LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122:55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R M
(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)	GM	
(2) CAODC Rig Safet Inspection Checklist (one/rig/month)	GM	
(3) Mast Inspection before Raising or Lowering		
(4) Crown Saver Checked		
(5) Motor Kills Checked		

YEAR 2003 MONTH 3 DAY 19

RIG NO 4

FUEL @ 0000 HRS

RIG | BOILER

WEATHER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

CODE HO	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 DRILG 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	8 00																									
DAY																						8 00				
EVE.	6 00																					2 00				
TOTAL	14 00																					10 00				

TOTALS	SHALE SHAKER (S) NO	TYPE	PSI	RENTALS / SERVICES	MORN	DAY	EVE
8 00	SCREENS CHANGED	YES	NO	CENTRIFUGE			
8 00	200 TOP	200 TOP					
8 00	200 MIDDLE	200 MIDDLE					
24 00	200 BOTTOM	200 BOTTOM					

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	19

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	154

NO | DRILLING ASSEMBLY (AT END OF TOUR) | **LENGTH**

BIT | O D

DP | STANDS

DP | 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
DEPTH IN
TOTAL M DRILLED
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	800	8 00	1	FINSH TEARING OUT RIG

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		JOHN WIPF	8 00		JW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP
LEASE HAND		COLE HEPBURN	8 00		CH

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

CREW SAFETY DAYS

43

NO | DRILLING ASSEMBLY (AT END OF TOUR) | **LENGTH**

BIT | O D

DP | STANDS

DP | 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
DEPTH IN
TOTAL M DRILLED
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 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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1600	8 00	22	MOVE RIG FROM ANADARKO ARROWHEAD C-55 TO ANADARKO K-35
				TEAR OUT ALL BUILDINGS / DERRICK / SUBSTRUCTURE / MATTING
				DAMAGED 4 MATS - 1 TAKING DRAWORKS OFF / 3 TAKING SUB OFF
				FLIPPED ON NEW LOCATION WELDED BROKEN BANDS ON 3 OF 4 MATS
				SPOTTED MATTING / SUB / DERRICK / BUILDINGS / RENTAL EQUIP
				ALL OF THE ABOVE SPOTTED BY 18 00 HOURS
				APPROXIMATELY 2 HOURS WELDING MATTING
				GOOD JOB DONE BY M P O TRUCKING

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	12 00		DT
DERRICK HAND		DON PIERROT	12 00		DP
MOTOR HAND		JAMES HOLBEN	12 00		JH
FLOOR HAND		CONRAD FRASER	12 00		CF
FLOOR HAND		GORDON JOE	12 00		GJ
LEASE HAND		RON DEJARLY	12 00		RD

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

CREW SAFETY DAYS

43

NO | DRILLING ASSEMBLY (AT END OF TOUR) | **LENGTH**

BIT | O D

DP | STANDS

DP | 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
DEPTH IN
TOTAL M DRILLED
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1800	2 00	22	MOVE RIG
1800	2400	6 00	1	RIG UP ALL ELECTRICAL / AIR / STEAM / WATER / MUD TANKS
				RIG TO RAISE DERRICK
				BOILER ON LINE @ 22 00 HOURS

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
2 00	10 0	350			

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	4 00		JN
DERRICK HAND		JOHN WIPF	4 00		JW
MOTOR HAND		MARK WARKENTON	4 00		MW
FLOOR HAND		DAVE PATTERSON	4 00		DP
LEASE HAND		COLE HEPBURN	4 00		CH

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

CREW SAFETY DAYS

43

LICENCE NO	WELL NAME & NO		
	ANADARKO ET AL ARROWHEAD RIVER-C55		
OPERATOR		CONTRACTOR	
ANADARKO CANADA ENERGY		SHEHTAH-WILSON PARTNERSHIP	
SURFACE LOCATION		UNIQUE ID	
60 34 04 92 N 122 55 22 35 W		300C55040122450	
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S RIG MANAGER	
DENNIS CROSWELL		GEORGE McDONALD	

DAILY CHECKS

	OPR	R M
(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 2003 | MONTH 3 | DAY 18

RIG NO 4

FUEL @ 08:00 HRS

RIG 129 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

JAM Limited

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 00						0 25					1 00			0 50						0 25					
DAY	1 50						0 25							6 25												
EVE.	8 00																									
TOTAL	15 50						0 50					1 00		6 25	0 50						0 25					

