/18
			Slide	16/19

CIRCULATION PRESSURE (kPa): 7500

PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
152		152	90

REDUCED PUMP SPEED

3300 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1189.28	13.6	348.09
1199.24	15.8	348.09
1208.92	17.5	347.38
1218.46	19.3	345.98
1228.22	21.1	343.87

DRILLER SIGNATURE

Ken

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	¼	10	Survey @ 1189.28
16:15	17:45	1½	2	Drill 222 mm hole F/1202m - 1213m
17:45	18:00	¼	10	Survey @ 1199.24
18:00	19:00	1	2	Drill 1213 - 1222m
19:00	19:15	¼	10	Survey @ 1208.92
19:15	20:45	1½	2	Drill 1222m - 1232m
20:45	21:00	¼	10	Survey @ 1218.46
21:00	22:30	1½	2	Drill 1232m - 1242m
22:30	22:45	¼	10	Survey @ 1228.22
22:45	24:00	1¼	2	Drill 1242 - 1251m

NOTES √ Crown Saver, deadline anchor, Fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10.5	350	69000		3648

FOLD HERE →

115394

LICENCE NO.: | WELL NAME AND NO.: SUNCOR Netla K-77-60-50-122-30

OPERATOR: SUNCOR ENERGY | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS — OPR. / R.M.

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

YEAR 19 | MONTH 02 | DAY 16 | RIG NO. 58

FUEL @ 8:00 — RIG 1.02 | BOILER

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
244.5	226.6	53.6	Prudential	J55	41	537.43	6.45	535

WEATHER

TEMPERATURE	-15 °C
CURRENT CONDITIONS	Clear
WIND DIRECTION	—
ROAD	Snow Pack

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
178	184.1	DC	71	228	5 1/2 FH	21			
127	74.35	H.W.	78	160	4 1/2 IF	9	F-1000	Emsco	254
127	29.03	E2	108	165	"	110	F-1000	Emsco	254
127	29.02	E3	108	165	"	142			

TIME-HRS

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

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 2 | TYPE: Derrick | Derrick

SCREENS CHANGED ☐ YES ☐ NO

TOP	210	TOP	84
MIDDLE	250	MIDDLE	84
BOTTOM	250	BOTTOM	84

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ-18731			
TMJ-370			
Accumoil - 40			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.5 9.5 9.5
DEPTH OUT (m)	1105
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	565
TOTAL HOURS RUN	63 1/2 8.9 m/hr

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

HOLE CONDITION

HOLE DRAG 2-3000↑ 2-4000↓

TORQUE AT BOTTOM 4200 FT/LB

FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00
DENSITY kg/m³	1070
FUNNEL VIS. - (S/L)	
W.L. (cm³)	8.0
pH	10.0
PVT m³	49.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	9 SX
Floplex	9 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

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

CENTRIFUGE #2

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

MORNING TOUR

METRES DRILLED

FROM	TO	DR.D RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1085	1105	20	65	17/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10300	152		152	90

REDUCED PUMP SPEED

4600 @ 1105 m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:15	2 1/4	2	Drill 222mm Hole F/1085m - 1105m
02:15	02:30	1/4	7	R/S, Function upper Pipe Rams ✓ R.S.P.P.
02:30	03:15	3/4	5	Circulate & work hole clean.
03:15	08:00	4 3/4	6	P.O.O.H. Pull First 7 stds pumping out Rest.

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	69000 DAN	Personal Protective Equipment	3543 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	motor		7.83 m
1	Float Sub		.64 m
1	UBHO		
1	NMDC		9.26 m
1	NMDC		9.39 m
5	178 DC		47.60 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA	279.22 m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC			29,000 1000 daN
WT. OF STRING			1000 daN

BIT RECORD

BIT NO.	2	2
SIZE (mm)	222	222
IADC CODE	5 1 7	
MFG.	Reed	Smith
TYPE	HP51A	F10TP
SERIAL NO.	LK5766	LT7093
JETS (mm)	3X 15.9	15.9 X 3
DEPTH OUT (m)		
DEPTH IN (m)		1105
TOTAL METRES DRILLED (m)		
TOTAL HOURS RUN		

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

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	2
DENSITY kg/m³	
FUNNEL VIS. - (S/L)	
W.L. (cm³)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

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

CENTRIFUGE #2

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

DAY TOUR

METRES DRILLED

FROM	TO	DR.D RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1105				

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
Hole Vol		
Cal 4.51 m³		
Mea 4.73 m³		
Diff .22 m³		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	11:00	3	6	P.O.O.H. Flow ✓ MW; DC out of Hole
11:00	12:00	1	22	Pick up motor & Dir. Tools
12:00	13:30	1 1/2	22	Test MWD Tools
13:30	13:45	1/4	7	R/S Function Blind & Sec.
13:45	16:00	2 1/4	6	M/U Bit & R.I.H. to 565m

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Anchor
Reset Crown Saver

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
1	Motor		7.83 m
1	Float Sub		.64 m
1	UBHO		
1	NMDC		9.26 m
1	NMDC		9.39 m
5	X/O 178 DC		47.60 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA:	279.22 m
89	D.P.	STANDS	828.24 m
X	D.P.	SINGLES	9.62 m
Stickup	KELLY DOWN		0 m
	TOTAL		1117.08 m
WT. OF DC			29,000 1000 daN
WT. OF STRING			64,000 1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Smith
TYPE	F10TP
SERIAL NO.	LT7093
JETS (mm)	3X 15.9
DEPTH OUT (m)	—
DEPTH IN (m)	1105
TOTAL METRES DRILLED (m)	12
TOTAL HOURS RUN	2 3/4

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

HOLE CONDITION

HOLE DRAG 2-3000↑ 2-3000↓

TORQUE AT BOTTOM 3917 FT/LB

FILL ON BOTTOM (m) 3m

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	24:00
DENSITY kg/m³	1175
FUNNEL VIS. - (S/L)	
W.L. (cm³)	10.5
pH	10.0
PVT m³	41.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	20 SX
Caustic	1 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1175	1160	

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1175	1145	

EVENING TOUR

METRES DRILLED

FROM	TO	DR.D RM.R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1105	1117	12	30	11/12

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6200	152		152	90

REDUCED PUMP SPEED

3900 @ 1107m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
1093.09	1.9	342.46
1102.90	2.1	334.73

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	1/4	10	Survey @ 565m
16:15	17:15	1	9	Slip & Cut 20m
17:15	17:45	1/2	6	R.I.H to 655m Bridge off
17:45	18:15	1/2	3	Ream 655m - 669
18:15	18:45	1/2	6	R.I.H 669 - 792m
18:45	19:00	1/4	10	Survey @ 792m
19:00	20:30	1 1/2	6	R.I.H 792m - 1080m
20:30	20:45	1/4	5	Break Circ. Wash 25m To Btm. 3m of F.I.L
20:45	21:30	3/4	2	Dr. 11 222mm hole F/1105m - 1107m
21:30	21:45	1/4	10	Survey @ 1093m
21:45	23:45	2	2	Dr. 11 F/1107m - 1117
23:45	24:00	1/4	10	Survey @ 1102.90m

NOTES ✓ Crown Saver, Fastline Clamp, Deadline Clamp.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	64000 DAN		3385 KPA

FOLD HERE →

115393

LICENCE NO.:	WELL NAME AND NO.:
	SunCor Netla K-77-60-50-122-30
OPERATOR:	CONTRACTOR:
Suncor Energy	Akita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
K-77-60-50-122-30	300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

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

(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 RD
(5) Motor Kills checked — Initial

YEAR	MONTH	DAY
99	03	15

RIG NO.: 58

FUEL @ 8:00

RIG: 1.39 | BOILER:

WEATHER

TEMPERATURE	°C
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.6	53.6	Prudential	J55	41	532.43	6.45	535

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	159.1	DC	71	240	4½ IF	24			
	127	74.35	HW	78	160	4½ IF	9	F-1000	Emsco	254
	127	29.02	E2	108	165	4	110	F-1000	Emsco	254
	127	29.02	E3	108	165	4	142			

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG					
MORN.		6			1½		¼	¼																		
DAY		7½					¼			¼																
EVE.		8																								
TOTAL		21½			1½		½	¼		¼																

TOTALS

6	
8	
8	
8	
24	

SHALE SHAKER(S)

	TYPE	
3	Derrick	Derrick

SCREENS CHANGED ☐ YES ☒ NO

TOP	250	TOP	84
MIDDLE	250	MIDDLE	84
BOTTOM	210	BOTTOM	84

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ-17184			
A mJ-8696			
Accumulator			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
1	B.I.T Sub		1.23 m
1	Shock Sub		3.98 m
1	XO		.37 9.26 m
1	NMDC		
1	XO		.30 9.39 m
1	178 DC		
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	XO		1.42 m
9	HWDP		82.77 m
		BHA:	267.23 m
24	D.P.	STANDS	686.19 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		.42 m
Stick up	TOTAL		953 m
WT. OF DC		28.000	1000 daN
WT. OF STRING		56.000	1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	REED
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	8.7 8.7 9.5
DEPTH OUT (m)	
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	413
TOTAL HOURS RUN	45 3/4

CUTTING STRUCTURE	T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1180	1070	1180
FUNNEL VIS. - (S/L)			
W.L. (cm³)	12.0	11.0	9.0
pH	10.0	10.0	10.0
PVT m³	54.3	52.8	54.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	32 SX
Floplex	26 SX
Floplex	6 SX
Potassium	2 SX

SOLIDS CONTROL

DESILTER

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

#2 CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1170	1160	1750
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1170	1170	

MORNING TOUR

METRES DRILLED

FROM	TO	DRO RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
895	953	58	80	14/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
8200	152		152	70

REDUCED PUMP SPEED

5200 @ 934 m @ 45

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Pobuda

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	04:15	4¼	2	Drill 222 mm hole F/895 m - 934 m
04:15	04:30	¼	7	RIS Function Annular 18 sec cls √RSPP
04:30	04:45	¼	8	Replace O-Ring in mud line.
04:45	06:30	1¾	2	Drill F/934 m - 953 m
06:30	08:00	1½	5	Work & clean Tight hole.

