LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE L[illegible]	**UNIQUE ID**
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 10

RIG NO. 51

FUEL ON DELIVERY | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

ICE

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

	DC/DP	DC/DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS
DRILL STRING								

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG		DP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080210_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

CAODC

PASON DATAHUB

CODE NO.

	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 WELD FLANGE	23	24	25	26
MORN																										
DAY	1.75																				0.25	6.0				
EVE														4.0							1.0	3.0				
TOTAL	1.75													4.00							1.25	9.00				

TOTALS			
	8.00	145	TOP
	8.00	145	MIDDLE
	16.00	145	BOTTOM

SHALE SHAKER(S) | TYPE | TYPE COBRA | SCREENS CHANGED | NEW USED | TOP | MIDDLE | BOTTOM

RENTALS / SERVICES

BOILER #1 A-0039914

BOILER #2 0105437

	MORN	DAY	EVE

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	10
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER	**RIG NO.**		
PARKER/ PRESTON	51		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N.W.T.	X YES NO	1	

MORNING TOUR

NO.	DRILLING ASSEMBLY (TOP TO BOTTOM OF TOOLS)	O.D.	LENGTH
	BIT		
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE | WATER BASED X | OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8		HRS RUN	
BOILER pH			BOILER pH	
STACK TEMP	230		STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

RICK PARKER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

MORNING TOUR FROM 0 TO 800

INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 1

DRIVERS

DAY TOUR

NO.	DRILLING ASSEMBLY (TOP TO BOTTOM OF TOOLS)	O.D.	LENGTH
	BIT		
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE | WATER BASED X | OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8		HRS RUN	8
BOILER pH	10		BOILER pH	10
STACK TEMP	260		STACK TEMP	230

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	21	SAFETY MEETING
815	1000	1.75	1	RIG UP
1000	1600	6.00	22	WELD ON DIVERTOR FLANGE

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

DAY TOUR FROM 800 TO 1600

INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.50			FL
DERRICK HAND		GARY LYSTER T2	12.50			GL
WSC		PAUL REYNOLDS T1	12.50			PR
MOTOR HAND		ROD KAKFWI	12.50			RK
FLOOR HAND		DERRICK SHAE	12.50			DS
FLOOR HAND						
LEASE HAND						
HEAD ROUSTABOUT		ALLEN KELLY	12.50			AK
ROUSTABOUT		CLYDE SEWI	12.50			CS
LEASE HAND		TIM TUTCHO	12.50			TT

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 1

DRIVERS

EVENING TOUR

NO.	DRILLING ASSEMBLY (TOP TO BOTTOM OF TOOLS)	O.D.	LENGTH
	BIT		
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG
TORQUE AT BOTTOM
FILL ON BOTTOM (m)

MUD RECORD

MUD TYPE | WATER BASED X | OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8		HRS RUN	8
BOILER pH	10		BOILER pH	10
STACK TEMP	260		STACK TEMP	230

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1900	3.00	22	WELD ON DIVERTOR FLANGE
1900	2000	1.00	14	NIPPLE UP DIVERTOR
2000	2100	1.00	21	EMERGENCY RESPONSE DRILL&PRE SPUD MEETING
2100	2400	3.00	14	NIPPLE UP DIVERTOR RIG IN CENTRUFUGES
2400				

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

EVENING TOUR FROM 1600 TO 2400

INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	9.00			MM
ASSIST DRILLER		PETER PURKIS	9.00			PP
DERRICK HAND		ANDY ALBERT L3	9.00			AA
DERRICK HAND		LOUIE SZABO	9.00			LS
MOTOR HAND		JESSE EDWARDS T1	9.00			JE
FLOOR HAND		ABRAHAN TUTCHO	9.00			AT
FLOOR HAND		CHARLES GULLY	9.00			CG
LEASE HAND						

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 1

DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	**UNIQUE ID**
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	GPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)	ED	RP
(3.) H2S Signs Posted If Required		
(4.) Well Licence & Stick Diagram Posted	ED	RP
(5.) Flare Lines Staked		
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		RP

YEAR 2008 MONTH 2 DAY 11
RIG NO. 51
FUEL @ 05:00 HRS.
RIG 210 BOILER 230

WEATHER CONDITIONS
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION
ICE

LAST CASING TURNING OR LINER

O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)

DRILL STRING

DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. INT. O.D.	TYPE THREAD	NO. of JOINTS

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

SPUD DATE	2008/02/11
RIG RELEASE	
WELL TYPE	VERT.
OPERATOR'S AFE	P787032
KELLY BSHG	6.15
CONTRACTOR'S JOB NUM	07-22083
TOUR SHEET SERIAL NUM	AKTA51_20080211_1B
VENDOR SOFTWARE VERSION	EDR 3-2-7_HF2 ETS 2.2
TIME	15:30
TIME	
RE-ENTRY	
OP FUEL	

CAODC
PASON DATAHUB

DRILLING TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 WELD SUCT	23 BRAKE UP KELLY	24 WORK ON DIGGER	25	26	TOTALS
MORN	4.75													3.0							0.25						8.00
DAY	3.0	0.5																		2.0			2.5				8.00
EVE		5.75					0.25													0.5	0.25	0.25		1.0			8.00
TOTAL	7.75	6.25					0.25							3.00						2.50	0.50	0.25	2.50	1.00			24.00

SHALE SHAKER(S)
NO. 1 TYPE COBRA — SCREENS CHANGED YES — NEW USED
TOP 89 / MIDDLE 50 / BOTTOM 50

RENTALS / SERVICES
TYPE
BOILER #1 A-0039914
BOILER #2 0105437

	MORN	DAY	EVE

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	11
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER		**RIG NO.**	
PARKER/ PRESTON		51	
PROVINCE	**CAMP** X YES ☐ NO	**RIG SAFETY DAYS**	
N.W.T.		2	

BHA

NO.	DRILLING ASSEMBLY (LISTED OUT TOUR 1)		LENGTH
	BIT	O.D.	
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MORNING TOUR

MUD RECORD

MUD TYPE		WATER BASED X	OIL BASED ☐
TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0			
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0			

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	260	STACK TEMP	230

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM

REDUCED PUMP SPEED
@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE
MIKE MACDONALD T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	300	3.00	14	NIPPLE UP B.O.P.
300	400	1.00	1	RIG UPDEGASSER LINE WELD ON FLARE TANK
400	745	3.75	1	RIG UP TO SPUD
745	800	0.25	21	HAND OVER MEETING
800				

NOTES : BLEWDOWN BOILERS 3X20LT BY 2
REVEIW J.S.A R-27 NIPPLE UP DIVERTER PREPARE TO SPUD
NSPCT AREA#3 DRILL FLOOR & #4 SUBSTRUCTURE

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH						

MORNING TOUR FROM 0 TO 800

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 2

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

INJURIES

DAY TOUR

BHA

NO.	DRILLING ASSEMBLY (LISTED OUT TOUR 2)		LENGTH
1	BIT	O.D. .38	
1	MOTOR	203	9.35
1	X.O	228	.86
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		12.25
	TOTAL		22.84
	WT. OF D.C.		
	WT. OF STRING		18

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X 19.1
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL DRILLED (m)	22
TOTAL HRS RUN	.50

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE	polymer	WATER BASED X	OIL BASED ☐
TIME	1600		
DENSITY (kg/m3)	1040		
FUNNEL VISCOSITY	38		
FLUID LOSS (cm3)			
pH	10.0		
pvt	31.1		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	96	SX
FED ZAN	6	SX
POLY PLUS RD	2	SX
CAUSTIC	1	SX
SODA ASH	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	255	STACK TEMP	270

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
500	152	95	152

REDUCED PUMP SPEED
@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE
FRANCIS LANDRY T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
0	22	D	28	3.5

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1100	3.00	1	RIG UP FLARE TANK
1100	1300	2.00	20	PICK UP MOTOR
1300	1530	2.50	23	MAKE UP KELLY AND DO WALK AROUND
1530	1600	0.50	2	DRILL ACTUAL SPUD AT 1530 HRS F/OM-22M
1600				

NOTES : Function crown saver/pop valve test/tite Ignitor/motor kills
reveiwed jsa R -19 p/u dc /G-13 use of dog collar/G-63 function crown saver

SPECIAL EVENT	0			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				pick up dc		

DAY TOUR FROM 800 TO 1600

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 2

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
HEAD ROUSTABOUT		ALLEN KELLY	12.00			AK
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT

INJURIES

EVENING TOUR

BHA

NO.	DRILLING ASSEMBLY (LISTED OUT TOUR 3)		LENGTH
1	BIT	O.D. .38	
1	MOTOR	203	9.35
1	MONEL		8.03
1	STAB	290	1.58
1	SHOCK SUB	228	4.21
1	X.O	225	.86
1	D.C.	160	9.53
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		12.25
	TOTAL		46.19
	WT. OF D.C.		
	WT. OF STRING		18

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X 19.1
DEPTH OUT (m)	46
DEPTH IN (m)	0
TOTAL DRILLED (m)	46.00
TOTAL HRS RUN	6.25

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	1425
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE	POLYMER	WATER BASED X	OIL BASED ☐	
TIME	2030	2200	2345	
DENSITY (kg/m3)	1040	1050	1050	
FUNNEL VISCOSITY	37	37	38	
FLUID LOSS (cm3)				
pH	10.0	10.0	10.0	
PVT	33.5	34.7	36.8	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
4	1050	1040	1050
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	270	STACK TEMP	250

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
1100	152	70	152	70

REDUCED PUMP SPEED
@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE
MIKE MACDONALD T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
32	46	D	30	4

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1630	0.50	20	DIR. WORK pick up monel
1630	1645	0.25	22	weld suction line on pump
1645	1815	1.50	2	DRILL ACTUAL f/22m-32m
1815	1915	1.00	24	work on auto digger encoder
1915	1930	0.25	21	SAFETY MEETING HAND OVER
1930	1945	0.25	7	RIG SERVICE
1945	2400	4.25	2	ROTARY DRILL 311mm F/32m-46m

NOTES : JSA REVIEW MAKING CONNECTIONS WITH MUD MOTOR,BLOW KELLY BACK, AND PICK UP SUBS
FUNCTION CROWN SAVER,CHECK ACC OIL LEVEL FLARE IGNITOR
NSPCT AREA #3&4 DRILL FLOOR SUBSTRUCTURE

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				CONNECTIONS W/M.M	18	

EVENING TOUR FROM 1600 TO 2400

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 2

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE L[redacted]N	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR ED	R.M. RP
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required	ED	RP
(4.) Well Licence & Stick Diagram Posted		
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed		
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mest Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 2 DAY 12
RIG NO. 51
FUEL @ 05:00 HRS
RIG 175 BOILER 157

TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION
ICE

LAST CASING PUSHING OR LINER

	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
	DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84		65.09	117.48	4 FH	180			

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080212_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7_HF2 ETS 2.2		

CAODC

PASON DATAHUB

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		6.5					0.25			1.0											0.25					
DAY		6.75					0.25			1.0											0.25					
EVE		6.5					0.25			1.0											0.25					
TOTAL		19.75					0.75			3.00											0.50					

TOTALS	SHALE SHAKER(S)			INITIALS / SERVICES	MORN	DAY	EVE
8.00	NO. 1	TYPE COBRA	TYPE	BOILER #1 A-0039914			
8.00	SCREENS CHANGED	YES	NEW USED	BOILER #2 0105437			
8.00	TOP 50	MIDDLE 50	TOP 50	MIDDLE			
24.00	BOTTOM 89		BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWJIKA M-59	2008	2	12
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/ PRESTON	RIG NO. 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS: 3	

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X
	19.1
DEPTH OUT (m)	136
DEPTH IN (m)	0
TOTAL DRILLED (m)	136.00
TOTAL HRS RUN	6.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	1678
FILL ON BOTTOM (m)	

MORNING TOUR

NO.	DRILLING ASSEMBLY (BEGINNING OF TOUR)	O.D.	LENGTH
1	BIT	.38	
1	MOTOR	203	9.35
1	MONEL		8.03
1	STAB	290	1.58
1	SHOCK SUB	228	4.21
1	X.O	225	.86
3	D.C.	160	27.87
1	JAR	136	6.05
7	D.C.	160	65.46
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		12.25
	TOTAL		136.04
	WT. OF D.C.		
	WT. OF STRING		18

MUD RECORD

MUD TYPE: POLYMER — WATER BASED: X — OIL BASED: ☐

TIME	0230	0400	0545
DENSITY (kg/m3)	1060	1070	1100
FUNNEL VISCOSITY	37	38	39
FLUID LOSS (cm3)			
pH	10.0	10.0	9.5
PVT	35.4		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SAWDUST	10	SX
CELLOPHANE	1	SX
FEDZAN D	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1090	1060	1680
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0			

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	250	STACK TEMP	230

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
46	136	D	50	5

CIRCULATION PRESSURE kPa: 2809

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	100	152	100

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
46	.25	

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	230	2.50	2	ROTARY DRILL 311mm HOLE F/46m-64m
230	245	0.25	7	RIG SERVICE FUNCTION ANN C/15SEC
245	645	4.00	2	ROTARY DRILL 311mm HOLE F/64m-136m
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME

NOTES: FUNCTION TEST CROWNSAVER,CHECK ACC OIL LEVEL FLARE IGNITOR
JSA REVIEW OPERATING DRILLERS PANEL, CROWN SAVER FUNCTION
BOILER BLOWDOWN 3X60L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				CROWN SAVER		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 3 — DRIVERS

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

INJURIES

DAY TOUR

NO.	DRILLING ASSEMBLY (BEGINNING OF TOUR)	O.D.	LENGTH
1	BIT	.38	
1	MOTOR	203	9.35
1	MONEL		8.03
1	STAB	290	1.58
1	SHOCK SUB	228	4.21
1	X.O	225	.86
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
3	H.W.D.P.	102	47.25
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		8.83
	TOTAL		235.00
	WT. OF D.C.	21	
	WT. OF STRING	35	

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X
	19.1
DEPTH OUT (m)	
DEPTH IN (m)	0
TOTAL DRILLED (m)	235
TOTAL HRS RUN	131

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	1600
FILL ON BOTTOM (m)	

DAY TOUR

MUD RECORD

MUD TYPE: POLYMER — WATER BASED: X — OIL BASED: ☐

TIME	0830	1200	1500
DENSITY (kg/m3)	1085	1090	1130
FUNNEL VISCOSITY	37	37	48
FLUID LOSS (cm3)			
pH	9.5	10	9.0
PVT	35.0	35.7	35.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	4	SX
SAWDUST	15	SX
SODA ASH	4	SX
DRILLING DETERGENT	1	PAIL
POTASSIUM CHLORIDE SALT	28	SX
POLY PLUS RD	1	SX
CAUSTIC	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1130	1120	1875
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
136	235	D	65	10

CIRCULATION PRESSURE kPa: 6700

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	110	152	110

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
123	.50	NE
190	1.0	NE

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1445	6.75	2	DRILL ACTUAL F/136m-235M
1445	1545	1.00	10	DEVIATION SURVEY ACCUMALATED
1545	1600	0.25	7	RIG SERVICE
1600				

NOTES: FUNCTIONED CROWN SAVER CHECKED BRAKE LINKAGE DEADLINE ANCHOR
REVEIWED JSA #G27-PUT CSG ON RACKS #G36--FILLING BOILER FEED WATER
#G67-CONNECTIONS W/MUD MOTOR

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				DRESS CSG		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 3 — DRIVERS

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
HEAD ROUSTABOUT		ALLEN KELLY	12.00			AK
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT

INJURIES

EVENING TOUR

NO.	DRILLING ASSEMBLY (BEGINNING OF TOUR)	O.D.	LENGTH
1	BIT	.38	
1	MOTOR	203	9.35
1	MONEL		8.03
1	STAB	290	1.58
1	SHOCK SUB	228	4.21
1	X.O	225	.86
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
10	H.W.D.P.	102	92.74
	D.P. STANDS		
3	D.P. SINGLES		28.82
	KELLY DOWN		12.10
	TOTAL		312.58
	WT. OF D.C.	21	
	WT. OF STRING	36	

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X
	19.1
DEPTH OUT (m)	312
DEPTH IN (m)	0
TOTAL DRILLED (m)	312.00
TOTAL HRS RUN	137.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	3119
FILL ON BOTTOM (m)	

EVENING TOUR

MUD RECORD

MUD TYPE: POLYMER — WATER BASED: X — OIL BASED: ☐

TIME	1730	2030	2230
DENSITY (kg/m3)	1110	1120	1140
FUNNEL VISCOSITY	39	39	40
FLUID LOSS (cm3)			
pH	8.5	9.0	9.0
PVT	40.2	39.5	38.6

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	56	SX
CELLOPHANE	1	SX
SODA ASH	10	SX
conquor 404	30	L
FEDZAN D	1	SX
SAWDUST	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1130	1910
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0			

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	250	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
235	312	D	60	20

CIRCULATION PRESSURE kPa: 8451

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	105	152	105

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
276	1.75	SE 88

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1845	2.75	2	ROTARY DRILL 311mm HOLE F/235m-252m
1845	1900	0.25	21	HANDOVER MEETING WITH BOTH CREWS
1900	2245	3.75	2	ROTARY DRILL 311mm HOLE F/252m-312m
2245	2300	0.25	7	RIG SERVICE FUNCTION H.C.R C/2SEC
2300	2400	1.00	10	DEVIATION SURVEY & CONNECTION TIME

NOTES: FUNCTION CROWN SAVER,CHECK ACC PRESS AND OIL LEVEL,FLARE IGNITOR
REVEIW J.S.A G-57 WIRELINE SURVEY
BOILER BLOWDOWN 3X60L
WEEKLEY SAFETY TOPIC RULES OF A DRILLING CAMP REVEIW CORE VALUES

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				WIRELINE SURVEY	36	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 3 — DRIVERS

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 13

RIG NO. 51

FUEL @ 06:00 HRS

RIG 96 BOILER 84

TEMPERATURE -35

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29		348.23

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T.JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84		65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080213_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

CODE NO.

	1 RIG UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 LAY DOWN	23 OTHER	24	25	26
MORN		0.75			1.25	5.5	0.25														0.25					
DAY		2.5			1.75	2.0	0.25			0.5												1.0				
EVE		1.0										4.0									0.5	1.5	1.0			
TOTAL		3.25			4.00	7.50	0.50			0.50		4.00									0.75	2.50	1.00			

TOTALS	SINGLE SHOT(S)	RENTALS / SERVICES	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA	TYPE BOILER #1 A-0039914			
8.00	SCREENS CHANGED ☐ NEW USED ☐	BOILER #2 0105437			
8.00	TOP 50	TOP 50			
24.00	MIDDLE 50	MIDDLE			
	BOTTOM 89	BOTTOM			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	2	13
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/ PRESTON		51		
PROVINCE	CAMP X YES ☐ NO	RIG SAFETY DAYS		
N.W.T.		199		

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O.D.	.38
1	MOTOR	203	9.35
1	MONEL		8.03
1	STAB	290	1.58
1	SHOCK SUB	228	4.21
1	X.O	225	.86
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
10	H.W.D.P.	102	92.74
2	D.P.	STANDS	38.49
	D.P.	SINGLES	
KELLY DOWN			12.10
TOTAL			322.25
WT. OF D.C.	21		
WT. OF STRING	36		

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X
	19.1
DEPTH OUT (m)	322
DEPTH IN (m)	0
TOTAL DRILLED (m)	322.00
TOTAL HRS RUN	137.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	3509
FILL ON BOTTOM (m)	

MORNING TOUR — MUD RECORD

MUD TYPE POLYMER — WATER BASED X — OIL BASED ☐

TIME	0100
DENSITY (kg/m3)	1150
FUNNEL VISCOSITY	40
FLUID LOSS (cm3)	
pH	10.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	20	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1140	1130	1750
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	270	STACK TEMP	250	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
312	322	D	75	20

CIRCULATION PRESSURE kPa: 8824

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	105	152	105

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	0045	0.75	2	ROTARY DRILL 311mm HOLE F/312m-322m
0045	200	1.25	5	CIRCULATE HOLE CLEAN PRIOR TO WIPER TRIP PUMP PILL FLOWCHECK @ 309m
200	215	0.25	7	RIG SERVICE FUNCTION ANN C/15SEC
215	645	4.50	6	RACK KELLY BACK, WIPER TRIP#1 TO CONDUCTOR WORK TIGHT HOLE @ 308m-240m
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	6	R.I.H
				TRIP SHEET RESULTS TVC=3.02 TVM=4.12 DIFF=1.1
				MEGAJOULES (SLSC) 3800 ACCUMALATED (309018)

NOTES : FUNCTION CROWN SAVER,CHECK ACC PRESS & OIL LEVEL,FLARE IGNITOR
REVEIW J.S.A"S G-8 POOH,G-73 LAYDOWN JARS
CHECK AREA #3&4 DRILL FLOOR,SUBSTRUCTURE
BOILER BLOWDOWN 3X60L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TRIPPING	60	

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 4 — DRIVERS

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O.D.	.38
1	MOTOR	203	9.35
1	MONEL		8.03
1	STAB	290	1.58
1	SHOCK SUB	228	4.21
1	X.O	225	.86
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
10	H.W.D.P.	102	92.74
3	D.P.	STANDS	57.73
1	D.P.	SINGLES	9.60
KELLY DOWN			11.01
TOTAL			350.00
WT. OF D.C.	21		
WT. OF STRING	39		

BIT RECORD

BIT NO.	1
SIZE	311
IADC CODE	
MANUFACTURER	SMITH
TYPE	GF5114B
SERIAL NO.	PJ1662
JETS	3 X
	19.1
DEPTH OUT (m)	322
DEPTH IN (m)	0
TOTAL DRILLED (m)	350
TOTAL HRS RUN	20.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
6	6	BT	A	1	1	NO	TD	17.28

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	2400
FILL ON BOTTOM (m)	0

DAY TOUR — MUD RECORD

MUD TYPE POLYMER — WATER BASED X — OIL BASED ☐

TIME	0900	1200
DENSITY (kg/m3)	1130	1130
FUNNEL VISCOSITY	35	37
FLUID LOSS (cm3)		
pH	8.0	9.5
PVT	40.2	38.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	5	SX
conquor 404	30	L
CAUSTIC	2	SX
SODA ASH	20	SX
BARITE	10	SX
DEFOAMER	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1130	1115	1875
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	270	STACK TEMP	250	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
322	350	D	85	15

CIRCULATION PRESSURE kPa: 8800

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	110	152	110

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
341	3.75	S89E

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	830	0.50	6	R.I.H
830	900	0.50	5	WASH TO BTM & CIRC HOLE CLEAN
900	1130	2.50	2	DRILL ACTUAL F/322M-350M
1130	1245	1.25	5	CONDITION MUD & CIRCULATE
1245	1315	0.50	10	DEVIATION SURVEY
1315	1445	1.50	6	TRIPS FLOW CHECK POOH TO RUN CSG
1445	1545	1.00	22	LAY DOWN TOOLS
1545	1600	0.25	7	RIG SERVICE FUNCTIONED ANN CLOSED IN 16 SEC

NOTES : F/CROWN SAVER CHECKED BREAK LINKAGE DEADLINE ANCHOR
JSA #G10-RIH #G9-POOH #G32-RIG TO & RUN CSG

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				BLOW BACK KELLY		

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
HEAD ROUSTABOUT		ALLEN KELLY	12.00			AK
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 4 — DRIVERS

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O.D.	
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
10	H.W.D.P.	102	92.74
3	D.P.	STANDS	57.73
1	D.P.	SINGLES	9.60
KELLY DOWN			11.01
TOTAL			325.59
WT. OF D.C.	21		
WT. OF STRING	39		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

EVENING TOUR — MUD RECORD

MUD TYPE — WATER BASED ☐ — OIL BASED ☐

TIME	
DENSITY (kg/m3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH		BOILER pH		
STACK TEMP		STACK TEMP		

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa:

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
341	3.75	S89E

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1730	1.50	22	LAY DOWN TOOLS
1730	1830	1.00	23	CLEAN AND PREP FLOOR TO RUN 244.5mm CSG
1830	1845	0.25	21	SAFETY & HANDOVER MEETING
1845	2230	3.75	12	MAKE UP SHOE&FLOAT R.I.H WITH 244.5mm 53.57KG/m 8.94 WALL S0055GRDE LT/C THREAD
2230	2330	1.00	5	CIRCULATE CSG RIG IN SCHLUMBERGER
2330	2345	0.25	21	SAFETY MEETING WITH SCHLUMBERGER & ALL 3RD PARTY PERSONAL
2345	2400	0.25	12	HEAD UP

NOTES : FUNCTION CROWN SAVER,CHECK ACC PRESS & OIL LEVEL,FLARE IGNITOR
REVEIW J.S.A"S G-28 CLEAN PREP CSG,G-32 RIG TO RUN CSG
BOILER BLOWDOWN 2X40L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				R.I.H W/CSG	31	

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 4 — DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	**UNIQUE ID**
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)		RP
(3.) H2S Signs Posted if Required	ED	RP
(4.) Well Licence & Stick Diagram Posted		
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Meet Inspection before Raising or Lowering		RP
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		

YEAR 2008 | MONTH 2 | DAY 14

RIG NO. 51

FUEL @ 05:00 HRS: RIG 96 | BOILER 84

TEMPERATURE: -33

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION: ICE

LAST CASING TURNING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29		348.23

	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DRILL STRING	DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
	DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84		65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080214_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

CAODC

PASON DATAHUB

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 C/CONDUCTOR	23	24	25
MORN												2.75	5.0								0.25				
DAY													2.75	4.25								1.0			
EVE							0.25							7.5							0.25				
TOTAL							0.25					2.75	7.75	11.75							0.50	1.00			

TOTALS	NO.	SHALE SHAKER(S) TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA	BOILER #1 A-0039914			
	SCREENS CHANGED	NEW USED				
8.00	TOP 50	TOP 50	BOILER #2 0105437			
8.00	MIDDLE 50	MIDDLE				
24.00	BOTTOM 89	BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	14
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER	**RIG NO.**		
PARKER/ PRESTON	51		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N.W.T.	X YES NO	200	

BIT RECORD

NO.	DRILLING ASSEMBLY (AT BEGINNING OF TOUR) BIT	O.D.	LENGTH
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
10	H.W.D.P.	102	92.74
3	D.P. STANDS		57.73
1	D.P. SINGLES		9.60
KELLY DOWN			11.01
TOTAL			325.59
WT. OF D.C.	21		
WT. OF STRING	39		

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

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

MORNING TOUR

MUD RECORD

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SODA ASH	15	SX
POLY PLUS RD	1	SX
FEDZAN D	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	11	BOILER pH	11	
STACK TEMP	255	STACK TEMP	270	

CIRCULATION PRESSURE kPa | PUMP NO. 1 LINER SIZE | SPM | PUMP NO. 2 LINER SIZE | SPM: 152 | 152

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	245	2.75	12	CEMENT 244.5mm CSG PUMP 3m3 WATER AHEAD PRESS TEST LINES TO 15mpa MIX & PUMP
				17m3 SLURRY @ 1740 kg/m3 RELEASE TOP PLUG PUMP 2m3 WATER DISPLACEMENT CONTINUE
				WITH 11.5m3 MUD DISPLACEMENT BUMP PLUG TO 13mpa HOLD 10min RELEASE PRESS
				(FLOAT GOOD) PLUG DOWN 1:45am BLOWBACK LINES TEAR OUT SCHLUMBERGER
245	645	4.00	13	WAIT ON CEMENT 8HRS PREP FOR NIPPLE UP
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	13	WAIT ON CEMENT PREP FOR NIPPLE UP
				MEGAJOULES (SLSC) 4220 ACCUMALATED (309438)

NOTES: CHECK ACC PRESS & OIL LEVEL,FLARE IGNITOR
INSPECT AREA #3&4 DRILL FLOOR SUBSTRUCTURE
REVEIW J.S.A"S G-30 RIG TO & CEMENT CSG G-33 FLUSH STACK
BOILER BLOWDOWN 3X60L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				CEMENTING		

DRILLING CREW PAYROLL DATA

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

RATE SCHEDULE | X | REGULAR | | REPAIR | | INVERT

CREW SAFETY DAYS: 5 | DRIVERS

DAY TOUR

MUD RECORD

MUD TYPE: POLYMER | WATER BASED X | OIL BASED ☐

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH | PVT

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	1	SX
BICARB	2	SX
UNITROL	1	SX
SODA ASH	10	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1110	1875
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1110	1760

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH		BOILER pH		
STACK TEMP		STACK TEMP		

CIRCULATION PRESSURE kPa | PUMP NO. 1 LINER SIZE | SPM | PUMP NO. 2 LINER SIZE | SPM: 152 | 152

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1045	2.75	13	WAIT ON CEMENT
1045	1145	1.00	14	UNSREW LANDING JT & NIPPLE DOWN DEVERTOR.
1145	1245	1.00	22	CUT CONDUCTOR BRRL
1245	1600	3.25	14	SCREW ON BOWL & NIPPLE UP B.O.P.
1600				

NOTES: JSA#R27-NIPPLE DOWN DEVERTOR# R20-NIPPLE UP BOPS

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				HOISTING SYSTEM		

DRILLING CREW PAYROLL DATA

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
MOTOR HAND		DARCY BLANCHER	8.00			DB
HEAD ROUSTABOUT		ALLEN KELLY	5.00			AK
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT
		2HRS PER WEEK FOR MT				