TOTALS	SHALE SHAKER (S)		RENTALS / SERVICES	MORN	DAY	EVE
	NO	TYPE	TYPE			
	2	F S I				
8 00	SCREENS CHANGED	YES / NO	CENTRIFUGE			
8 00	200 TOP	200 TOP				
8 00	200 MIDDLE	200 MIDDLE				
24 00	200 BOTTOM	200 BOTTOM				

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
	BIT		

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04.92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R M
(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 2003 | MONTH 3 | DAY 17

RIG NO 4

FUEL @ 08:00 HRS — RIG 159 | BOILER

TEMPERATURE — CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

JOINTS - HRS

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

JOINTS - HRS

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 DRILG 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	TOTALS
MORN						7 50	0 25														0 25						8 00
DAY						1 50	0 25					5 75									0 50						8 00
EVE.							0 25					7 75															8 00
TOTAL						9 00	0 75					13 50									0 75						24 00

SHALE SHAKER (S)

NO	TYPE	SCREENS CHANGED	TOP	MIDDLE	BOTTOM
2	F S I	YES / NO	200	200	200
			TOP	MIDDLE	BOTTOM

RENTALS / SERVICES

	MORN	DAY	EVE
CENTRIFUGE			

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	17

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES / NO	152

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

MORNING TOUR

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	156 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	FDS
SERIAL NO	LS1517
JETS	O O / O
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		140 0	

REDUCED PUMP SPEED

@	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

BRAD BRAITHWAITE

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/N PIPE RAMS 3 sec CLOSE
15	30	0 25	21	SAFETY MTG WITH LAY DOWN TRUCK
30	600	5 50	6	LAY DOWN DRILL PIPE
600	730	1 50	6	RIH, BREAK KELLY
730	800	0 50	6	LAY DOWN DRILL PIPE
800				

NOTES CHECKED BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	355	74	SLIPS	19348

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	INJURIES NO
DRILLER		BRAD BRAITHWAITE	8 00		BB
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		CHAD SPIES	8 00		CS

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

CREW SAFETY DAYS

41

DAY TOUR

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	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		140 0	

REDUCED PUMP SPEED

@	0	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

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	7	RIG SERVICE F/T BLIND RAMS CLOSE 3 SEC
815	830	0 25	21	SAFETY WITH SVISDAHL & CREW
830	1000	1 50	6	L/D DRILL PIPE& 6 DC S & PULL WEAR BUSHING
1000	1015	0 25	21	SAFTEY MEETING WITH TONG HAND & CREW
1015	1600	5 75	12	RIG TO & RUN CASING
1600				

NOTES CHECK BRAKE LINKAGES & MANINFOLD ALINMENT

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	18	L/D MACHINE	

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	INJURIES NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		JOHN WIPF	8 00		JW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP
FLOOR HAND		COLE HEPBURN	8 00		CH

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

CREW SAFETY DAYS

41

EVENING TOUR

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	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		140 0	

REDUCED PUMP SPEED

@		@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DENNIS TESSIER

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE
1615	2130	5 25	12	RUN TUBING
2130	2400	2 50	12	LATCH ON PACKER,MAKE UP PUPS & DOGNUT & LAND

NOTES CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	46	RUNNING TUBING	

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	INJURIES NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND		JAMES HOLBEN	8 00		JH
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ
LEASE HAND		RON DEJARLY	8 00		RD

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

CREW SAFETY DAYS

41

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 16

RIG NO 4

FUEL @ 08:00 HRS

RIG 193 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

SHIFT – TIME

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 FEEL PLUG	23 LAYDOWN	24	25	26	TOTALS
MORN						4 00	0 25				3 25											0 50					8 00
DAY						0 25	0 25				7 00				0 50												8 00
EVE					3 00	3 25	0 25		1 00														0 50				8 00
TOTAL					3 00	7 50	0 75		1 00		10 25				0 50							0 50	0 50				24 00

SHALE SHAKER (S) | RENTALS / SERVICES | MORN | DAY | EVE

NO	TYPE	TYPE
2	F S I	

SCREENS CHANGED [ ] YES [ ] NO

CENTRIFUGE

	TOP	TOP
	200	200
	MIDDLE	MIDDLE
	200	200
	BOTTOM	BOTTOM
	200	200

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	16

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	[X] YES [ ] NO	151

BHA

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
	BIT		0 23
1	BIT SUB	24	0 92
3	D C	121	28 10
1	JAR	23	4 83
3	D C	122	28 28
93	D P	STANDS	2646 56
	D P	SINGLES	12 74
	KELLY DOWN		2721 68
	TOTAL		
	WT OF D C	5	
	WT OF STRING	80	