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			3490

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
1	B.I.T Sub		1.23 m
1	Shock Sub		3.98 m
1	XO		.37 9.26 m
1	NMDC		
1	XO		.30 9.59 m
1	175 DC		
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jars		4.96 m
12	178 DC		114.39 m
1	XO		1.42 m
9	HWDP		82.77 m
		BHA =	267.23 m
26	D.P.	STANDS	m
XX	D.P.	SINGLES	761.55 m
Stick-up	KELLY DOWN		2.08 m
	TOTAL		1027 m
WT. OF DC		28.000	1000 daN
WT. OF STRING		57.000	1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	REED
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	8.7 8.7 9.5
DEPTH OUT (m)	
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	467
TOTAL HOURS RUN	53¼

CUTTING STRUCTURE	T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	2-4000 ↑ 2-3000 ↓
TORQUE AT BOTTOM	4700 FT. LBS
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1200	1190	1175
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.4	7.0	7.6
pH	10.0	10.5	10.5
PVT m³	50.4	51.5	51.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	33 SX
Floplex	24 SX
Caustic	1 SX
Visplex	4 SX
Sawdust	30 SX

SOLIDS CONTROL

DESILTER

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

#1 CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			
	#2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1175	1820	1150

DAY TOUR

METRES DRILLED

FROM	TO	DRO RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
953	1027	74	80	14/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10400	152		152	90

REDUCED PUMP SPEED

5500 @ - @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
991	1.50	322

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	09:45	1¾	2	Drill 953 m - 972 m
09:45	10:00	¼	7	RIS Function BTM Pipe 6 sec √RSPP
10:00	14:00	4	2	Drill 972 m - 1009 m
14:00	14:15	¼	10	Survey @ 991 m
14:15	16:00	1¾	2	Drill 1009 m - 1027 m
				Held a safety Rig Observation meeting w/crew

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor
Bulges Blown Joint 2 Tunnel

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	12000	Crown Saver	3517

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
1	B.I.T Sub		1.23 m
1	Shock Sub		3.98 m
1	XO		.31 9.26 m
1	NMDC		
1	XO		.30 9.39 m
1	178 DC		
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X10		1.43 m
9	HWDP		82.77 m
		BHA:	267.23 m
28	D.P.	STANDS	800.16 m
XX	D.P.	SINGLES	18.44 m
Stick up	KELLY DOWN		0 m
	TOTAL		1085.83 m
WT. OF DC		28.000	1000 daN
WT. OF STRING		60.000	1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ452
JETS (mm)	8.7 8.7 9.5
DEPTH OUT (m)	—
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	545
TOTAL HOURS RUN	61¼

CUTTING STRUCTURE	T1	T0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG	2-4000 ↑ 2-3000 ↓
TORQUE AT BOTTOM	5000 FT/LB
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	18:00	21:00	24:00
DENSITY kg/m³	1180	1160	1155
FUNNEL VIS. - (S/L)		65	
W.L. (cm³)	7.8	8.0	8.0
pH	10.5	10.0	10.0
PVT m³	52.0	52.4	50.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Visplex	4 SX
Floplex	13 SX
Potassium	20 SX

SOLIDS CONTROL

DESILTER

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

#1 CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
5	1160	1140	
	#2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1160	1145	1110

EVENING TOUR

METRES DRILLED

FROM	TO	DRO RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
1027	1085	58	80/65	14/18

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10200	140		152	90

REDUCED PUMP SPEED

4600 @ 1085 m @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	24:00	8	2	Drill 1027 m - 1085 m

NOTES √Crown Saver Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	62000	Connections	3595

FOLD HERE →

115392

LICENCE NO.:	WELL NAME AND NO.:
	Suncor Netha K-77-60-50-122-30
OPERATOR:	CONTRACTOR:
Suncor Energy	AKita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
K-77-60-50-122-30	300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS (OPR. / R.M.)

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

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

YEAR 97 | MONTH 02 | DAY 14
RIG NO. 58
FUEL @ 8:00
RIG 172 | BOILER

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB TO CSG HEAD (m)	SET AT (m)
244.5	226.6	53.6	Prudential	J55	41	537.43	6.45	535

WEATHER

	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)
TEMPERATURE -21 °C	178	154.1	DC	77	178	5½ FH	29			
CURRENT CONDITIONS Clear	127	74.35	H.W.	78	160	4½ IF	9	F-1000	Emsco	254
WIND DIRECTION	127	29.02	E2	108	165	"	112	F-1000	Emsco	254
ROAD Snow Pack	127	29.03	E3	108	165	"	142			

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	TOTALS
1	MORN.		7¾					¼			½												8
2	DAY		7¼			¼																	8
3	EVE.		7			¼		¼			½												8
4	TOTAL																						24

SHALE SHAKER(S)

NO. 2 | TYPE Derrick | Derrick
SCREENS CHANGED ☒ YES ☐ NO
TOP 210 | TOP 84
MIDDLE 230 | MIDDLE 84
BOTTOM 250 | BOTTOM 84

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ-16565			
AMJ-8077			
ACCUM 0.6 - 0.40			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	B.T Sub		.25 m
1	Shock Sub		1.23 2.98 m
1	20 WNDC		37 9.26 m
1	20 178 DC		30 9.39 m
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA:	267.23 m
16	D.P.	STANDS	m
X	D.P.	SINGLES	523.46 m
Stuck-up	KELLY DOWN		5.69 m
	TOTAL		795 m
WT. OF DC	28.000	1000 daN	
WT. OF STRING	49 000	1000 daN	

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.7 | 9.7 | 9.5
DEPTH OUT (m)	
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	245
TOTAL HOURS RUN	25½

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1150	1160	1170
FUNNEL VIS. - (S/L)			
W.L. (cm³)	8.0	8.0	8.0
pH	11.0	10.5	10.5
PVT m³	44.1	46.1	47.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	55 SX
FloPlex	23 SX
Caustic	2 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1160	1150	1530
	#2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1170	1170	

MORNING TOUR

METRES DRILLED

FROM	TO	DRLG RM R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
725	755	60	80	14/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7500	152	70	152	

REDUCED PUMP SPEED

4600 @ 45 @ 761m

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	04:45	4¾	2	Drill 222 mm Hole F/725m-761m
04:45	05:00	¼	7	RIS, Function Lower Rams 7 secs, √ BOPP.
05:00	08:00	3	2	Drill F/761m - 785m

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.
√ Fire extinguishers, Greased Blocks & Crown

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	55 000 DAN		3543 KPA

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	B.T Sub		.25 m
1	Shock Sub		1.23 2.98 m
1	20 WNDC		37 9.26 m
1	20 178 DC		30 9.39 m
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA:	267.23 m
20	D.P.	STANDS	571.37 m
	D.P.	SINGLES	m
Stuck up	KELLY DOWN		.60 m
	TOTAL		839 m
WT. OF DC	28,000	1000 daN	
WT. OF STRING	51 000	1000 daN	

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.7 | 9.7 | 9.5
DEPTH OUT (m)	
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	298
TOTAL HOURS RUN	30¼

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 4-8000 ↑ - 2-4000 ↓
TORQUE AT BOTTOM 4500 FT/LB
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	15:00
DENSITY kg/m³	1170	1175	1200
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.20	8.6	8.8
pH	10.5	10.0	10.0
PVT m³	43.5	47.9	48.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	44 SX
Polyplex	10 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1200	1170	1860
	#1	#2	
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
	1200	1200	

DAY TOUR

METRES DRILLED

FROM	TO	DRLG RM R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
785	839	53	80	14/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7100	152		152	65