RATE SCHEDULE | X | REGULAR | | REPAIR | | INVERT

CREW SAFETY DAYS: 5 | DRIVERS

EVENING TOUR

MUD RECORD

MUD TYPE: POLYMER | WATER BASED X | OIL BASED ☐

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
UNITROL	4	SX
POTASSIUM CHLORIDE SALT	25	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1110	1875
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1110	1760

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH		BOILER pH		
STACK TEMP		STACK TEMP		

CIRCULATION PRESSURE kPa | PUMP NO. 1 LINER SIZE | SPM | PUMP NO. 2 LINER SIZE | SPM: 152 | 152

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1845	2.75	14	NIPPLE UP B.O.P
1845	1900	0.25	21	HANDOVER MEETING
1900	2345	4.75	14	NIPPLE UP B.O.P
2345	2400	0.25	7	RIG SERVICE

NOTES: NSPCT BRAKES LINKAGE&PINS DEADMAN CLAMP&ANCHOR
REVEIW J.S.A R-20 NIPPLE UP B.O.P'S
BOILER BLOWDOWN 2X40L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				NIPPLE UP		

DRILLING CREW PAYROLL DATA

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

RATE SCHEDULE | X | REGULAR | | REPAIR | | INVERT

CREW SAFETY DAYS: 5 | DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	UNIQUE ID
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)		RP
(3.) H2S Signs Posted if Required		RP
(4.) Well Licence & Stick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Meet Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		RP

YEAR 2008 MONTH 2 DAY 15

RIG NO. 51

FUEL @ 0:00 HRS

RIG 117 BOILER 123

PRE-TOUR CHECKS: TEMPERATURE -39; CURRENT CONDITIONS; WIND DIRECTION; ROAD CONDITION; ICE

LAST CASING TURNING OR LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29		348.23

	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84		65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080215_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 INSTALL WEAR BUSHING	23	24	25	26	TOTALS	MORN	DAY	EVE
MORN							0.25								7.5						0.25						8.00			
DAY															8.0												8.00			
EVE						1.5	0.25								4.25					1.25	0.25	0.5						8.00			
TOTAL						1.50	0.50								19.75					1.25	0.50	0.50						24.00			

SHALE SHAKER(S)

NO.	TYPE	TYPE
1	COBRA	
SCREENS CHANGED		NEW USED
TOP	50	TOP 50
MIDDLE	50	MIDDLE
BOTTOM	89	BOTTOM

PERSONNEL / SERVICES

	MORN	DAY	EVE
BOILER #1 A-0039914			
BOILER #2 0105437			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	15
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/ PRESTON	RIG NO. 51		
PROVINCE: N.W.T.	CAMP X YES NO	RIG SAFETY DAYS 201	

MORNING TOUR

BIT RECORD

NO.	DRILLING ASSEMBLY (RECORD HOURLY)	O.D.	LENGTH
	BIT	O.D.	
3	D.C.	160	27.87
1	JAR	136	6.05
13	D.C.	160	120.32
1	X.O	157	.27
10	H.W.D.P.	102	92.74
3	D.P.	STANDS	57.73
1	D.P.	SINGLES	9.60
KELLY DOWN			11.01
TOTAL			325.59
WT. OF D.C.	21		
WT. OF STRING	39		

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

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

MUD RECORD

MUD TYPE PLOY | WATER BASED X | OIL BASED

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAUSTIC POTASH	1	SX
POTASSIUM CHLORIDE SALT	56	SX
DEFOAMER	1	PAIL
SODA ASH	5	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	270	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa | PUMP NO. 1 LINER SIZE 152 SPM | PUMP NO. 2 LINER SIZE 152 SPM

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	630	6.50	15	PRESS TEST W/SCHLUMBERGER MANIFOLD CHOKE VALVES AND REMOTE CHOKE,
				BLIND RAMS LOW (1400) HIGH (21,000)KPA 10min INTRAVALS
630	645	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	15	PRESS TEST UPPER&LOWER PIPE RAMS LOW (1400) HIGH (21,000) KPA
				.
				MEGAJOULES (SLSC) 4220 ACCUMALATED (309438)

NOTES : INSPCT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,ACC PRESS & OIL LEVEL
FUNCTION TEST ALL B.O.P COMPONENTS & REMOTE CHOKE
REVEIW J.S.A G-34 PRESSURE TEST
BOILER BLOWDOWN 3X60L

SPECIAL EVENT | TIME / DEPTH | SAFETY TOPIC: PRESSURE TESTING | MEHL | MACP

RATE SCHEDULE X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 6 | DRIVERS

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

DAY TOUR

BIT RECORD

NO.	DRILLING ASSEMBLY (RECORD HOURLY)	O.D.	LENGTH
	BIT	O.D.	.29
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	144.26
1	X.O	157	.27
10	H.W.D.P.	102	92.74
3	D.P.	STANDS	57.73
1	D.P.	SINGLES	9.60
KELLY DOWN			11.01
TOTAL			391.81
WT. OF D.C.	21		
WT. OF STRING	39		

BIT NO. 1 | SIZE 222.2 | IADC CODE | MANUFACTURER HUGHES | TYPE HC5O6ZX | SERIAL NO. 7113312 | JETS 6 / X / 11.1 | DEPTH OUT (m) | DEPTH IN (m) 350 | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | 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 VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	4	SX
FED PAC UL	4	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1110	1765

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1115	1875

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	270	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa | PUMP NO. 1 LINER SIZE 152 SPM | PUMP NO. 2 LINER SIZE 152 SPM

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1600	8.00	15	TEST B.O.P. BLIND RAMS TO MANIFOLD AND ALL RELATED VALVES CHOKES
1600				1400KPA LOW 21000 KPA HIGH 10 MIN EACH
				UPPER & LOWER PIPE RAMS BACK UP VALVE HCR UPPER & LOWER
				KELLY COCKS STABBING VALVES INSIDE BOPS 1400KPA LOW 21000KPA HIGH 10 MIN EACH
				ANN 1400 KPA LOW 10500KPA HIGH 10 MION EACH
				ACCUMALATOR F/TEST START 21000KPA 3 FUNCTION 14000KPA
				RECHARGE 70 SEC PRECHARGE 7000KPA N2-21000-21000-21000
				MOTOR KILLS 3 SEC TO SHUT OFF
				CHANGED OUT UPPER KELLY COCK FR. SER.#UKC-032 TO UKC-002

NOTES : F/REMOTE CHOKE FLARE IGNITOR REVIEWED JSA #R-20 NIPPLE UP BOP/G-40 STEAM USE
G-10 RUN IN HOLE

SPECIAL EVENT | TIME / DEPTH | SAFETY TOPIC | MEHL | MACP

RATE SCHEDULE X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 6 | DRIVERS

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
MOTOR HAND		DARCY BLANCHER	12.00			DB
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT

EVENING TOUR

BIT RECORD

NO.	DRILLING ASSEMBLY (RECORD HOURLY)	O.D.	LENGTH
	BIT	O.D.	.29
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
3	D.P.	STANDS	57.67
	D.P.	SINGLES	
KELLY DOWN			12.10
TOTAL			340.68
WT. OF D.C.	21		
WT. OF STRING	39		

BIT NO. 1 | SIZE 222.2 | IADC CODE | MANUFACTURER HUGHES | TYPE HC5O6ZX | SERIAL NO. 7113312 | JETS 6 / X / 11.1 | DEPTH OUT (m) | DEPTH IN (m) 350 | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | 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 VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	250	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa | PUMP NO. 1 LINER SIZE 152 SPM | PUMP NO. 2 LINER SIZE 152 SPM

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	15	TEST B.O.P.
1830	1845	0.25	21	SAFETY MEETING HAND OVER
1845	2030	1.75	15	TEST B.O.P
2030	2100	0.50	22	INSTALL WEAR BUSHING
2100	2215	1.25	20	MAKE UP 222mm BIT & DIR TOOLS .78 BEND
2215	2230	0.25	7	RIG SERVICE FUNCTION BLIND RAMS C/4SEC
2230	2400	1.50	6	R.I.H WITH 222mm BIT

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,FUNCTION REMOTE CHOKE C/30SEC
BOILER BLOWDOWN 3X60L
JSA REVIEW,G-22 MAKE UP DIRECTIONAL TOOLS AND BIT,G-21 SET UP DRILL MOTOR,
CAODC & AKITA NIPPLE UP INSPECTION COMPLETE

SPECIAL EVENT | TIME / DEPTH | SAFETY TOPIC: MAKE UP DIR TOOLS | MEHL | MACP

RATE SCHEDULE X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 6 | DRIVERS

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 16

RIG NO. 51

FUEL @ 05:00 HRS: RIG 117 BOILER 123

WEATHER CONDITIONS: TEMPERATURE -26; CURRENT CONDITIONS CLOUDY; WIND DIRECTION EAST; ROAD CONDITION ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23

DRILL STRING	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
	DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84		65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080216_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

CAODC

PASON DATAHUB

DRILLING TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 B.O.P DRILL	23 DRILL OUT	24 FLARE GRIDS	25 Rig digger	26 change air b	TOTALS
MORN		2.5				0.5	0.25			0.5											0.25	0.5	2.5	1.0			8.00
DAY		6.0					0.25			0.5											0.75				0.5		8.00
EVE		3.5			2.5		0.25			0.5											0.25					1.0	8.00
TOTAL		12.00			2.50	0.50	0.75			1.50											1.25	0.50	2.50	1.00	0.50	1.00	24.00

SHALE SHAKER(S)

NO.	TYPE	MESH
1	COBRA	
SCREENS CHANGED	NEW USED	
TOP 145	TOP 5	
MIDDLE 145	MIDDLE	
BOTTOM 145	BOTTOM	

RENTALS / SERVICES

TYPE	
BOILER #1 A-0039914	
BOILER #2 0105437	

CREW	MORN	DAY	EVE
DRILLER			
ASSIST DRILLER			
DERRICK HAND			
DERRICK HAND			
MOTOR HAND			
FLOOR HAND			
FLOOR HAND			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	16
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/ PRESTON	RIG NO. 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS 202	

BHA

NO.	DRILLING ASSEMBLY (LISTED OUT TO IN)	O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
5	D.P. STANDS		95.07
	D.P. SINGLES		
KELLY DOWN			12.10
TOTAL			379.08
WT. OF D.C.	22		
WT. OF STRING	36		

BIT RECORD

BIT NO.	1
SIZE	222.2
IADC CODE	
MANUFACTURER	HUGHES
TYPE	HC506ZX
SERIAL NO.	7113312
JETS	6 / X / 11.1
DEPTH OUT (m)	379
DEPTH IN (m)	350
TOTAL DRILLED (m)	29.00
TOTAL HRS RUN	2.50

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 up 1 down
TORQUE AT BOTTOM	2831
FILL ON BOTTOM (m)	

MORNING TOUR

MUD RECORD

MUD TYPE: POLYMER	WATER BASED: X	OIL BASED: ☐
TIME	0200	0430	0600
DENSITY (kg/m3)	1120	1120	1120
FUNNEL VISCOSITY	42	37	38
FLUID LOSS (cm3)	16.0	16.0	16.0
pH	10.0	11.0	11.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BICARB	3	SX
SAPP	1	SX
DEFOAMER	2	PAILS
SODA ASH	2	SX
FEDZAN D	3	SX
FED PAC UL	3	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1140	1110	1740
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1140	1110	1740

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	11	BOILER pH	11	
STACK TEMP	260	STACK TEMP	275	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
350	379	D	45	5

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
5380	152	120	152	

REDUCED PUMP SPEED: 2440 @ 60 @ 359

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	0030	0.50	6	R.I.H WITH 222mm BIT TAG CEMENT @ 331m
0030	100	0.50	22	B.O.P DRILL REVEIW PROCEDURES POSITIONS KICK WARNING SIGNS W/CREW & PETRO REP
100	330	2.50	23	DRILL OUT FLOAT & SHOE
330	430	1.00	2	ROTARY DRILL 222mm HOLE F/350m-355m
430	530	1.00	24	LEAK OFF TEST
530	545	0.25	7	RIG SERVICE FUNCTION ANN C/13SEC
545	715	1.50	2	ROTARY DRILL 222mm HOLE F/355m-379m
715	730	0.25	21	HANDOVER MEETING
730	800	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
800				
				MEGAJUOLE (SLSC) 4344 ACCUMALATED 309572

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
REVEIW J.S.A G-58 BLOW BACK KELLY,G-67 CONNECTION WITH MUD MOTOR
BOILER BLOWDOWN 3X60L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				B.O.P DRILL W/DRLG	36	3966

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 7

DRIVERS

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

DAY TOUR

BHA

NO.	DRILLING ASSEMBLY (LISTED OUT TO IN)	O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
8	D.P. STANDS		153.64
1	D.P. SINGLES		9.66
KELLY DOWN			11.79
TOTAL			446.00
WT. OF D.C.	21		
WT. OF S[redacted]	36		

BIT RECORD

BIT NO.	1
SIZE	222.2
IADC CODE	
MANUFACTURER	HUGHES
TYPE	HC506ZX
SERIAL NO.	7113312
JETS	6 / X / 11.1
DEPTH OUT (m)	
DEPTH IN (m)	350
TOTAL DRILLED (m)	96.00
TOTAL HRS RUN	8.5

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 UP/DN
TORQUE AT BOTTOM	2000
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: POLYMER	WATER BASED: X	OIL BASED: ☐
TIME	0900	1130	1430
DENSITY (kg/m3)	1130	1130	1140
FUNNEL VISCOSITY	42	41	44
FLUID LOSS (cm3)	12	10	10
pH	11	11	10.5
PVT	38.9	38.0	36.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	9	SX
FED PAC UL	7	SX
conquor 404	70	L
SODA ASH	9	SX
UNITROL	4	SX
DEFOAMER	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1130	1100	1850
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
6	1130	1100	1620

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
379	446	D	50	5

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
8300	152	80	152	80

REDUCED PUMP SPEED: 1130 @ 71 @ 398

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
357	4.1	130.2
401	4.7	126.3
420	4.7	127.4
430	4.8	127.4

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	915	1.25	2	DRILL ACTUAL F/379M-388M
915	1000	0.75	21	SAFETY MEETING BOP DRILL CREW IN POSITION 1.25 MIN WELL SECURE
1000	1115	1.25	2	DRILL ACTUAL F/388M-398M
1115	1145	0.50	25	PUT DEPTH ENCODER ON AUTO DIGGER
1145	1515	3.50	2	DRILL ACTUAL F/398M-446M
1515	1545	0.50	10	DEVIATION SURVEY ACC
1545	1600	0.25	7	RIG SERVICE CLOSED UPPER PIPE RAMS 4 SEC TO CLOSE

NOTES: FUNCTIONED CROWN SAVER REMOTEC CHOKE CHECKED BRAKE LINKAGE DEADLINE ANCHOR
JSA#M11-MIX MUD PRODUCTS #G63-FUNCTION CROWEN SAVER #M1-RIG SERVICE
WEEKLY SAFETY TOPIC SAFETY LINES AKITA CORE VALUES
SIMULATED RESCUE FROM DERRICK

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				CONN W/MUD MOTOR	37	3966

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 7

DRIVERS

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
MOTOR HAND		DARCY BLANCHER	12.00			DB
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT

EVENING TOUR

BHA

NO.	DRILLING ASSEMBLY (LISTED OUT TO IN)	O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
8	D.P. STANDS		211.42
	D.P. SINGLES		
KELLY DOWN			5.67
TOTAL			488.00
WT. OF D.C.	21		
WT. OF STRING	36		

BIT RECORD

BIT NO.	1
SIZE	222.2
IADC CODE	
MANUFACTURER	HUGHES
TYPE	HC506ZX
SERIAL NO.	7113312
JETS	6 / X / 11.1
DEPTH OUT (m)	488
DEPTH IN (m)	350
TOTAL DRILLED (m)	138.00
TOTAL HRS RUN	12

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN UP/DOWN
TORQUE AT BOTTOM	1814
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: POLYMER	WATER BASED: X	OIL BASED: ☐
TIME	2000	2345	
DENSITY (kg/m3)	1150	1140	
FUNNEL VISCOSITY	46	47	
FLUID LOSS (cm3)	9.0		
pH	10.5	10.5	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SAWDUST	108	SX
CELLOPHANE	26	SX
FEDZAN D	5	SX
WALNUT (MEDIUM)	40	SX
MIX 2	40	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1150	1130	1750
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0			

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	9.5	BOILER pH	9.5	
STACK TEMP	260	STACK TEMP	275	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
446	488	D	45	5

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
10178	152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
449	4.8	127.2
459	4.7	128.8
466	4.7	123.7

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1700	1.00	26	CHANGE OUT AIR BAG ON FLOW LINE
1700	1845	1.75	2	ROTARY DRILL 222mm HOLE F/446m-453m
1845	1900	0.25	21	HANDOVER MEETING
1900	2000	1.00	2	ROTARY DRILL 222mm HOLE F/453m-476m
2000	2230	2.50	5	LOSS CIRCULATION @ 476m BUILD VOLUME MIX LCM TOP FILL W/HOLE FILL (LOSS=7m3)
2230	2245	0.25	7	RIG SERVICE FUNCTION LOWER PIPE RAMS C/3SEC
2245	2330	0.75	2	ROTARY DRILL 222mm HOLE F/476m-488m
2330	2400	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
2400				

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,ACC PRESS&OIL LEVEL,FLARE IGNITOR
REVEIW J.S.A G-49 STEAM USE G-71 HOIST D.P TO FLOOR
BOILER BLOWDOWN 2X40L
WEEKLEY SAFETY TOPIC SAFETY LINES CORE VALUES

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				SAFETY LINES	37	3898

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 7

DRIVERS

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPER ED	OPER RP
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required	ED	RP
(4.) Well Licence & Stick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Meet Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		RP

YEAR 2008 | MONTH 2 | DAY 17

RIG NO. 51

FUEL @ 6:00 HRS: RIG 117 | BOILER 123

TEMPERATURE: -26

CURRENT CONDITIONS: CLOUDY

WIND DIRECTION: EAST

ROAD CONDITION: ICE

LAST CASING RUN ON RIG

	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS
	DC	159	139		51	159	4 1/2 XH	20
	DP	102	42	x-95	68.26	133.4	4 FH	40
	DP	102	20.84		65.09	117.48	4 FH	180

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080217_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

CODE NO.	1 RIG/UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & 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 DR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		6.75					0.25			0.75											0.25					
DAY		7.0					0.25			0.75																
EVE		6.75					0.25			0.75											0.25					
TOTAL		20.50					0.75			2.25											0.50					
TOTALS																										
		8.00																								
		8.00																								
		8.00																								
		24.00																								

SHALE SHAKER(S) | RENTALS / SERVICES

NO.	TYPE	TYPE		MORN	DAY	EVE
1	COBRA		BOILER #1 A-0039914			
SCREENS CHANGED		NEW USED	BOILER #2 0105437			
TOP	180	TOP				
MIDDLE	180	MIDDLE				
BOTTOM	145	BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	2	17
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/ PRESTON		51		
PROVINCE	CAMP X YES NO	RIG SAFETY DAYS		
N.W.T.		203		

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
16	D.P. STANDS		307.43
	D.P. SINGLES		
KELLY DOWN			12.10
TOTAL			590.44
WT. OF D.C.	21		
WT. OF STRING	38		

BIT RECORD

BIT NO.	1
SIZE	222.2
IADC CODE	
MANUFACTURER	HUGHES
TYPE	HC506ZX
SERIAL NO.	7113312
JETS	6 / X / 11.1
DEPTH OUT (m)	590
DEPTH IN (m)	350
TOTAL DRILLED (m)	240.00
TOTAL HRS RUN	16.75

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 up 2-3 down
TORQUE AT BOTTOM	3949
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: polymer | WATER BASED: X | OIL BASED:

TIME	0200	0345	600
DENSITY (kg/m3)	1140	1140	1150
FUNNEL VISCOSITY	47	47	47
FLUID LOSS (cm3)	10.0	9.5	9.5
pH	10.0	9.5	9.5
p.v.t			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAUSTIC	1	SX
SODA ASH	15	SX
FED PAC UL	2	SX
UNITROL	2	SX
POLY PLUS RD	1	SX
FEDZAN D	1	SX
conquor 404	20	L

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1130	1780
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1130	1780

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	240

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
488	590	D	60	5

CIRCULATION PRESSURE kPa: 6478

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	120	152	

REDUCED PUMP SPEED: 787 @ 55 @ 513

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
477	4.7	124.6
487	4.7	126.0
507	4.5	121.6
516	4.1	124.9
546	3.8	125.3

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	430	4.50	2	ROTARY DRILL 222mm HOLE F/488m-532m
430	445	0.25	7	RIG SERVICE FUNCTION ANN C/13 SEC
445	700	2.25	2	ROTARY DRILL 222mm HOLE F/532m-590m
700	715	0.25	21	HANDOVER MEETING
715	800	0.75	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
800				
				MEGAJOULES (SLSC) 4826 ACCUMALATED (310054)

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,ACC PRESS&OIL LEVEL DPP GAUGE,FLARE IGNITOR
CHECK AREA #3&4 DRILL FLOOR SUBSTRUCTURE
BOILER BLOWDOWN 3X60L
REVEIW J.S.A"S M-11 MIX MUD PRODUCTS M-1 RIG SERVICE

&SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		CAMP FIRE DRILL		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 8

DRIVERS

INJURIES	CREW	SOC INS. NO.	NAME	HRS		YES	NO
	DRILLER		MIKE MACDONALD T3	8.00			MM
	ASSIST DRILLER		PETER PURKIS T3	8.00			PP
	DERRICK HAND		ANDY ALBERT L3	8.00			AA
	DERRICK HAND		LOUIE SZABO	8.00			LS
	MOTOR HAND		JESSE EDWARDS T1	8.00			JE
	FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
	FLOOR HAND		CHARLES GULLY	8.00			CG

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
19	D.P. STANDS		365.16
	D.P. SINGLES		9.65
KELLY DOWN			11.28
TOTAL			657.00
WT. OF D.C.	21		
WT. OF STRING	41		

BIT RECORD

BIT NO.	1
SIZE	222.2
IADC CODE	
MANUFACTURER	HUGHES
TYPE	HC506ZX
SERIAL NO.	7113312
JETS	6 / X / 11.1
DEPTH OUT (m)	
DEPTH IN (m)	350
TOTAL DRILLED (m)	307.00
TOTAL HRS RUN	25.75

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 UP 2 DN
TORQUE AT BOTTOM	3000
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: POLYMER | WATER BASED: X | OIL BASED:

TIME	0830	1200	1400
DENSITY (kg/m3)	1150	1155	1155
FUNNEL VISCOSITY	46	48	48
FLUID LOSS (cm3)	8	8	8
pH	10	9.0	8.5
PVT	21.2	24.3	23.8

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	3	SX
FED PAC UL	3	SX
conquor 404	40	L
CAUSTIC	2	SX
SAWDUST	5	SX
WALNUT (MEDIUM)	2	SX
SODA ASH	20	SX
POLY PLUS RD	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1155	1135	1690
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
5	1155	1130	1750

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	250	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
590	657	D	48	6.5

CIRCULATION PRESSURE kPa: 9500

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	80	152	80

REDUCED PUMP SPEED: 1020 @ 580 @ 63

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
555	3.3	123.7
573	3.0	124.2
583	3.0	125.8
602	2.6	126.8
621	2.5	128.1

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1400	6.00	2	DRILL ACTUAL F/590M-638M
1400	1415	0.25	7	RIG SERVICE CLOSED LOWER PIPE RAMS 3 SEC
1415	1500	0.75	10	DEVIATION SURVEY ACCUMALATED
1500	1600	1.00	2	DRILL ACTUAL F/638M-657M
1600				

NOTES: LINE TEST CROWN SAVER FUNCTIONED REMOTE CHOKE 30 SEC TO CLOSE
CHECKED DEADLINE ANCHOR
JSA#G28-PREP CSG #G72-HOISTING DP #G17-OPERATE DRILLERS PANNEL
MEETING ON SPILL RESPONSE

&SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		CAMP FIRE DRILL	42	3898

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 8

DRIVERS

INJURIES	CREW	SOC INS. NO.	NAME	HRS		YES	NO
	DRILLER		FRANCIS LANDRY T3	12.00			FL
	DERRICK HAND		GARY LYSTER T2	12.00			GL
	WSC		PAUL REYNOLDS T1	12.00			PR
	MOTOR HAND		ROD KAKFWI	12.00			RK
	FLOOR HAND		DERRICK SHAE	12.00			DS
	FLOOR HAND		DARRYL COOK	12.00			DC
	LEASE HAND						
	LEASE HAND		DARCY BLANCHER	12.00			DB
	ROUSTABOUT		CLYDE SEWI	12.00			CS
	LEASE HAND		TIM TUTCHO	12.00			TT

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
24	D.P. STANDS		461.27
	D.P. SINGLES		
KELLY DOWN			10.82
TOTAL			743.00
WT. OF D.C.	21		
WT. OF STRING	41		

BIT RECORD

BIT NO.	1
SIZE	222.2
IADC CODE	
MANUFACTURER	HUGHES
TYPE	HC506ZX
SERIAL NO.	7113312
JETS	6 / X / 11.1
DEPTH OUT (m)	743
DEPTH IN (m)	350
TOTAL DRILLED (m)	393.00
TOTAL HRS RUN	32.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1-2 DaN UP 2-3 DOWN
TORQUE AT BOTTOM	2288
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: POLYMER | WATER BASED: X | OIL BASED:

TIME	1715	2030	2300
DENSITY (kg/m3)	1170	1170	1180
FUNNEL VISCOSITY	48	47	47
FLUID LOSS (cm3)	8.5	9.5	9.5
pH	10.5	10.0	10.0
PVT	24.7	21.8	23.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAUSTIC	1	SX
DEFOAMER	1	PAILS
conquor 404	40	L
FED PAC UL	1	SX
FEDZAN D	1	SX
SODA ASH	6	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1190	1160	1780
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
4	1190	1180	1780

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
657	743	D	46	6.5

CIRCULATION PRESSURE kPa: 10550

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	80	152	80

REDUCED PUMP SPEED: 56 @ 790 @ 743

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
650	2.2	131.1
660	1.9	128.6
679	1.5	126.7
699	1.1	135.3
719	1.1	142.1

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	2	ROTARY DRILL 222mm HOLE F/657m-683m
1830	1845	0.25	21	SAFETY MEETING HAND OVER
1845	2300	4.25	2	ROTARY DRILL 222mm F/683m TO 743M
2300	2315	0.25	7	RIG SERVICE FUNCTION UPPER P/R C/3SEC
2315	2400	0.75	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
2400				

NOTES: INSPECT BRAKES LINKAGE&PINS DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A"S M-19 BOILER BLOWDOWN M-56 GREASE GUN MAINTNANCE
BOILER BLOWDOWN 2X40L

&SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		SPILL RESPONDER	43	3761

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 8

DRIVERS

INJURIES	CREW	SOC INS. NO.	NAME	HRS		YES	NO
	DRILLER		MIKE MACDONALD T3	4.00			MM
	ASSIST DRILLER		PETER PURKIS T3	4.00			PP
	DERRICK HAND		ANDY ALBERT L3	4.00			AA
	DERRICK HAND		LOUIE SZABO	4.00			LS
	MOTOR HAND		JESSE EDWARDS T1	4.00			JE
	FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
	FLOOR HAND		CHARLES GULLY	4.00			CG

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	**UNIQUE ID**
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 18

RIG NO. 51

FUEL @ 05:00 HRS

RIG 117 BOILER 123

TEMPERATURE

CURRENT CONDITIONS: CLOUDY

WIND DIRECTION: EAST

ROAD CONDITION: ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23

DRILL STRING COMPONENTS	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T..INT. O.D.	TYPE THREAD	NO. of JOINTS
	<18							
	DC	159	139		51	159	4 1/2 XH	20
	DP	102	42	x-95	68.26	133.4	4 FH	40
	DP	102	20.84		65.09	117.48	4 FH	180

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080218_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

CAODC

PASON DATAHUB

CODE NO.