BIT RECORD

BIT NO	
SIZE	156 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	FDS
SERIAL NO	LS1517
JETS	O O / O
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		140 0	

REDUCED PUMP SPEED

@	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

BRAD BRAITHWAITE

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/N ANNULAR
15	45	0 50	22	FEEL PLUG BREAK CIRCULATION PUMP PILL
45	445	4 00	6	POOH FLOW CHECK @ 2860, 2717 1625 456& OM
445	800	3 25	11	RIG UP LUBRICATOR HEAD @ RUN LOG
				TAGGED CEMENT AT 2880M WITH 10 000 daN

NOTES CHECKED BRAKE LINKAGES AND DOG NUT ON DRILL LINE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	355	84	LOGGING	19348

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 40

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		BRAD BRAITHWAITE	8 00		BB
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		CHAD SPIES	8 00		CS

DAY TOUR

BHA

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
	BIT		
88	D P	STANDS	2504 25
2	D P	SINGLES	18 97
	KELLY DOWN		7 11
	TOTAL		2530 33
	WT OF D C	5	
	WT OF STRING	80	

BIT RECORD

BIT NO	
SIZE	156 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	FDS
SERIAL NO	LS1517
JETS	O O / O
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		140 0	

REDUCED PUMP SPEED

@	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

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	7	RIG SERVICE F/T PASON CHOKE
815	1330	5 25	11	WIRE LINE WITH IPS M/U PRODUCTION PACKER
1330	1515	1 75	11	T/O WIRE LINE
1515	1545	0 50	15	PRESSURE TEST 15 000KPA
1545	1600	0 25	6	M/U WASH OVER SHOE & RUN IN HOLE
1600				

NOTES CHECK BRAKE LINKAGES & MANIFOLD ALIGNMENT
SHUT DOWN POWER WHILE PICKING UP PACKER
CHANGE OIL IN GEN #2

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350		PRODUCTION PACKER	19348

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 40

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	12 00		JN
DERRICK HAND		JOHN WIPF	12 00		JW
MOTOR HAND		MARK WARKENTON	12 00		MW
FLOOR HAND		DAVE PATTERSON	12 00		DP
FLOOR HAND		COLE HEPBURN	12 00		CH

EVENING TOUR

BHA

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
	BIT		
1	WASH OVER		2 15
88	D P	STANDS	2504 25
2	D P	SINGLES	18 97
	KELLY DOWN		5 63
	TOTAL		2531 00
	WT OF D C	5	
	WT OF STRING	80	

BIT RECORD

BIT NO	
SIZE	156 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	FDS
SERIAL NO	LS1517
JETS	O O / O
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		140 0	

REDUCED PUMP SPEED

@	0	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

BRAD BRAITHWAITE

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T BLIND RAMS CLOSE 3 SEC
1615	1645	0 50	6	RUN IN HOLE
1645	1745	1 00	9	SLIP & CUT
1745	2030	2 75	6	RUN IN HOLE
2030	2330	3 00	5	CIRCULATE & DISPLACE TO WATER
2330	2400	0 50	23	RIG UP LAY DOWN TRUCK

NOTES MJ= 10199
CUM =184317
CUT=26m

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	355	73	LAY DOWN DRILL PIPE	19348

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 40

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		BRAD BRAITHWAITE	4 00		BB
DERRICK HAND		MELVIN WELSH	4 00		MW
MOTOR HAND		BOB LIVINGSTONE	4 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00		CJ
FLOOR HAND		CHAD SPIES	4 00		CS

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60·34:04 92 N 122 55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 15

RIG NO 4

FUEL @ 0000 HRS

RIG 227 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DRILL STRING	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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	TOTALS
MORN					0 50	6 00	0 25					1 00									0 25						8 00
DAY					2 00	5 75	0 25																				8 00
EVE.					7 00	0 75	0 25																				8 00
TOTAL					9 50	12 50	0 75					1 00									0 25						24 00

SHALE SHAKER (S)

NO	TYPE	TYPE
2	F S I	

SCREENS CHANGED [ ] YES [ ] NO

RENTALS / SERVICES: CENTRIFUGE

	MORN	DAY	EVE
TOP	200	200	
MIDDLE	200	200	
BOTTOM	200	200	

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
22	TUBING		212 81
1	X O	117	0 31
1	X O	120	0 91
97	D P STANDS		2760 39
2	D P SINGLES		18 96
KELLY DOWN			11 00
TOTAL			3004 38
WT OF D C		80	
WT OF STRING			