REDUCED PUMP SPEED

4900 @ @ 35

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
792	1¾	274

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	11:45	3¾	2	Drill 785 m - 809 m
11:45	12:15	½	10	Survey @ 792 m
12:15	15:45	3½	2	Drill 809 m - 838 m
15:45	16:00	¼	5	Work & clean tight hole
				Held Safety meeting w/crew
				Held Environmental meeting w/crew

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor
Boilers Shown Down 2 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	59 000	Eye Protection	3885

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	B.T Sub		.25 m
1	Shock Sub		1.23 2.98 m
1	20 WNDC		37 9.26 m
1	20 178 DC		30 9.39 m
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	HWDP		82.77 m
		BHA:	267.23 m
22	D.P.	STANDS	628.37 m
	D.P.	SINGLES	m
Stuck up	KELLY DOWN		0 m
	TOTAL		895.60 m
WT. OF DC	28.000	1000 daN	
WT. OF STRING	52.000	1000 daN	

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.7 | 9.7 | 9.5
DEPTH OUT (m)	—
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	~~540~~ 355
TOTAL HOURS RUN	39¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 2-3000 ↑ 6-7000 ↓
TORQUE AT BOTTOM 4500 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	17:00	21:00	24:00
DENSITY kg/m³	1170	1180	1200
FUNNEL VIS. - (S/L)			
W.L. (cm³)	9.4	11.5	11.5
pH	10.0	9.5	10.0
PVT m³	53.5	57.7	54.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Caustic	1 SX
Polyplex	2 SX

SOLIDS CONTROL

CENTRIFUGE #2

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1180	1170	1840
	#1		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1200	1200	

EVENING TOUR

METRES DRILLED

FROM	TO	DRLG RM R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
838	895	57	80	14/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7700	152		152	70

REDUCED PUMP SPEED

5100 @ @ 50

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
878	1¼	327

DRILLER SIGNATURE: Gary Petruk

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	¼	7	RIS Function Test pipe rams √ BOPP
16:15	23:15	7	2	Drill 838 m - 895 m
23:15	23:30	¼	5	Work & clean Tight hole
23:30	24:00	½	10	Survey @ 878 m

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	56000		3438 KPA

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115391

LICENCE NO.: | WELL NAME AND NO.: SunCoR Netla K-77-60-50-122-30

OPERATOR: Suncor Energy | CONTRACTOR: AKita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30 | UNIQUE ID.: 300-K-77-060-500-122-30

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

DAILY CHECKS (OPR. / R.M.)

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

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

YEAR 79 | MONTH 02 | DAY 15

RIG NO. 58

FUEL @ 8:00

RIG .60 | BOILER

WEATHER

TEMPERATURE -20 °C
CURRENT CONDITIONS Clear
WIND DIRECTION
ROAD

LAST CASING TUBING OR LINER

O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
244.5	226.6	53.6	Prudential	J55	41	537.43	6.45	535

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS
178	154.1	DC	79	198	5 H90	
127	74.35	HW	78	160	4½ IF	9
127	29.02	E2	108	165	11	
127	29.02	E3	108	165	11	

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Pipe Screen/Top Drive	24	25	26
	MORN.		4¼			2		¼								1½						¼				
	DAY		6½								¼											¼	1			
	EVE.		6¾			3¼		¾			¼													¼		
	TOTAL		17¼			5¾		½			½					1½						¼	1	¼		

TOTALS	SHALE SHAKER(S)	RENTALS/SERVICES
2	MFG. Derrick & Derrick	TmJ - 15866
8	SCREENS CHANGED ☒ YES ☐ NO	AmJ - 7378
8	TOP 250 / TOP 250	
8	MIDDLE 250 / MIDDLE 210	
24	BOTTOM 210 / BOTTOM 210	Accum 0.2 - 0.36

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			25 m
1	B.T Sub		1.23
1	Shock Sub		2.98 m
1	X/O		324
1	NMDC		9.26 m
1	X/O		330
1	178 DC		9.39 m
1	TBR		1.80 m
4	178 mm DC		38.21 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	H.W.D.P		82.77 m
		BHA =	267.23 m
11	D.P.	STANDS	314.54 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		.77 m
	TOTAL		581 m
WT. OF DC			28.000 1000 daN
WT. OF STRING			45.000 1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.7.8.7.9.5
DEPTH OUT (m)	
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	41
TOTAL HOURS RUN	4¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM 3264 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	06:00
DENSITY kg/m³	1110
FUNNEL VIS. - (S/L)	98
W.L. (cm³)	11.5
pH	10.0
PVT m³	46.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	96 SX
Flopax	17 SX
Caustic	1 SX
Soda Ash	2 SX
Bicarb	4 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			
	Centrifuge #2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
544	581	37	70	8/9

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
10700	152	82	152	

REDUCED PUMP SPEED

5200 @ 45 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gerry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	01:30	1½	15	Run Leak off Test, Pressure Test Standpipe
01:30	02:00	½	5	Displace hole to mud
02:00	03:30	1½	5	Circulate & Condition mud
03:30	04:30	1	2	Drill 222 mm Hole F/544m - 553m
04:30	04:45	¼	7	R/S, Function Annular, 18 sec c/s √ RSPP
04:45	08:00	3¼	2	Drill F/553 m - 581m
				Held B.O.P. Drill with crew well secure 1 min

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
1	B.T Sub		1.23
1	Shock Sub		2.98 m
1	X/O		324
1	NMDC		9.86 m
1	X/O		330
1	178 DC		9.37 m
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jars		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	H.W.D.P.		82.77 m
		BHA =	267.23 m
14	D.P.	STANDS	400.10 m
	D.P.	SINGLES	m
Stick-up	KELLY DOWN		7.33 m
	TOTAL		660 m
WT. OF DC			28.000 1000 daN
WT. OF STRING			46.000 1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.7.8.7.9.5
DEPTH OUT (m)	
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	120
TOTAL HOURS RUN	11¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG Hook↑ 2000↓
TORQUE AT BOTTOM 4500 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME		12:00	15:00
DENSITY kg/m³	1120	1125	1120
FUNNEL VIS. - (S/L)			
W.L. (cm³)		7.1	7.7
pH		10.0	10.0
		6.6	50.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
FIOPLEX	3 SXS
Potassium	2 SXS

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE #1

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1120	1070	1770
	Centrifuge #2		
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1120	1080	1765

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
591	660	79	1960	9/10
				10/12

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
9300	152	82	152	

REDUCED PUMP SPEED

5200 @ 45 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
591	0.7	307

DRILLER SIGNATURE

Joe Taylor

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	10:15	2¼	2	Drill 581m - 609m
10:15	10:30	¼	10	Survey @ 591m
10:30	13:00	2½	2	Drill 609m - 638m
13:00	14:00	1	23	Fix Pipe Screen
14:00	14:45	¾	2	Drill 638m - 648m
14:45	15:00	¼	21	Held BOP Drill Well secure 1 min. *
15:00	16:00	1	2	Drill 648m - 660m
				Function motor Kill on Top Drive

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor
Blow Boiler Down 2 Times

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230	53000	BOP Drill	3805

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
			.25 m
1	B.T Sub		1.23
1	Shock Sub		2.98 m
1	X/O		324
1	NMDC		9.26 m
1	X/O		330
1	178 DC		9.39 m
1	TBR		1.80 m
4	178 DC		38.21 m
1	Jar		4.86 m
12	178 DC		114.39 m
1	X/O		1.42 m
9	H.W.D.P.		82.77 m
		BHA =	267.23 m
16	D.P.	STANDS	457.31 m
X	D.P.	SINGLES	8.89 m
Stick up	KELLY DOWN		-8.43 m
	TOTAL		725.00 m
WT. OF DC			28.000 1000 daN
WT. OF STRING			49.000 1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	4 3 7 X
MFG.	Reed
TYPE	EPH43A
SERIAL NO.	LQ4592
JETS (mm)	9.7.8.7.9.5
DEPTH OUT (m)	—
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	185
TOTAL HOURS RUN	17¾

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION

HOLE DRAG 2000↑ 6000↓
TORQUE AT BOTTOM 4570 FT/LB
FILL ON BOTTOM (m) —

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	19:00	21:00	2400
DENSITY kg/m³	1125	1140	1150
FUNNEL VIS. - (S/L)			
W.L. (cm³)	7.8	8.0	8.0
pH	10.0	9.5	10.0
PVT m³	51.7	46.0	46.2

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1150	1145	1250
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8			

METRES DRILLED

FROM	TO	DR'D RM'R CORE'C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
660	725	65	80	14/16

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
7800	152	70	152	

REDUCED PUMP SPEED

5400 @ 45 @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
682	1	324

DRILLER SIGNATURE

Gerry Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:30	½	2	Drill 660m - 667m
16:30	16:45	¼	7	R/S Function Remote choke
16:45	17:00	¼	23	Service Top Drive
17:00	19:30	2½	2	Drill 667m - 695m
19:30	20:00	½	5	Work Tight Hole, Circulate hole clean
20:00	20:15	¼	10	Survey @ 682m
20:15	22:30	2¼	2	Drill F/695m - 714m
22:30	22:45	¼	5	Work & Clean Tight hole
22:45	24:00	1¼	2	Drill F/714m - 725m