	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING	AIR BAG		GRADE BIT			
MORN		6.25					0.25			0.5											0.25	0.75					
DAY		7.0					0.25			0.75																	
EVE		0.5			0.75	5.5	0.25														0.25	0.25		0.5			
TOTAL		13.75			0.75	5.50	0.75			1.25											0.50	1.00		0.50			

TOTALS	SCREENS CHANGED	TYPE 1 COBRA	TYPE	NEW USED	SERVICE / RENTALS / SERVICES	MORN	DAY	EVE
8.00					BOILER #1 A-0039914			
8.00	180	TOP	TOP		BOILER #2 0105437			
8.00	180	MIDDLE	MIDDLE					
24.00	145	BOTTOM	145 BOTTOM					

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	2	18
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/ PRESTON		51		
PROVINCE	CAMP X YES NO	RIG SAFETY DAYS		
N.W.T.		204		

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D.	.29
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
27	D.P. STANDS		518.88
1	D.P. SINGLES		9.59
KELLY DOWN			5.62
TOTAL			805.00
WT. OF D.C.	21		
WT. OF STRING	42		

BIT RECORD

BIT NO.	1							
SIZE	222.2							
IADC CODE								
MANUFACTURER	HUGHES							
TYPE	HC506ZX							
SERIAL NO.	7113312							
JETS	6							
	X	11.1						
DEPTH OUT (m)	805							
DEPTH IN (m)	350							
TOTAL DRILLED (m)	455.00							
TOTAL HRS RUN	39.25							

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN
TORQUE AT BOTTOM	2305
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: polymer — WATER BASED: X — OIL BASED:

TIME	200	400	600
DENSITY (kg/m3)	1180	1180	1180
FUNNEL VISCOSITY	47	44	45
FLUID LOSS (cm3)	9.5	9.5	9.5
pH	10.0	9.5	10.0
pvt	27.2	27.4	27.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	1	SX
FED PAC UL	1	SX
SODA ASH	6	SX
CAUSTIC	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1190	1170	1790
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1190	1170	1790

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	11	BOILER pH	11	
STACK TEMP	260	STACK TEMP	270	

DRILLER SIGNATURE: MIKE MACDONALD T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
743	805	D	60	6.5

CIRCULATION PRESSURE kPa: 10397

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	80	152	80

REDUCED PUMP SPEED: 1087 @ 58 @ 782

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
736	1.2	141.8
746	1.5	137.9
765	1.2	129.0
775	1.1	128.1

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
00	445	4.75	2	ROTARY DRILL 222mm HOLE F/743m-782m
445	500	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
500	630	1.50	2	ROTARY DRILL 222mm HOLE F/782m-805m
630	645	0.25	21	HANDOVER MEETING
645	715	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
715	800	0.75	22	CHANGE AIR BAG ON FLOW LINE
				MEGAJOULES (SLSC) 5657 ACCUMALATED (310885)

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE C/30
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
BOILER BLOWDOWN 3X60L
REVEIW U.S.A G-53 FUNCTION CROWN SAVER

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				HIGH ANGLE RESCUE	42	3795

RATE SCHEDULE: X REGULAR — REPAIR — INVERT

CREW SAFETY DAYS: 9

DRIVERS

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG

INJURIES

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D.	.29
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
30	D.P. STANDS		576.47
	D.P. SINGLES		
KELLY DOWN			2.62
TOTAL			850.00
WT. OF D.C.	21		
WT. OF STRING	44		

BIT RECORD

BIT NO.	1							
SIZE	222.2							
IADC CODE								
MANUFACTURER	HUGHES							
TYPE	HC506ZX							
SERIAL NO.	7113312							
JETS	6							
	X	11.1						
DEPTH OUT (m)	850							
DEPTH IN (m)	350							
TOTAL DRILLED (m)	500.00							
TOTAL HRS RUN	46.25							

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	I/UP 2/DN
TORQUE AT BOTTOM	2300
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: POLYMER — WATER BASED: X — OIL BASED:

TIME	0830	1200	1500	
DENSITY (kg/m3)	1170	1170	1160	
FUNNEL VISCOSITY	44	46	44	
FLUID LOSS (cm3)	9.0	9.0	9.0	
pH	10.0	9.5	10.5	
PVT	25.8	25.9	26.0	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
conquor 404	502	L
FED PAC UL	2	SX
FEDZAN D	3	SX
CAUSTIC	2	SX
SODA ASH	3	SX
WALNUT (MEDIUM)	2	SX
SAWDUST	5	SX
POTASSIUM CHLORIDE SALT	15	SX
BARITE	20	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1170	1155	1756
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1170	1150	1830

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	11	BOILER pH	11	
STACK TEMP	260	STACK TEMP	270	

DRILLER SIGNATURE: FRANCIS LANDRY T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
805	847	D	50	7.5
847	850	D	30	7.5

CIRCULATION PRESSURE kPa: 9500

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	80	152	80

REDUCED PUMP SPEED: 1600 @ 801 @ 73

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
784	1.1	132.6
804	1.1	128.6
813	1.0	120.9
823	1.1	130.4

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1500	7.00	2	DRILL ACTUAI F/805m-847m
1500	1545	0.75	10	DEVIATION SURVEY ACC
1545	1600	0.25	7	RIG SERVICE CLOSED ANN 12 SEC UPPER PIPE 3 SEC LOWER PIPE 3 SEC

NOTES : LINE TEST CROWN SAVER FUNCTIONED REMOPTE CHOKE CHECKED BRAKE LINKAGE
DEADLINE ANCHOR
JSA#349-STEAM USE #M14-FUELING&SERVICE PREMIX
BOILER BLOW DOWN 3X60 LTRS

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				SPILLS & CLEAN UP	45	3829

RATE SCHEDULE: X REGULAR — REPAIR — INVERT

CREW SAFETY DAYS: 9

DRIVERS

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		ROD KAKFWI	12.00			RK
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND						
LEASE HAND		DARCY BLANCHER	12.00			DB
ROUSTABOUT		CLYDE SEWI	12.00			CS
LEASE HAND		TIM TUTCHO	12.00			TT

INJURIES

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D.	.29
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
30	D.P. STANDS		576.47
	D.P. SINGLES		
KELLY DOWN			2.62
TOTAL			850.00
WT. OF D.C.	21		
WT. OF STRING	44		

BIT RECORD

BIT NO.	1		2					
SIZE	222.2		222.2					
IADC CODE					5	2	7	
MANUFACTURER	HUGHES		SMITH					
TYPE	HC506ZX		FH28					
SERIAL NO.	7113312		PG8420					
JETS	6		3					
	X	11.1	X	14.3				
DEPTH OUT (m)	850							
DEPTH IN (m)	350		850					
TOTAL DRILLED (m)	500.00							
TOTAL HRS RUN	46.25							

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
6	5	CT	A	X	0	WT	PR	10.81

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: — WATER BASED: — OIL BASED:

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	250	BOILER pH	270	
STACK TEMP	10	STACK TEMP	10	

DRILLER SIGNATURE: MIKE MACDONALD T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa:

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1630	0.50	2	DRILL ACTUAL FROM 847M-850M.
1630	1715	0.75	5	CONDITION MUD & CIRCULATE. MIX AND PUMP PILL.
1715	1830	1.25	6	POOH
1830	1845	0.25	21	SAFETY MEETING HAND OVER
1845	1915	0.50	6	P.O.O.H TO BIT
1915	1930	0.25	22	B.O.P DRILL W/TRIPPING CREW POSITIONED WELL SECURE 67 SEC
1930	2045	1.25	6	P.O.O.H
2045	2100	0.25	7	RIG SERVICE FUNCTI0ON BLIND RAMS C/4SEC
2100	2130	0.50	24	CLEAN AND GRADE BIT
2130	2400	2.50	6	RUN IN HOLE BREAK CIRCULATION/ FILL PIPE @ 365M.
2400				
				TRIP SHEET RESULTS (T.V.C 5.08) (T.V.M 6.66) DIFF(1.58)

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,FLARE IGNITOR,ACC PRESS & OIL LEVEL
REVEIW J.S.A"S G-9 TRIP OUT OF HOLE G-18 DOG COLLAR USE
BOILER BLOWDOWN 2X40L
REVEIW KICK WARNING SIGNS WHILE TRIPPING

SPECIAL EVENT	BIT TRIP			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				B.O.P DRILL W/TRPING	40	3829

RATE SCHEDULE: X REGULAR — REPAIR — INVERT

CREW SAFETY DAYS: 9

DRIVERS

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
ASSIST DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC [redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 19

RIG NO. 51

FUEL @ 05:00 HRS: RIG 117 BOILER 123

PRESENT CONDITIONS: TEMPERATURE -18; CURRENT CONDITIONS CLOUDY; WIND DIRECTION EAST; ROAD CONDITION ICE

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
LAST CASING	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
TURNING OR LINER									

	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. INT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DRILL STRING	DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
	DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84		65.09	117.46	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080219_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

CAODC — PASON DATAHUB

DRILLING ASSEMBLY (AT END OF TOUR)

NO.		O.D.	LENGTH
1	BIT	.29	
1	MOTOR	179	8.76
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
32	D.P. STANDS		615.07
	D.P. SINGLES		
KELLY DOWN			4.02
TOTAL			890.00
WT. OF D.C.	21		
WT. OF STRING	44		

BIT RECORD

BIT NO.	2
SIZE	222.2
IADC CODE	5 2 7
MANUFACTURER	SMITH
TYPE	FH28
SERIAL NO.	PG8420
JETS	3 / X / 14.3
DEPTH OUT (m)	890
DEPTH IN (m)	850
TOTAL DRILLED (m)	40.00
TOTAL HRS RUN	5.75

CUTTING STRUCTURE								
TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN 3-DOWN
TORQUE AT BOTTOM	1700
FILL ON BOTTOM (m)	0

MORNING TOUR — MUD RECORD — WATER BASED [X] OIL BASED [ ]

MUD TYPE	polymer		
TIME	0200		
DENSITY (kg/m3)	1150		
FUNNEL VISCOSITY	50		
FLUID LOSS (cm3)	9.0		
pH	9.5		
pvt	27.		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAUSTIC	2	SX
WALNUT (MEDIUM)	1	SX
FEDZAN D	1	SX
FED PAC UL	1	SX
POLY PLUS RD	1	SX
conquor 404	40	L
DEFOAMER	1	PAIL

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1140	1760
8	1160	1140	1760

BOILERS

	1	2
HRS RUN	8	8
BOILER pH	10	10
STACK TEMP	255	265

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
827	890	D	40	19

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
6647	152	120	152	

REDUCED PUMP SPEED: 1442 @ 53 @ 859

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
843	1.0	124.4
851	0.9	127.4
862	1.2	117.2

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	100	1.00	6	R.I.H WITH 222mm BIT WASH F/ 827m-850m
100	545	4.75	2	ROTARY DRILL 222mm HOLE F/850m-878m
545	600	0.25	7	RIG SERVICE FUNCTION ANN C/14 SEC
600	700	1.00	2	ROTARY DRILL 222mm HOLE F/878m-890m
700	715	0.25	21	HAND OVER MEETING
715	800	0.75	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
				MEGAJOULES (SLSC) 6885 ACCUMALATED (312113)

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
BOILER BLOWDOWN 3X60L,REVEIW J.S.A G-73 LAY DOWN JARS G-14 CIRCULATING

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			circulating	44	3898

DAY TOUR — MUD RECORD — WATER BASED [X] OIL BASED [ ]

MUD TYPE	POLYMER		
TIME	0800		
DENSITY (kg/m3)	1165		
FUNNEL VISCOSITY	46		
FLUID LOSS (cm3)	9.0		
pH	10.5		
PVT	27.0		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SODA ASH	1	SX
conquor 404	10	L
FED ZAN	21	SX
BARITE	2	SX
CELLOPHANE	8	SX
DEFOAMER	2	PAILS
FED PAC UL	12	SX
POTASSIUM CHLORIDE SALT	71	SX
SAWDUST	79	SX
SODA ASH	10	SX
BICARB	1	SX
UNITROL	24	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			
8			

BOILERS

	1	2
HRS RUN	8	8
BOILER pH	10.5	10.5
STACK TEMP	2502	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
890	894	D	20	21

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
10200	152		152	120

REDUCED PUMP SPEED: 1670 @ 67 @ 888

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
871	.90	91.7

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1030	2.50	2	DRILL ACTUAL f/890m-894M
1030	1045	0.25	5	CONDITION MUD & CIRCULATE FLOW CHECK @883M PUMP PILL
1045	1430	3.75	6	TRIPS POOH LAY DOWN MUD MOTOR
1430	1445	0.25	21	SAFETY MEETING HAND OVER
1445	1600	1.25	6	TRIPS PICK UP 1 DC RIH
1600				
				HOLE DISPL 7.78M3 CALC 4.88M3 DIFF 2.90M3 MORE
				FUEL 400 BRRLS 53 M3 @ 10:00 hrs am

NOTES: FUNTION CROWN SAVER REMOTE CHOKE FLARTE IGNITOR
CHECKED BRAKE PINS LINKAGE DEADLINE ANCHOR

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			PULL OUT OF HOLE		3829

EVENING TOUR — MUD RECORD — WATER BASED [X] OIL BASED [ ]

MUD TYPE	poly		
TIME	2000	2200	2400
DENSITY (kg/m3)	1145	1150	
FUNNEL VISCOSITY	43	47	
FLUID LOSS (cm3)	9.0	10.0	
pH	9.5	10.0	
pvt	25.7	25.0	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAUSTIC	1	SX
FEDPAC	2	SX
FEDZAN D	1	SX
WALNUT (MEDIUM)	27	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1145	1130	1755
8			

BOILERS

	1	2
HRS RUN	8	8
BOILER pH	10	10
STACK TEMP	250	275

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
894	915	D	70	19

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
8544	152	120	152	

REDUCED PUMP SPEED: 1784 @ 66 @ 899

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
882.90	1.8	121.0

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1845	2.75	6	R.I.H WITH #3 222mm BIT FLOWCHECK & FILL @ 350m WASH F/861m
1845	2315	4.50	2	ROTARY DRILL 222m HOLE F/894-915m
2315	2330	0.25	7	RIG SERVICE FUNCTION L/P/R C/3SEC
2330	2345	0.25	5	LOSS CIRCULATION @ 908m PUMP 2m3 PILL DRILL AHEAD 4m3
2345	2400	0.25	10	DEVIATION SURVEY & CONNECTION TIME

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A g-59 PIPE SPINNER USE
BOILER BLOWDOWN 3X60L

SPECIAL EVENT	BHA & BIT TRIP		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			pipe spinner use	46	3932

DRILLING ASSEMBLY (AT END OF TOUR)

NO.		O.D.	LENGTH
1	BIT	.29	
1	BIT SUB	180	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
30	D.P. STANDS		576.47
	D.P. SINGLES		
KELLY DOWN			8.02
TOTAL			857.21
WT. OF D.C.	21		
WT. OF STRING	46		

BIT RECORD

BIT NO.	2
SIZE	222.2
IADC CODE	5 2 7
MANUFACTURER	SMITH
TYPE	FH28
SERIAL NO.	PG8420
JETS	3 / X / 14.3
DEPTH OUT (m)	894
DEPTH IN (m)	850
TOTAL DRILLED (m)	44.00
TOTAL HRS RUN	8.25

CUTTING STRUCTURE								
TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
2	8	RO	H	F	2	BT	PP	5.3

HOLE CONDITION

HOLE DRAG	1/UP 2/DN
TORQUE AT BOTTOM	7600
FILL ON BOTTOM (m)	

DRILLING ASSEMBLY (AT END OF TOUR)

NO.		O.D.	LENGTH
1	BIT	.29	
1	BIT SUB	180	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
33	D.P. STANDS		634.26
	D.P. SINGLES		
KELLY DOWN			8.02
TOTAL			915.00
WT. OF D.C.	21		
WT. OF STRING	46		

BIT RECORD

BIT NO.	3
SIZE	222
IADC CODE	5 3 7
MANUFACTURER	SMITH
TYPE	FH30
SERIAL NO.	PH0638
JETS	3X / 10.3
DEPTH OUT (m)	915
DEPTH IN (m)	894
TOTAL DRILLED (m)	21.00
TOTAL HRS RUN	4.50

CUTTING STRUCTURE								
TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN UP 3 DOW
TORQUE AT BOTTOM	2593
FILL ON BOTTOM (m)	

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	2	19
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/ PRESTON		51		
PROVINCE	CAMP [X] YES [ ] NO	RIG SAFETY DAYS		
N.W.T.		205		

SHALE SHAKER(S)

TOTALS	NO.	TYPE	SCREENS CHANGED	TOP	MIDDLE	BOTTOM
8.00	1	COBRA	NEW / USED			
8.00	180					
8.00	180					
24.00	145					145

RENTALS / SERVICES

TYPE	MORN	DAY	EVE
BOILER #1 A-0039914			
BOILER #2 0105437			

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	10.00			MM
ASSIST DRILLER		PETER PURKIS T3	10.00			PP
DERRICK HAND		ANDY ALBERT L3	10.00			AA
DERRICK HAND		LOUIE SZABO	10.00			LS
MOTOR HAND		JESSE EDWARDS T1	10.00			JE
FLOOR HAND		ABRAHAN TUTCHO	10.00			AT
FLOOR HAND		CHARLES GULLY	10.00			CG
		2HRS PER WEEK FOR MT				

RATE SCHEDULE [X] REGULAR [ ] REPAIR [ ] INVERT

CREW SAFETY DAYS: 10

DRIVERS

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	10.00			FL
DERRICK HAND		GARY LYSTER T2	10.00			GL
WSC		PAUL REYNOLDS T1	10.00			PR
MOTOR HAND		ROD KAKFWI	10.00			RK
FLOOR HAND		DERRICK SHAE	10.00			DS
FLOOR HAND		DARRYL COOK	10.00			DC
LEASE HAND		TIM TUTCHO	10.00			TT
LEASE HAND		DARCY BLANCHER	10.00			DB
		2HRS PER WEEK FOR MT				

RATE SCHEDULE [X] REGULAR [ ] REPAIR [ ] INVERT

CREW SAFETY DAYS: 10

DRIVERS

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
ASSIST DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

RATE SCHEDULE [X] REGULAR [ ] REPAIR [ ] INVERT

CREW SAFETY DAYS: 10

DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC [redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR ED	R.M. RP
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required	ED	RP
(4.) Well Licence & Slick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed		
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 2 DAY 20

RIG NO. 51

FUEL @ 08:30 LITRES

RIG 4216 BOILER 2518

WEATHER CONDITIONS

TEMPERATURE -13

CURRENT CONDITIONS CLEAR

WIND DIRECTION N.E.

ROAD CONDITION ICE

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23

DC/ DP	DC/DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84		65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080220_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

CAODC

PASON DATAHUB

CODE NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

	RIG/UP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING	CHANGE OUT BIT							
MORN		6.75					0.25			0.75											0.25								
DAY		7.5					0.25			0.25																			
EVE		0.75			0.75	3.75	0.25		1.0												0.25	1.25							
TOTAL		15.00			0.75	3.75	0.75		1.00	1.00											0.50	1.25							

TOTALS	SHALE SHAKER(S)	PERSON / SERVICES	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA	BOILER #1 A-0039914			
8.00	SCREENS CHANGED YES NEW USED	BOILER #2 0105437			
8.00	TOP 180 MIDDLE	TOP MIDDLE			
24.00	BOTTOM 145	BOTTOM 180			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	2	20
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/ PRESTON		51		
PROVINCE	CAMP X YES NO	RIG SAFETY DAYS		
N.W.T.		206		

DRILLING ASSEMBLY (LISTED OUT BOTTOM TO TOP)

NO.			LENGTH
1	BIT	O.D. .29	
1	BIT SUB	180	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
35	D.P. STANDS		672.78
	D.P. SINGLES		
KELLY DOWN			11.50
TOTAL			957.00
WT. OF D.C.	21		
WT. OF STRING	46		

BIT RECORD

BIT NO.	3
SIZE	222
IADC CODE	5 3 7
MANUFACTURER	SMITH
TYPE	FH30
SERIAL NO.	PH0638
JETS	3X 10.3
DEPTH OUT (m)	995
DEPTH IN (m)	894
TOTAL DRILLED (m)	101.00
TOTAL HRS RUN	18.75

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
								8.76

HOLE CONDITION

HOLE DRAG	1 DaN UP 3 DOWN
TORQUE AT BOTTOM	2695
FILL ON BOTTOM (m)	.25

MORNING TOUR

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

	0000	0330	0600
TIME			
DENSITY (kg/m3)	1150	1155	1150
FUNNEL VISCOSITY	48	48	45
FLUID LOSS (cm3)	10.0	10.0	10
pH	9.0	9.5	9.0
PVT	23.0	25.6	24.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
conquor 404	40	L
FEDZAN D	1	SX
FED PAC UL	1	SX
WALNUT (MEDIUM)	1	SX
CAUSTIC	1	SX
SAWDUST	3	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1155	1130	1756
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
915	920	D	80	19
920	957	D	90	19

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
8200	152	120	152	

REDUCED PUMP SPEED

3200 @ 64 @ 919

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
892	2.5	130.2
902	2.4	125.1
911	2.0	126.7
921	1.8	117.7
931	1.2	107.9

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	545	5.75	2	DRILL ACTUAL F/915M-953M
545	630	0.75	10	DEVIATION SURVEY ACC
630	645	0.25	21	SAFETY MEETING HAND OVER
645	745	1.00	2	DRILL ACTUAL F/953M-957M
745	800	0.25	7	RIG SERVICE CLOSED ANN 12 SEC TO CLOSE
800				
				FUEL 400 BRRLS = 53 M3
				MJ TOTAL 7752 ACC 312980

NOTES : FUNCTIONED REMOTE CHOKE LINE TEST CROWN SAVER
CHECKED BRAKE LINKAGE DEADLINE ANCHOR FUNCTIONED FLARE IGNITOR
JSA#M11-MIX MUD PRODUCTS #M45-HAULING GARBAGE #M22-IGNITION OF FLARE TANK

SPECIAL EVENT	BHA & BIT TRIP		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			FALL ARREST	48	3896

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS 11

DRIVERS

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
MOTOR HAND		ROD KAKFWI	8.00			RK
FLOOR HAND		DERRICK SHAE	8.00			DS
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND		TIM TUTCHO	8.00			TT

INJURIES

DRILLING ASSEMBLY (LISTED OUT BOTTOM TO TOP)

NO.			LENGTH
1	BIT	O.D. .29	
1	BIT SUB	180	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
37	D.P. STANDS		711.35
	D.P. SINGLES		
KELLY DOWN			12.10
TOTAL			996.17
WT. OF D.C.	21		
WT. OF STRING	47		

BIT RECORD

BIT NO.	3
SIZE	222
IADC CODE	5 3 7
MANUFACTURER	SMITH
TYPE	FH30
SERIAL NO.	PH0638
JETS	3X 10.3
DEPTH OUT (m)	894
DEPTH IN (m)	800
TOTAL DRILLED (m)	94.00
TOTAL HRS RUN	10.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
								8.95

HOLE CONDITION

HOLE DRAG	2-3/UP 3/DN
TORQUE AT BOTTOM	3100
FILL ON BOTTOM (m)	0

DAY TOUR

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

	800	1200	1500
TIME			
DENSITY (kg/m3)	1160	1160	1165
FUNNEL VISCOSITY	44	46	45
FLUID LOSS (cm3)	9.5	9.0	8.0
pH	9.5	10.0	10.0
PVT	25.7	25.8	27.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FED PAC UL	3	SX
FEDZAN D	3	SX
WALNUT (MEDIUM)	2	SX
DEFOAMER	1	PAIL
POTASSIUM CARBONATE	17	SX
SAWDUST	3	SX
CAUSTIC	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1150	1760
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH		BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
957	995	D	80	20

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
12637	152	75	152	75

REDUCED PUMP SPEED

1475 @ 56 @ 967

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
941	1.2	107.5
950	1.3	104.7
959	1.3	103.3

DRILLER SIGNATURE

MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1530	7.50	2	ROTARY DRILL 222mm HOLE F/957m- 995M
1530	1545	0.25	7	RIG SERVICE FUNCTION U/P/R C/3SEC
1545	1600	0.25	10	DEVIATION SURVEY ACCUMULATED
1600				

NOTES : REVIEW JSA'S ON M-28 SERVICE CROWN,M-1 RIG SERVICE,M-38 LOADER MAINTENCE
INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
BOILER BLOWDOWN 2X40L
VISUALY INSPECTED DERRICK/ SERVICED CROWN

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			FLOWCHECKS/SHUT IN	50	3863

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS 11

DRIVERS

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	12.00			MM
ASSIST DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		LOUIE SZABO	12.00			LS
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		ABRAHAN TUTCHO	12.00			AT
FLOOR HAND		CHARLES GULLY	12.00			CG
LEASE HAND		CLYDE SEWI	12.00			CS

INJURIES

DRILLING ASSEMBLY (LISTED OUT BOTTOM TO TOP)

NO.			LENGTH
1	BIT	O.D. .29	
1	BIT SUB	180	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
37	D.P. STANDS		711.35
	D.P. SINGLES		
KELLY DOWN			12.10
TOTAL			996.17
WT. OF D.C.	21		
WT. OF STRING	46		

BIT RECORD

BIT NO.	3	4
SIZE	222	222
IADC CODE	5 3 7	6 1 7
MANUFACTURER	SMITH	HUGHES
TYPE	FH30	GX-44GDX
SERIAL NO.	PH0638	5135559
JETS	3X 10.3	3 X 11.1
DEPTH OUT (m)	996	
DEPTH IN (m)	894	996
TOTAL DRILLED (m)	102.00	
TOTAL HRS RUN	19.5	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
2	8	BT	H	E	0	CT	PR	5.23

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

EVENING TOUR

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

	1800
TIME	
DENSITY (kg/m3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	
PVT	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1145	1821
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
	152		152	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1645	0.75	2	ROTARY DRILL 222mm HOLE F/ 995m-996m
1645	1730	0.75	5	CIRCULATE HOLE CLEAN MIX AND PUMP PILL PRIOR TO BIT TRIP
1730	1830	1.00	6	P.O.O.H FOR BIT FLOWCHECKS @ 985m-889m
1830	1845	0.25	21	HANDOVER MEETING
1845	2000	1.25	6	P.O.O.H TO BIT FLOWCHECKS @356M-187m-on bank
2000				closed blind rams 2 sec to close
2000	2115	1.25	22	CHANGE OUT BIT
2115	2215	1.00	6	RUN IN WITH BIT #4
2215	2315	1.00	9	CUT OFF DRILLING LINE 19 METERS
2315	2345	0.50	6	TRIPS RIH
2345	2400	0.25	7	RIG SERVICE
				HOLE DISPL 7.21M3 CALC 5.14M3 DIFF 2.07M3 MORE

NOTES : INSPECT BRAKES,LINKAGE & PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER AFTER
SLIP & CUT FUNCTIONED REMOTE CHOKE
JSA #G7-RACK BACK KELLY #G10-RIH #G59-OPERATE PIPE SPINNER

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			TRIP 1N & OUT	55	3829

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS 11

DRIVERS

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	4.00			FL
DERRICK HAND		GARY LYSTER T2	4.00			GL
MOTOR HAND		ROD KAKFWI	4.00			RK
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		TIM TUTCHO	4.00			TT

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC [redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required	ED	RP
(4.) Well Licence & Stick Diagram Posted	ED	RP
(5.) Flare Lines Staked		
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (one/crewmonth)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mast Inspection before Raising or Lowering		RP
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		RP

YEAR 2008 MONTH 2 DAY 21 — RIG NO. 51 — FUEL @ 05:00 HRS: RIG 4216 BOILER 2518

WEATHER: TEMPERATURE -13; CURRENT CONDITIONS CLEAR; WIND DIRECTION N.E.; ROAD CONDITION ICE

	DC / DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS
DRILL STRING	DC	159	139		51	159	4 1/2 XH	20
	DP	102	42	x-95	68.26	133.4	4 FH	40
	DP	102	20.84		65.09	117.48	4 FH	180

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	346.23

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080221_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7 HF2 ETS 2.2		

CAODC — PASON DATAHUB

CODE NO.