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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	[X] WATER BASED	[ ] OIL BASED
TIME	200	400	6
DENSITY (KG/M3)	1030	1030	1030
FUNNEL VISCOSITY	46	46	46
FLUID LOSS (cm3)	7 0	7 0	7 0
pH	10 0	10 0	10 0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	10	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
5020				68

REDUCED PUMP SPEED

	@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/N PIPE RAMS 3 sec CLOSE
15	30	0 25	21	SAFETY MTG WITH CEMENTERS
30	130	1 00	12	PUMP CEMENT PLUG
130	245	1 25	6	PULL 15 STANDS SLOW OUT OF PLUG
245	315	0 50	5	CIRCULATE DRILL PIPE CLEAN AND PUMP PILL
315	600	2 75	6	POOH FLOW CHECK @ 2534 1633 520 & 0M
600	730	1 50	6	LAY DOWN 27/8 TUBING
730	800	0 50	6	RIH
800				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	350	85	CEMENTING	19348

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
1	BIT SUB	23	0 23
1	BIT SUB	24	0 92
3	D C	121	28 10
1	JAR	23	4 83
3	D C	122	28.28
98	D P STANDS		2788.84
	D P SINGLES		12 74
KELLY DOWN			
TOTAL			2863.94
WT OF D C		5	
WT OF STRING		80	

BIT RECORD

BIT NO	
SIZE	156 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	FDS
SERIAL NO	LS1517
JETS	O O / O
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
TOTAL HRS RUN	

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	UP 5- DOWN 6
TORQUE AT BOTTOM	200
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	[X] WATER BASED	[ ] OIL BASED
TIME		1500
DENSITY (KG/M3)		1030
FUNNEL VISCOSITY		40
FLUID LOSS (cm3)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
7260	0 0		140 0	75

REDUCED PUMP SPEED

3800	@	53	@	2862

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T BLIND RAMS CLOSE 4 SEC
815	1400	5 75	6	P/U 6 DC JARS & M/U BHA R I H TAG PLUG @2861 m
1400	1600	2 00	5	COND MUD & CIRC
1600				
				WITH B J CEMENTERS RAN A BALANCE CEMENT PLUG FROM 3004M TO
				2890M 2 6M/3 - 3 5 TONNE OF THERMAL 40 BLEND + 3% FL-63
				+ 3% R-3 + 5% CD-31 TAGGED CEMENT AT 13 30 HRS AT 2861M
				DRILLED DOWN TO 2876M CIRC AND WAIT ON CEMENT TO SET UP

NOTES CHECK BRAKE LINKAGES & MANINFOLD ALIGEMENT

STRAP= 2864 12

TALLY= 2863 94

DIFF = 18

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	85	STEAM	19598

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
1	BIT SUB	23	0 23
1	BIT SUB	24	0 92
3	D C	121	28 10
1	JAR	23	4 83
3	D C	122	28.28
93	D P STANDS		2648 56
	D P SINGLES		12 74
KELLY DOWN			
TOTAL			2721 66
WT OF D C		5	
WT OF STRING		80	

BIT RECORD

BIT NO	
SIZE	156 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	FDS
SERIAL NO	LS1517
JETS	O O / O
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
5800	0 0		140 0	70

REDUCED PUMP SPEED

	@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T UPPER PIPE RAMS CLOSE 3 SEC
1615	1630	0 25	6	PULL 5 STDS
1630	2330	7 00	5	COND MUD & CIRC
2330	2400	0 50	6	RIH TO TAG CEMENT PLUG
2400				

NOTES CHECKED BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	350	82	GREENHANDS	19348

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	15

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	[X] YES [ ] NO	150

MORNING TOUR — FROM 0 TO 800 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	8 00			BB
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS

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

CREW SAFETY DAYS: 39

DAY TOUR — FROM 800 TO 1600 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
FLOOR HAND		JOHN WIPF	12.00			JW
LEASE HAND		COLE HEPBURN	12 00			CH

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

CREW SAFETY DAYS: 39

EVENING TOUR — FROM 1600 TO 2400 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	4 00			BB
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS

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

CREW SAFETY DAYS: 39

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60:34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 14

RIG NO 4

FUEL @ 08:00 HRS

RIG 158 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DRILL STRING

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 PAKER	23 W O O	24	25	26
MORN						7 00	0 25															0 75				
DAY						6 25	0 25																1 50			
EVE					2 25	5 50	0 25																			
TOTAL					2 25	18 75	0 75															0 75	1 50			