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			3648 KPA

FOLD HERE →

115390

LICENCE NO.:

WELL NAME AND NO.: SUNCOR Netla K-77-60-50-122-30

OPERATOR: Suncor Energy

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30

UNIQUE ID.: 300-K-77-060-500-122-30

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

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

YEAR 99 MONTH 02 DAY 12

RIG NO.: 58

FUEL @ 8:00

RIG 95 BOILER

WEATHER: TEMPERATURE -30 °C; CURRENT CONDITIONS Snow; WIND DIRECTION; ROAD

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
LAST CASING	244.5	226.6	53.6	Prudential	J55	41	537.43	6.45	535
TUBING OR LINER									

	DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
	178	159.1	DC	77	178	5 1/2 IF		F-1000	Emsco	254
	127	74.35	E2	108	165	4 1/2 IF		F-1000	Emsco	254
	127	29.02	E3	108	165	"				

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23	24	25	26
	MORN.														5 1/2	2 1/2						Drill Fight 2.0			
	DAY								1							7									
	EVE.		1/2			1/4	3 1/2	1/4	1												1 1/2				
	TOTAL		1/2			1/4	3 1/2	1/4	2						5 1/2	9 1/2					1 1/2				

TOTALS	
	0
	8
	8
	24

SHALE SHAKER(S)

NO.	TYPE
2	Derrick Derrick

SCREENS CHANGED ☒ YES ☐ NO

TOP	210	TOP	210
MIDDLE	210	MIDDLE	210
BOTTOM	210	BOTTOM	210

RENTALS/SERVICES

	MORN.	DAY	EVE.
TmJ-15291			
AmJ-6803			
Accum ok - 32			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

MORNING TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
540				

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	05:30	5 1/2	14	Nipple up.
05:30	08:00	2 1/2	15	Pressure Test manifold

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DAY TOUR

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
540				

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
06:00	09:00	3	15	Pressure Test, manifold 14000
09:00	09:30	1/2	15	M/U Test plug, pressure test Bttm. Pipe
09:30				Top Pipe 14000
				Annular 10500
				H&R Valve 14000
				Upper & lower kelly cocks
				Function Test Accum
	15:00	5 1/2	15	Pressure Test Stabbing Valve & inside BOP
15:00	16:00	1	8	Repair pump manifold Valve

NOTES √Crown Saver Fastline Clamp Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
9					

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub	173	1.23 m
1	55	171	2.95 m
1	XO	165	.37 m
1	NMDC	157	9.26 m
1	XO	171	.30 m
1	DC	178	9.39 m
1	TBR	178	1.30 m
4	DC	178	38.21 m
1	Jars	179	4.86 m
12	DC x/o		incl 14.39 m
9	D.P.	STANDS	82.77 m
	D.P.	SINGLES	24.73 m
	KELLY DOWN		m
	TOTAL		m
WT. OF DC	28000		1000 daN
WT. OF STRING	45,600		1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	222
IADC CODE	437X
MFG.	Reed
TYPE	EP443A
SERIAL NO.	L94592
JETS (mm)	2-11 2-12
DEPTH OUT (m)	—
DEPTH IN (m)	540
TOTAL METRES DRILLED (m)	4
TOTAL HOURS RUN	1/2

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	7182 FT/LB
FILL ON BOTTOM (m)	—

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

FROM	TO	DR'D RM'R CORE'D	ROTARY R.P.M.	WT. ON BIT (1000 daN)
540	544	4	80/100	8/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
14500 Chimp	152	80	152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
14:00	17:00	3	8	Repair washed Valve
17:00	21:30	3 1/2	6	P/U BHA, R.I.H to - 521m
21:30	23:00	1 1/2	22	Drill out Float & Shoe
23:00	23:30	1/2	2	Dr. 11 222mm F/540m - 544m
23:30	23:45	1/4	5	Circulate hole clean
23:45	24:00	1/4	7	R15, Function upper pipe 7sec clr.

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

FOLD HERE →

115389

LICENCE NO.:	WELL NAME AND NO.:
	SuncoR NetLa K-77-60-50-122-30
OPERATOR:	CONTRACTOR:
Suncor Energy	AKita Drilling LTD
SURFACE LOCATION:	UNIQUE ID.:
K-77-60-50-122-30	300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS

	OPR.	R.M.
(1) Daily Walk Around Inspection	Initial	Initial RD
(2) Detailed Inspection-Weekly (using checklist)	Initial	Initial
(3) H²S Signs Posted (if required)	Initial	Initial RD
(4) Well License & Stick Diagram Posted	Initial	Initial RD
(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 RD
(5) Motor Kills checked		Initial

YEAR	MONTH	DAY
99	02	11

RIG NO. 58

FUEL @ 8:00

RIG .69 | BOILER

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

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.6	53.6	PRUDENTIAL	J55	41	537.43	6.45	535

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

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	Casing, bowl				
MORN.														5¾								2¼				
DAY														8												
EVE.														8												
TOTAL														21¾												

TOTALS

	8
	8
	8
	24

SHALE SHAKER(S)

NO.	TYPE		
2	Derrick	Derrick	
SCREENS CHANGED ☐ YES ☐ NO			
	TOP	TOP	
	MIDDLE	MIDDLE	
	BOTTOM	BOTTOM	

RENTALS/SERVICES

	MORN	DAY	EVE
TMJ - 15018			
AMJ - 6530			
Accum oil - .29			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Gary Petrunik

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:45	2¾	14	Nipple down diverter
02:45	05:00	2¼	22	Make up casing Bowl.
05:00	08:00	3	14	Nipple up B.O.P.'s

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

DAY TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	16:00	8	14	Nipple up B.O.P's

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	24:00	8	14	NIPPLE UP

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

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115388

LICENCE NO.:	WELL NAME AND NO.:
	Suncor Netla K-77-60-SD-122-30
OPERATOR:	CONTRACTOR:
Suncor Energy	AKita Drilling LTD.
SURFACE LOCATION:	UNIQUE ID.:
K-77-60-SD-122-30	300-K-77-060-S00-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

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

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

YEAR	MONTH	DAY
09	02	10

RIG NO.: 58

FUEL @ 8:00

RIG: 1.02 BOILER:

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

LAST CASING TUBING OR LINER	O.D. (mm)	MIN. I.D. (mm)	kg/m	MAKE	GRADE	NO. OF JOINTS	TOTAL(m) LENGTH	KB. TO CSG HEAD (m)	SET AT (m)
	244.5	226.4	53.6	PRODEVTAL	J55	41	537.43	6.45	535

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

TIME-HRS

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

SHALE SHAKER(S)

NO.: 2 TYPE: Derrick
SCREENS CHANGED ☐ YES ☐ NO
TOP: 84 TOP: 84
MIDDLE: MIDDLE:
BOTTOM: BOTTOM:

RENTALS/SERVICES

	MORN.	DAY	EVE.
TMJ 1500H			
AMJ 6516			
Ace Oil 29			

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC: 1000 daN
WT. OF STRING: 1000 daN

BIT RECORD

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

CUTTING STRUCTURE T_i	T_0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

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

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6400	152	75	152	75

REDUCED PUMP SPEED

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DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
STRAP = 539.52		
Measured = 540m		
Diff = -.48m		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:15	¼	5	Break Circ.
00:15	01:30	1¼	6	R.I.H survey every 100m 378, R.I.H TO 540m.
01:30	02:00	½	5	Circulate & work string
02:00	02:15	¼	10	Survey @ 503
02:15	02:30	¼	7	Rig Service
02:30	04:15	1¾	6	Path To 178 D.C. Blow Mud Line P.O.H TO 338DC
04:15	05:15	1	22	Lay down 228mm D.C. + subs
05:15	07:45	2½	12	Rig up to run casing
07:45	08:00	¼	21	Held Safety meeting

NOTES: √Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC: 1000 daN
WT. OF STRING: 1000 daN

BIT RECORD

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

CUTTING STRUCTURE T_i	T_0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

DAY TOUR

METRES DRILLED

FROM	TO	DR.O. RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
540				

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	11:30	3½	12	make up shoe & Float, Run Casing.
11:30	13:00	1½	5	Break Circ, work Casing
13:00	14:00	1	12	Continue Running Casing.
14:00			5	Circulate, Rig out Lay down & power Tongs.
	16:00	2		Rig up Cementers.

NOTES: √Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC: 1000 daN
WT. OF STRING: 1000 daN

BIT RECORD

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

CUTTING STRUCTURE T_i	T_0	MDC	LOC	B	Gage	ODC	Reason Pulled	Total Run m/hr.