	1 RIG UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		4.5	2.0		0.25	0.75	0.25														0.25					
DAY		7.5					0.25			0.25																
EVE		7.0					0.25			0.5											0.25					
TOTAL		19.00	2.00		0.25	0.75	0.75			0.75											0.50					

TOTALS	SHALE SHAKER(S)	RENTALS / SERVICES	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA	BOILER #1 A-0039914			
8.00	SCREENS CHANGED [ ] NEW USED [ ] TOP 180	BOILER #2 0105437			
8.00	MIDDLE 180				
24.00	BOTTOM 145	BOTTOM 180			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	2	21
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/ PRESTON		51		
PROVINCE	CAMP [X] YES [ ] NO	RIG SAFETY DAYS		
N.W.T.		207		

MORNING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO.			LENGTH
1	BIT	O.D. .23	
1	BIT SUB	160	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
38	D.P.	STANDS	730.58
	D.P.	SINGLES	
KELLY DOWN			11.70
TOTAL			1014.94
WT. OF D.C.	21		
WT. OF STRING	47		

BIT RECORD

BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X; 11.1
DEPTH OUT (m)	
DEPTH IN (m)	996
TOTAL DRILLED (m)	19.00
TOTAL HRS RUN	4.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1/UP 2/DN
TORQUE AT BOTTOM	2000
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE poly — WATER BASED [X] OIL BASED [ ]

TIME	200	0400	0800
DENSITY (kg/m3)	1160	1160	1160
FUNNEL VISCOSITY	45	45	45
FLUID LOSS (cm3)	10	10	10
pH	9.0	9.0	10.0
PVT	25.4	24.2	23.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	5	SX
UNITROL	1	SX
DEFOAMER	1	PAIL
conquor 404	10	L
CAUSTIC	1	SX
BARITE	22	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1145	1780
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
996	1015	D	64	24

CIRCULATION PRESSURE kPa: 11420

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	75	152	75

REDUCED PUMP SPEED: 2120 @ 68 @ 1005

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
988	.60	154.1

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	200	2.00	3	REAMING F/708M-810M
200	245	0.75	6	TRIPS RIH
245	300	0.25	5	WASH TO BTM 1 SINGLE NO FILL
300	630	3.50	2	DRILL ACTUAL F/996M- 1010M
630	645	0.25	21	SAFETY MEETING HAND OVER
645	745	1.00	2	DRILL ACTUAL F/1010M-1015M
745	800	0.25	7	RIG SERVICE
800				
				MJ TOTAL 0 ACC 313867
				FUEL 400 BRRL 35 M3

NOTES : LINE TEST CROWN SAVER FUCTIONED REMOTE CHOKE FLARE IGNITOR
CHECKED DEADLINE ANCHOR
JSA#G32-CLEANNING RIG

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			MOUSE HOLE DP	48	3863

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 12 — DRIVERS:

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
MOTOR HAND		ROD KAKFWI	8.00			RK
FLOOR HAND		DERRICK SHAE	8.00			DS
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND		TIM TUTCHO	0			

DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO.			LENGTH
1	BIT	O.D. .23	
1	BIT SUB	160	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
38	D.P.	STANDS	749.81
1	D.P.	SINGLES	9.68
KELLY DOWN			12.10
TOTAL			1044.25
WT. OF D.C.	21		
WT. OF STRING	47		

BIT RECORD

BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X; 11.1
DEPTH OUT (m)	
DEPTH IN (m)	996
TOTAL DRILLED (m)	48
TOTAL HRS RUN	12

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1-2 DaNs
TORQUE AT BOTTOM	1898
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE poly — WATER BASED [ ] OIL BASED [ ]

TIME	800	1200	1500
DENSITY (kg/m3)	1160	1160	1160
FUNNEL VISCOSITY	43	45	45
FLUID LOSS (cm3)	9.0	8.5	8.0
pH	9.5	10.0	10.0
P.V.T	30.0	30.1	30.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAUSTIC	3	SX
FED PAC UL	3	SX
FED ZAN	2	SX
UNITROL	3	SX
POTASSIUM CARBONATE	30	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1150	1750
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1015	1044	D	60	23

CIRCULATION PRESSURE kPa: 7625

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152	123	152	

REDUCED PUMP SPEED: 1092 @ 55 @ 1034

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
998	0.8	150.2
1013	0.5	145.3
1017	0.5	147.8

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1530	7.50	2	ROTARY DRILL 222mm HOLE F/1015m- 1044m
1530	1545	0.25	7	RIG SERVICE FUNCTION UPPER PIPE C/3SEC
1545	1600	0.25	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
1600				

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30 SEC, FUNCTION MOTOR KILLS
REVEIW J.S.A"S M-34 SERVICE EQUIPMENT,G-36 BOILER WATER SYSTEM
BOILER BLOWDOWN 2X40L,REVEIW COMPETANCY TRAINING

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			DRILL FLOOR WORK	47	3898

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 12 — DRIVERS:

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	12.00			MM
ASSIST DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		LOUIE SZABO	12.00			LS
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		ABRAHAN TUTCHO	12.00			AT
FLOOR HAND		CHARLES GULLY	12.00			CG
LEASE HAND		CLYDE SEWI	12.00			CS

EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO.			LENGTH
1	BIT	O.D. .23	
1	BIT SUB	160	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
41	D.P.	STANDS	788.24
	D.P.	SINGLES	
KELLY DOWN			12.10
TOTAL			1073.00
WT. OF D.C.	21		
WT. OF STRING	47		

BIT RECORD

BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X; 11.1
DEPTH OUT (m)	
DEPTH IN (m)	996
TOTAL DRILLED (m)	77.00
TOTAL HRS RUN	19

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1/UP 2/DN
TORQUE AT BOTTOM	2200
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE POLY — WATER BASED [X] OIL BASED [ ]

TIME	1600	2100	2330
DENSITY (kg/m3)	1160	1160	1160
FUNNEL VISCOSITY	45	45	45
FLUID LOSS (cm3)	7	7.5	8.0
pH	9.5	9.5	9.5
PVT			30.7

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1145	1720
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1044	1068.5	D	60	23
1068.5	1073	D	65	23.3

CIRCULATION PRESSURE kPa: 7600

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	125

REDUCED PUMP SPEED: 1725 @ @ 64

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1027	0.8	144.9
1036	1.0	139.7
1046	1.3	158.7

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	2	ROTARY DRILL 222mm HOLE F/1044m-1053M
1830	1845	0.25	21	HANDOVER MEETING
1845	2315	4.50	2	ROTARY DRILL 222mm HOLE F/1053M-1073M
2315	2345	0.50	10	DEVIATION SURVEY ACC
2345	2400	0.25	7	RIG SERVICE CLOSED ANN 12 SEC TO CLOSE
2400				

NOTES : LINE TEST CROWN SAVER FUNTIONED REMOTE CHOKE FLARE IGNITOR
CHECKED BRAKE PINS LINKAGE DEADLINE ANCHOR
JSA#G34-SERVICE EQIP #M56-USE & CARE OF GREASE GUNS

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			CROWN SAVER POLICY	48	3863

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 12 — DRIVERS:

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	4.00			FL
DERRICK HAND		GARY LYSTER T2	4.00			GL
MOTOR HAND		ROD KAKFWI	4.00			RK
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		TIM TUTCHO	4.00			TT

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	**UNIQUE ID**
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required	ED	RP
(4.) Well Licence & Stick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (ans/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (ans/rig/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		RP

YEAR 2008 MONTH 2 DAY 22

RIG NO. 51

FUEL @ 05:00 HRS

RIG 5533 BOILER 2955

TEMPERATURE -10

CURRENT CONDITIONS LIGHT CLOUD

WIND DIRECTION N.E.

ROAD CONDITION ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23

DRILL STRING	DC/DP	DC/DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
	DP	102	42	x-95	68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84		65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080222_1C		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 BOP DRILL	23	24	25	26
MORN		7.25					0.25			0.25											0.25					
DAY		7.25					0.25			0.5																
EVE		6.75					0.25														0.25	0.75				
TOTAL		21.25					0.75			0.75											0.50	0.75				

TOTALS	SHALE SHAKER(S)	PERITALS / SERVICES	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA	TYPE BOILER #1 A-0039914			
8.00	SCREENS CHANGED NEW USED	BOILER #2 0105437			
8.00	TOP 180	TOP			
8.00	MIDDLE 180	MIDDLE			
24.00	BOTTOM 145	BOTTOM 180			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	22

OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.

RIG MANAGER	RIG NO.
PARKER/ PRESTON	51

PROVINCE	CAMP	RIG SAFETY DAYS
N.W.T.	X YES NO	208

BIT RECORD

NO.	DRILLING ASSEMBLY AT BEGIN OF TOUR	O.D.	LENGTH
1	BIT	.23	
1	BIT SUB	160	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
42	D.P. STANDS		807.62
1	D.P. SINGLES		9.62
KELLY DOWN			12.10
TOTAL			1102.00
WT. OF D.C.	21		
WT. OF STRING	48		

BIT RECORD	
BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X 11.1
DEPTH OUT (m)	
DEPTH IN (m)	996
TOTAL DRILLED (m)	106.00
TOTAL HRS RUN	26.25

CUTTING STRUCTURE								
TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION	
HOLE DRAG	1/UP 2/DN
TORQUE AT BOTTOM	2650
FILL ON BOTTOM (m)	0

MORNING TOUR — MUD RECORD

MUD TYPE POLYMER — WATER BASED X — OIL BASED

TIME	0200	0400	0600
DENSITY (kg/m3)	1150	1150	1145
FUNNEL VISCOSITY	44	44	45
FLUID LOSS (cm3)	7.5	7.5	7.0
pH	10	9.5	10
PVT	32.2	31.1	30.9

MUD MATERIALS ADDED		
PRODUCT	AMOUNT	UNIT
CAUSTIC	2	SX
POTASSIUM CHLORIDE SALT	8	SX
conquor 404	30	L
SAWDUST	5	SX
UNITROL	2	SX
FEDZAN D	3	SX
FED PAC UL	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1150	1135	1783
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1073	1102	D	70	23.3

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
8989	152	122	152	

REDUCED PUMP SPEED

2200 @ @ 71

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1066	1.7	164.5
1076	1.7	167.1

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	200	2.00	2	DRILL ACTUALF/1073M-1082M
200	215	0.25	7	RIG SERVICE CLOSE LOWER PIPE RAMS 3 SEC TO CLOSE
215	615	4.00	2	DRILL ACTUAL F/1082M-1098M
615	630	0.25	10	DEVIATION SURVEY ACC
630	645	0.25	21	SAFETY MEETING HAND OVER
645	800	1.25	2	DRILL ACTUAL F/1098M-1102M
800				
				MJ TOTAL 833 ACC314700
				FUEL 400 BRRLS-47M3

NOTES : LINE TEST CROWN SAVER FUNCTIONED FLARE IGNITOR REMOTE CHOKE
CHECKED DEADLINE ANCHOR
JSA#M18-GENERATOR SERVICE CHECK G14-CIRCULATING

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				LOCK OUT PERMITS		3863

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS	DRIVERS
13	

MORNING TOUR — CREW

FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
MOTOR HAND		ROD KAKFWI	8.00			RK
FLOOR HAND		DERRICK SHAE	8.00			DS
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND		TIM TUTCHO	8.00			TT

INJURIES

DAY TOUR — BIT RECORD

NO.	DRILLING ASSEMBLY AT BEGIN OF TOUR	O.D.	LENGTH
1	BIT	.23	
1	BIT SUB	160	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
42	D.P. STANDS		846.02
1	D.P. SINGLES		9.66
KELLY DOWN			12.10
TOTAL			1140.44
WT. OF D.C.	21		
WT. OF STRING	48		

BIT RECORD	
BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X 11.1
DEPTH OUT (m)	
DEPTH IN (m)	996
TOTAL DRILLED (m)	144
TOTAL HRS RUN	33.5

CUTTING STRUCTURE								
TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION	
HOLE DRAG	1DaN UP 2 DOWN
TORQUE AT BOTTOM	2712
FILL ON BOTTOM (m)	0

DAY TOUR — MUD RECORD

MUD TYPE POLYMER — WATER BASED — OIL BASED X

TIME	0900	1200	1500
DENSITY (kg/m3)	1165	1160	1160
FUNNEL VISCOSITY	44	45	45
FLUID LOSS (cm3)	8.0	7.5	6.5
pH	10.0	10.0	10.5
P.V.T	30.0	30.0	28.9

MUD MATERIALS ADDED		
PRODUCT	AMOUNT	UNIT
FED ZAN	3	SX
FEDPAC	3	SX
UNITROL	3	SX
DEFOAMER	1	PAIL
POTASSIUM CHLORIDE SALT	30	SX
WALNUT (MEDIUM)	2	SX
SAWDUST	4	SX
CAUSTIC	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1160	1150	1750
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	270	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1102	1140.44	D	75	24

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
9688	152		152	130

REDUCED PUMP SPEED

1690 @ 64 @ 1140

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1084	1.7	166.9
1094	1.7	168.7
1104	1.6	168.0
1114	1.7	169.6
1124	1.6	172

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1515	7.25	2	ROTARY DRILL 222mm HOLE F/1102m- 1140M
1515	1530	0.25	7	RIG SERVICE FUNCTION ANN C/
1530	1600	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
REVEIW J.S.A"S G-13 CLIMB DERRICK,M-14 FUELING & SERVICE PREMIX
BOILER BLOWDOWN 3X60L WEEKLY SFTY TOPIC P.P.E CORE VALUES

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				P.P.E	49	3968

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS	DRIVERS
13	

DAY TOUR — CREW

FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	12.00			MM
ASSIST DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		LOUIE SZABO	12.00			LS
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		ABRAHAN TUTCHO	12.00			AT
FLOOR HAND		CHARLES GULLY	12.00			CG
LEASE HAND		CLYDE SEWI	12.00			CS

INJURIES

EVENING TOUR — BIT RECORD

NO.	DRILLING ASSEMBLY AT BEGIN OF TOUR	O.D.	LENGTH
1	BIT	.23	
1	BIT SUB	160	1.04
1	D.C.	159	9.53
1	NMDC	165	9.38
1	EXT SUB	165	.62
1	P.B.L. SUB	159	2.69
1	STAB	200	1.92
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
48	D.P. STANDS		884.59
1	D.P. SINGLES		9.66
KELLY DOWN			12.09
TOTAL			1179.00
WT. OF D.C.	21		
WT. OF STRING	48		

BIT RECORD	
BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X 11.1
DEPTH OUT (m)	
DEPTH IN (m)	996
TOTAL DRILLED (m)	177.00
TOTAL HRS RUN	40.25

CUTTING STRUCTURE								
TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION	
HOLE DRAG	1/UP 2/DN
TORQUE AT BOTTOM	2780
FILL ON BOTTOM (m)	0

EVENING TOUR — MUD RECORD

MUD TYPE poly — WATER BASED X — OIL BASED

TIME	1800	2130	2330
DENSITY (kg/m3)	1170	1170	1170
FUNNEL VISCOSITY	45	47	47
FLUID LOSS (cm3)	6.5	6.5	6.5
pH	10.0	10	9.5
pvt	28.9	29.3	28.8

MUD MATERIALS ADDED		
PRODUCT	AMOUNT	UNIT
FEDZAN D	1	SX
POTASSIUM CHLORIDE SALT	20	SX
conquor 404	20	L
WALNUT (MEDIUM)	1	SX
CAUSTIC	1	SX
SAWDUST	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1170	1145	1769
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1140	1143	D	60	23.5
1143	1164	D	70	23.5
1164		D	75	24

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
7850	152	122	152	

REDUCED PUMP SPEED

1450 @ 56 @ 1159

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1134	1.6	181.9
1144	1.6	184.7
1154	1.6	188.0

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1630	0.50	22	BOP DRILL WHILE DRILLING, CREW POSITIONED AND WELL SHUT IN 52 SEC REVIEWED KICK
1630				WARNING SIGNS
1630	1830	2.00	2	DRILL 222MM HOLE F/ 1140M-1150M
1830	1845	0.25	21	SAFETY MEETING HAND OVER
1845	2045	2.00	2	DRILL ACTUAL F/1150M-1159M
2045	2100	0.25	22	BOP DRILL CREW IN POSITION WELL SECURED 1 MIN C/ANN 12 SEC
2100	2345	2.75	2	DRILL ACTUAL F/1159M-1173M
2345	2400	0.25	7	RIG SERVICE CLOSED UPPER PIPE RAMS 3SEC

NOTES : FUNCTIONED CROWN SAVER , MOTOR KILLS, REMOTE CHOKE 30SEC TO CLOSE
WEEKLY SAFETY MEETING CORE VALUES INTEGRITY CODE BLUE PPE
JSA#G76-BOP DRILL #G73-LAY DOWN JARS

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				STEAM-VISABLITY	49	3863

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS	DRIVERS
13	

EVENING TOUR — CREW

FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	4.00			FL
DERRICK HAND		GARY LYSTER T2	4.00			GL
MOTOR HAND		ROD KAKFWI	4.00			RK
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		TIM TUTCHO	4.00			TT

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	**UNIQUE ID**
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR ED	R.M. RP
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required	ED	RP
(4.) Well Licence & Slick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed		
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 2 DAY 23

RIG NO. 51

FUEL @ 06:00 HRS: RIG 8959 BOILER 4883

TEMPERATURE -4

CURRENT CONDITIONS: CLEAR

WIND DIRECTION: S.W.

ROAD CONDITION: ICE

LAST CASING TURNED OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T..INT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080223_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

CODE NO.	1 RIG/UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		6.0			1.25	0.25				0.25											0.25					
DAY						4.0	0.25				2.75									0.75	0.25					
EVE											7.75										0.25					
TOTAL		6.00			1.25	4.25	0.25			0.25	10.50									0.75	0.75					

TOTALS	NO.	SHALE SHAKER(S) TYPE	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA		BOILER #1 A-0039914			
8.00	SCREENS CHANGED		NEW USED	BOILER #2 0105437			
8.00	TOP 180		TOP				
24.00	MIDDLE 180		MIDDLE				
	BOTTOM 145		BOTTOM 180				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	23
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER	**RIG NO.**		
PARKER/ PRESTON	51		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N.W.T.	X YES NO	209	

MORNING TOUR

FROM 0 TO 800

NO.	DRILLING ASSEMBLY / HISTORY OF TOOLS	LENGTH
1	BIT	.23
1	BIT SUB	1.04
1	D.C.	9.53
1	NMDC	9.38
1	EXT SUB	.62
1	P.B.L. SUB	2.69
1	STAB	1.92
5	D.C.	46.49
1	JAR	6.05
11	D.C.	101.70
1	X.O	.27
10	H.W.D.P.	92.74
48	D.P. STANDS	923.26
	D.P. SINGLES	
KELLY DOWN		4.08
TOTAL		1200.00
WT. OF D.C.	21	
WT. OF STRING	48	

BIT RECORD

BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X; 11.1
DEPTH OUT (m)	1200
DEPTH IN (m)	996
TOTAL DRILLED (m)	204.00
TOTAL HRS RUN	46.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
								4.4

HOLE CONDITION

HOLE DRAG	2/UP 2/DN
TORQUE AT BOTTOM	3000
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

	0100	0300	0600
TIME			
DENSITY (kg/m3)	1170	1170	
FUNNEL VISCOSITY	47	49	
FLUID LOSS (cm3)	6.5	6.5	
pH	11.0	10.5	
PVT	28.7	28.4	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
conquor 404	20	L
FED PAC UL	1	SX
UNITROL	1	SX
POTASSIUM CHLORIDE SALT	10	SX
FEDZAN D	1	SX
WALNUT (MEDIUM)	1	SX
SAWDUST	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1170	1155	1720
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1	2
HRS RUN	8	8
BOILER pH	10.5	10.5
STACK TEMP	260	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1173	1191	D	71	24
1191	1200	D	80	25

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
8000	152	122	152	

REDUCED PUMP SPEED: 1865 @ 63 @ 1189

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1164	1.6	190.5
1173	1.5	188.2
1199	1.5	193.1

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	600	6.00	2	DRILL ACTUAL F/1173M-1200M
600	615	0.25	10	DEVIATION SURVEY
615	630	0.25	5	CONDITION MUD & CIRCULATE
630	645	0.25	21	SAFETY MEETING
645	745	1.00	5	CONDITION MUD & CIRCULATE
745	800	0.25	6	TRIP OUT OF HOLE
				CONNECTION TIGHT @ 1172M
				MJ TOTAL 1223 ACC 315090
				FUEL 400 BRRLS=33.5 M3

NOTES : LINE TEST CROWN SAVER FUNTIONED REMOTE CHOKE FLARE IGNITOR
CHECKED BRAKE PINS LINKAGE DEADLINE ANCHOR
JSA#M26-CHECK DRIVE LINE & SERVICE #M45-CHANGE TONG DIES

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		1502 HAMMER UNIONS	64	3829

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS: 14

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
MOTOR HAND		ROD KAKFWI	8.00			RK
FLOOR HAND		DERRICK SHAE	8.00			DS
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND		TIM TUTCHO	8.00			TT

DAY TOUR

FROM 800 TO 1600

NO.	DRILLING ASSEMBLY / HISTORY OF TOOLS	LENGTH
1	BIT	.23
1	BIT SUB	1.04
1	D.C.	9.53
1	NMDC	9.38
1	EXT SUB	.62
1	P.B.L. SUB	2.69
1	STAB	1.92
5	D.C.	46.49
1	JAR	6.05
11	D.C.	101.70
1	X.O	.27
10	H.W.D.P.	92.74
48	D.P. STANDS	923.26
	D.P. SINGLES	
KELLY DOWN		4.08
TOTAL		1200.00
WT. OF D.C.	21	
WT. OF STRING	48	

BIT RECORD

BIT NO.	4
SIZE	222
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	GX-44GDX
SERIAL NO.	5135559
JETS	3 X; 11.1
DEPTH OUT (m)	1200
DEPTH IN (m)	996
TOTAL DRILLED (m)	204.00
TOTAL HRS RUN	46.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
2	5	BT	G	E	0	JD	TD	4.41

HOLE CONDITION

HOLE DRAG	1 UP
TORQUE AT BOTTOM	0
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
LIMESTONE	42	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			

BOILERS

	1	2
HRS RUN	8	8
BOILER pH	10.5	10.5
STACK TEMP	260	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
8232	152	130	152	

REDUCED PUMP SPEED: 1198 @ 54 @ 1364

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1200	4.00	6	P.O.O.H FLOWCHECKS @ 1195m-1102-726-363-SURFACE
1200	1245	0.75	20	LAY OUT STAB,P.B.L SUB,MONEL
1245	1300	0.25	21	SAFETY MEETING WITH SCHLUMBERGER PRIOR TO R.I.H W/LOGS
1300	1545	2.75	11	PREP FLOOR RIG IN SCHLUMBERGER WIRELINE
1545	1600	0.25	7	RIG SERVICE FUNCTIONED UPPER PIPE RAMS C/3SEC
				TRIP SHEET RESULTS T.V.C=5.42 T.V.M=9.10 DIFF=3.68
				STRAP OUT= 1201.43m CALCULATED=1200.01 DIFF=1.42
				STRAPPED OUT IN HIGH WIND

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,ACC PRESS & OIL LEVEL,FLARE IGNITOR
REVEIW J.S.A"S G-9 P.O.O.H R-43 RIG UP TEAR OUT LOGGERS
BOILER BLOWDOWN 3X60L,FUNCTION REMOTE CHOKE C/30SEC

SPECIAL EVENT	LOGGING	SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		1502/ HAMMER UNIONS	52	3829

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS: 14

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	12.00			MM
ASSIST DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		LOUIE SZABO	12.00			LS
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		ABRAHAN TUTCHO	12.00			AT
FLOOR HAND		CHARLES GULLY	12.00			CG
LEASE HAND		CLYDE SEWI	12.00			CS

EVENING TOUR

FROM 1600 TO 2400

NO.	DRILLING ASSEMBLY / HISTORY OF TOOLS	LENGTH
	BIT	
5	D.C.	46.49
1	JAR	6.05
11	D.C.	101.70
1	X.O	.27
10	H.W.D.P.	92.74
48	D.P. STANDS	923.26
	D.P. SINGLES	
KELLY DOWN		4.08
TOTAL		1174.59
WT. OF D.C.	21	
WT. OF STRING	48	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE WATER BASED X OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			

BOILERS

	1	2
HRS RUN	8	8
BOILER pH	10.5	10.5
STACK TEMP	260	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
	127		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	11	R.I.H W/WIRELINE TAG BOTTOM @ 1201m @ 16.06HRS
1830	1845	0.25	21	SAFETY MEETING HANDOVER
1845	2400	5.25	11	WIRELINE RUN LOGS #1RUN PEX-HRLA,HNGS,DUAL DENSITY,SP #2 FM1,DSI,EMS,SGT
2400				
				TIM TUTCHO

NOTES : CHECKED DEADLINE ANCHOR
FUNCTIONED REMOTE CHOKE FLARE IGNITOR
JSA#R43-LOGGING

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		LOGGING		3829

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS: 14

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	4.00			FL
DERRICK HAND		GARY LYSTER T2	4.00			GL
MOTOR HAND		ROD KAKFWI	4.00			RK
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		TIM TUTCHO	4.00			TT

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	UNIQUE ID
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)	ED	RP
(3.) H2S Signs Posted if Required		
(4.) Well Licence & Slick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed	ED	
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mest Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 2 DAY 24

RIG NO. 51

FUEL @ 06:00 HRS

RIG	BOILER
8959	4883

TEMPERATURE -17

CURRENT CONDITIONS: CLEAR

WIND DIRECTION: S.W.

ROAD CONDITION: ICE

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	159	139		51	159	4 1/2 XH	20	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080224_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7_HF2 ETS 2.2		

CAODC

PASON DATAHUB

HOURS

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN						3.75					2.0	1.5									0.75					
DAY					0.75		0.25					6.75									0.25					
EVE											1.0			6.75							0.25					
TOTAL					0.75	3.75	0.25				2.00	9.25		6.75							1.25					

TOTALS	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
	8.00	8.00	8.00	24.00																						

SHALE SHAKER(S)

NO.	TYPE	
1	COBRA	
SCREENS CHANGED		NEW USED
TOP	180	TOP
MIDDLE	180	MIDDLE
BOTTOM	145	BOTTOM 180

RENTALS / SERVICES

	MORN	DAY	EVE
BOILER #1 A-0039914			
BOILER #2 0105437			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	24
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER	**RIG NO.**		
PARKER/ PRESTON	51		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N.W.T.	X YES NO	210	

BIT RECORD

NO.	DRILLING ASSEMBLY (LISTING OF TOOLS)	O.D.	LENGTH
	BIT		
5	D.C.	160	46.49
1	JAR	136	6.05
11	D.C.	160	101.70
1	X.O	157	.27
10	H.W.D.P.	102	92.74
48	D.P. STANDS		923.26
	D.P. SINGLES		
KELLY DOWN			4.08
TOTAL			1174.59
WT. OF D.C.	21		
WT. OF STRING	48		

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

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

MORNING TOUR

MUD RECORD

MUD TYPE | WATER BASED [X] | OIL BASED [ ]

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1200				

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		152	

REDUCED PUMP SPEED @ | @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	200	2.00	11	WIRELINE LOGS RUN # 2 FMI,DSI,EMS,SGT
200	215	0.25	21	SAFETY MEETING
215	415	2.00	6	RUN IN DC & 15 STDS PIPE & LAY OUT
415	600	1.75	6	RUN IN 15 STANDS OF DRILLPIPE AND LAY THEM OUT RETRIEVE WEAR BUSHING
600	615	0.25	21	SAFETY MEETING WITH TONG HAND
615	630	0.25	12	RIG TOO & RUN CASING
630	645	0.25	21	HAND OVER MEETING
645	800	1.25	12	RUN CASING
800				
				HOLE DISPL 3.68M3 CALC 3.18M3 DIFF .50M3 MORE
				FUEL 400 BRRLS 33 M3

NOTES: REVIEW JSA G-20 LAYDOWN DRILLCOLLARS,
MJ 2036 AMJ 315903

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		L/D DRILL COLLARS		3829

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 15

DRIVERS

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
MOTOR HAND		ROD KAKFWI	8.00			RK
FLOOR HAND		DERRICK SHAE	8.00			DS
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND		TIM TUTCHO	8.00			TT

DAY TOUR

MUD RECORD

MUD TYPE | WATER BASED [ ] | OIL BASED [X]

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		152	

REDUCED PUMP SPEED @ | @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1315	5.25	12	R.I.H WITH 177.8mm 34.28kg/m-(L-80)-(LT/C) CASING
1315	1400	0.75	5	CIRCULATE 177.8mm CSG RIG OUT TONG HAND PREP FLOOR FOR CEMENTING
1400	1415	0.25	21	SAFETY MEETING WITH SCHLUMBERGER PRIOR TO CEMENTING
1415	1430	0.25	7	RIG SERVICE FUNCTION H.C.R O/2SEC
1430	1600	1.50	12	HEAD UP CEMENT 222mm HOLE
				Ran in w/97 full length jts/one spacer of Range III 178mm 34.2kg/m L-80 LT&C
				Casing w/a shoe depth of 1198m & top of float 1184m

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,ACC PRESS&OIL LEVEL,FLARE IGNITOR
REVEIW J.S.A"S G-32 RIG TO AND RUN CSG G-30 RIG TO AND CEMENT CSG
BOILER BLOWDOWN 2X40L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		RUN CSG/CEMENTING		3829

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 15

DRIVERS

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	12.00			MM
ASSIST DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		LOUIE SZABO	12.00			LS
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		ABRAHAN TUTCHO	12.00			AT
FLOOR HAND		CHARLES GULLY	12.00			CG
LEASE HAND		CLYDE SEWI	12.00			CS

EVENING TOUR

MUD RECORD

MUD TYPE | WATER BASED [ ] | OIL BASED [ ]

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		152	

REDUCED PUMP SPEED @ | @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1700	1.00	12	CEMENT 177.8mm CSG PLUG DOWN @ 16.20HRS 0 RETURN FLUSH STACK RIG OUT
				SCHLUMBERGER
1700	1830	1.50	14	PREP STACK TO SET SLIPS
1830	1845	0.25	21	HANDOVER MEETING
1845	2400	5.25	14	SET SLIPS 20,000 DAN, INSTALL TUBING HANGER, X/O SPOOL AND HEAD UP
				PRESSURE TEST TUBING HANGER TO 16,500 KPA
				178mm Intermediate cement w/Schlumberger- Pumped 3m3 H2O preflush- Stopped &
				pressured tested surface lines to 15Mpa- Mix & pump 22.5m3/24.5 tonnes RFC
				@ 1740kg/m3 + 1.4% B139 + .5% D013 + .2% D046- Stop, drop plug & displaced
				w/2m3 H2O & 22.6m3 polymer mud- Stopped pumping- Plug did not bump- Bled
				back w/Floats holding OK- Returns reduced towards the end of the job seeing 2m3
				H2O preflush back to surface- Fluid level slowly retreated once pumping was
				completed- Let cement stablize & top fill annulus side fr/Trip tank obtaining
				a static column of fluid- Total volume of 1.3m3 used- equivalent to 165m Csg-

NOTES: Csg annular volume- Estimated cement top @ 165m

JSA # R20 NIPPLE UP STACK,R 38 CLEAN MUD FROM TANKS
R57 HAMMER WRENCH USE

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		NIPPLE DN&UP		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 15

DRIVERS

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	4.00			FL
DERRICK HAND		GARY LYSTER T2	4.00			GL
MOTOR HAND		ROD KAKFWI	4.00			RK
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		TIM TUTCHO	4.00			TT

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59

OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.

SURFACE LOCATION	UNIQUE ID
[redacted]	300/M59 64-40 122-30

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 25

RIG NO. 51

FUEL ON BOARD (LITRES)

RIG 8959 BOILER 4683

TEMPERATURE -17

CURRENT CONDITIONS CLEAR

WIND DIRECTION S.W.