TOTALS	SHALE SHAKER (S) NO	TYPE	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I					
8 00	SCREENS CHANGED	YES	NO	CENTRIFUGE			
8 00	TOP 200	TOP 200					
8 00	MIDDLE 200	MIDDLE 200					
24 00	BOTTOM 200	BOTTOM 200					

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	14
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD	RIG NO: 4		
PROVINCE: N W T	CAMP: X YES NO	RIG SAFETY DAYS: 149	

MORNING TOUR

FROM 0 TO 800

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
1	53/8 INFLATE TOOL	137	3 98
1	ON/OFF TOOL	140	0 47
1	X O	121	0 33
1	X O	121	0 36
100	D P	STANDS	2845 75
2	D P	SINGLES	18 97
KELLY DOWN			5 28
TOTAL			2875 14
WT OF D C			
WT OF STRING		80	

BIT RECORD

BIT NO / SIZE / IADC CODE / MANUFACTURER / TYPE / SERIAL NO / JETS / DEPTH OUT / DEPTH IN / TOTAL M DRILLED / 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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
0 0		142 0	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/N PIPE RAMS 3 sec CLOSE
15	400	3 75	6	RIH
400	445	0 75	22	INFLATE PACKER, RE-INFLATE PACKER
445	800	3 25	6	POOH FLOW CHECK @ 2875 2732 1437 345, 0M
800				

NOTES: CHECK BRAKE LINKAGE / MANIFOLD ALIGNMENT / DEGASSER & FLARE LINES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	355	87	TOOLS	19348

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	8 00			BB
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 38

DAY TOUR

FROM 800 TO 1600

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
105	D P	STANDS	2988 08
1	D P	SINGLES	9 48
KELLY DOWN			6 93
TOTAL			3004 49
WT OF D C			
WT OF STRING		80	

BIT RECORD

BIT NO / SIZE / IADC CODE / MANUFACTURER / TYPE / SERIAL NO / JETS / DEPTH OUT / DEPTH IN / TOTAL M DRILLED / 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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
0 0		142 0	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T BLIND RAMS CLOSE 3 SEC
815	1030	2 25	6	POOH
1030	1100	0 50	23	W O O
1100	1430	3 50	6	POOH
1430	1530	1 00	23	W O O
1530	1600	0 50	6	P/U TUBING
1600				

NOTES: CHECK BRAKE LINKAGES & MANINFOLD ALIGEMENT

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	55	GREEN HANDS	19348

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
FLOOR HAND		JOHN WIPF	12 00			JW
LEASE HAND		COLE HEPBURN	12 00			CH

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 38

EVENING TOUR

FROM 1600 TO 2400

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
22	TUBING		212 81
1	X O	117	0 31
1	X O	120	0 91
97	D P	STANDS	2760 39
2	D P	SINGLES	18 96
KELLY DOWN			11 00
TOTAL			3004 38
WT OF D C			
WT OF STRING		80	

BIT RECORD

BIT NO / SIZE / IADC CODE / MANUFACTURER / TYPE / SERIAL NO / JETS / DEPTH OUT / DEPTH IN / TOTAL M DRILLED / 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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/N HCR 3sec CLOSE
1615	2145	5 50	6	FINISH PICKING UP TUBING & R I H STRAP IN HOLE
2145	2400	2 25	5	COND MUD & CIRC

NOTES: FUNCTION REMOTE CHOKE AND CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	355	80	TONGS	19348

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	4 00			BB
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 38

LICENCE NO

WELL NAME & NO: **ANADARKO ET AL ARROWHEAD RIVER-C55**

OPERATOR: **ANADARKO CANADA ENERGY**

CONTRACTOR: **SHEHTAH-WILSON PARTNERSHIP**

SURFACE LOCATION: **60 34 04 92 N 122 55 22 35 W**

UNIQUE ID: **300C55040122450**

SIGNATURE OF OPERATOR'S REPRESENTATIVE: **DENNIS CROSWELL**

SIGNATURE OF CONTRACTOR S RIG MANAGER: **GEORGE McDONALD**

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 13

RIG NO 4

FUEL @ 0400 HRS

RIG 196 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

SHIFT - TIME

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 PACKER	23	24	25	26
MORN						7 25	0 25															0 50				
DAY					1 75	5 00	0 25		1 00													8 00				
EVE.						5 50	0 25															2 25				
TOTAL					1 75	17 75	0 75		1 00													2 75				

TOTALS	SHALE SHAKER (S) NO 1 2	TYPE F S I	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	SCREENS CHANGED	YES	NO	CENTRIFUGE			
8 00	200	TOP 200	TOP				
8 00	200	MIDDLE 200	MIDDLE				
24 00	200	BOTTOM 200	BOTTOM				