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

FROM	TO	DR.O. RM.R. CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
540				

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	¼	7	Rig service
16:15	16:30	¼	5	Circulate & work casing.
16:30	16:45	¼	21	Safety meeting
16:45	18:30	1¾	12	Make up Cement head & cement
18:30	19:00	½	12	RIG OUT CEMENTERS
19:00	24:00	5	14	Nipple Down Diverter
				Cemented with 35 Tonne KCL + 12 GAL + 22.046 (100% excess) 5m³ Good Cement Returns. Cement Top Stable at surface. Plug Down @ 19:30

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

FOLD HERE →

115387

LICENCE NO.:	WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30
OPERATOR: Suncor Energy	CONTRACTOR: AKita Drilling LTD
SURFACE LOCATION: K-77-60-50-122-30	UNIQUE ID.: 300-K-77-060-500-122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

YEAR	MONTH	DAY
99	02	09

RIG NO. 58

FUEL @ 8:00

RIG 1038 | BOILER

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

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

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	29.07	E2	104	165	5"XH	33	F-1000	Emsco	254
							F-1000	Emsco	254

TIME-HRS

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

TOTALS

	8
	8
	8
	24

SHALE SHAKER(S)

NO. 2 TYPE Derrick

SCREENS CHANGED ☐ YES ☒ NO

TOP 84	TOP 84
MIDDLE 84	MIDDLE 84
BOTTOM 84	BOTTOM 84

RENTALS/SERVICES

	MORN.	DAY	EVE
MT SLC. 5863			
MT ACC. 14351			
Acc. oil 29			

DRILLING ASSEMBLY (At End of Tour)

NO.				LENGTH
	BIT 311	O.D. mm		.35 m
1	Bit sub			.92 m
3	228mm D.C.			27.72 m
1	X/O			1.38 m
12	178mm D.C.			114.27 m
1	X/O			1.42 m
9	H.W.			82.77 m
		BHA		228.83 m
				m
				m
				m
8	D.P.	STANDS		229.42 m
	D.P.	SINGLES		m
	KELLY DOWN			m
	TOTAL			458.25 m
WT. OF DC		32 000		1000 daN
WT. OF STRING		44 000		1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	311
IADC CODE	
MFG.	H.C.
TYPE	J1
SERIAL NO.	87703
JETS (mm)	3x18
DEPTH OUT (m)	
DEPTH IN (m)	315
TOTAL METRES DRILLED (m)	143
TOTAL HOURS RUN	13

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	4570 FT/LB.
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME	02:00	04:00	06:00
DENSITY kg/m³	1070	1090	
FUNNEL VIS. - (S/L)	98	100+	
W.L. (cm³)	10.5	10.5	
pH	10.5	10.0	
PVT M3	43.2	46.2	

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	12 sx
Visplex	3 sx
Floplex	5 sx
Caustic	1 sx

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
401	458	57	170	9/6

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5900	152	75	152	75

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
341	3/4°	
418	1°	
498		

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	00:15	1/4	10	Survey @ 391m
00:15	03:15	3	2	Drill 311mm hole F/401m - 428m
03:15	03:30	1/4	10	Survey @ 428m
03:30	03:45	1/4	7	Rig Service
03:45	07:45	4	2	Drill F/428m - 458m
07:45	08:00	1/4	10	Survey @ 458m

NOTES √Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DRILLING ASSEMBLY (At End of Tour)

NO.				LENGTH
	BIT 311	O.D. mm		.35 m
1	Bit Sub			.92 m
3	228 mm DC			27.72 m
1	X/O			1.38 m
12	178 mm DC			114.27 m
1	X/O			1.42 m
9	H.W.			82.77 m
		BHA:		228.83 m
				m
				m
				m
11	D.P.	STANDS		314.54 m
	D.P.	SINGLES		m
Stabup	KELLY DOWN			15.37 m
	TOTAL			528.00 m
WT. OF DC		32,000		1000 daN
WT. OF STRING		45000		1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	311
IADC CODE	
MFG.	H.C.
TYPE	J1
SERIAL NO.	87703
JETS (mm)	3x18
DEPTH OUT (m)	-
DEPTH IN (m)	315
TOTAL METRES DRILLED (m)	213
TOTAL HOURS RUN	19 3/4

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	4570 FT/LB
FILL ON BOTTOM (m)	-

MUD RECORD

MUD TYPE ☒ WATER BASED ☐ OIL BASED			
TIME	01:00	12:00	15:00
DENSITY kg/m³	1120	1130	1130
FUNNEL VIS. - (S/L)	98	96	98
W.L. (cm³)	12.0	14.0	14.0
pH	10.0	10.0	10.8
PVT m³	45.8	44.4	47.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Potassium	15 sx
Floplex	45x Premix

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
	1120	1110	1140
HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)

DAY TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
458	528	70	100/100	8/10

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
5950	152	75	152	75

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
477	3/4	
505	0°	

DRILLER SIGNATURE

Gen Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	11:00	3	2	Drill 311mm Hole F/458m - 487m
11:00	11:15	1/4	10	Survey @ 477m
11:15	11:30	1/4	22	Service Top Drive
11:30	11:45	1/4	7	Rig Service
11:45	13:45	2	2	Drill F/487m - 510m
13:45	14:00	1/4	23	Clean plugged Flow line.
14:00	14:15	1/4	2	Drill F/510m - 515m
14:15	14:30	1/4	10	Survey @ 505
14:30	16:00	1 1/2	2	Drill F/515m - 528m

NOTES √Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	220		Environmental	

DRILLING ASSEMBLY (At End of Tour)

NO.				LENGTH
	BIT 311	O.D. mm		.35 m
1	Bit sub			.92 m
3	228 mm D.C			27.72 m
1	X/O			1.38 m
1	X/O			.37 m
1	monel			9.26 m
1	X/O			.30 m
12	178mm	D.C		114.27 m
1	X/O			1.42 m
9	H.W			82.77 m
		BHA:		238.76 m
	D.P.	STANDS		m
	D.P.	SINGLES		m
	KELLY DOWN			m
	TOTAL			m
WT. OF DC				1000 daN
WT. OF STRING				1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	311
IADC CODE	
MFG.	H.C.
TYPE	J1
SERIAL NO.	87703
JETS (mm)	3x18
DEPTH OUT (m)	540
DEPTH IN (m)	315
TOTAL METRES DRILLED (m)	225
TOTAL HOURS RUN	21 1/2

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED			
TIME			
DENSITY kg/m³			
FUNNEL VIS. - (S/L)			
W.L. (cm³)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

FROM	TO	DR'D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
528	540	12	100/100	8/10

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
351	3/4	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:45	1 3/4	2	Drill 311mm Hole F/528m - 540m
17:45	18:30	3/4	5	Circulate hole Clean
18:30	21:15	2 3/4	6	P.O.O.H. √ & clean bit
21:15	23:30	2 1/4	6	R.I.H / STD 22# P/U monel R.I.H. survey @ 35m, 130m, 263m,
23:30	24:00	1/2	10	Accumulated surveys

NOTES √Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	210			

FOLD HERE →

115386

LICENCE NO.:	WELL NAME AND NO.:
	Suncor Netla K-77-60-SD-122-30
OPERATOR: Suncor Energy	CONTRACTOR: Akita Drilling LTD.
SURFACE LOCATION: K-77-60-SD-122-30	UNIQUE ID.: 300K770605D012230
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

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

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

YEAR 99 | MONTH 02 | DAY 08
RIG NO. 54
FUEL @ 8:00
RIG 136 | BOILER

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

LAST CASING TUBING OR LINER

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

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)
127	39.09	E2	108	165	5" XH	18	F-1000	Emsco	254
							F-1000	Emsco	254

TIME-HRS

CODE NO.	1 OPER.	2 RIG UP & TEAR DOWN	3 DRILL ACTUAL	4 REAMING	5 CORING	6 COND. MUD & CIRC.	7 TRIPS	8 RIG SERVICE	9 REPAIR RIG	10 CUT OFF DRILL LINE	11 DEV. SURVEY	12 WIRE LINE LOGS	13 RUN CASE & CEMENT	14 WAIT ON CEMENT	15 NIPPLE UP B.O.P.	16 TEST B.O.P.	17 DRILL STEM TEST	18 PLUG BACK	19 SQUEEZE CEMENT	20 FISHING	21 DIR. WORK	22 SAFETY MTG.	23 Pump Suctions	24 Break Circ	25 change Bits	26
	MORN.		6¼				¾	1/4			½												1			
	DAY		3¾	2			3¼	¼			¼													¼	¼	
	EVE.		6				1½				½															
	TOTAL		14½	2			4¼	½			1¼												1	¼	¼	

TOTALS

8	
8	
8	
24	

SHALE SHAKER(S)