ROAD CONDITION ICE

	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. INT. O.D.	TYPE THREAD	NO. of JOINTS
LAST CASING TUBING OR LINER	DC	120	70.3		57	125	3 1/2 IF	2
	DP	102	42		68.26	133.4	4 FH	40
	DP	102	20.84	X-95	65.09	117.48	4 FH	180

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
LAST CASING TUBING OR LINER	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

SPUD DATE	2008/02/11
TIME	15:30
RIG RELEASE	
TIME	
WELL TYPE	VERT.
RE-ENTRY	
OPERATOR'S AFE	P787032
KELLY BSHG	6.15
OP FUEL	
CONTRACTOR'S JOB NUM	07-22083
TOUR SHEET SERIAL NUM	AKTA51_20080225_1B
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2

PASON DATAHUB

TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 PICKUP BHA	23 INSTALL WELLHEAD	24 CUT/SLIP DRILLING LINE	25	26
MORN							0.25							1.75	3.25						0.25	2.25	0.25			
DAY						3.75	0.25													1.5		2.0		0.5		
EVE		1.25																			0.25	0.5		6.0		
TOTAL		1.25				3.75	0.50							1.75	3.25					1.50	0.50	4.75	0.25	6.50		

TOTALS	NO.	TYPE	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA		BOILER #1 A-0039914			
	SCREENS CHANGED	YES	NEW USED	BOILER #2 0105437			
8.00	215	TOP	TOP				
8.00	215	MIDDLE	MIDDLE				
24.00	215	BOTTOM	215 BOTTOM				

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	X.O	133	.49
10	H.W.D.P.	102	92.74
1	JAR	120	4.71
30	H.W.D.P.	102	280.08
33	D.P. STANDS		634.26
	D.P. SINGLES		
KELLY DOWN			12.1
TOTAL			1064.97
WT. OF D.C.			
WT. OF STRING			

BIT RECORD

BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			
PVT			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BICARB	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	270	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1200				

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	145	1.75	14	NIPPLE UP B.O.P.
145	500	3.25	15	PRESSURE TEST CHOKE LINE
500	515	0.25	7	RIG SERVICE
515	530	0.25	23	INSTALL WEAR BUSHING
530	630	1.00	22	PICKUP BHA
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	22	PICKUP BHA
800				PRESSURE TEST BLIND RAMS HCR KILL LINES CSG BOWL X/O SPOOL
				TUBBING HANGER SPOOL 1400 LOW 21000 HIGH 10 MIN EACH
				FUEL 400 BRRLS 32 M3

NOTES : MJ 3208 AMJ 317075

REVIEW JSA # G75 PRESSURE TEST

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				pressure test		

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS: 16

DRIVERS

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
33	D.P. STANDS		634.26
	D.P. SINGLES		
KELLY DOWN			12.1
TOTAL			1064.97
WT. OF D.C.			
WT. OF STRING			

BIT RECORD

BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	2424
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE POLY WATER BASED X OIL BASED

TIME				1700
DENSITY (kg/m3)				1120
FUNNEL VISCOSITY				42
FLUID LOSS (cm3)				9.0
pH				12.0
PVT				32.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SAPP	1	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1100	1950
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1120	1100	1950

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	270	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	930	1.50	20	MAKE UP 156mm BIT,MOTOR&TOOLS
930	1130	2.00	22	PICK UP 30 H.W.D.P
1130	1515	3.75	6	R.I.H WITH 156mm BIT TAG CEMENT @ 1116m
1515	1530	0.25	7	RIG SERVICE FUNCTION UPPER PIPE RAMS C/4SEC
1530	1600	0.50	24	DRILL OUT CEMENT F/1116M
1600				

NOTES : CHECK BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC,
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
REVIEW JSA' PRESSURE TEST, PIPE SPINNER USE AND CLIMBING DERRICK
FUNCTION ALL B.O.P COMPONENTS

SPECIAL EVENT	DRILL OUT 177 mm CSG			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TRIPPING	40	4000

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS: 16

DRIVERS

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
40	D.P. STANDS		769.22
	D.P. SINGLES		9.60
KELLY DOWN			4.57
TOTAL			1202.00
WT. OF D.C.		2	
WT. OF STRING		40	

BIT RECORD

BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	2.00
TOTAL HRS RUN	1.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	0
TORQUE AT BOTTOM	1300
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

TIME	2300			
DENSITY (kg/m3)	1140			
FUNNEL VISCOSITY	40			
FLUID LOSS (cm3)	17			
pH	13.5			
PVT	41.4			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	2	SX
FED PAC UL	1	SX
POTASSIUM CHLORIDE SALT	20	SX
UNITROL	2	SX
SODA ASH	6	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1140	1115	1680
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1140	1115	1750

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1200	1202	D	18	12

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
3350	127	80	152

REDUCED PUMP SPEED 1320 @ 57 @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1745	1.75	24	DRILL OUT CEMENT
1745	1800	0.25	22	B.O.P DRILL WELL SECURE CREW POSITIONED FUNCTIONED MOTOR OFF 4 SEC
1800	1830	0.50	24	DRILL OUT CEMENT
1830	1845	0.25	21	HANDOVER MEETING
1845	2230	3.75	24	DRILL CEMENT FLOAT & SHOE
2230	2245	0.25	22	BOP DRILL WELL SECURE CREW IN POSITION 55 SEC
2245	2400	1.25	2	DRILL ACTUAL F/1200M-1202M
2400				

NOTES : FUNCTIONED COWN SAVER REMOTE CHOKE FLARE IGNITOR
CHECKED DEADLINE ANCHOR
JSA#G76-BOP DRILL #G67-CONNECTION WITH MUD MOTOR

CAODC & AKITA NIPPLE UP INSPECTION COMPLETE

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TABLE TORQE		13053

RATE SCHEDULE X REGULAR REPAIR INVERT

CREW SAFETY DAYS: 16

DRIVERS

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	25

OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.

RIG MANAGER	RIG NO.
PARKER/ PRESTON	51

PROVINCE	CAMP	RIG SAFETY DAYS
N.W.T.	X YES NO	211

MORNING TOUR FROM 0 TO 800 INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
MOTOR HAND		ROD KAKFWI	8.00			RK
FLOOR HAND		DERRICK SHAE	8.00			DS
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND		TIM TUTCHO	8.00			TT

DAY TOUR FROM 800 TO 1600 INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	12.00			MM
ASSIST DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		LOUIE SZABO	12.00			LS
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		ABRAHAN TUTCHO	12.00			AT
FLOOR HAND		CHARLES GULLY	12.00			CG
LEASE HAND		CLYDE SEWI	12.00			CS

EVENING TOUR FROM 1600 TO 2400 INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	4.00			FL
DERRICK HAND		GARY LYSTER T2	4.00			GL
MOTOR HAND		ROD KAKFWI	4.00			RK
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		TIM TUTCHO	4.00			TT

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE L[redacted]N	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 26
RIG NO. 51
RIG 10013 BOILER 5011
TEMPERATURE -17
CURRENT CONDITIONS LIGHT SNOW
WIND DIRECTION S.W.
ROAD CONDITION ICE

LAST CASING TURNS OUT LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2006/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080226_1C		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

TOUR SHEET SUMMARY	CODE NO. 1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & 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 MEETING	22	23	24	25	26
MORN		6.75					0.25								0.5						0.5					
DAY		7.0					0.25			0.5											0.25					
EVE		5.0			2.5																0.5					
TOTAL		18.75			2.50		0.50			0.50					0.50						1.25					

RENTALS / SERVICES	MORN	DAY	EVE
BOILER #1 A-0039914			
BOILER #2 0105437			

TOTALS	NO. 1	TYPE 1 COBRA	TYPE	
8.00	SCREENS CHANGED		NEW USED	
8.00	TOP 215		TOP	
8.00	MIDDLE 215		MIDDLE	
24.00	BOTTOM 215		BOTTOM 215	

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	26
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/ PRESTON	RIG NO. 51		
PROVINCE: N.W.T.	CAMP [X] YES [ ] NO	RIG SAFETY DAYS 212	

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
41	D.P. STANDS		788.41
	D.P. SINGLES		
KELLY DOWN			11.98
TOTAL			1219.00
WT. OF D.C.	2		
WT. OF STRING	40		

BIT RECORD	
BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	19
TOTAL HRS RUN	8

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1/UP /DN
TORQUE AT BOTTOM	1400
FILL ON BOTTOM (m)	0

MORNING TOUR — MUD RECORD

MUD TYPE: POLYMER — WATER BASED [X] OIL BASED [ ]

TIME	0100	0300	0600
DENSITY (kg/m3)	1140	1140	1140
FUNNEL VISCOSITY	40	44	58
FLUID LOSS (cm3)	17	15	9.5
pH	13.5	12.0	12.0
PVT	43.6	24.7	26.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FED PAC UL	3	SX
POTASSIUM CHLORIDE SALT	53	SX
UNITROL	3	SX
conquor 404	20	L
SODA ASH	6	SX
DEFOAMER	1	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1140	1115	1790
8	1140	1115	1750

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1202	1219	D	25	13.3

CIRCULATION PRESSURE kPa: 3650 — PUMP NO. 1 LINER SIZE: 127 SPM: 90 — PUMP NO. 2 LINER SIZE: 152 SPM:

REDUCED PUMP SPEED: 1320 @ 57 @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	100	1.00	2	DRILL ACTUAL F/1202M-1205M
100	115	0.25	21	SAFETY MEETING
115	130	0.25	7	RIG SERVICE
130	200	0.50	15	CLOSED UPPER PIPE RAMS FOR LEAK OFF TEST
200	630	4.50	2	DRILL ACTUAL F/1205M-1216M
630	645	0.25	21	SAFETY MEETING HAND OVER
645	800	1.25	2	DRILL ACTUAL F/1216M-1219M
800				
				FUEL 400 BRRLS 14 M3
				MJ TOTAL 3538 ACC 317405

NOTES: LINE TEST CROWN SAVER CHECKED REMOTE CHOKE FLARE IGNITOR
BRAKE PINS LINKAGE DEADLINE ANCHOR
JSA#G63-FUNCTION CROWN SAVER #M11-MIX MUD PRODUCTS

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				PRESS TEST	41	13053

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 17 — DRIVERS:

MORNING TOUR — CREW

FROM 0 TO 800 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	10.00			FL
DERRICK HAND		GARY LYSTER T2	10.00			GL
MOTOR HAND		ROD KAKFWI	10.00			RK
FLOOR HAND		DERRICK SHAE	10.00			DS
FLOOR HAND		DARRYL COOK	10.00			DC
LEASE HAND		TIM TUTCHO	10.00			TT
		2HRS PER WEEK FOR MT				

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
43	D.P. STANDS		826.84
1	D.P. SINGLES		9.58
KELLY DOWN			1
TOTAL			1256.03
WT. OF D.C.	2		
WT. OF STRING	41		

BIT RECORD	
BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	56
TOTAL HRS RUN	15

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN UP 1 DOWN
TORQUE AT BOTTOM	1356
FILL ON BOTTOM (m)	0

DAY TOUR — MUD RECORD

MUD TYPE: POLYMER — WATER BASED [X] OIL BASED [ ]

TIME	800	1200	1500
DENSITY (kg/m3)	1120	1130	1130
FUNNEL VISCOSITY	51	48	47
FLUID LOSS (cm3)	9.0	10.0	10.0
pH	12	12.0	12.0
PVT	28.9	28.6	28.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
UNITROL	4	SX
POTASSIUM CHLORIDE SALT	20	SX
PURITY SALT	20	SX
FEDPAC	4	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1130	1120	1760
8	1130	1120	1760

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	260	STACK TEMP	275	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1219	1256	D	26	13

CIRCULATION PRESSURE kPa: 3620 — PUMP NO. 1 LINER SIZE: 127 SPM: 94 — PUMP NO. 2 LINER SIZE: 152 SPM:

REDUCED PUMP SPEED: 1053 @ 56 @ 1216

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1203	1.1	133.2
1212	1.0	112.8
1222	0.9	40.9
1232	0.4	83.8

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1500	7.00	2	ROTARY DRILL 156mm F/1219m-1256M
1500	1515	0.25	7	RIG SERVICE FUNCTION L/P/R C/4sec
1515	1530	0.25	21	HANDOVER MEETING
1530	1600	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE O/30SEC
REVEIW J.S.A"S C-22 IGNITEING FLARE TANK M-56 USE AND CARE OF GREASE GUNS
BOILER BLOWDOWN 2X40L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				IGNITEING FLARE TANK	42	13170

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 17 — DRIVERS:

DAY TOUR — CREW

FROM 800 TO 1600 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	10.00			MM
DERRICK HAND		LOUIE SZABO	10.00			LS
WSC		PAUL REYNOLDS T1	6.00			PR
MOTOR HAND		DARCY BLANCHER	10.00			DB
FLOOR HAND		ABRAHAN TUTCHO	10.00			AT
FLOOR HAND		CHARLES GULLY	10.00			CG
LEASE HAND		CLYDE SEWI	0			
		2HRS PER WEEK FOR MT				

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
45	D.P. STANDS		865.25
	D.P. SINGLES		
KELLY DOWN			12.10
TOTAL			1295.96
WT. OF D.C.	2		
WT. OF STRING	41		

BIT RECORD	
BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	95
TOTAL HRS RUN	20

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	2 up 2 down
TORQUE AT BOTTOM	1119
FILL ON BOTTOM (m)	0

EVENING TOUR — MUD RECORD

MUD TYPE: POLYMER — WATER BASED [X] OIL BASED [ ]

TIME	1800	2130	
DENSITY (kg/m3)	1160	1210	
FUNNEL VISCOSITY	48	47	
FLUID LOSS (cm3)	10.0	10.0	
pH	12.0	12.0	
PVT	28.7	30.6	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SALT	280	SX
DEFOAMER	1	SX
POTASSIUM CHLORIDE SALT	56	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1220	1200	1620
8	1220	1200	1620

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	270	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1256	1295	D	65	14

CIRCULATION PRESSURE kPa: 8400 — PUMP NO. 1 LINER SIZE: 127 SPM: 115 — PUMP NO. 2 LINER SIZE: 152 SPM:

REDUCED PUMP SPEED: 1085 @ 56 @ 1280

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1241	0.4	53.2
1251	0.2	151.8
1270	0.5	355.6

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	2	DRILL 156MM HOLE FROM 1256M TO 1276M
1830	1900	0.50	21	BOP DRILL WITH NEW CREW WELL SHUT IN 2MIN 15 SEC
1900	1930	0.50	2	DRILL 1276M TO 1281M
1930	2200	2.50	5	MIX SALT FOR SALENE RIVER FORMATION
2200	2400	2.00	2	DRILL 1281M T0 1295m

NOTES: FUNCTIONED CROWN SAVER , FUNCTIONED PASON CHOKE
boiler blowdown 3x 40 L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				BOP DRILL	43	12230

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 17 — DRIVERS:

EVENING TOUR — CREW

FROM 1600 TO 2400 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	10.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
WSC		DARREL LAPLANT T3	8.00			DL
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
FLOOR HAND		LORNE OMILGIOTUK	8.00			LO
		2HRS PER WEEK FOR MT				

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	**UNIQUE ID**
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required	ED	RP
(4.) Well Licence & Slick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Meet Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR	MONTH	DAY
2008	2	27

RIG NO. 51

FUEL @ 05:00 HRS

RIG	BOILER
10013	5011

TEMPERATURE -17

CURRENT CONDITIONS: LIGHT SNOW; WIND DIRECTION: S.W.; ROAD CONDITION: ICE

LAST CASING RUN OR LINER

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080227_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

CAODC

PASON DATAHUB

CODE NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILLSTEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING						
MORN		6.75					0.25			0.75											0.25						
DAY		7.25					0.25			0.5																	
EVE		7.25					0.25			0.5																	
TOTAL		21.25					0.75			1.75											0.25						

TOTALS	NO.	SHALE SHAKER(S) TYPE	PERMITS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA	BOILER #1 A-0039914			
8.00	SCREENS CHANGED	NEW USED	BOILER #2 0105437			
8.00	TOP 215	TOP				
24.00	MIDDLE 215	MIDDLE				
	BOTTOM 215	BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	27
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/CHILIBECKI	RIG NO. 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS: 213	

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
48	D.P. STANDS		922.95
1	D.P. SINGLES		9.64
KELLY DOWN			8.80
TOTAL			1360.00
WT. OF D.C.	2		
WT. OF STRING	42		

BIT RECORD

BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 / 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	160.0
TOTAL HRS RUN	26.75

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	2DaN UP 2 DOWN
TORQUE AT BOTTOM	1280
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE: POLYMER — WATER BASED ☐ OIL BASED ☐

TIME	100	300	600
DENSITY (kg/m3)	1270	1265	1270
FUNNEL VISCOSITY	47	48	47
FLUID LOSS (cm3)	6.5	7.0	6.5
pH	10.0	10.0	10.5
P.V.T			37.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	40	SX
UNITROL	2	SX
DEFOAMER	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1270	1255	1890
8	1270	1255	1910

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	250	STACK TEMP	275	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1295	1360	D	30	12

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
8892	127	105	152	

REDUCED PUMP SPEED

2106 @ 58 @ 1334

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1279	0.5	296.0
1289	0.9	244.7
1299	0.6	204.4
1308	0.9	307.4
1318	1.3	41.8
1328	1.8	17.5

DRILLER SIGNATURE

MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	345	3.75	2	ROTARY DRILL 156mm HOLE F/1295m-1324m
345	400	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
400	700	3.00	2	ROTARY DRILL 156mm HOLE F/1324m-1360m
700	715	0.25	21	HANDOVER MEETING
715	800	0.75	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
800				
				FUEL 400 BRRLS= 13m3
				MEGAJOULES (SLSC) 3919 ACCUMALATED 317786

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS & OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A"" M-10 REPAIR MUD PUMP G-49 STEAM USE
BOILER BLOWDOWN 3X60L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		STEAM USE	43	11542

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 18

DRIVERS

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

INJURIES

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
48	D.P. STANDS		980.65
1	D.P. SINGLES		9.58
KELLY DOWN			12.10
TOTAL			1420.94
WT. OF D.C.	2		
WT. OF STRING	43		

BIT RECORD

BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 / 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	240
TOTAL HRS RUN	34

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1-2 DaNs
TORQUE AT BOTTOM	1600
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE: POLYMER — WATER BASED X OIL BASED ☐

TIME	800	1000	1600
DENSITY (kg/m3)	1270	1290	1313
FUNNEL VISCOSITY	49	49	50
FLUID LOSS (cm3)	6.5	.5	5.0
pH	10.0	10.0	10.0
PVT	37.5	37.8	37.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	123	SX
DEFOAMER	2	PAILS
conquor 404	40	L
UNITROL	11	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1710
8	1320	1300	1710

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1360	1420	D	60	13

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
10200	127	120	152	

REDUCED PUMP SPEED

2400 @ 55 @ 1401

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1346	1.9	86.6
1356	2.3	278.2
1365	1.9	209.1
1374	2.5	357.3
1384	2.2	156.6
1394	2.5	338

DRILLER SIGNATURE

PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1515	7.25	2	DRILL ACTUAL F/1360m to 1420M
1515	1530	0.25	7	RIG SERVICE FUNCTION LOWER PIPE RAMS 3 SEC
1530	1600	0.50	10	DEVIATION SURVEY ACCUMULATED (possible failure of azmith aspect,Extreme
				and Petro Canada notified)

NOTES: FUNCTIONED CROWN SAVER, VISUALY INSPECT FLAIR LINE AND DEGASSER LINE
JSA' HELD ON CROWN SAVER G-63,HOIST DP G-71,UNLOAD CASING G-25
BOILER BLOWDOWNS 3X 40L
CHECKED POP VALVE SET @ 15300KPA

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		PIPE RACKS/CSG	43	11525

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 18

DRIVERS

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		ANDY ALBERT L3	12.00			AA
WSC		DARREL LAPLANT T3	12.00			DL
MOTOR HAND		JESSE EDWARDS T1	12.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	12.00			CS
FLOOR HAND		LORNE OMILGIOTUK	12.00			LO
LEASE HAND						

INJURIES

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
54	D.P. STANDS		1038.33
	D.P. SINGLES		
KELLY DOWN			4.06
TOTAL			1461.00
WT. OF D.C.	2		
WT. OF STRING	43		

BIT RECORD

BIT NO.	5
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 / 12.7
DEPTH OUT (m)	
DEPTH IN (m)	1200
TOTAL DRILLED (m)	261.0
TOTAL HRS RUN	41.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	3-up 2-down
TORQUE AT BOTTOM	2034
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE: polymer — WATER BASED X OIL BASED ☐

TIME	1800	2100	2300
DENSITY (kg/m3)	1315	1315	1310
FUNNEL VISCOSITY	48	50	50
FLUID LOSS (cm3)	6.0	6.0	6.0
pH	10.5	10.5	10.5
pvt	34.3	34.2	33.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1720
8	1315	1300	1720

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1420	1461	D	55	14

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
9412	127	110	152	

REDUCED PUMP SPEED

2479 @ 55 @ 1440

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1424	2.4	253.9
1434	4.9	350.1
1443	2.2	27.9

DRILLER SIGNATURE

MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	2315	7.25	2	ROTARY DRILL 156mm HOLE F/1420m-1461m
2315	2330	0.25	7	RIG SERVICE FUNCTION UPPER PIPES C/4SEC
2330	2400	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME

NOTES: INSPECT BRAKES,LINKAGE & PINS,DEADMAN CLAMP & ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A M-43 CHANGE SHAKER SCREENS
BOILER BLOWDOWN 2X40L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		SHAKER MAINTNANCE	46	11525

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 18

DRIVERS

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		DARCY BLANCHER	4.00			DB
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG
LEASE HAND		CLYDE SEWI	4.00			CS

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	UNIQUE ID
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 2 DAY 28

RIG NO. 51

FUEL ON RIG ON LEAVE

RIG 10013 BOILER 5011

TEMPERATURE -27

CURRENT CONDITIONS LIGHT SNOW

WIND DIRECTION S.W.

ROAD CONDITION ICE

CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080228_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

CODE NO.	1 RIG/UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		6.75					0.25			0.75											0.25					
DAY		0.5			1.0	4.5														2.0						
EVE		0.75	0.75			4.0	0.25													2.0	0.25					
TOTAL		8.00	0.75		1.00	8.50	0.50			0.75										4.00	0.50					

TOTALS	NO. 1	TYPE COBRA	TYPE	SAFETY SHOWERS	RENTALS / SERVICES	MORN	DAY	EVE
8.00	SCREENS CHANGED		NEW USED		BOILER #1 A-0039914			
8.00	TOP 215		TOP		BOILER #2 0105437			
8.00	MIDDLE 215		MIDDLE					
24.00	BOTTOM 215		BOTTOM 215					

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	28
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/CHILIBECKI	RIG NO. 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS 214	

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	122	7.68
1	Extreme Tool	122	9.49
1	float sub	122	.58
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
55	D.P. STANDS		1057.55
1	D.P. SINGLES		9.66
KELLY DOWN			10.75
TOTAL			1495.69
WT. OF D.C.	2		
WT. OF STRING	44		

BIT NO.	1C
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	HUGHES
TYPE	STR-40DX
SERIAL NO.	5102095
JETS	12.7 12.7 12.7
DEPTH OUT (m)	1493
DEPTH IN (m)	1200
TOTAL DRILLED (m)	293.00
TOTAL HRS RUN	48

CUTTING STRUCTURE	TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	3-UP 1-DOWN
TORQUE AT BOTTOM	1966
FILL ON BOTTOM (m)	0

MORNING TOUR — MUD RECORD

MUD TYPE: POLYMER — WATER BASED ☐ OIL BASED ☐

TIME	100	300	600
DENSITY (kg/m3)	1315	1315	1315
FUNNEL VISCOSITY	50	49	50
FLUID LOSS (cm3)	6.0	5.5	5.0
pH	10.5	10.5	11.0
P.V.T	33.0	34.0	34.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	11	SX
PURITY SALT	11	SX
CAUSTIC	2	SX
DEFOAMER	3	PAILS
UNITROL	3	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1760
8	1315	1300	1755

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1461	1493	D	80	14

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
9062	127	110	152	

REDUCED PUMP SPEED: 2457 @ 55 @ 1478

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1453	1.8	81.8
1462	1.7	229.0
1472	2.0	189

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	430	4.50	2	ROTARY DRILL 156mm HOLE F/1461m-1481m
430	445	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
445	700	2.25	2	ROTARY DRILL 156mm HOLE F/1481m-1493m
700	715	0.25	21	HANDOVER MEETING
715	800	0.75	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
800				
				MEGAJOULES (SLSC) 4513 ACCUMALATED 318380
				FUEL 400 BRRLS= 33M3 29M3

NOTES: INSPECT BRAKES,LINKAGE & PINS,DEADMAN CLAMP & ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P & MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK AREA #3&4 DRILL FLOOR,SUBSTRUCTURE,ACC OIL LEVEL & PRESS
REVEIW J.S.A M-34 SERVICE EQUIPMENT,REVEIW COMPETANCY TRAINING LOCKOUT
BOILER BLOWDOWN 2X40L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				LOCKOUT	46	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 19

DRIVERS

MORNING TOUR — CREW

FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

INJURIES

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	120	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
55	D.P. STANDS		1057.55
1	D.P. SINGLES		9.66
KELLY DOWN			10.75
TOTAL			1495.69
WT. OF D.C.	2		
WT. OF STRING	44		

BIT NO.	1C	2C
SIZE	156	156
IADC CODE	6 1 7	6 2 7
MANUFACTURER	HUGHES	SMITH
TYPE	STR-40DX	XR50
SERIAL NO.	5102095	PJ1596
JETS	12.7 12.7 12.7	9.5 9.5 9.5
DEPTH OUT (m)	1495	
DEPTH IN (m)	1200	1495
TOTAL DRILLED (m)	295.00	
TOTAL HRS RUN	48.25	

CUTTING STRUCTURE	TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
	2	8	BT	G	2	.25	CT	PR	6.1

HOLE CONDITION

HOLE DRAG	1-2 DANS
TORQUE AT BOTTOM	900
FILL ON BOTTOM (m)	1

DAY TOUR — MUD RECORD

MUD TYPE: [redacted] — WATER BASED ☐ OIL BASED ☐

TIME	900		
DENSITY (kg/m3)	1320		
FUNNEL VISCOSITY	58		
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	250	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1493	1495	D	25	14

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
8600	127	110	152	

REDUCED PUMP SPEED: 2444 @ 56 @ 1495

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	830	0.50	2	DRILL 156MM HOLE FROM 1493M TO 1495M
830	930	1.00	5	CONDITION MUD & CIRCULATE PUMP PILL
930	1400	4.50	6	BIT TRIP FLOW CHECK BEFORE (1495M, 5% 1389M 1/2 DP 975M, 1 STD BEFORE
				BHA 441M AND OOH
1400	1600	2.00	20	CLEAN,GRADE & SELECT NEW BIT. LAY DOWN MOTOR,CHANGE BHA

NOTES: CHECKED CROWN SAVER
HOLE FILL VOLUME CALCULATED 5.30M3 ACTUAL: 5.93M3 DIFF .63M3

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TRIPPING	45	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 19

DRIVERS

DAY TOUR — CREW

FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		ANDY ALBERT L3	12.00			AA
WSC		DARREL LAPLANT T3	12.00			DL
MOTOR HAND		JESSE EDWARDS T1	12.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	12.00			CS
FLOOR HAND		CHRIS SHAE	12.00			CS
LEASE HAND		LORNE OMILGIOTUK	12.00			LO

INJURIES

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	X.O	133	.49
40	H.W.D.P.	101	372.82
56	D.P. STANDS		1076.86
	D.P. SINGLES		
KELLY DOWN			5.12
TOTAL			1495.00
WT. OF D.C.	2		
WT. OF STRING	44		

BIT NO.	2C
SIZE	156
IADC CODE	6 2 7
MANUFACTURER	SMITH
TYPE	XR50
SERIAL NO.	PJ1596
JETS	9.5 9.5 9.5
DEPTH OUT (m)	
DEPTH IN (m)	1495
TOTAL DRILLED (m)	3
TOTAL HRS RUN	.75

CUTTING STRUCTURE	TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	0

EVENING TOUR — MUD RECORD

MUD TYPE: POLYMER — WATER BASED ☒ OIL BASED ☐

TIME			1200
DENSITY (kg/m3)			1315
FUNNEL VISCOSITY			51
FLUID LOSS (cm3)			5.5
pH			10.5
pvt			32.4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB 325	56	SX
SALT	2	SX
POTASSIUM CHLORIDE SALT	2	SX

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1760
8	1315	1300	1780

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	280	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
	127		152	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1279	0.8	261.0
1317	1.6	212.5
1356	2.2	205.8
1394	2.6	207.0
1432	2.2	224.4
1471	2.5	196.3

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1800	2.00	20	FINISH MAKE UP NEW BHA
1800	1830	0.50	6	TRIP IN HOLE WITH 156mm BIT
1830	1845	0.25	21	SAFETY MEETING & HANDOVER MEETING
1845	2215	3.50	6	CONTINUE TRIP IN WITH 156mm BIT (survey @ 1259m & then every 2 stds on way in)
2215	2230	0.25	7	RIG SERVICE FUNCTION UPPER PIPE RAMS CLOSE 3 SEC
2230	2315	0.75	3	WASH & REAM 20m TO BOTTOM (NO FILL)
2315	2400	0.75	2	PATTERN NEW BIT & DRILL 156mm HOLE FROM 1495m

NOTES: CHECK BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR
FUNCTION CROWN SAVER,REMOTE CHOKE C/30SEC
REVEIW J.S.A" G-10 R.I.H,G-59 OPERATE PIPE SPINNER
BOILER BLOWDOWN 1X20L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TRIPPING	47	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 19

DRIVERS

EVENING TOUR — CREW

FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		DARCY BLANCHER	4.00			DB
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG
LEASE HAND		CLYDE SEWI	4.00			CS

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required		
(4.) Well Licence & Slick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed		
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 2 DAY 29

RIG NO. 51 — FUEL @ 05:00 HRS

RIG 10013 BOILER 5011

TEMPERATURE -27

CURRENT CONDITIONS: LIGHT SNOW

WIND DIRECTION: S.W.