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT		0 16
1	BIT SUB	124	0 91
3	D C	121	28 10
100	D P STANDS		2845 75
2	D P SINGLES		18 97
	KELLY DOWN		5 14
	TOTAL		2899 03
	WT OF D C		
	WT OF STRING		

BIT RECORD

BIT NO	3
SIZE	156 0
IADC CODE	
MANUFACTURER	
TYPE	CF687
SERIAL NO	C15LRG
JETS	17 5 17 5 17 5
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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: [X] WATER BASED [ ] OIL BASED

TIME			600
DENSITY (KG/M3)			1045
FUNNEL VISCOSITY			47
FLUID LOSS (cm3)			7 0
pH			10 0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE
15	615	6 00	6	POOH
615	645	0 50	22	LAY DOWN PACKER
645	730	0 75	6	PICK UP 3 DC S
730	800	0 50	6	RIH
800				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	365	83	ICY CONDTIONS	19348

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT		0 16
1	BIT SUB	124	0 91
3	D C	121	28 10
1	JAR		4 83
103	D P STANDS		2831 16
	D P SINGLES		
	KELLY DOWN		12 74
	TOTAL		2877 90
	WT OF D C		
	WT OF STRING		80

BIT RECORD

BIT NO	3
SIZE	156 0
IADC CODE	
MANUFACTURER	
TYPE	CF687
SERIAL NO	C15LRG
JETS	17 5 17 5 17 5
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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	1600		
DENSITY (KG/M3)	1020		
FUNNEL VISCOSITY	49		
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	18	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
7000	152 0	140 0	70

REDUCED PUMP SPEED

4500	@	53	@	2977

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T BLIND RAMS CLOSE 3 SEC
815	1000	1 75	6	M/U BHA RIH
1000	1100	1 00	9	CUT OFF DRLL LINE
1100	1415	3 25	6	RIH FILL PIPE @ 1114m
1415	1600	1 75	5	COND MUD & CIRC

NOTES: CHECK BRAKE LINKAGES
MJ=8625 14 WRAPS
CUM= 174117
CUT=22 METERS

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	83	SLIP & CUT	19348

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	53/8 INFLATE TOOL	137	3 98
1	ON/OFF TOOL	140	0 47
1	X O	121	0 33
1	X O	121	0 36
100	D P STANDS		2845 75
2	D P SINGLES		18 97
	KELLY DOWN		5 28
	TOTAL		2875 14
	WT OF D C		
	WT OF STRING		80

BIT RECORD

BIT NO	3
SIZE	156 0
IADC CODE	
MANUFACTURER	
TYPE	CF687
SERIAL NO	C15LRG
JETS	17 5 17 5 17 5
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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: [X] WATER BASED [ ] OIL BASED

TIME	2300		
DENSITY (KG/M3)	1020		
FUNNEL VISCOSITY	48		
FLUID LOSS (cm3)	7 0		
pH	10 0		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
0 0		142 0	

REDUCED PUMP SPEED

@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 9 SEC
1615	2000	3 75	6	POOH FC @ 2965,2814,1821
2000	2215	2 25	22	WAIT ON PACKER, MAKE UP BHA
2215	2400	1 75	6	RIH

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	355			19348

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

CAODC

DRILLING CREW PAYROLL DATA

WELL NAME & NO: ANADARKO ET AL ARROWHEAD RIVER-C55 — YEAR 2003 — MONTH 3 — DAY 13

OPERATOR: ANADARKO CANADA ENERGY — CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER: GEORGE McDONALD — RIG NO 4

PROVINCE: N W T — CAMP [X] YES [ ] NO — RIG SAFETY DAYS 148

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	8 00			BB
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS

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

CREW SAFETY DAYS: 37

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
FLOOR HAND		JOHN WIPF	12 00			JW
LEASE HAND		COLE HEPBURN	12 00			CH

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

CREW SAFETY DAYS: 37

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	4 00			BB
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS

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

CREW SAFETY DAYS: 37

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60:34.04 92 N 122.55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 12

RIG NO 4

FUEL @ 00 00 HRS

RIG 231 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DRILL STRING	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 PACKER	23	24	25	26
MORN					5 75	1 75	0 25														0 25					
DAY						6 75	0 25														0 25	0 75				
EVE.						6 00	0 25															1 75				
TOTAL					5 75	14 50	0 75														0 50	2 50				