NO. 3 | TYPE Derrick
SCREENS CHANGED ☐ YES ☑ NO
TOP 84 | TOP 84
MIDDLE 84 | MIDDLE 84
BOTTOM 84 | BOTTOM 84

RENTALS/SERVICES

	MORN.	DAY	EVE.
MIS SLC 5272			
MIS ACC 13710			
Acc. oil 24			

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.			LENGTH
	BIT 311	O.D.mm	.35 m
1	Bit Sub		.92 m
3	228 mm DC		27.72 m
1	X/O		1.38 m
12	178 D.C		114.27 m
1	X/O		1.42 m
9	H.W.T		82.77 m
		BHA= 228.83 m	
3	D.P.	STANDS	86.46 m
	D.P.	SINGLES	m
	KELLY DOWN		17.29 m
	TOTAL		398 m
WT. OF DC			1000 daN
WT. OF STRING	40000		1000 daN

BIT RECORD

BIT NO.	1
SIZE (mm)	311
IADC CODE	117
MFG.	REED
TYPE	HP11
SERIAL NO.	431711
JETS (mm)	20 15 15
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	398
TOTAL HOURS RUN	22¼

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM 35223 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	02:00	04:00	06:00
DENSITY kg/m³	1040	1040	1040
FUNNEL VIS. - (S/L)	98	93	96
W.L. (cm³)	12	12	12
pH	11	11	11
PVT m³	45.8	44.7	43.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

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

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1040	1020	1730

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
237	298	61	160/Hd	6/9

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
2400	152	100	152	100

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
256	¼	
286	¾	

DRILLER SIGNATURE For Coach

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:00	2	2	Drill 311mm hole F/237m - 255m
02:00	03:00	1	22	Clean out pump suctions
03:00	03:15	¼	2	Drill 311mm hole F/255 - 257m
03:15	03:30	¼	10	Survey @ 256m
03:30	03:45	¼	7	Rig Service
03:45	06:30	2¾	2	Drill F/257m - 286m
06:30	06:45	¼	10	Survey @ 286m
06:45	08:00	1¼	2	Drill F/286m - 298m

NOTES √ Crown Saver, deadline anchor, fastline clamp Solid .5

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.			LENGTH
	BIT 311	O.D.mm	.35 m
1	Bit sub		.92 m
3	228 mm	DC	27.72 m
1	X/O		1.38 m
12	178 mm	DC	114.27 m
1	X/O		1.42 m
9	H.W.D.P		82.77 m
		B.H.A=228.83 m	
3	D.P.	STANDS	86.46 m
	D.P.	SINGLES	m
	KELLY DOWN		m
	TOTAL		315.29 m
WT. OF DC	32.000		1000 daN
WT. OF STRING	40.000		1000 daN

BIT RECORD

BIT NO.	1	2
SIZE (mm)	311	311
IADC CODE	117	
MFG.	Reed	HTC
TYPE	HP11	J1
SERIAL NO.	431711	87703
JETS (mm)	20 15 15	18 18 18
DEPTH OUT (m)	315	
DEPTH IN (m)	0	315
TOTAL METRES DRILLED (m)	315	
TOTAL HOURS RUN	24½	

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☑ WATER BASED ☐ OIL BASED

TIME	09:00	12:00	
DENSITY kg/m³	1040	\	
FUNNEL VIS. - (S/L)	94		
W.L. (cm³)	12		
pH	11		
PVT m³	46.4		

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	10 SX
GEL	10 SX
CELLO	1 SX

SOLIDS CONTROL

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

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

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
298	315	17	160/Hd	6/9

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

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
315	0°	

DRILLER SIGNATURE Gary Patrick

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	10:15	2¼	2	Drill 311mm Hole F/298m - 315m
10:15	10:30	¼	10	Survey @ 315m
10:30	10:45	¼	23	Try To Break Circulation, Packed OFF
10:45	13:30	2¾	6	P.O.O.H.
13:30	13:45	¼	24	Change Bits.
13:45	14:00	¼	7	RS
14:00	16:00	2	3	R.I.H., Ream F/20m - 100m

NOTES √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	230			

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

NO.			LENGTH
	BIT 311	O.D.mm	.35 m
1	Bit sub		.92 m
3	228 mm	DC	27.72 m
1	X/O		1.38 m
12	178 mm	D.C.	114.27 m
1	X/O		1.42 m
9	H.W.		82.77 m
		BHA	228.83 m
6	D.P.	STANDS	172.39 m
	D.P.	SINGLES	m
Stuck up	KELLY DOWN		.22 m
	TOTAL		401 m
WT. OF DC			1000 daN
WT. OF STRING	42000		1000 daN

BIT RECORD

BIT NO.	2
SIZE (mm)	311
IADC CODE	
MFG.	H.C.
TYPE	J1
SERIAL NO.	87703
JETS (mm)	3X18
DEPTH OUT (m)	
DEPTH IN (m)	315
TOTAL METRES DRILLED (m)	86
TOTAL HOURS RUN	6

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM 4800 FT/LBS
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	19:00	21:00	24:00
DENSITY kg/m³	1040	1065	1070
FUNNEL VIS. - (S/L)	96	97	96
W.L. (cm³)	10.8	10.5	10.5
pH	11.0	10.5	10.5
PVT m³	42.0	40.8	39.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Floplex	5 SX
Potassium	5 SX

SOLIDS CONTROL

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

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

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
315	401	86	170	7/8

CIRCULATION PRESSURE (kPa)	PUMP NO. 1 LINER SIZE (mm)	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE (mm)	PUMP NO. 2 S.P.M.
6000	152	75	152	75

REDUCED PUMP SPEED @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
333	¾°	
362	1/4°	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	17:30	1½	6	R.I.H. F/100m - 315m
17:30	19:00	1½	2	Dr. ll 311mm Hole F/315m - 343m
19:00	19:15	¼	10	Survey @ 333m
19:15	21:30	2¼	2	Drill F/343m - 372m
21:30	21:45	¼	10	Survey @ 362m
21:45	24:00	2¼	2	Drill F/372m - 401m

NOTES √ Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					

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115385

LICENCE NO.:

WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30

OPERATOR: Suncor Energy

CONTRACTOR: AKita Drilling LTD.

SURFACE LOCATION: K-77-60-50-122-30

UNIQUE ID.: 300K770605001 2230

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

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

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

YEAR 19 | MONTH 02 | DAY 07

RIG NO.: 58

FUEL @ 8:00

RIG 1.66 | BOILER

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

LAST CASING TUBING OR LINER

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

DC/DP SIZE (mm)	LINEAR MASS (kg/m)	GRADE	MIN. ID (mm)	TOOL JT O.D. (mm)	TYPE THREAD	NO. OF JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
127	29.02	E2	108	165	5"XH	3	F-1000	Emsco	254
							F-1000	Emsco	254

TIME-HRS

CODE NO.	OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.	22	23	24	25	26	TOTALS
1	MORN.		2			3/4		1/4			1/4												Handle Tools 2½	Screens 2¾				8
2	DAY		6¾					1/4			1																	8
3	EVE		7¼								3/4																	8
	TOTAL		16			3/4		1/2			2												2½	2¾				12

SHALE SHAKER(S): NO. 3; TYPE Derrick; SCREENS CHANGED ☑ YES ☐ NO; TOP 175 / TOP 140; MIDDLE 175 / MIDDLE 140; BOTTOM 175 / BOTTOM 140

RENTALS/SERVICES: MJ SLC 4759; MJ ACC 13247

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
	BIT 31		.35 m
1	Bit sub		.92 m
3	311 mm D.C.		27.72 m
1	Bell sub		1.38 m
1	178 mm D.C		9.39 m
1	X/O		1.42 m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
	KELLY DOWN		5.82 m
	TOTAL		47 m

WT. OF DC — WT. OF STRING 22000 (1000 daN)

BIT RECORD

BIT NO.	1
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	REED
TYPE	HP-11
SERIAL NO.	431711
JETS (mm)	20 15 15
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	47
TOTAL HOURS RUN	2

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG E; TORQUE AT BOTTOM 3200 FT/LBS; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

MORNING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
0	47	47	100/120	3/5

CIRCULATION PRESSURE (kPa) | PUMP NO. 1: LINER SIZE (mm), S.P.M. | PUMP NO. 2: LINER SIZE (mm) 159, S.P.M. 100

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
30	1/4	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	02:30	2½	22	P/U 278mm D.C. To Spud
02:30	03:00	½	2	Drill F/0-25m
03:00	03:45	¾	23	Change screens on both shakers F/300° to 175°
03:45	04:00	¼	2	Drill F/35-31m
04:00	04:15	¼	5	Displace hole to mud
04:15	05:15	1	2	Drill 311mm hole F/31m-40m
05:15	05:30	½	10	Survey @ 30m
05:30	05:45	¼	7	Rig Service
05:45	06:00	¼	23	Drill F/40-47
06:00	07:30	1½	23	Change shaker screens to 84°
07:30	08:00	½	5	Treat mud

NOTES: √ Crown saver, deadline anchor, fastline clamp, Accum - 89

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	220			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub		.92 m
3	228 DC		27.72 m
1	X/O		1.38 m
12	178 DC		114.27 m
1	X/O		1.42 m
2	H.WDP		18.18 m
			m
			m
			m
			m
			m
	D.P.	STANDS	m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		- 2.00 m
	TOTAL		162.24 m