ROAD CONDITION: ICE

LAST CASING TURNING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080229_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		6.75			0.25		0.25			0.5											0.25					
DAY					0.25	7.25	0.25													0.25						
EVE		2.25	3.75			1.5	0.25														0.25					
TOTAL		9.00	3.75		0.50	8.75	0.75			0.50										0.25	0.50					

TOTALS	NO.	SCREENS CHANGED	TOP	MIDDLE	BOTTOM
8.00	1		215		
8.00	1		215		
8.00	1		215		
24.00	1		215		

SHALE SHAKER(S)	TYPE COBRA	NEW USED	TOP	MIDDLE	BOTTOM

RENTALS / SERVICES	MORN	DAY	EVE
BOILER #1 A-0039914			
BOILER #2 0105437			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	2	29
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER	**RIG NO.**		
PARKER/CHILIBECKI	51		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N.W.T.	X YES NO	215	

BHA #1

NO.	DRILLING ASSEMBLY (LISTED OUT TOOLS)	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	X.O	133	.49
40	H.W.D.P.	101	372.82
57	D.P. STANDS		1096.12
	D.P. SINGLES		
KELLY DOWN			8.86
TOTAL			1518.00
WT. OF D.C.	2		
WT. OF STRING	44		

BIT RECORD

BIT NO.	2C
SIZE	156
IADC CODE	6 2 7
MANUFACTURER	SMITH
TYPE	XR50
SERIAL NO.	PJ1596
JETS	9.5 9.5
	9.5
DEPTH OUT (m)	1518
DEPTH IN (m)	1495
TOTAL DRILLED (m)	23.00
TOTAL HRS RUN	6.75

CUTTING STRUCTURE	TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN UP 2 DOWN
TORQUE AT BOTTOM	1339
FILL ON BOTTOM (m)	0

MORNING TOUR — MUD RECORD

MUD TYPE polymer — WATER BASED X — OIL BASED

TIME	100	300	600
DENSITY (kg/m3)	1315	1315	1315
FUNNEL VISCOSITY	51	55	58
FLUID LOSS (cm3)	5.5	6.0	5.5
pH	10.5	10.5	10.5
pvt	32.0	32.1	30.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
conquor 404	1	BBL
POTASSIUM CHLORIDE SALT	8	SX
PURITY SALT	8	SX
FED ZAN	4	SX
DEFOAMER	2	PAILS

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1750
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1760

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1495	1518	D	20	14

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
7903	127	90	152	

REDUCED PUMP SPEED: 2864 @ 54 @ 1515

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1505	3.4	201.6

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	645	6.75	2	ROTARY DRILL 156mm HOLE F/1495mm-1518M
645	700	0.25	5	CONDITION MUD & CIRCULATE
700	715	0.25	21	HANDOVER MEETING
715	730	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
730	800	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
				MEGAJOULES (5895) ACCUMALATED (319762)
				400 BRRLS (33m3) (29m3)

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK AREA#3&4 DRILL FLOOR SUBSTRUCTURE,ACC PRESS&OIL LEVEL
REVEIW J.S.A G-13 CLIMBING DERRICK
BOILER BLOWDOWN 2X 40L

SPECIAL EVENT	TIME / DEPTH	SAFETY TOPIC	MEHL	MACP
		CLIMBING DERRICK	46	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS: 20		DRIVERS				

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

BHA #2

NO.	DRILLING ASSEMBLY (LISTED OUT TOOLS)	O.D.	LENGTH
1	BIT	.19	
1	BIT SUB	121	.87
1	D.C.	121	9.5
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
57	D.P. STANDS		1096.12
	D.P. SINGLES		
KELLY DOWN			8.86
TOTAL			1526.30
WT. OF D.C.	2		
WT. OF STRING	44		

BIT RECORD

BIT NO.	2C	3C
SIZE	156	156
IADC CODE	6 2 7	6 3 7
MANUFACTURER	SMITH	HUGHES
TYPE	XR50	STX-50DX
SERIAL NO.	PJ1596	5089655
JETS	9.5 9.5 9.5	9.5
	9.5	
DEPTH OUT (m)	1518	1518
DEPTH IN (m)	1495	
TOTAL DRILLED (m)	23.00	
TOTAL HRS RUN	6.75	

CUTTING STRUCTURE	TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
	4	8	BT	A	8	1	FC	PR	3.4

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

DAY TOUR — MUD RECORD

MUD TYPE POLY — WATER BASED X — OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB 325	56	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1330	1700	1310
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1330	1700	1310

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1518	1518			

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
5700	127	80	152	

REDUCED PUMP SPEED: 2782 @ 55 @ 1518

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	5	CONDITION MUD & CIRCULATE,PMP PILL
815	1200	3.75	6	FLOW CHECK, PULL BIT NO 6 FLOW CHECKS @ 1442M(5%) 1/2 DP 972M 1 STD BEFORE HWDP 434M AND OOH
1200	1215	0.25	20	CLEAN AND GRADE BIT
1215	1230	0.25	7	RIG SERVICE CLOSE BLIND 3 SEC
1230	1600	3.50	6	MAKE UP BHA RUN IN HOLE FLOW CHECKS AND FILL PIPE @ 434M,1200M,1490M

NOTES: FUNCTION CROWN SAVER,PASON CHOKE,FLAIR STACK IGNIGHTER
BOILER BLOWDOWNS 3X 40L
HELD JSA'S ON DOG COLLAR G-18,MAKE UP MOTOR AND BIT G-22, OPERATE PIPE SPINNER
CHECK AREA # 1 AND2 DPP GUAGE, VISUALY INSPECTED FLAIR LINE AND DEGASSER LINE
REVIEWED MEDICAL EMERGENCY PLAN

SPECIAL EVENT	TIME / DEPTH	SAFETY TOPIC	MEHL	MACP
		TRIPPING	48	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS: 20		DRIVERS				

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		ANDY ALBERT L3	12.00			AA
WSC		DARREL LAPLANT T3	12.00			DL
MOTOR HAND		JESSE EDWARDS T1	12.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	12.00			CS
FLOOR HAND		CHRIS SHAE	12.00			CS
LEASE HAND		LORNE OMILGIOTUK	12.00			LO
LEASE HAND		BENJAMIN HARRIS	12.00			BH

BHA #3

NO.	DRILLING ASSEMBLY (LISTED OUT TOOLS)	O.D.	LENGTH
1	BIT	.19	
1	BIT SUB	121	.87
1	D.C.	121	9.5
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
57	D.P. STANDS		1096.05
	D.P. SINGLES		
KELLY DOWN			6.63
TOTAL			1524.00
WT. OF D.C.	2		
WT. OF STRING	46		

BIT RECORD

BIT NO.	3C
SIZE	156
IADC CODE	6 3 7
MANUFACTURER	HUGHES
TYPE	STX-50DX
SERIAL NO.	5089655
JETS	9.5 9.5
	9.5
DEPTH OUT (m)	
DEPTH IN (m)	1518
TOTAL DRILLED (m)	6.00
TOTAL HRS RUN	2.25

CUTTING STRUCTURE	TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 UP 2 DOWN
TORQUE AT BOTTOM	1005
FILL ON BOTTOM (m)	0

EVENING TOUR — MUD RECORD

MUD TYPE POLYMER — WATER BASED X — OIL BASED

TIME	1800	2100	2300
DENSITY (kg/m3)	1320	1320	1320
FUNNEL VISCOSITY	51	50	51
FLUID LOSS (cm3)	5.5	5.5	5.5
pH	10.5	10.5	10.5
PVT	29.7	30.0	29.9

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1730
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1720

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1490	1518	R	50	1
1518	1524	D	50	14

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
4582	127	90	152	

REDUCED PUMP SPEED: 1831 @ 55 @ 1515

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1500	2.5	195.1

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1730	1.50	6	RUN IN HOLE with 156mm BIT
1730	1830	1.00	3	REAM FROM 1490m TO 1501m
1830	1845	0.25	21	SAFETY MEETING
1845	2130	2.75	3	REAM FROM 1501m-1518m
2130	2345	2.25	2	ROTARY DRILL 156mm HOLE F/ 1518m-1524m
2345	2400	0.25	7	RIG SERVICE FUNCTION LOWER PIPES C/3SEC

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK AREA #3&4 DRILL FLOOR SUBSTRUCTURE,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A G-52 USEING FALL ARREST EQUIPMENT
BOILER BLOWDOWN 2X40L
REVEIW WEEKLEY SFTY TOPIC MARCH 2-8

SPECIAL EVENT	TIME / DEPTH	SAFETY TOPIC	MEHL	MACP
		LEASE CONDITIONS	46	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS: 20		DRIVERS				

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		DARCY BLANCHER	4.00			DB
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG
LEASE HAND		CLYDE SEWI	4.00			CS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	RP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required	ED	RP
(4.) Well Licence & Stick Diagram Posted	ED	RP
(5.) Flare Lines Staked	ED	RP
(6.) BOP Drills Performed	ED	RP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Most Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 3 DAY 1

RIG NO. 51

FUEL @ 09:00 HRS

RIG 10013 BOILER 5011

TEMPERATURE -32

CURRENT CONDITIONS CLOUDY

WIND DIRECTION S.W.

ROAD CONDITION ICE

LAST CASING TURNED OVER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE TH-READ	NO. of JOINTS
DRILL STRING	DC	120	70.3		57	125	3 1/2 IF	2
	DP	102	42		68.26	133.4	4 FH	40
	DP	102	20.84	X-95	65.09	117.48	4 FH	180

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

CODE NO.	1 RIG/UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN		6.25			1.25		0.25														0.25					
DAY					0.25	7.0	0.25													0.5						
EVE		3.25				3.5	0.25		0.5	0.25											0.25					
TOTAL		9.50			1.50	10.50	0.75		0.50	0.25										0.50	0.50					

TOTALS	NO.	TYPE	SCREENS CHANGED	NEW USED	PERMITS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA			BOILER #1 A-0039914			
8.00		TOP 215			BOILER #2 0105437			
8.00		MIDDLE 215						
24.00		BOTTOM 215						

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22063		
TOUR SHEET SERIAL NUM	AKTA51_20080301_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	1
OPERATOR	**CONTRACTOR NAME**		
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.		
RIG MANAGER	RIG NO.		
PARKER/CHILIBECKI	51		
PROVINCE	CAMP X YES NO	RIG SAFETY DAYS	
N.W.T.		216	

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D. .19	
1	BIT SUB	121 .87	
1	D.C.	121 9.5	
1	Extreme Tool	122 9.5	
1	float sub	122 .59	
1	SHOCK SUB	120 3.69	
2	D.C.	125 18.96	
1	JAR	123 4.71	
1	X.O	133 .49	
40	H.W.D.P.	101 372.82	
58	D.P.	STANDS	1115.27
	D.P.	SINGLES	
KELLY DOWN			3.41
TOTAL			1540.00
WT. OF D.C.	2		
WT. OF STRING	46		

BIT RECORD

BIT NO.	3C
SIZE	156
IADC CODE	6 3 7
MANUFACTURER	HUGHES
TYPE	STX-50DX
SERIAL NO.	5089655
JETS	9.5 9.5 / 9.5
DEPTH OUT (m)	1540
DEPTH IN (m)	1518
TOTAL DRILLED (m)	22.00
TOTAL HRS RUN	8.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 up 2 down
TORQUE AT BOTTOM	1271
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

TIME	100	300	600
DENSITY (kg/m3)	1320	1320	1320
FUNNEL VISCOSITY	53	58	57
FLUID LOSS (cm3)	5.5	5.5	5.5
pH	10.5	11.0	10.5
PVT	29.7	29.0	29.3

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	70	SX
PURITY SALT	84	SX
DEFOAMER	2	PAIL
CAUSTIC	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1750
8	1320	1300	1760

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	280	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1524	1540	D	45	14

CIRCULATION PRESSURE kPa: 4560

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127	90	152	

REDUCED PUMP SPEED: 1682 @ 55 @ 1139

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1519	3.0	191.2

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	530	5.50	2	ROTARY DRILL 156mm HOLE F/1524m-1539m
530	545	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
545	630	0.75	2	ROTARY DRILL 156mm HOLE F/1539m-1541M
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	5	CIRCULATE HOLE CLEAN PRIOR TO BIT TRIP
				megajoules (slsc)7662 accumalated 327424
				400 bmls (22m3) (29m3)

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A G-77 STEAM BLANKET USE,REVEIW MONTHLY DRILL ON MEDICAL EMERGENCYS
BOILER BLOWDOWN 3X50L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		MEDICAL EMERGENCY	46	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 21

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D. .19	
1	BIT SUB	121 .87	
1	D.C.	121 9.5	
1	Extreme Tool	122 9.5	
1	float sub	122 .59	
1	SHOCK SUB	120 3.69	
2	D.C.	125 18.96	
1	JAR	123 4.71	
1	X.O	133 .49	
40	H.W.D.P.	101 372.82	
58	D.P.	STANDS	1115.27
	D.P.	SINGLES	
KELLY DOWN			3.41
TOTAL			1540.00
WT. OF D.C.	2		
WT. OF STRING	46		

BIT RECORD

BIT NO.	3C	4C
SIZE	156	156
IADC CODE	6 3 7	6 3 7
MANUFACTURER	HUGHES	HUGHES
TYPE	STX-50DX	STX-50DX
SERIAL NO.	5089655	5107990
JETS	9.5 9.5 9.5 9.5 / 9.5 9.5	
DEPTH OUT (m)	1540	
DEPTH IN (m)	1518	1540
TOTAL DRILLED (m)	22.00	
TOTAL HRS RUN	8.50	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
4	7	BT	G	2	0	FC	PR	2.5

HOLE CONDITION

HOLE DRAG	1-2
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	1

MUD RECORD

MUD TYPE WATER BASED OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	250	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1540				

CIRCULATION PRESSURE kPa: 1682

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127	55	152	

REDUCED PUMP SPEED: 1682 @ 55 @ 1541

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	5	CIRCULATE , PUMP PILL FLOW CHECK
815	1330	5.25	6	PULL 156MM BIT NO. 3C FLOW CHECK @ 5% 1463M, 1000M , 443M AND OOH
1330	1400	0.50	20	CLEAN AND GRADE BIT
1400	1415	0.25	7	RIG SERVICE CLOSE BLIND 3 SEC
1415	1600	1.75	6	RUN IN HOLE FLOW CHECK AND FILL PIPE @ 414M ,726M

NOTES : CHECKED CROWN SAVER
HELD JSA'S ON G-9 TRIP OUT, G5 SLIP AND CUT, G-52 USE OF FALL ARREST, G 16 USE
OF PICK UP SUBS, G 28 BRINGING BIT TO RIG FLOOR
BOILER BLOWDOWNS 3X40L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		TRIPPING	46	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 21

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		ANDY ALBERT L3	12.00			AA
WSC		DARREL LAPLANT T3	12.00			OL
MOTOR HAND		JESSE EDWARDS T1	12.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	12.00			CS
FLOOR HAND		CHRIS SHAE	12.00			CS
LEASE HAND		LORNE OMILGIOTUK	12.00			LO
LEASE HAND		BENJAMIN HARRIS	12.00			BH

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D. .19	
1	BIT SUB	121 .87	
1	D.C.	121 9.5	
1	Extreme Tool	122 9.5	
1	float sub	122 .59	
1	SHOCK SUB	120 3.69	
2	D.C.	125 18.96	
1	JAR	123 4.71	
1	X.O	133 .49	
40	H.W.D.P.	101 372.82	
58	D.P.	STANDS	1115.27
	D.P.	SINGLES	
KELLY DOWN			10.41
TOTAL			1547.00
WT. OF D.C.	2		
WT. OF STRING	44		

BIT RECORD

BIT NO.	4C
SIZE	156
IADC CODE	6 3 7
MANUFACTURER	HUGHES
TYPE	STX-50DX
SERIAL NO.	5107990
JETS	9.5 9.5 / 9.5
DEPTH OUT (m)	
DEPTH IN (m)	1540
TOTAL DRILLED (m)	7
TOTAL HRS RUN	3.25

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 UP 2 DOWN
TORQUE AT BOTTOM	1458
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE polymer WATER BASED X OIL BASED

TIME	2000	2300	
DENSITY (kg/m3)	1310	1315	
FUNNEL VISCOSITY	57	55	
FLUID LOSS (cm3)	5.5	5.5	
pH	10.5	10.5	
pvt	28.3	28.3	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1755
8	1315	1300	1760

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	270	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1540	1547	D	55	14

CIRCULATION PRESSURE kPa: 5438

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127	100	152	

REDUCED PUMP SPEED: 1689 @ 56 @ 1547

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1528	3.5	179.6

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1645	0.75	6	RIN IN HOLE FROM 610M TO 725M
1645	1715	0.50	9	SLIP AND CUT 19M DRILL LINE
1715	1830	1.25	6	RUN IN HOLE 725M TO 920M
1830	1845	0.25	21	HANDOVER MEETING
1845	2015	1.50	6	CONTINUE TO R.I.H WITH 156mm WASH F/1539m
2015	2330	3.25	2	ROTARY DRILL 156mm HOLE F/1540m- 1547M
2330	2345	0.25	7	RIG SERVICE FUNCTION LOWER PIPES C/3SEC
2345	2400	0.25	10	DEVIATION SURVEY & CONNECTION TIME

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
-REVEIW JSA'S G-10 TRIP IN HOLE G-57 OPERATE PIPE SPINNER
BOILER BLOWDOWN 2X40L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		TRIPPING	46	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 21

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		DARCY BLANCHER	4.00			DB
FLOOR HAND		ABRAHAN TUTCHO	4.00			AT
FLOOR HAND		CHARLES GULLY	4.00			CG
LEASE HAND		CLYDE SEWI	4.00			CS

DAY TOUR — PROG: 0 TO: 800

MORNING TOUR — PROG: 800 TO: 1600

EVENING TOUR — PROG: 1600 TO: 2400

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	RICK PARKER

DAILY CHECKS

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

YEAR 2008 MONTH 3 DAY 2

RIG NO. 51

FUEL @ 05:00 HRS

RIG 10013 BOILER 5011

TEMPERATURE -44

CURRENT CONDITIONS cloudy

WIND DIRECTION S.W.

ROAD CONDITION ICE

LAST CASING RUN	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
OR LINER	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING	DC / DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080302_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & 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 MEETING	22	23	24	25	26
MORN		7.25					0.25			0.25											0.25					
DAY		1.0			0.75	3.25		3.0																		
EVE							0.25	7.5													0.25					
TOTAL		8.25			0.75	3.25	0.50	10.50		0.25											0.50					

TOTALS	SHALE SHAKER(S)	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA			
8.00	SCREENS CHANGED [ ] NEW USED [ ] TOP 215			
8.00	MIDDLE 215			
24.00	BOTTOM 215			

RENTALS / SERVICES
BOILER #1 A-0039914
BOILER #2 0105437

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	2
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PARKER/CHILIBECKI	RIG NO. 51		
PROVINCE: N.W.T.	CAMP [X] YES [ ] NO	RIG SAFETY DAYS 217	

BIT RECORD

NO.	DRILLING ASSEMBLY AT END OF TOUR	O.D.	LENGTH
1	BIT	.19	
1	BIT SUB	121 .87	
1	D.C.	121 9.5	
1	Extreme Tool	122 9.5	
1	float sub	122 .59	
1	SHOCK SUB	120 3.69	
2	D.C.	125 18.96	
1	JAR	123 4.71	
1	X.O	133 .49	
40	H.W.D.P.	101 372.82	
59	D.P. STANDS		1134.59
1	D.P. SINGLES		9.66
KELLY DOWN			4.43
TOTAL			1570.00
WT. OF D.C.	2		
WT. OF STRING	44		

BIT NO.	4C
SIZE	156
IADC CODE	6 3 7
MANUFACTURER	HUGHES
TYPE	STX-50DX
SERIAL NO.	5107990
JETS	9.5 9.5 9.5
DEPTH OUT (m)	
DEPTH IN (m)	1540
TOTAL DRILLED (m)	31
TOTAL HRS RUN	10.50

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	3up 2 down
TORQUE AT BOTTOM	1424
FILL ON BOTTOM (m)	0

MORNING TOUR

MUD RECORD

MUD TYPE polymer — WATER BASED [X] OIL BASED [ ]

TIME	100	300	
DENSITY (kg/m3)	1315	1315	1310
FUNNEL VISCOSITY	57	58	57
FLUID LOSS (cm3)	5.5	5.5	5.5
pH	10.5	10.5	10.5
P.V.T	28.2	28.1	27.9

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1547	1570	D	55	14

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	600	6.00	2	ROTARY DRILL 156mm HOLE F/1547m-1568m
600	615	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
615	630	0.25	2	ROTARY DRILL 156mm HOLE F/1568m-1569m
630	645	0.25	21	HANDOVER MEETING
645	745	1.00	2	ROTARY DRILL 156mm HOLE F/1569m-1570M
745	800	0.25	10	DEVIATION SURVEY & CONNECTION TIME

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	11	SX
PURITY SALT	11	SX
CAUSTIC	2	SX
DEFOAMER	2	PAILS

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1760
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1765

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	260	STACK TEMP	270	

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
5308	127	100	152	

REDUCED PUMP SPEED: 1556 @ 56 @ 1558

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1538	3.7	176.2
1548	3.7	176.9

DRILLER SIGNATURE: PETER PURKIS T3

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A'S M-1 RIG SERVICE,G-37 WASHING RIG
BOILER BLOWDOWN 3X60L

megajoules (slsc) 404 accumulated 329545
400 bmls 19m3 29m3

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		RIG SERVICE	45	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
22						

DAY TOUR

MUD RECORD

MUD TYPE POLYMER — WATER BASED [X] OIL BASED [ ]

TIME	0800		
DENSITY (kg/m3)	1310		
FUNNEL VISCOSITY	57		
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1570	1571	D	80	12

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	900	1.00	2	DRILL 156MM HOLE FROM 1570M TO 1571M
900	945	0.75	5	CONDITION MUD & CIRCULATE HOLE CLEAN , PUMP PILL
945	1300	3.25	6	PULL BIT NO 4C FLOW CHECK @ 1582M ,1502M,998M AND 434M,
1300	1600	3.00	8	REPAIR DIVING BOARD ON MONKEY BOARD
1600				

BIT RECORD

NO.	DRILLING ASSEMBLY AT END OF TOUR	O.D.	LENGTH
1	BIT	.19	
1	BIT SUB	121 .87	
1	D.C.	121 9.5	
1	Extreme Tool	122 9.5	
1	float sub	122 .59	
1	SHOCK SUB	120 3.69	
2	D.C.	125 18.96	
1	JAR	123 4.71	
1	X.O	133 .49	
40	H.W.D.P.	101 372.82	
59	D.P. STANDS		1134.59
1	D.P. SINGLES		9.66
KELLY DOWN			5.43
TOTAL			1571.00
WT. OF D.C.	2		
WT. OF STRING	44		

BIT NO.	4C
SIZE	156
IADC CODE	6 3 7
MANUFACTURER	HUGHES
TYPE	STX-50DX
SERIAL NO.	5107990
JETS	9.5 9.5 9.5
DEPTH OUT (m)	1571
DEPTH IN (m)	1540
TOTAL DRILLED (m)	31.00
TOTAL HRS RUN	11.5

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
							PR	2.0

HOLE CONDITION

HOLE DRAG	1-2 DaNs
TORQUE AT BOTTOM	1500
FILL ON BOTTOM (m)	1

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB 325	56	SX
POTASSIUM CHLORIDE SALT	2	SX
SALT	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1650
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1650

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	270	STACK TEMP	260	

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
5400	127	100	152	

REDUCED PUMP SPEED: 1600 @ 55 @ 1571

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

NOTES: CHECKED CROWN SAVER , INSPECTED BREAKS AND LINKAGES , TESTED PASON CHOKE
HELD JSA'S ON G-16 PICK UP SUBS, G5 P.O.O.H., AND G-66 PULL BUSHINGS
BOILER BLOWDOWNS 3X 40L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		SEVERE COLD	48	11055

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
22						

EVENING TOUR

MUD RECORD

MUD TYPE — WATER BASED [ ] OIL BASED [ ]

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	8	CONTINUE TO REPAIR DIVING BOARD
1830	1845	0.25	21	HANDOVER MEETING
1845	2345	5.00	8	REPAIR DIVING BOARD
2345	2400	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
2400				

BIT RECORD

NO.	DRILLING ASSEMBLY AT END OF TOUR	O.D.	LENGTH
1	BIT	.19	
1	MOTOR	123 6.78	
1	Extreme Tool	122 9.5	
1	float sub	122 .59	
1	SHOCK SUB	120 3.69	
2	D.C.	125 18.96	
1	JAR	123 4.71	
1	X.O	133 .49	
40	H.W.D.P.	101 372.82	
59	D.P. STANDS		1134.59
1	D.P. SINGLES		9.66
KELLY DOWN			5.43
TOTAL			1567.41
WT. OF D.C.	2		
WT. OF STRING	44		

BIT NO.	4C
SIZE	156
IADC CODE	6 3 7
MANUFACTURER	HUGHES
TYPE	STX-50DX
SERIAL NO.	5107990
JETS	9.5 9.5 9.5
DEPTH OUT (m)	1571
DEPTH IN (m)	1540
TOTAL DRILLED (m)	31.00
TOTAL HRS RUN	11.5

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	9	BOILER pH	9	
STACK TEMP	250	STACK TEMP	270	

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
	127		152	

REDUCED PUMP SPEED: 1600 @ 55 @ 1571

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

NOTES: INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,ACC PRESS & OIL LEVEL
FUNCTION CROWN SAVER,REMOTE CHOKE C/30 SEC
REVEIW J.S.A'S C-18 WORKING @ HIEGHTS G-51 WELDING ON RIG
BOILER BLOWDOWN 2X40L

SPECIAL EVENT		SAFETY TOPIC	MEHL	MACP
TIME / DEPTH		OVERHEAD HAZARDS		1105

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
22						

DRILLING CREW PAYROLL DATA

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		ABRAHAN TUTCHO	8.00			AT
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		ANDY ALBERT L3	12.00			AA
WSC		DARREL LAPLANT T3	12.00			DL
MOTOR HAND		JESSE EDWARDS T1	12.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	12.00			CS
FLOOR HAND		CHRIS SHAE	12.00			CS
LEASE HAND		LORNE OMILGIOTUK	12.00			LO
LEASE HAND		BENJAMIN HARRIS	12.00			BH

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		DARCY BLANCHER	4.00			DB
FLOOR HAND		CHARLES GULLY	4.00			CG
FLOOR HAND		CHESTER KAKFWI	4.00			CK
LEASE HAND		CLYDE SEWI	4.00			CS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID: 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE: ED DAECHSEL	SIGNATURE OF CONTRACTOR'S RIG MANAGER: RICK PARKER

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection		RP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required		RP
(4.) Well Licence & Stick Diagram Posted		RP
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines		RP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Most Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RP
(5.) Motor Kills Checked		

YEAR 2008 MONTH 3 DAY 3
RIG NO. 51
FUEL @ 05:00 HRS.
RIG 10013 BOILER 5011

TEMPERATURE: -44
CURRENT CONDITIONS: cloudy
WIND DIRECTION: S.W.
ROAD CONDITION: ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080303_1C		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

CODE NO.