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS SERVICES	MORN	DAY	EVE
8 00	2	F S I				
8 00	SCREENS CHANGED [ ] YES [ ] NO	TYPE	CENTRIFUGE			
8 00	200 TOP	200 TOP				
8 00	200 MIDDLE	200 MIDDLE				
24 00	200 BOTTOM	200 BOTTOM				

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
105	D P	STANDS	2988 08
1	D P	SINGLES	9 49
KELLY DOWN			6 89
TOTAL			3004 46
WT OF D C			
WT OF STRING		80	

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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	[X] WATER BASED	[ ] OIL BASED	
TIME	200	400	600
DENSITY (KG/M3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	152 0		140 0	

REDUCED PUMP SPEED

PUMP NO 1 @		PUMP NO 2 @	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE
15	600	5 75	5	COND MUD & CIRC & W O O
600	615	0 25	21	B O P DRILL & SAFETY MEETING
615	800	1 75	6	PUMP PILL & POOH

NOTES: CHECK BRAKE LINKAGE / MANIFOLD ALIGNMENT / DEGASSER & FLARE LINES

HELD B O P DRILL / WELL SECURE 85 sec

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
89 00	11 0	345	85		19348

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
1	5 3/8 INFLATE	137	3 98
1	ON/OFF TOOL	140	0 47
1	X O	121	0 33
1	X O	121	0 38
	D P	STANDS	
1	D P	SINGLES	9 55
KELLY DOWN			
TOTAL			14 69
WT OF D C			
WT OF STRING			

DAY TOUR

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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	200	400	600
DENSITY (KG/M3)	1050	1050	1050
FUNNEL VISCOSITY	49	48	48
FLUID LOSS (cm3)	7 0	7 0	7 0
pH	10 0	10 0	10 0

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	10	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1050	1045	1920
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1050	1045	1920

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	152 0		140 0	

REDUCED PUMP SPEED

PUMP NO 1 @		PUMP NO 2 @	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	830	0 25	21	B O P DRILL & SAFETY MEETING
830	1130	3 00	6	POOH FC @ 2992m 2852m 1571m 573m ON BANK
1130	1215	0 75	22	M/U INFLATALBE PACKER
1215	1600	3 75	6	RIH FILL PIPE STRAP IN HOLE
1600				

NOTES: CHECK BRAKE LINKAGE / MANIFOLD ALIGNMENT / DEGASSER & FLARE LINES

HELD B O P DRILL / WELL SECURE 80sec

N E B INSPECTION @ 15 00hrs ALL IS WELL

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	360	87	BOP DRILL	19348

NO	DRILLING ASSEMBLY (AT END OF TOUR) BIT	O D	LENGTH
1	5 3/8 INFLATE	137	3 98
1	ON/OFF TOOL	140	0 47
1	X O	121	0 33
1	X O	121	0 36
100	D P	STANDS	2845 75
2	D P	SINGLES	18 97
KELLY DOWN			5 14
TOTAL			2875 00
WT OF D C			
WT OF STRING			

EVENING TOUR

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa

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

REDUCED PUMP SPEED

PUMP NO 1 @		PUMP NO 2 @	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE
1615	2145	5 50	6	RIH
2145	2330	1 75	22	INFLATE PACKER RELEASE, RE-INFLATE RELEASE PACKER WILL NOT SET
2330	2400	0 50	6	POOH WET PIPE

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	360	84	TRIPPING	19348

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	12

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	[X] YES [ ] NO	147

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	8 00			BB
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 36

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
FLOOR HAND		JOHN WIPF	12 00			JW
LEASE HAND		COLE HEPBURN	12 00			CH

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 36

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	4 00			BB
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 36

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60:34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 11

RIG NO 4

FUEL @ 08 00 HRS

RIG 208 BOILER

SAFETY MEETING

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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	TOTALS
MORN						5 75	0 25				2 00																8 00
DAY					5 00	2 75	0 25																				8 00
EVE.					7 75		0 25																				8 00
TOTAL					12 75	8 50	0 75				2 00																24 00

SHALE SHAKER S I

NO	TYPE	TYPE
2	F S I	
SCREENS CHANGED	YES	NO
TOP	200	200
MIDDLE	200	200
BOTTOM	200	200

RENTALS / SERVICES

	MORN	DAY	EVE
CENTRIFUGE			

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O D
93	D P STANDS	2646 56
1	D P SINGLES	9 49
	KELLY DOWN	9 41
	TOTAL	2665 46
	WT OF D C	
	WT OF STRING 72	