WT. OF DC — WT. OF STRING 33,000 (1000 daN)

BIT RECORD

BIT NO.	1
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	Reed
TYPE	HP-11
SERIAL NO.	431711
JETS (mm)	20 15 15
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	162
TOTAL HOURS RUN	83/4

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG; TORQUE AT BOTTOM 3200 FT/LBS; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

PRODUCT	AMOUNT X UNIT
VisPlex	20 SX
FloPlex	42 SX
Pot Sul	80 SX
Soda Ash	4 SX

SOLIDS CONTROL

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

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

HOURS RUN	INTAKE DENSITY (kg/m³)	OVERFLOW DENSITY (kg/m³)	UNDERFLOW DENSITY (kg/m³)
8	1040	1015	1750

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

DAY TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
47	162	115	120/150	5/6

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

2700

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
59	1/2	
89	3/4	
115	3/4	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	08:30	½	2	Drill 311mm Hole F/47m - 55m
08:30	08:45	¼	7	RS
08:45	09:45	1	2	Drill F/55m - 69m
09:45	10:00	¼	10	Survey @ 59m
10:00	11:30	1½	2	Drill F/69m - 98m
11:30	11:45	¼	10	Survey @ 89m
11:45	13:30	1¾	2	Drill F/98m - 126m
13:30	14:00	¼	10	Survey @ 115m
14:00	15:15	1¼	2	Drill F/126m - 155m
15:15	15:30	¼	10	Survey @ 146m - M.S Run
15:30	16:00	½	2	Drill F/155m - 162m

NOTES: √ Crown Saver, Fastline Clamp, Deadline Anchor.

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	210			

DRILLING ASSEMBLY (At End of Tour)

NO.	BIT	O.D. mm	LENGTH
1	Bit Sub		.92 m
3	228 DC		27.72 m
1	X/O		1.38 m
12	178 DC		114.27 m
1	X/O		1.42 m
9	H.W.T		82.77 m
			m
	BHA:		228.83 m
			m
1	D.P.	STANDS	28.54 m
	D.P.	SINGLES	m
Stick up	KELLY DOWN		20.37 m
	TOTAL		237 m

WT. OF DC — WT. OF STRING 40000 (1000 daN)

BIT RECORD

BIT NO.	1
SIZE (mm)	311
IADC CODE	1 1 7
MFG.	Reed
TYPE	HP-11
SERIAL NO.	431711
JETS (mm)	20 15 15
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL METRES DRILLED (m)	237
TOTAL HOURS RUN	16

CUTTING STRUCTURE: T1 | T0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

HOLE CONDITION: HOLE DRAG; TORQUE AT BOTTOM 3900 FT/LBS; FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

TIME	18:00	21:00
DENSITY kg/m³	1040	1040
FUNNEL VIS. - (S/L)	96	94:00 / 1040
W.L. (cm³)	110	11 / 98
pH	11.5	11 / 11
PVT m³		47.7 / 44.9

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

PRODUCT	AMOUNT X UNIT
FLOPLEX	5 SX

SOLIDS CONTROL

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

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

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

EVENING TOUR

METRES DRILLED

FROM	TO	DR-D RM-R CORE-C	ROTARY R.P.M.	WT. ON BIT (1000 daN)
162	237	75	134/140	6/8

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

2900

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION
155	3/4	
182	1/2	
209	1	

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	16:15	¼	2	Drill 311mm Hole F/162m - 169m
16:15	16:30	¼	10	Survey @ 155m
16:30	18:30	2	2	Drill F/169m - 192m
18:30	18:45	¼	10	Survey @ 182m
18:45	20:45	3	2	Drill F/192m - 219m
20:45	21:00	¼	10	Survey @ 209m
21:00	24:00	3	2	Drill F/219m - 237m

NOTES: √ Crown Saver, deadline anchor, fastline clamp

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	210			

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115384

LICENCE NO.:

WELL NAME AND NO.: Suncor Netla K-77-60-20-122-30

OPERATOR: Suncor Energy

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-20-122-30

UNIQUE ID.: 300K776050012230

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

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

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

YEAR: 99 MONTH: 02 DAY: 06

RIG NO.: 58

FUEL @ 8:00

RIG: 190 BOILER:

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

LAST CASING TUBING OR LINER

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

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

PUMP TYPE	PUMP MANUFACTURER	STROKE LTH. (mm)
F-1000	Emsco	254
F-1000	Emsco	254

TIME-HRS

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

TOTALS: 8 / 8 / 8 / 24

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

RENTALS/SERVICES — MORN. / DAY. / EVE.

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

CUTTING STRUCTURE: T_i | T_0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	30 SX
Soda Ash	1 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

MORNING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ / @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
00:00	06:00	6	22	Rig up Top drive
06:00	08:00	2	23	Rig up diverter

NOTES: ✓ deadline anchor

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	210			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

CUTTING STRUCTURE: T_i | T_0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT
Gel	10 SX
Caustic	5 SX

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

DAY TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ / @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	16:00	8	23	Rig up Diverter, Blewy line, Cut g weld Flow nipple, + Swedge for flowline

NOTES: ✓ Deadline Anchor, Fastline Clamp.

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	210			

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

CUTTING STRUCTURE: T_i | T_0 | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr.

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

EVENING TOUR

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ / @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
16:00	20:00	4	23	Finish Rig up Blewy line.
20:00	23:30	3½	24	Prep to spud
23:30	24:00	½	21	Pre spud meeting.

Set TQ 20300 FT/LBS D.J.

NOTES: ✓ deadline anchor, Fastline clamp

BOILER HRS. RAN	BOILER ph	BOILER STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8	10	210			

FOLD HERE →

115383

LICENCE NO.:

WELL NAME AND NO.: Suncor Netla K-77-60-SD-122-30

OPERATOR: Suncor Energy

CONTRACTOR: AKita Drilling LTD.

SURFACE LOCATION: K-77-60-SD-122-30

UNIQUE ID.: 300K776050012230

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

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

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

YEAR: 09 MONTH: 08 DAY: 05

RIG NO.: 58

FUEL @ 8:00

RIG: BOILER:

WEATHER

TEMPERATURE °C
CURRENT CONDITIONS
WIND DIRECTION
ROAD

LAST CASING TUBING OR LINER

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

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

TIME-HRS

CODE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTALS
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.	Top Drive					
MORN.																											
DAY																											
EVE.																											
TOTAL																											

SHALE SHAKER(S)

NO. TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP / TOP
MIDDLE / MIDDLE
BOTTOM / BOTTOM

RENTALS/SERVICES — MORN. DAY EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC 1000 daN
WT. OF STRING 1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	17:00	9	1	Rig up Floor, unbridle blocks, rig up floor, Re-fabs.

NOTES

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC 1000 daN
WT. OF STRING 1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

Barry Patnode

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00				Rig up Floor, mud Tanks, Rig up prefabs
	21:00	13	1	Rig up Rotary Chain, Standpipe, Finish Floor.
21:00	24:00	3	22	Rig up Top Drive

NOTES

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC 1000 daN
WT. OF STRING 1000 daN

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

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

NOTES

BOILER HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
8					

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115382

LICENCE NO.:

WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30

OPERATOR: Suncor Energy

CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: K-77-60-50-122-30

UNIQUE ID.: 300K770050012230

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S RIG MANAGER:

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

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

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

YEAR: 99 MONTH: 02 DAY: 04

RIG NO.: 58

FUEL @ 8:00

RIG | BOILER

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

LAST CASING TUBING OR LINER

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

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S): NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES — MORN | DAY | EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN

WT. OF STRING — 1000 daN

BIT RECORD

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

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

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	24:00	16	1	Plug Power cords, string Blocks, Raise & pin derrick

NOTES

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN

WT. OF STRING — 1000 daN

BIT RECORD

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

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

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
08:00	24:00	16	1	Rig up water & steam, circulate same
				Boiler Fired 1000 HRS

NOTES

BOILER: HRS. RAN	ph	STACK TEMP.	MAXIMUM EXPERIENCED HOOKLOAD	SAFETY TOPIC	M.A.C.P.
12					

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN

WT. OF STRING — 1000 daN

BIT RECORD

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

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

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED: PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

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

NOTES

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

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115381

LICENCE NO.:	WELL NAME AND NO.: Suncor Netla K-77-60-50-122-30
OPERATOR: Suncor Energy	CONTRACTOR: AKita Drilling LTD
SURFACE LOCATION: K-77-60-50-122-30	UNIQUE ID.: 300K770605012230
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

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

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

YEAR 99 | MONTH 02 | DAY 05

RIG NO. 54

FUEL @ 8:00

RIG | BOILER

LAST CASING TUBING OR LINER

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

WEATHER

	°C
TEMPERATURE	
CURRENT CONDITIONS	
WIND DIRECTION	
ROAD	

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☒ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS/SERVICES — MORN. | DAY | EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
08:00	24:00	16	1

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Rig up shop, Plug power cords
Set up rig lights

NOTES

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
12:00	24:00	8	1

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Rig up shop, Pull power cords

NOTES

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED

@ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

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

FOLD HERE →

107520

LICENCE NO.:	WELL NAME AND NO.: SUNCOR NETLA K77-60-50-122-30
OPERATOR: SUNCOR ENERGY	CONTRACTOR: NETA DRILLING LTD
SURFACE LOCATION: K77-60-50-122-30	UNIQUE ID.: 300K7706050012230
SIGNATURE OF OPERATOR'S REPRESENTATIVE:	SIGNATURE OF CONTRACTOR'S RIG MANAGER:

DAILY CHECKS — OPR. / R.M.