	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILL LINE	DEV. SURVEY	WIRELINE LOGS	RUN CSG & CEMENT	WAIT ON CEMENT	NIPPLE UP B.O.P.	TEST B.O.P.	DRILL STEM TEST	PLUG BACK	SQUEEZE CEMENT	FISHING	DIR. WORK	SAFETY MEETING
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
MORN						5.75	0.25	1.0												0.75	0.25
DAY		5.75				1.75	0.25			0.25											
EVE		7.25					0.25			0.25											0.25
TOTAL		13.00				7.50	0.75	1.00		0.50										0.75	0.50

TOTALS	22	23	24	25	26
8.00					
8.00					
8.00					
24.00					

SHALE SHAKER(S) — RENTALS / SERVICES

NO.	TYPE	TYPE		MORN	DAY	EVE
SCREENS CHANGED	COBRA	NEW USED	BOILER #1 A-0039914			
TOP 215		TOP	BOILER #2 0105437			
MIDDLE 215		MIDDLE				
BOTTOM 215		BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	3	3
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.			
RIG MANAGER: PARKER/CHILIBECKI		RIG NO.: 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS: 218		

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D.	.18
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
59	D.P. STANDS		1134.59
1	D.P. SINGLES		9.66
KELLY DOWN			9.03
TOTAL			1571.00
WT. OF D.C.	2		
WT. OF STRING	44		

BIT RECORD

BIT NO.	4C	5C
SIZE	156	156
IADC CODE	6 3 7	6 1 7
MANUFACTURER	HUGHES	SMITH
TYPE	STX-50DX	XR40 DPS
SERIAL NO.	5107990	PE9331
JETS	9.5 9.5 9.5	3X 9.5
	9.5	
DEPTH OUT (m)	1571	
DEPTH IN (m)	1540	1571
TOTAL DRILLED (m)	31.00	
TOTAL HRS RUN	11.5	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
3	5	FC	A	E	0	BT	PR	3

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE ____ WATER BASED ☐ OIL BASED ☐

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	11	BOILER pH	11
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		152	

REDUCED PUMP SPEED: 1600 @ 55 @ 1571

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	100	1.00	8	REPAIR DIVING BOARD
100	300	2.00	6	CONTINUE TO P.O.O.H FOR BIT 4C FLOWCHECK @ SURFACE
300	315	0.25	7	RIG SERVICE FUNCTION BLIND RAMS C/4SEC
315	400	0.75	20	LAY OUT1 D.C & PICK UP MOTOR MAKE UP 5C 156mm BIT
400	630	2.50	6	R.I.H WITH BIT 5C FILL PIPE & FLOWCHECK @ WASH F/
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	6	R.I.H
800				
				INSPECT DRILL LINE RICK PARKER
				TRIP SHEET RESULTS=(T.V.C 5.51m3) (T.V.C 6.69) (DIFF 1.18)
				MEGAJOULES (SLSC) 1489 ACCUMALATED 331034
				400 BRRLS=

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,FLARE IGNITOR,FUNCTION REMOTE CHOKE C/30SEC
CHECK ACC PRESS&OIL LEVEL,AREA#2&3 MONKEY BOARD&DRILL FLOOR
REVEIW J.S.A'S
BOILER BLOWDOWN 3X60L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				HOT WORK PERMITS		10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS: 23		DRIVERS				

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	8.00			MM
DERRICK HAND		LOUIE SZABO	8.00			LS
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		CHESTER KAKFWI	8.00			CK
FLOOR HAND		CHARLES GULLY	8.00			CG
LEASE HAND		CLYDE SEWI	8.00			CS

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D.	.18
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
59	D.P. STANDS		1153.90
1	D.P. SINGLES		12.1
KELLY DOWN			
TOTAL			1583.72
WT. OF D.C.	2		
WT. OF STRING	44		

BIT RECORD

BIT NO.	5C
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	SMITH
TYPE	XR40 DPS
SERIAL NO.	PE9331
JETS	3X 9.5
DEPTH OUT (m)	
DEPTH IN (m)	1571
TOTAL DRILLED (m)	12
TOTAL HRS RUN	5.5

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DANS
TORQUE AT BOTTOM	1000
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED ☐

TIME	1100	1400	1530
DENSITY (kg/m3)	1310	1310	1310
FUNNEL VISCOSITY	57	58	59
FLUID LOSS (cm3)	6.5	6.5	6.0
pH	11.5	11.5	
PVT	24.7	24.7	11.5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
FEDZAN D	5	SX
UNITROL	6	SX
SALT	6	SX
POTASSIUM CHLORIDE SALT	6	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1790
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1300	1790

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	260	STACK TEMP	250

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1571	1571.5	D	20	5
1571.5	1572	D	25	13

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
7200	127	85	152

REDUCED PUMP SPEED: 3039 @ 55 @ 1583

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1558	3.5	170.6
1567	3.7	175.7

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	945	1.75	6	RUN I HOLE CONT WASH TO BOTTOM FROM 1550M TO 1571M
945	1000	0.25	2	PATTERN BIT
1000	1530	5.50	2	DRILL 156MM HOLE FROM 1571M TO 1583M
1530	1545	0.25	7	RIG SERVICE CLOSE LOWER PIPE RAMS 3 SEC
1545	1600	0.25	10	DEVIATION SURVEY ACCUMULATED

NOTES : CHECKED CROWN SAVER, FUNCTION PASON CHOKE
VISUALY INSPECTED DERRICK AND GREASED SHIVES JE
BOILER BLOWDOWNS 3X40L
REVIEW JSA'S G10 RUN IN HOLE , G 59 PIPE SPINNER

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				FOCUS	50	11055

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS: 23		DRIVERS				

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	12.00			PP
DERRICK HAND		ANDY ALBERT L3	12.00			AA
WSC		DARREL LAPLANT T3	12.00			DL
MOTOR HAND		JESSE EDWARDS T1	12.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	12.00			CS
FLOOR HAND		CHRIS SHAE	12.00			CS
LEASE HAND		LORNE OMILGIOTUK	12.00			LO
LEASE HAND		BENJAMIN HARRIS	12.00			BH

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O.D.	.18
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	flo[redacted]	122	.59
1	SH[redacted]UB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
61	D.P. STANDS		1173.25
1	D.P. SINGLES		9.68
KELLY DOWN			10.35
TOTAL			1611.00
WT. OF D.C.	2		
WT. OF STRING	50		

BIT RECORD

BIT NO.	5C
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	SMITH
TYPE	XR40 DPS
SERIAL NO.	PE9331
JETS	3X 9.5
DEPTH OUT (m)	
DEPTH IN (m)	1571
TOTAL DRILLED (m)	40
TOTAL HRS RUN	12.75

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	1 DaN UP 2 DOWN
TORQUE AT BOTTOM	1203
FILL ON BOTTOM (m)	0

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED ☐

TIME	1800	2100	2300
DENSITY (kg/m3)	1310	1315	1315
FUNNEL VISCOSITY	59	59	59
FLUID LOSS (cm3)	5.5	5.5	5.5
pH	11.5	10.5	10.5
PVT	23.9	23.4	23.0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	2	SX
SALT	2	SX
UNITROL	3	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1785
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1790

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	280

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1583	1611	D	100	14

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
10670	127	110	152

REDUCED PUMP SPEED: 3126 @ 55 @ 1602

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1577	4.0	172.6
1587	3.9	168.7

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	2	ROTARY DRILL 156mm HOLE F/1583m-1603m
1830	1845	0.25	21	SAFETY MEETING WITH BOTH CREWS
1845	2330	4.75	2	ROTARTY DRILL 156mm HOLE F/1603m-1611m
2330	2345	0.25	7	RIG SERVICE FUNCTION UPPER PIPES C/3SEC
2345	2400	0.25	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR,FUNCTION CROWN SAVER
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS&OIL LEVEL,FUNCTION REMOTE CHOKE C/30SEC
REVEIW J.S.A G-16 PICK UP SUBS,POLICY#90031 HOISTING TUBULARS
BOILER BLOWDOWN 2X40L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				COMPETENCY TRAINING	51	11055

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS: 23		DRIVERS				

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	4.00			MM
DERRICK HAND		LOUIE SZABO	4.00			LS
MOTOR HAND		DARCY BLANCHER	4.00			DB
FLOOR HAND		CHARLES GULLY	4.00			CG
FLOOR HAND		CHESTER KAKFWI	4.00			CK
LEASE HAND		CLYDE SEWI	4.00			CS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

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

YEAR 2008 MONTH 3 DAY 4

RIG NO. 51

FUEL @ 05:00 HRS

RIG 10013 BOILER 5011

TEMPERATURE -44

CURRENT CONDITIONS CLEAR

WIND DIRECTION S.W.

ROAD CONDITION ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T..INT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080304_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

CODE NO.: 1 RIGUP & TEARDOWN | 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 WIRELINE LOGS | 12 RUN CSG & CEMENT | 13 WAIT ON CEMENT | 14 NIPPLE UP B.O.P. | 15 TEST B.O.P. | 16 DRILLSTEM TEST | 17 PLUG BACK | 18 SQUEEZE CEMENT | 19 FISHING | 20 DIR. WORK | 21 SAFETY MEETING | 22 | 23 | 24 | 25 | 26

MORN		7.0					0.25			0.5										0.25					
DAY		1.25			2.0	4.25	0.25													0.25					
EVE						2.5					5.0									0.5					
TOTAL		8.25			2.00	6.75	0.50			0.50	5.00									1.00					

TOTALS	NO. 1	TYPE COBRA	TYPE	BOILER #1 A-0039914	MORN	DAY	EVE
8.00	SCREENS CHANGED		NEW USED	BOILER #2 0105437			
8.00	TOP 215		TOP				
8.00	MIDDLE 215		MIDDLE				
24.00	BOTTOM 215		BOTTOM 215				

SERVICE SHOPPER(S) / RENTALS / SERVICES

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	3	4
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PARKER/CHILIBECKI		51		
PROVINCE	CAMP X YES NO	RIG SAFETY DAYS		
N.W.T.		219		

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.	BIT	O.D.	LENGTH
1	BIT	.18	
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
63	D.P. STANDS		1211.86
	D.P. SINGLES		
KELLY DOWN			7.42
TOTAL			1637.00
WT. OF D.C.	2		
WT. OF STRING	50		

BIT RECORD

BIT NO.	5C
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	SMITH
TYPE	XR40 DPS
SERIAL NO.	PE9331
JETS	3X 9.5
DEPTH OUT (m)	
DEPTH IN (m)	1571
TOTAL DRILLED (m)	66.0
TOTAL HRS RUN	19.75

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	2-up 2down
TORQUE AT BOTTOM	1763
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE polymer WATER BASED X OIL BASED

TIME	100	300	600
DENSITY (kg/m3)	1315	1315	1315
FUNNEL VISCOSITY	60	59	57
FLUID LOSS (cm3)	6.0	5.5	5.5
pH	11.0	11.0	10.5
pvt			22.1

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
POTASSIUM CHLORIDE SALT	11	SX
PURITY SALT	11	SX
UNITROL	4	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1315	1300	1785
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8			

BOILERS

	1		2
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	255	STACK TEMP	275

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1611	1637	D	85	14

CIRCULATION PRESSURE kPa: 10747

PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
127	105	152	

REDUCED PUMP SPEED: 3105 @ 55 @ 1610

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1596	3.9	187.7

DRILLER SIGNATURE: MIKE MACDONALD T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	330	3.50	2	ROTARY DRILL 156mm HOLE F/1611m-1621m
330	345	0.25	7	RIG SERVICE FUNCTION ANN C/14SEC
345	630	2.75	2	ROTARY DRILL 156mm HOLE F/1621m-1632m
630	645	0.25	21	SAFETY MEETING WITH BOTH CREWS
645	730	0.75	2	ROTARY DRILL 156mm HOLE F/1632m-1637m
730	800	0.50	10	ACCUMALATED DEVIATION SURVEY & CONNECTION TIME
				MEGAJOULES (SLSC) 2427 ACCUMALATED (331972)
				400 BRRLS=

NOTES : INSPECT BRAKES,LINKAGE&PINS,DEADMAN CLAMP&ANCHOR
CHECK B.O.P&MANIFOLD VALVE ALIGNMENT,DPP GAUGE,FLARE IGNITOR
CHECK ACC PRESS&OIL LEVEL,AREA #3&4 DRILL FLOOR,SUBSTRUCTURE
REVEIW J.S.A M-19 BOILER BLOWDOWN
BOILER BLOWDOWN 2X40L,FUNCTION REMOTE CHOKE C/30SEC

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				BOILER BLOWDOWN	51	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 24

DRIVERS

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		MIKE MACDONALD T3	10.00			MM
DERRICK HAND		LOUIE SZABO	10.00			LS
MOTOR HAND		DARCY BLANCHER	10.00			DB
FLOOR HAND		CHESTER KAKFWI	10.00			CK
FLOOR HAND		CHARLES GULLY	10.00			CG
LEASE HAND		CLYDE SEWI	10.00			CS
		2HRS PER WEEK FOR MT				

INJURIES

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.	BIT	O.D.	LENGTH
1	BIT	.18	
1	MOTOR	123	6.78
1	Extreme Tool	122	9.5
1	float sub	122	.59
1	SHOCK SUB	120	3.69
2	D.C.	125	18.96
1	JAR	123	4.71
1	X.O	133	.49
40	H.W.D.P.	101	372.82
63	D.P. STANDS		1211.86
	D.P. SINGLES		
KELLY DOWN			10.42
TOTAL			1640.00
WT. OF D.C.	2		
WT. OF STRING	50		

BIT RECORD

BIT NO.	5C
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	SMITH
TYPE	XR40 DPS
SERIAL NO.	PE9331
JETS	3X 9.5
DEPTH OUT (m)	1640
DEPTH IN (m)	1571
TOTAL DRILLED (m)	69.00
TOTAL HRS RUN	21

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
							TD	3.2

HOLE CONDITION

HOLE DRAG	1-2 DANS
TORQUE AT BOTTOM	1400
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE POLYMER WATER BASED X OIL BASED

TIME	0800	1300	
DENSITY (kg/m3)	1310	1320	
FUNNEL VISCOSITY	58	58	
FLUID LOSS (cm3)	5.0	5.0	
pH	11.0	11.0	
PVT		20.5	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB 'O'	56	SX
POTASSIUM CHLORIDE SALT	1	SX
SALT	1	SX
MYACIDE	4	PAILS

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1310	1710
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0			

BOILERS

	1		2
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1637	1640	D	80	14

CIRCULATION PRESSURE kPa: 10300

PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
127	110	127	

REDUCED PUMP SPEED: 3878 @ 56 @ 1631

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION
1616	4.1	188.2

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	7	RIG SERVICE CLOSE UPPER PIPE RAMS (SWITCH TO PUMP 2)
815	930	1.25	2	DRILL 156MM HOLE FROM 1637M TO 1640M
930	1030	1.00	5	CONDITION MUD & CIRCULATE
1030	1115	0.75	6	60 M WIPER TRIP
1115	1215	1.00	5	CONDITION MUD & CIRCULATE PUMP PILL
1215	1430	2.25	6	FLOW CHECK PULL TO LOG STRAP OUT DRIFT PIPE F/C-1558M-1028M
1430	1445	0.25	21	SAFETY MEETING HAND OVER
1445	1600	1.25	6	TRIPS POOH

NOTES : CHECKED CROWN SAVER, FUNCTION FLARE TANK IGNIGHTOR
HELD JSA'S ON PULLING OUT OF HOLE , MIXING CHEMICALS
BOILER BLOWDOWNS 3X40L

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TRIPPING	53	10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 24

DRIVERS

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	10.00			PP
DERRICK HAND		ANDY ALBERT L3	10.00			AA
WSC		DARREL LAPLANT T3	6.00			DL
MOTOR HAND		JESSE EDWARDS T1	10.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	10.00			CS
FLOOR HAND		CHRIS SHAE	10.00			CS
LEASE HAND		LORNE OMILGIOTUK	10.00			LO
LEASE HAND		BENJAMIN HARRIS	12.00			BH
		2HRS PER WEEK FOR MT				

INJURIES

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.	BIT	O.D.	LENGTH
	BIT	.18	
[redacted]			
39	H.W.D.P.	101	363.45
[redacted]			
63	D.P. STANDS		1211.86
	D.P. SINGLES		
KELLY DOWN			10.42
TOTAL			1585.73
WT. OF D.C.	2		
WT. OF STRING	50		

BIT RECORD

BIT NO.	5C
SIZE	156
IADC CODE	6 1 7
MANUFACTURER	SMITH
TYPE	XR40 DPS
SERIAL NO.	PE9331
JETS	3X 9.5
DEPTH OUT (m)	1640
DEPTH IN (m)	1571
TOTAL DRILLED (m)	69.00
TOTAL HRS RUN	21

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR
2	2	WT	N	1	1	NO	TD	3.28

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE [redacted] WATER BASED OIL BASED

TIME			
DENSITY (kg/m3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8	1320	1310	1700
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	250	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
	1640			

CIRCULATION PRESSURE kPa:

PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
127		127	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0.25	21	SAFETY MEETING BOP DRILL CREW IN POSITION WELL SECURE 55 SEC
1615	1730	1.25	6	TRIPS POOH FLOW CHECKS 373M-180M-ON BANK
1730	1845	1.25	6	TRIPS LAY OUT BHA CLOSED BLIND RAMS 2 SEC TO CLOSE
1845	1900	0.25	21	SAFETY MEETING W/LOGGERS
1900	2400	5.00	11	WIRELINE LOGS MONITOR WELL WHILE LOGGING
				LOGS RUN #1-TLD-CNL-CMR-HRLA-TLT2-MLT
				HOLE DISPL 7.14M3 CALC 5.69M3 DIFF 1.45M3 MORE
				STRAP 1641.29M TALLY 1640.00M DIFF 1.29M MORE
				LOGS TO BTM @ 21:55 hrs DEPTH-1641M INTERMEDIATE CASING 1198M
				MONITOR WELL WHILE LOGGING

NOTES : LINE TEST CROWN SAVER FUNCTION REMOTE CHOKE FLARE IGNITOR
CHECKED DEADLINE ANCHOR
JSA#39-POOH #R43-WIRE LINE LOGS #G37-WASH RIG #G76-BOP DRILL

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				LOGGING		10937

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 24

DRIVERS

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	8.00			FL
DERRICK HAND		GARY LYSTER T2	8.00			GL
WSC		PAUL REYNOLDS T1	8.00			PR
MOTOR HAND		DARCY BLANCHER	8.00			DB
FLOOR HAND		CHESTER KAKFWI	8.00			CK
FLOOR HAND		DARRYL COOK	8.00			DC
LEASE HAND						
LEASE HAND		TIM TUTCHO	8.00			TT

INJURIES

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection		BP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required		BP
(4.) Well Licence & Stick Diagram Posted		BP
(5.) Flare Lines Staked		BP
(6.) BOP Drills Performed		BP
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines		BP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		BP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Meet Inspection before Raising or Lowering		
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		

YEAR 2008 | MONTH 3 | DAY 5

RIG NO. 51

FUEL ON HAND (LITRES)

RIG 11067 | BOILER 5911

TEMPERATURE -21

CURRENT CONDITIONS: CLEAR

WIND DIRECTION: N.E.

ROAD CONDITION: ICE

LAST CASING TUBING OR LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING

	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS
	DC	120	70.3		57	125	3 1/2 IF	2
	DP	102	42		68.26	133.4	4 FH	40
	DP	102	20.84	X-95	65.09	117.48	4 FH	180

PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
8P-80	NATIONAL	216
8P-80	NATIONAL	216

TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN							0.25				7.25										0.5					
DAY											8.0															
EVE											8.0															
TOTAL							0.25				23.25										0.50					

TOTALS	NO.	TYPE	TYPE	SHALE SHAKER(S)	RENTALS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA			BOILER #1 A-0039914			
	SCREENS CHANGED		NEW USED		BOILER #2 0105437			
8.00	215	TOP	TOP					
8.00	215	MIDDLE	MIDDLE					
24.00	215	BOTTOM	215 BOTTOM					

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
	BIT		
39	H.W.D.P.	101	363.45
63	D.P. STANDS		1211.86
	D.P. SINGLES		
	KELLY DOWN		10.42
	TOTAL		1585.73
	WT. OF D.C.	2	
	WT. OF STRING	50	

BIT RECORD

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

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

MORNING TOUR

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD RECORD

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0.25	21	BOP DRILL (CLOSED BLINDS IN BETWEEN LOGGING RUNS)
15	200	1.75	11	WIRELINE LOGS CON'T
200	215	0.25	7	RIG SERVICE CLOSED BLIND 3 SEC
215	630	4.25	11	WIRELINE LOGS RUN #2 MSCT
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	11	WIRELINE LOGS CON'T
800				

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
ZETAG 7557	2	SX
CALCIUM NITRATE	15	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

NOTES : HELD JSA G-76 BOP DRILL, R-43 WIRELINE LOGS

MJ 3163 AMJ 332711

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				BOP DRILL	12	10937

DAY TOUR

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD RECORD

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1600	8.00	11	WIRELINE LOGS #3 LOGS -FMI-DSI-HNGS-EMS
				LOG #4-MDT

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
ZETAG 7557	4	SX
CALCIUM NITRATE	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

NOTES : FUNCTIONED REMOTE CHOKE

JSA#-G49-STEAM USE #-G77-STEAM BLANKET USE

COMPETENCY HAND & POWER TOOLS

BOILER BLOW DOWN 3X60 LTRS

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				MIXING CAUSTIC		10937

EVENING TOUR

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD RECORD

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	2400	8.00	11	WIRELINE LOGS

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

NOTES : VISUAL INSPECTED FLAIR LINE AND DEGASSER LINE

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				FLOOR WORK	14	11055

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	8.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080305_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	5

OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.

RIG MANAGER	RIG NO.
PRESTON/CHILIBECKI	51

PROVINCE	CAMP	RIG SAFETY DAYS
N.W.T.	X YES ☐ NO	220

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
LEASE HAND		CHRIS SHAE	8.00			CS
FLOOR HAND		LORNE OMILGIOTUK	8.00			LO

RATE SCHEDULE | X | REGULAR | | REPAIR | | INVERT

CREW SAFETY DAYS: 25

DRIVERS

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND		CHESTER KAKFWI	12.00			CK
LEASE HAND		BENJAMIN HARRIS	12.00			BH
LEASE HAND		TIM TUTCHO	12.00			TT

RATE SCHEDULE | X | REGULAR | | REPAIR | | INVERT

CREW SAFETY DAYS: 25

DRIVERS

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	4.00			CS
LEASE HAND		CHRIS SHAE	4.00			CS
FLOOR HAND		LORNE OMILGIOTUK	4.00			LO

RATE SCHEDULE | X | REGULAR | | REPAIR | | INVERT

CREW SAFETY DAYS: 25

DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

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

YEAR 2008 MONTH 3 DAY 6

RIG NO. 51 — FUEL @ 05:00 HRS

RIG 9065 — BOILER 4035

TEMPERATURE -16

CURRENT CONDITIONS: CLEAR

WIND DIRECTION: N.E.

ROAD CONDITION: ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T..INT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080306_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

CAODC — PASON DATAHUB

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & 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 MEETING	22 C/FLOOR	23	24	25	26
MORN							0.25				7.5															
DAY						3.25	0.25				4.0											0.5				
EVE					5.5	2.0	0.25														0.25					
TOTAL					5.50	5.25	0.75				11.50										0.50	0.50				

TOTALS	NO.	TYPE	TYPE
8.00	SCREENS CHANGED	COBRA	NEW USED
8.00	TOP 215		TOP
8.00	MIDDLE 215		MIDDLE
24.00	BOTTOM 215		BOTTOM 215

RENTALS / SERVICES	MORN	DAY	EVE
BOILER #1 A-0039914			
BOILER #2 0105437			

MORNING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
	BIT		
39	H.W.D.P.	101	363.45
63	D.P.	STANDS	1211.86
	D.P.	SINGLES	
KELLY DOWN			10.42
TOTAL			1585.73
WT. OF D.C.	2		
WT. OF STRING	50		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	250	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	330	3.50	11	WIRELINE LOGS
330	345	0.25	7	RIG SERVICE
345	645	3.00	11	WIRELINE LOGS RUN # 5 VSP
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	11	WIRELINE LOGS

NOTES : MJ 3163 AMJ 332708

JSA'S G-37 WASHING RIG, G-6 LOGGING

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				LOGGING	14	11055

DAY TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
	BIT		
39	H.W.D.P.	101	363.45
63	D.P.	STANDS	1211.86
	D.P.	SINGLES	
KELLY DOWN			10.42
TOTAL			1585.73
WT. OF D.C.	2		
WT. OF STRING	50		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
ZETAG 7692	2	SX

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	250	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1200	4.00	11	WIRELINE LOGS CLOSED BLIND RAMS 2SEC TO CLOSE
1200	1230	0.50	22	CLEAN UP FLOOR CENTRALIZERS STOP COLLARS FLOAT & SHOE
1230	1545	3.25	6	MOVE HWDP & RIH OPEN END
1545	1600	0.25	7	RIG SERVICE CLOSED ANN 12 SEC
1600				
				SEVICED CROWN DERRICK INSPECTION - DB

NOTES : FUNCTIONED REMOTE CHOKE

JSA# R43-RIG OUT LOGGERS # G10-RUN IN HOLE #G59-OPERATE PIPE SPINNER

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				PIPE SPINNER		109378

EVENING TOUR

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
	BIT		
126	dr	102	1211.86
39	H.W.D.P.	102	363.45
6	drill pipe	102	57.82
	D.P.	STANDS	
	D.P.	SINGLES	
KELLY DOWN			
TOTAL			1633.13
WT. OF D.C.			
WT. OF STRING			

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10.5	BOILER pH	10.5	
STACK TEMP	250	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1800	2.00	6	TRIPS RIH
1800	1830	0.50	5	CONDITION MUD & CIRCULATE
1830	1845	0.25	21	SAFETY MEETING HAND OVER
1845	2345	5.00	5	CONDITION MUD & CIRCULATE
2345	2400	0.25	7	RIG SERVICE CLOSE ANNULAR 14 SEC

NOTES : CHECKED CROWN SAVER

HELD JSA'S ON R-22 REMOVE PREFABS FROM TANKS, G-49 STEAM USE, M-19 BOILER BLOWDN

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				TEAR OUT	48	

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	6

OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.

RIG MANAGER	RIG NO.
PRESTON/CHILIBECKI	51

PROVINCE	CAMP	RIG SAFETY DAYS
N.W.T.	X YES ☐ NO	221

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
FLOOR HAND		CHRIS SHAE	8.00			CS
FLOOR HAND		LORNE OMILGIOTUK	8.00			LO

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 26

DRIVERS

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND		CHESTER KAKFWI	12.00			CK
LEASE HAND		TIM TUTCHO	12.00			TT

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 26

DRIVERS

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	4.00			CS
LEASE HAND		CHRIS SHAE	4.00			CS
FLOOR HAND		LORNE OMILGIOTUK	4.00			LO

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 26

DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOCATION	UNIQUE ID
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

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

YEAR 2008 MONTH 3 DAY 7

RIG NO. 51

FUEL @ 05:00 HRS

RIG 9328 BOILER 5397

TEMPERATURE -11

CURRENT CONDITIONS CLEAR

WIND DIRECTION N.E.

ROAD CONDITION ICE

LAST CASING RUNNING OR LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080307_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

CODE NO. 1 RIGUP & TEARDOWN 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 WIRELINE LOGS 12 RUN CSG & 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 MEETING 22 23 24 25 26

MORN					1.5	1.5								3.75				0.75				0.5				
DAY					0.5	0.75						1.25	4.0					1.25				0.25				
EVE					0.5		0.25						4.5					2.25				0.5				
TOTAL					2.50	2.25	0.25					1.25	12.25					4.25				1.25				

TOTALS	SHALE SHAKER(S)	RENTALS / SERVICES	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA	TYPE BOILER #1 A-0039914			
8.00	SCREENS CHANGED [ ] NEW USED [ ]	BOILER #2 0105437			
8.00	TOP 215	TOP			
24.00	MIDDLE 215	MIDDLE			
	BOTTOM 215	BOTTOM			

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	7
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PRESTON/CHILIBECKI	RIG NO.: 51		
PROVINCE: N.W.T.	CAMP [X] YES [ ] NO	RIG SAFETY DAYS: 222	

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O.D.	LENGTH
120	drill pipe	102	1211.86
31	H.W.D.P.	102	289.11
6	drill pipe	102	57.82
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		12.10
	TOTAL		1570.89
	WT. OF D.C.		
	WT. OF STRING		

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

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

MORNING TOUR

MUD TYPE | WATER BASED [ ] OIL BASED [ ] | TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
1475	127	64	127

REDUCED PUMP SPEED: 1475 @ 64 @ 1490

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	045	0.75	5	CIRCULATE OPEN ENDED
045	100	0.25	21	SAFETY MEETING WITH CEMENTERS
100	145	0.75	17	RIG UP TO & RUN PLUG # 1 1640m-1540m
145	215	0.50	6	PULL 3 STDS DP & 5 STDS HWDP
215	300	0.75	5	REVERSE CIRCULATE
300	400	1.00	6	LAY DOWN 8 HWDP, RUN IN 4 STDS HWDP
400	630	2.50	13	WAIT ON CEMENT
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	13	WAIT ON CEMENT

NOTES : HELD JSA'S ON G-14 CIRCULATING, G-30 CEMENTING,G-19LAY DOWN PIPE
CHECKED CROWN SAVER
BOILER BLOWDOWNS 3X 40L
MJ 3882 MJA 333427

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			CEMENTING	48	11055

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 27 | DRIVERS

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
FLOOR HAND		CHRIS SHAE	8.00			CS
LEASE HAND		LORNE OMILGIOTUK	8.00			LO

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O.D.	LENGTH
126	drill pipe	102	1211.86
23	H.W.D.P.	102	214.91
	D.P. STANDS		
	D.P. SINGLES		
	KELLY DOWN		12.10
	TOTAL		1438.87
	WT. OF D.C.		
	WT. OF STRING		24

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

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

DAY TOUR

MUD TYPE | WATER BASED [ ] OIL BASED [ ] | TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
conquor 404	1	BBL

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10.5	BOILER pH	10.5
STACK TEMP	260	STACK TEMP	270

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
860	127	127	70

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	900	1.00	17	RIH TO FEEL PLUG TO 1558M NO WT TAKEN PULL UP TO 1500M
900	1045	1.75	13	WAIT ON CEMENT CIRCULATE
1045	1100	0.25	17	RIH FEEL PLUG #1 TAGGED @ 1538M
1100	1115	0.25	21	SAFETY MEETING W/CEMENTERS
1115	1230	1.25	12	CEMENT PLUG #2 FROM 1501M-1404M
1230	1300	0.50	5	REVERSE CIRC CLOSED ANN 12 SEC TO CLOSE
1300	1345	0.75	6	STD 8 STDS IN DERRICK LAY DN 8 SINGLES RI 4 STDS
1345	1600	2.25	13	WAIT ON CEMENT
1600				

NOTES : FUNCTIONED REMOTE CHOKE CROWN SAVER CHECKED DEADLINE ANCHOR
JSA#G30-CEMENT PLUGS #G14-CIRC #G19-LAY DOWN PIPE

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			CEMENTING PLUGS		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 27 | DRIVERS

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND		CHESTER KAKFWI	12.00			CK
LEASE HAND		TIM TUTCHO	12.00			TT

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O.D.	LENGTH
126	drill pipe	102	1211.86
	[redacted] STANDS		
	D.P. SINGLES		
	KELLY DOWN		
	TOTAL		1211.86
	WT. OF D.C.		
	WT. OF STRING		24

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

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

EVENING TOUR

MUD TYPE | WATER BASED [ ] OIL BASED [ ] | TIME | DENSITY (kg/m3) | FUNNEL VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
415	127	70	127

REDUCED PUMP SPEED: 415 @ 70 @ 1142

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1830	2.50	13	WAIT ON CEMENT
1830	1845	0.25	21	HANDOVER MEETING
1845	1900	0.25	13	WAIT ON CEMENT
1900	2015	1.25	17	RUN IN FEEL PLUG NO 2 TAGGED @ 1404M LAY DOWN 19 HWDP
2015	2030	0.25	21	SAFETY MEETING WITH CEMENTERS
2030	2130	1.00	17	RUN PLUG # 3 FROM 1404M TO 1168M LAY DOWN 2 HWDP
2130	2200	0.50	5	REVERSE CIRCULATE CLOSE ANNULAR 14 SEC
2200	2345	1.75	13	WAIT ON CEMENT
2345	2400	0.25	7	RIG SERVICE

NOTES : CHECKED CROWN SAVER
HELD JSA'S ON G-19 LAY DOWN PIPE, G-14 CIRCULATE

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			LAY DOWN PIPE	42	11055

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 27 | DRIVERS

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	4.00			CS
LEASE HAND		CHRIS SHAE	4.00			CS
FLOOR HAND		LORNE OMILGIOTUK	4.00			LO

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

	OPR	R.M.
(1.) Daily Walk Around Inspection	ED	BP
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required	ED	BP
(4.) Well Licence & Slick Diagram Posted	ED	BP
(5.) Flare Lines Staked	ED	BP
(6.) BOP Drills Performed		
(7.) Visually Inspect BOPs- Flare Lines & Degasser Lines	ED	BP
(1.) Rig Site Health & Safety Meeting (one/crew/month)		BP
(2.) CAODC Rig Safet Inspection Checklist (one/rig/month)		
(3.) Mast Inspection before Raising or Lowering		BP
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		BP

YEAR 2008 MONTH 3 DAY 8

RIG NO. 51

FUEL @ 05:00 HRS

RIG	BOILER
11067	3778

TEMPERATURE -14

CURRENT CONDITIONS CLEAR

WIND DIRECTION N.E.