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

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

YEAR 99 | MONTH 02 | DAY 22
RIG NO. 58
FUEL @ 8:00
RIG | BOILER

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

LAST CASING TUBING OR LINER

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

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)

NO. | TYPE
SCREENS CHANGED ☐ YES ☐ NO
TOP | TOP
MIDDLE | MIDDLE
BOTTOM | BOTTOM

RENTALS/SERVICES

	MORN	DAY	EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0600	2000	12	1

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Spot matting, mud Tanks & Buildings
Rig up shackers & Flare Line
Rig up Fuel Lines & START COLD START

NOTES: HELD SAFETY MEETING w/CREW & TANK OPERATORS

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.
0600	2000	12	1

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

Spot matting
Spot mud tanks & Buildings
pin monkey board on derrick

NOTES

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

WT. OF DC — 1000 daN
WT. OF STRING — 1000 daN

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT	AMOUNT X UNIT

SOLIDS CONTROL

DESILTER

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

CENTRIFUGE

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

NOTES

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

FOLD HERE ➔

107518

LICENCE NO.:	WELL NAME AND NO.: Suncor Netra K77-60-50-122-30
OPERATOR: SUNCOR ENERGY	CONTRACTOR: AKITA DRILLING LTD
SURFACE LOCATION: K77-60-50-122-30	UNIQUE ID.: 300K770605000/2230
SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]	SIGNATURE OF CONTRACTOR'S RIG MANAGER: [signature]

DAILY CHECKS — OPR. — R.M.

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

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

YEAR	MONTH	DAY
97	02	01

RIG NO. 58

FUEL @ 8:00 — RIG ____ BOILER ____

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

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

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

TIME - HRS

CODE NO.	1	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
OPER.	RIG UP & TEAR DOWN	DRILL ACTUAL	REAMING	CORING	COND. MUD & CIRC.	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRE LINE LOGS	RUN CASE & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MTG.						
MORN.																											
DAY																											
EVE.																											
TOTAL																											

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

RENTALS/SERVICES — MORN. / DAY / EVE.

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour): NO. / BIT / O.D. mm / LENGTH m — D.P. STANDS / D.P. SINGLES / KELLY DOWN / TOTAL / WT. OF DC (1000 daN) / WT. OF STRING (1000 daN)

BIT RECORD: BIT NO. / SIZE (mm) / IADC CODE / MFG. / TYPE / SERIAL NO. / JETS (mm) / DEPTH OUT (m) / DEPTH IN (m) / TOTAL METRES DRILLED (m) / TOTAL HOURS RUN / CUTTING STRUCTURE T_1 T_0 MDC LOC / B / Gage / ODC / Reason Pulled / Total Run m/hr.

HOLE CONDITION: HOLE DRAG / TORQUE AT BOTTOM / FILL ON BOTTOM (m)

MUD RECORD: MUD TYPE ☐ WATER BASED ☐ OIL BASED — TIME / DENSITY kg/m³ / FUNNEL VIS. - (S/L) / W.L. (cm³) / pH

MUD MATERIALS ADDED: PRODUCT / AMOUNT X UNIT

SOLIDS CONTROL: DESILTER — HOURS RUN / INTAKE DENSITY (kg/m³) / OVERFLOW DENSITY (kg/m³) / UNDERFLOW DENSITY (kg/m³); CENTRIFUGE — HOURS RUN / INTAKE DENSITY / OVERFLOW DENSITY / UNDERFLOW DENSITY

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

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

REDUCED PUMP SPEED @ ____ @ ____

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

DRILLER SIGNATURE: [signature]

TIME LOG / DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM	TO	ELAP TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	2000	12	1	Spot matting & subs, spreaders Pin Derrick & Drawworks

NOTES: Held Safety meeting w/crane & Truckers Suncor Safety Rep.

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour): NO. / BIT / O.D. mm / LENGTH m — D.P. STANDS / D.P. SINGLES / KELLY DOWN / TOTAL / WT. OF DC (1000 daN) / WT. OF STRING (1000 daN)

BIT RECORD: BIT NO. / SIZE (mm) / IADC CODE / MFG. / TYPE / SERIAL NO. / JETS (mm) / DEPTH OUT (m) / DEPTH IN (m) / TOTAL METRES DRILLED (m) / TOTAL HOURS RUN / CUTTING STRUCTURE T_1 T_0 MDC LOC / B / Gage / ODC / Reason Pulled / Total Run m/hr.

HOLE CONDITION: HOLE DRAG / TORQUE AT BOTTOM / FILL ON BOTTOM (m)

MUD RECORD: MUD TYPE ☐ WATER BASED ☐ OIL BASED — TIME / DENSITY kg/m³ / FUNNEL VIS. - (S/L) / W.L. (cm³) / pH

MUD MATERIALS ADDED: PRODUCT / AMOUNT X UNIT

SOLIDS CONTROL: DESILTER / CENTRIFUGE — HOURS RUN / INTAKE DENSITY / OVERFLOW DENSITY / UNDERFLOW DENSITY

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

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

REDUCED PUMP SPEED @ ____ @ ____

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

DRILLER SIGNATURE

FROM	TO	ELAP TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0800	20:00	12	1	Spot matting, pin, subs Pin up Derrick & Drawworks

NOTES:

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour): NO. / BIT / O.D. mm / LENGTH m — D.P. STANDS / D.P. SINGLES / KELLY DOWN / TOTAL / WT. OF DC (1000 daN) / WT. OF STRING (1000 daN)

BIT RECORD: BIT NO. / SIZE (mm) / IADC CODE / MFG. / TYPE / SERIAL NO. / JETS (mm) / DEPTH OUT (m) / DEPTH IN (m) / TOTAL METRES DRILLED (m) / TOTAL HOURS RUN / CUTTING STRUCTURE T_1 T_0 MDC LOC / B / Gage / ODC / Reason Pulled / Total Run m/hr.

HOLE CONDITION: HOLE DRAG / TORQUE AT BOTTOM / FILL ON BOTTOM (m)

MUD RECORD: MUD TYPE ☐ WATER BASED ☐ OIL BASED — TIME / DENSITY kg/m³ / FUNNEL VIS. - (S/L) / W.L. (cm³) / pH

MUD MATERIALS ADDED: PRODUCT / AMOUNT X UNIT

SOLIDS CONTROL: DESILTER / CENTRIFUGE — HOURS RUN / INTAKE DENSITY / OVERFLOW DENSITY / UNDERFLOW DENSITY

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

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

REDUCED PUMP SPEED @ ____ @ ____

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

DRILLER SIGNATURE

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

NOTES:

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

FOLD HERE →

107517

LICENCE NO.: | WELL NAME AND NO.: Sunoco Netla K77-60-50-12-30

OPERATOR: Sunoco Energy | CONTRACTOR: Akita Drilling LTD

SURFACE LOCATION: Sunoco Netla K77 | UNIQUE ID.: 300K770605001223O

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

DAILY CHECKS

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

YEAR | MONTH | DAY: 77 | 01 | 31

RIG NO.: 56

FUEL @ 8:00

PIG | BOILER

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

LAST CASING TUBING OR LINER

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

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

TIME-HRS

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

TOTALS

SHALE SHAKER(S)

NO. | TYPE

SCREENS CHANGED ☐ YES ☐ NO

TOP | TOP

MIDDLE | MIDDLE

BOTTOM | BOTTOM

RENTALS/SERVICES | MO/RN | DAY | EVE

MORNING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0600	12	1	Travel to new location
				Held safety meeting prior to rig up

NOTES: Held safety meeting prior to rig up

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

DAY TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

FROM	TO	ELAP. TIME	CODE NO.	DETAILS OF OPERATION IN SEQUENCE AND REMARKS
0600	0600	12	1	Travel to new location

NOTES

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

EVENING TOUR

DRILLING ASSEMBLY (At End of Tour)

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

BIT RECORD

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

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

HOLE CONDITION

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

MUD RECORD

MUD TYPE ☐ WATER BASED ☐ OIL BASED

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

MUD MATERIALS ADDED

PRODUCT | AMOUNT X UNIT

SOLIDS CONTROL

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

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

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

METRES DRILLED

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

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

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEY

DEPTH (m)	DEVIATION (°)	DIRECTION

DRILLER SIGNATURE

TIME LOG

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

NOTES

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