ROAD CONDITION ICE

LAST CASING RUNNING OF LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080308_1C		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

CAODC

PASON DATAHUB

TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 PULL WEAR BUSHING	23	24	25	26
MORN					1.0	3.25							3.25				0.25				0.25					
DAY						0.75								5.75			1.0				0.25	0.25				
EVE	6.5													1.5												
TOTAL	6.50				1.00	4.00							3.25	7.25			1.25				0.50	0.25				

TOTALS	SCALPER SHAKER(S) NO. 1	TYPE COBRA	RENTALS / SERVICES TYPE		MORN	DAY	EVE
8.00	SCREENS CHANGED	NEW USED	BOILER #1 A-0039914				
8.00	TOP 215	TOP	BOILER #2 0105437				
8.00	MIDDLE 215	MIDDLE					
24.00	BOTTOM 215	BOTTOM					

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	3	8
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PRESTON/CHILIBECKI		51		
PROVINCE	CAMP [X] YES [ ] NO	RIG SAFETY DAYS		
N.W.T.		223		

MORNING TOUR

FROM 0 TO 800

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT O.D.	
126	drill pipe 102	1211.86
	D.P. STANDS	
	D.P. SINGLES	
	KELLY DOWN	
	TOTAL	1211.86
	WT. OF D.C.	
	WT. OF STRING 24	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN m/HR

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	
FILL ON BOTTOM (m)	

MUD RECORD

MUD TYPE POLYMER WATER BASED [X] OIL BASED [ ]

TIME	0200
DENSITY (kg/m3)	1320
FUNNEL VISCOSITY	57
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	240	STACK TEMP	250

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
390	127	69	127	

REDUCED PUMP SPEED

390 @ 69 @ 1142

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	315	3.25	13	WAIT ON CEMENT
315	330	0.25	17	RUN IN AND TAG PLUG NO 3. TAGGED @ 1174m
330	430	1.00	5	DISPLACE HOLE TO INHIBITED WATER
430	630	2.00	6	LAY DOWN DP (PICKUP KELLY & REMOVE SPINNER & SOFT BREAK ALL CONNECTIONS)
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	6	LAY DOWN DP

NOTES : CHECKED CROWN SAVER

HELD JSA'S ON G- 19 LAY DOWN PIPE AND G-14 CIRCULATE

MJ4155 MJA 333700

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				CEMENT PLUG	32	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 28

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
FLOOR HAND		CHRIS SHAE	8.00			CS
LEASE HAND		LORNE OMILGIOTUK	8.00			LO

DAY TOUR

FROM 800 TO 1600

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT O.D.	
	D.P. STANDS	
	D.P. SINGLES	
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1640				

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
390	127	69	127	

REDUCED PUMP SPEED

390 @ 69 @ 1142

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	845	0.75	6	TRIPS LAY DOWN PIPE CLOSED BLIND RAMS 2 SEC
845	900	0.25	22	PULL WEAR BUSHING
900	915	0.25	21	SAFETY MEETING
915	1015	1.00	17	PLUG BACK @ 50M
1015	1600	5.75	14	NIPPLE DOWN BOPS
1600				

NOTES :

JSA LAY DOWN PIPE NIPPLE DOWN

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				NIPPLE DOWN		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 28

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND		CHESTER KAKFWI	12.00			CK
LEASE HAND		TIM TUTCHO	12.00			TT

EVENING TOUR

FROM 1600 TO 2400

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT O.D.	
	D.P. STANDS	
	D.P. SINGLES	
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN	8	HRS RUN	8
BOILER pH	10	BOILER pH	10
STACK TEMP	250	STACK TEMP	260

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

	PUMP NO. 1 LINER SIZE	SPM	PUMP NO. 2 LINER SIZE	SPM
	127		127	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE

PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1730	1.50	14	NIPPLE DOWN B.O.P.S
1730	2400	6.50	1	RIG OUT

NOTES : ANDY ALBERT CUT MIDDLE FINGER ON RIGHT HAND FIRST AID NO STICHES

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH						

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 28

DRIVERS

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00		AA	
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	4.00			CS
LEASE HAND		CHRIS SHAE	4.00			CS
FLOOR HAND		LORNE OMILGIOTUK	4.00			LO

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID 300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

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

YEAR 2008 MONTH 3 DAY 9

RIG NO. 51

FUEL (2) 05 001 HERE

RIG 8959 BOILER 2878

TEMPERATURE -19

CURRENT CONDITIONS CLEAR

WIND DIRECTION N.E.

ROAD CONDITION ICE

LAST CASING TURNING OR LINER

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING

	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T.JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE		TIME	
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080309_1C		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

TIME BREAKDOWN

CODE NO.	1 RIG UP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILL&TEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 WAIT ON VAC TRUCKS	23	24	25	26
MORN	7.75																				0.25					
DAY	7.75																				0.25					
EVE																						8.0				
TOTAL	15.50																				0.50	8.00				

TOTALS	NO.	TYPE	TYPE	SHALE SHAKER(S) / SCREENS	FLUIDS / SERVICES	MORN	DAY	EVE
8.00	1	COBRA			BOILER #1 A-0039914			
8.00	SCREENS CHANGED		NEW USED		BOILER #2 0105437			
8.00	215	TOP	TOP					
8.00	215	MIDDLE	MIDDLE					
24.00	215	BOTTOM	215 BOTTOM					

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	9
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PRESTON/CHILIBECKI	RIG NO. 51		
PROVINCE: N.W.T.	CAMP: X YES / NO	RIG SAFETY DAYS 224	

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	O.D.	LENGTH
	BIT		
	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT NO. / SIZE / IADC CODE / MANUFACTURER / TYPE / SERIAL NO. / JETS / DEPTH OUT (m) / DEPTH IN (m) / TOTAL DRILLED (m) / TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | ODC | REASON PULLED | TOTAL RUN m/HR

HOLE CONDITION: HOLE DRAG / TORQUE AT BOTTOM / FILL ON BOTTOM (m)

MORNING TOUR

MUD RECORD

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME / DENSITY (kg/m3) / FUNNEL VISCOSITY / FLUID LOSS (cm3) / pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN	8	
BOILER pH	10	BOILER pH	10	
STACK TEMP	250	STACK TEMP	260	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED @ / @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	645	6.75	1	TEAR OUT
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	1	TEAR OUT
800				

NOTES : INSPECTED A-LEG AND DERRICK PIN IN PREPORATION FOR LAYING OVER DERRICK
MJ 4428 MJA 333973
JSA'S ON R-10 BRIDLE UP,R-30 TEAR OUT FLOOR

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			TEAR OUT		

MORNING TOUR FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
FLOOR HAND		CHRIS SHAE	8.00			CS
LEASE HAND		LORNE OMILGIOTUK	8.00			LO

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 29 | DRIVERS

DAY TOUR

MUD RECORD

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME / DENSITY (kg/m3) / FUNNEL VISCOSITY / FLUID LOSS (cm3) / pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN		
BOILER pH	10	BOILER pH		
STACK TEMP	250	STACK TEMP		

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED @ / @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1015	2.25	1	RIG OUT
1015	1030	0.25	21	SAFETY MEETING REVIEW JSA ON LAYING OVER DERRICK
				INSPECT DERRICK AND RELATED EQUIPMENT
1030	1600	5.50	1	RIG OUT
				DERRICK OVER @ 1045 BP

NOTES : REVIEW JSA LAYOVER DERRICK

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

DAY TOUR FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND		CHESTER KAKFWI	12.00			CK
LEASE HAND		TIM TUTCHO	12.00			TT

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 29 | DRIVERS

EVENING TOUR

MUD RECORD

MUD TYPE | WATER BASED ☐ | OIL BASED ☐

TIME / DENSITY (kg/m3) / FUNNEL VISCOSITY / FLUID LOSS (cm3) / pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2	
HRS RUN	8	HRS RUN		
BOILER pH	10	BOILER pH		
STACK TEMP	250	STACK TEMP		

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
127		127	

REDUCED PUMP SPEED @ / @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	2400	8.00	22	CLEAN RIG (WAIT ON VAC TRUCKS TO CLEAN MUDTANK & PREMIX)

NOTES : HELD JSA'S ON G-37 WASHING RIG,G-77 STEAM BLANKET USE

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH			TEAR OUT		

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	4.00			CS
LEASE HAND		CHRIS SHAE	4.00			CS
FLOOR HAND		LORNE OMILGIOTUK	4.00			LO

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 29 | DRIVERS

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LOC	**UNIQUE ID**
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

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

YEAR 2008 | MONTH 3 | DAY 10

RIG NO. 51

FUEL @ 05:00 HRS: RIG 3847 | BOILER 5448

TEMPERATURE: -14

CURRENT CONDITIONS: CLEAR

WIND DIRECTION: N.E.

ROAD CONDITION: ICE

CASING RUNNING DETAILS

	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
CASING	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
TURNED OUT	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

	DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DRILL STRING DETAILS	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42			68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.46	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE	2008/03/11	TIME	23:59
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080310_1B		
VENDOR SOFTWARE VERSION	EDR_3-2-7_HF2 ETS 2.2		

PASON DATAHUB

DRILLING TIME BREAKDOWN

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 WAIT ON VAC TRUCKS	23	24	25	26
MORN																					0.25	7.75				
DAY	6.0																					2.0				
EVE																					0.25	7.75				
TOTAL	6.00																				0.50	17.50				

TOTALS	SHALE SHAKER(S)		RENTALS / SERVICES	MORN	DAY	EVE
8.00	NO. 1 TYPE COBRA	TYPE	BOILER #1 A-0039914			
8.00	SCREENS CHANGED [ ] NEW USED [ ]		BOILER #2 0105437			
8.00	TOP 215	TOP				
24.00	MIDDLE 215	MIDDLE				
	BOTTOM 215	BOTTOM 215				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	3	10
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
PRESTON/CHILIBECKI		51		
PROVINCE	CAMP [X] YES [ ] NO	RIG SAFETY DAYS		
N.W.T.		225		

MORNING TOUR

FROM 0 TO 800

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P.	STANDS
	D.P.	SINGLES
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	
BOILER pH	10.5	BOILER pH	
STACK TEMP	260	STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
	127		127	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	630	6.50	22	CLEAN RIG WAIT ON VAC TRUCKS TO CLEAN TANKS
630	645	0.25	21	HANDOVER MEETING
645	800	1.25	22	CLEAN RIG WAIT ON VAC TRUCKS TO CLEAN RIG TANKS

NOTES : JSA G-39 WASH RIG

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH				STEAMING		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 30 | DRIVERS:

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	8.00			PP
DERRICK HAND		ANDY ALBERT L3	8.00			AA
MOTOR HAND		JESSE EDWARDS T1	8.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	8.00			CS
FLOOR HAND		CHRIS SHAE	8.00			CS
LEASE HAND		LORNE OMILGIOTUK	8.00			LO

DAY TOUR

FROM 800 TO 1600

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P.	STANDS
	D.P.	SINGLES
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	
BOILER pH	10.5	BOILER pH	
STACK TEMP	260	STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
	127		127	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1000	2.00	22	WAIT ON VAC TRUCKS TO CLEAN MUD TANKS MUD TANKS CLEAN RIG & DEICE
1000	1600	6.00	1	RIG OUT CLEAN RIG MUD TANK

NOTES : JSA #R38-CLEAN MUD TANKS #G26-LOADER OPERATION

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH						

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 30 | DRIVERS:

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	12.00			DS
FLOOR HAND		DARRYL COOK	12.00			DC
LEASE HAND		CHESTER KAKFWI	12.00			CK
LEASE HAND		TIM TUTCHO	12.00			TT

EVENING TOUR

FROM 1600 TO 2400

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P.	STANDS
	D.P.	SINGLES
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	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 VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	
BOILER pH	10	BOILER pH	
STACK TEMP	270	STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa	PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
	127		127	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1845	2.75	22	WAIT ON VACUME TRUCKS
1845	1900	0.25	21	HANDOVER MEETING
1900	2400	5.00	22	WAIT ON VACUME TRUCKS

NOTES : JSA'S ON G-36 STEAM USE

SPECIAL EVENT				SAFETY TOPIC	MEHL	MACP
TIME / DEPTH						

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 30 | DRIVERS:

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	4.00			PP
DERRICK HAND		ANDY ALBERT L3	4.00			AA
MOTOR HAND		JESSE EDWARDS T1	4.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	4.00			CS
LEASE HAND		CHRIS SHAE	4.00			CS
FLOOR HAND		LORNE OMILGIOTUK	4.00			LO

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO	**UNIQUE ID**
[redacted]	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
ED DAECHSEL	BRUCE PRESTON

DAILY CHECKS

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

YEAR	MONTH	DAY
2008	3	11

RIG NO. 51

FUEL ON RECEIPT

RIG	BOILER
3847	5448

TEMPERATURE	-15
CURRENT CONDITIONS	CLEAR
WIND DIRECTION	N.E.
ROAD CONDITION	ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SOO55	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DC/DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE	2008/03/11	TIME	23:59
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080311_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

RIG TIME

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DIR. WORK	21 SAFETY MEETING	22 WAIT ON VAC TRUCKS	23	24	25	26
MORN																					0.25	7.75				
DAY	7.75																				0.25					
EVE	8.0																									
TOTAL	15.75																				0.50	7.75				
TOTALS																					8.00					
																					8.00					
																					8.00					
																					24.00					

SHALE SHAKERS / RENTALS / SERVICES

NO.	TYPE	MORN	DAY	EVE
1	COBRA			
SCREENS CHANGED		TYPE	BOILER #1 A-0039914	
	NEW USED		BOILER #2 0105437	
TOP	215	TOP		
MIDDLE	215	MIDDLE		
BOTTOM	215	BOTTOM	215	

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59	2008	3	11
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: PRESTON/CHILIBECKI	RIG NO. 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS: 226	

MORNING TOUR

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P.	STANDS
	D.P.	SINGLES
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN 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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	
BOILER pH	10	BOILER pH	
STACK TEMP	250	STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED

@		@	

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: PETER PURKIS T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	645	6.75	22	WAIT ON VACK TRUCKS TO CLEAN TANKS
645	700	0.25	21	HANDOVER MEETING
700	800	1.00	22	WAIT ON VAC TRUCKS TO CLEAN TANKS

NOTES : JSA'S STEAM USE

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
31						

DAY TOUR

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P.	STANDS
	D.P.	SINGLES
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN 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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	
BOILER pH	10	BOILER pH	
STACK TEMP	250	STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED

@		@	

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	21	SAFETY MEETING WITH MULLEN TRUCKER
815	1600	7.75	1	RIG OUT MOVE BUILDINGS LOAD MUD TANKS, DERRICK
				PUMPS,BOILER #2 , DRAWWORKS,BOILER#2
				RIG SEACAN,CROWNSTAND,WELDER

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
31						

EVENING TOUR

BIT RECORD

NO.	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P.	STANDS
	D.P.	SINGLES
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE

TI	To	MDC	LOC	BRG	GAGE	ODC	REASON PULLED	TOTAL RUN 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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

	1		2
HRS RUN	8	HRS RUN	
BOILER pH	10	BOILER pH	
STACK TEMP	260	STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED

@		@	

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRUCE PRESTON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	2400	8.00	1	LOAD OUT RIG
				Rig Released at 23:59hrs March 11/08

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
31						

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		PETER PURKIS T3	10.00			PP
DERRICK HAND		ANDY ALBERT L3	10.00			AA
MOTOR HAND		JESSE EDWARDS T1	10.00			JE
FLOOR HAND		CLARENCE SHOWSHOE	10.00			CS
FLOOR HAND		CHRIS SHAE	10.00			CS
LEASE HAND		LORNE OMILGIOTUK	10.00			LO
		2HRS PER WEEK FOR MT				

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	14.00			FL
DERRICK HAND		GARY LYSTER T2	14.00			GL
WSC		PAUL REYNOLDS T1	14.00			PR
MOTOR HAND		DARCY BLANCHER	14.00			DB
FLOOR HAND		DERRICK SHAE	14.00			DS
FLOOR HAND		DARRYL COOK	14.00			DC
LEASE HAND		CHESTER KAKFWI	14.00			CK
LEASE HAND		TIM TUTCHO	12.00			TT
		2HRS PER WEEK FOR MT				

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER						
DERRICK HAND						
MOTOR HAND						
FLOOR HAND						
LEASE HAND						
FLOOR HAND						

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWIJIKA M-59
OPERATOR	CONTRACTOR NAME
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
	BRUCE PRESTON

DAILY CHECKS

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

YEAR 2008 MONTH 3 DAY 12

RIG NO. 51

FUEL @ 05:00 HRS

RIG 900 BOILER 3000

TEMPERATURE -18

CURRENT CONDITIONS CLEAR

WIND DIRECTION N.E.

ROAD CONDITION ICE

LAST CASING TUBING OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SC055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING	DC/ DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T.JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE	2008/03/11	TIME	23:59
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080312_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

CODE NO. 1 RIG/UP & TEARDOWN | 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 WIRELINE LOGS | 12 RUN CSG & 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 MEETING | 22 | 23 | 24 | 25 | 26

TIME BREAKDOWN	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
MORN	8.0																									
DAY	7.75																				0.25					
EVE	3.0																									
TOTAL	18.75																				0.25					

TOTALS	SHALE SHAKER(S)		RENTALS / SERVICES	MORN	DAY	EVE
	NO. 1 TYPE COBRA	TYPE	BOILER #1 A-0039914			
8.00	SCREENS CHANGED	NEW USED	BOILER #2 0105437			
8.00	215 TOP	TOP				
3.00	215 MIDDLE	MIDDLE				
19.00	215 BOTTOM	215 BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO.		YEAR	MONTH	DAY
PC BLACKWATER KWIJIKA M-59		2008	3	12
OPERATOR	CONTRACTOR NAME			
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.			
RIG MANAGER		RIG NO.		
BRUCE PRESTON		51		
PROVINCE	CAMP	RIG SAFETY DAYS		
N.W.T.	X YES NO	227		

MORNING TOUR

FROM 0 TO 800

NO.	DRILLERS ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P. STANDS	
	D.P. SINGLES	
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | 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 VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN		HRS RUN	
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRUCE PRESTON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	800	8.00	1	CLEAN PREMIX TANK,WATER TANK RIG OUT

NOTES :

SPECIAL EVENT | TIME / DEPTH | SAFETY TOPIC | MEHL | MACP

RATE SCHEDULE		REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
32						

DAY TOUR

FROM 800 TO 1600

NO.	DRILLERS ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P. STANDS	
	D.P. SINGLES	
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | 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 VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN		HRS RUN	
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	21	SAFETY MEETING WITH MULLEN TRUCKERS
815	1600	7.75	1	LOAD OUT RIG TO RACK SITE RIG OUT POD B

NOTES :

SPECIAL EVENT | TIME / DEPTH | SAFETY TOPIC: RIG MOVES | MEHL | MACP

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
32						

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR
MOTOR HAND		DARCY BLANCHER	12.00			DB
FLOOR HAND		DERRICK SHAE	4.00			DS
FLOOR HAND		DARRYL COOK	4.00			DC
LEASE HAND		CHESTER KAKFWI	4.00			CK
LEASE HAND		TIM TUTCHO	4.00			TT

EVENING TOUR

FROM 1600 TO 2400

NO.	DRILLERS ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O.D.
	D.P. STANDS	
	D.P. SINGLES	
	KELLY DOWN	
	TOTAL	
	WT. OF D.C.	
	WT. OF STRING	

BIT RECORD

BIT NO. | SIZE | IADC CODE | MANUFACTURER | TYPE | SERIAL NO. | JETS | DEPTH OUT (m) | DEPTH IN (m) | TOTAL DRILLED (m) | TOTAL HRS RUN

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | 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 VISCOSITY | FLUID LOSS (cm3) | pH

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN		HRS RUN	
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRUCE PRESTON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1900	3.00	1	LOAD OUT RIG

NOTES :

SPECIAL EVENT | TIME / DEPTH | SAFETY TOPIC | MEHL | MACP

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT
CREW SAFETY DAYS		DRIVERS				
32						

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER						
DERRICK HAND						
MOTOR HAND						
FLOOR HAND						
LEASE HAND						
FLOOR HAND						

LICENCE NO.	WELL NAME & NO.
1165	PC BLACKWATER KWJIKA M-59
OPERATOR	**CONTRACTOR NAME**
PETRO-CANADA OIL & GAS	AKITA DRILLING LTD.
SURFACE LO[redacted]	UNIQUE ID
	300/M59 64-40 122-30
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
	BRUCE PRESTON

DAILY CHECKS

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

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

	GPR	R.M.	BP

YEAR 2008 | MONTH 3 | DAY 13
RIG NO. 51
FUEL @ 05:00 HRS
RIG 500 | BOILER 2000

TEMPERATURE -24
CURRENT CONDITIONS CLEAR
WIND DIRECTION CALM
ROAD CONDITION ICE

LAST CASING JOINTS OR LINER	O.D. (mm)	MIN I.D. (mm)	MASS (kg/m3)	MAKE	GRADE	NO. of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244.5	226.59	53.57	TENARIS S	SO055	24	340.29	6.00	348.23
	177.8	161.70	34.23	TENARIS	L-80	98	1198.78	6.00	

DRILL STRING	DC / DP	DC / DP SIZE	MASS	GRADE	MINIMUM I.D.	T. JNT. O.D.	TYPE THREAD	NO. of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	DC	120	70.3		57	125	3 1/2 IF	2	8P-80	NATIONAL	216
	DP	102	42		68.26	133.4	4 FH	40	8P-80	NATIONAL	216
	DP	102	20.84	X-95	65.09	117.48	4 FH	180			

SPUD DATE	2008/02/11	TIME	15:30
RIG RELEASE	2008/03/11	TIME	23:59
WELL TYPE	VERT.	RE-ENTRY	
OPERATOR'S AFE	P787032		
KELLY BSHG	6.15	OP FUEL	
CONTRACTOR'S JOB NUM	07-22083		
TOUR SHEET SERIAL NUM	AKTA51_20080313_1B		
VENDOR SOFTWARE VERSION	EDR 3-2-7 HF2 ETS 2.2		

PASON DATAHUB

CODE NO.	1 RIGUP & TEARDOWN	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 WIRELINE LOGS	12 RUN CSG & CEMENT	13 WAIT ON CEMENT	14 NIPPLE UP B.O.P.	15 TEST B.O.P.	16 DRILLSTEM TEST	17 PLUG BACK	18 SQUEEZE CEMENT	19 FISHING	20 DR. WORK	21 SAFETY MEETING	22	23	24	25	26
MORN																										
DAY	7.75																				0.25					
EVE	4.0																									
TOTAL	11.75																				0.25					

TOTALS			
	8.00	215	TOP
	4.00	215	MIDDLE
	12.00	215	BOTTOM

SAMPLE CHAMBER(S) — NO. 1 COBRA; SCREENS CHANGED ☐; NEW ☐ USED ☐; TOP / MIDDLE / BOTTOM

RENTALS / SERVICES — TYPE: BOILER #1 A-0039914; BOILER #2 0105437

	MORN	DAY	EVE

DRILLING CREW PAYROLL DATA

WELL NAME & NO.	YEAR	MONTH	DAY
PC BLACKWATER KWJIKA M-59	2008	3	13
OPERATOR: PETRO-CANADA OIL & GAS	CONTRACTOR NAME: AKITA DRILLING LTD.		
RIG MANAGER: BRUCE PRESTON	RIG NO.: 51		
PROVINCE: N.W.T.	CAMP: X YES ☐ NO	RIG SAFETY DAYS: 226	

MORNING TOUR

DRILLERS ASSEMBLY (AT END OF TOUR) — NO. | BIT | O.D. | LENGTH

	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | 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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN		HRS RUN	
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED: @ ; @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRUCE PRESTON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 33

DRIVERS

MORNING TOUR — FROM: 0 TO: 800 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER						
DERRICK HAND						
MOTOR HAND						
FLOOR HAND						
FLOOR HAND						
LEASE HAND						

DAY TOUR

DRILLERS ASSEMBLY (AT END OF TOUR) — NO. | BIT | O.D. | LENGTH

	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | 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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN		HRS RUN	
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED: @ ; @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: FRANCIS LANDRY T3

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	21	SAFETY MEETING WITH MULLEN
815	1600	7.75	1	LOAD OUT RIG

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 33

DRIVERS

DAY TOUR — FROM: 800 TO: 1600 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER		FRANCIS LANDRY T3	12.00			FL
DERRICK HAND		GARY LYSTER T2	12.00			GL
WSC		PAUL REYNOLDS T1	12.00			PR

EVENING TOUR

DRILLERS ASSEMBLY (AT END OF TOUR) — NO. | BIT | O.D. | LENGTH

	D.P.	STANDS	
	D.P.	SINGLES	
	KELLY DOWN		
	TOTAL		
	WT. OF D.C.		
	WT. OF STRING		

BIT RECORD

BIT NO.	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO.	
JETS	
DEPTH OUT (m)	
DEPTH IN (m)	
TOTAL DRILLED (m)	
TOTAL HRS RUN	

CUTTING STRUCTURE: TI | To | MDC | LOC | BRG | GAGE | 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 VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL — CENTRIFUGE

HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
HOURS RUN	INTAKE DENSITY (kg/m3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

BOILERS

1		2	
HRS RUN		HRS RUN	
BOILER pH		BOILER pH	
STACK TEMP		STACK TEMP	

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

CIRCULATION PRESSURE kPa

PUMP NO. 1 LINER SIZE	PUMP NO. 1 SPM	PUMP NO. 2 LINER SIZE	PUMP NO. 2 SPM
152		152	

REDUCED PUMP SPEED: @ ; @

DEVIATION SURVEYS

DEPTH (m)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRUCE PRESTON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	2000	4.00	1	LOAD OUT RIG

NOTES :

SPECIAL EVENT			SAFETY TOPIC	MEHL	MACP
TIME / DEPTH					

RATE SCHEDULE: REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 33

DRIVERS

EVENING TOUR — FROM: 1600 TO: 2400 — INJURIES

CREW	SOC INS. NO.	NAME	HRS		YES	NO
DRILLER						
DERRICK HAND						
MOTOR HAND						
FLOOR HAND						
LEASE HAND						
FLOOR HAND						