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DRILLER SIGNATURE

BRAD BRAITHWAITE

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 0		140 0	

REDUCED PUMP SPEED

	@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	200	2 00	11	WIRE LINE LOGS
200	300	1 00	6	RIHWITH BHA
300	515	2 25	6	LAY DOWN BHA
515	530	0 25	7	RIG SERVICE F/N BLIND RAMS 3sec CLOSE
530	800	2 50	6	RIH OPEN ENDED
800				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	57	LAY DOWN BHA	19348

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O D
105	D P STANDS	2988 08
1	D P SINGLES	9 49
	KELLY DOWN	6 89
	TOTAL	3004 46
	WT OF D C	
	WT OF STRING 80	

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
TOTAL HRS RUN	

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	UP 5- DOWN 7
TORQUE AT BOTTOM	200
FILL ON BOTTOM (M)	

MUD RECORD — MUD TYPE ☒ WATER BASED ☐ OIL BASED

TIME	1200	1600
DENSITY (KG/M3)	54	50
FUNNEL VISCOSITY	1055	1050
FLUID LOSS (cm3)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
ECONOCIDE B1007	2	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DRILLER SIGNATURE

JIM NEILSON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
3004 00				

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6850	152 0		140 0	70

REDUCED PUMP SPEED

	@		@	
4450		53		3002

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 9 SEC
815	1100	2 75	6	R I H PICK UP 36 D P
1100	1600	5 00	5	COND MUD & CIRC & W O O
1600				

NOTES CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	12 0	350	86	P/U DRILL PIPE	19348

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	LENGTH
	BIT	O D
105	D P STANDS	2988 08
1	D P SINGLES	9 49
	KELLY DOWN	6 89
	TOTAL	3004 46
	WT OF D C	
	WT OF STRING 80	

BIT RECORD

BIT NO	
SIZE	
IADC CODE	
MANUFACTURER	
TYPE	
SERIAL NO	
JETS	
DEPTH OUT	
DEPTH IN	
TOTAL M DRILLED	
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	2100	2200	2300
DENSITY (KG/M3)	1050	1050	1050
FUNNEL VISCOSITY	50	50	50
FLUID LOSS (cm3)	7 0	7 0	7 0
pH	10 5	10 5	10 5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
4 00	1050	1045	1925
4 00	1050	1045	1920

DRILLER SIGNATURE

BRAD BRAITHWAITE

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 0		140 0	

REDUCED PUMP SPEED

	@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T PASON CHOKE
1615	2400	7 75	5	COND MUD & CIRC & W O O

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	345	86	HOUSEKEEPING	19348

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	11
OPERATOR	**CONTRACTOR**		
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER	**RIG NO**		
GEORGE McDONALD	4		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N W T	X YES ☐ NO	146	

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	NO	INJURIES
DRILLER		BRAD BRAITHWAITE	8 00			BB
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS 35

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	NO	INJURIES
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
FLOOR HAND		JOHN WIPF	12 00			JW
LEASE HAND		COLE HEPBURN	12 00			CH

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS 35

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	NO	INJURIES
DRILLER		BRAD BRAITHWAITE	4 00			BB
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS 35

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 34 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 10

RIG NO 4

FUEL @ 00 00 HRS

RIG 243 BOILER

WEATHER AND ROAD CONDITIONS: TEMPERATURE; CURRENT CONDITIONS; WIND DIRECTION; ROAD CONDITION

LAST CASING OR TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRLG 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 LOGGERS	23	24	25	26
MORN		3 25			1 00	2 25	0 25		1 00	0 25															
DAY						4 00	0 25				0 25									0 75		2 75				
EVE							0 25				7 75														
TOTAL		3 25			1 00	6 25	0 75		1 00	0 25	8 00									0 75		2 75				

TOTALS	SHALE SHAKER (S) NO	TYPE	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I					
8 00	SCREENS CHANGED		YES NO	CENTRIFUGE			
8 00	200 TOP	200 TOP					
24 00	200 MIDDLE	200 MIDDLE					
	200 BOTTOM	200 BOTTOM					

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 13	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 38
1	MONEL	120	9 44
1	P B L. SUB	121	2.29
6	D C	121	56 38
1	JAR	0	4 83
9	D C	121	84 88
18	H W D P	125	163.23
93	D P STANDS		2648 56
1	D P SINGLES		9 49
KELLY DOWN			9 41
TOTAL			3004.48
WT OF D C	10		
WT OF STRING	72		

BIT RECORD

BIT NO	2
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRGSP
SERIAL NO	CF900
JETS	O O / O
DEPTH OUT	3004 00
DEPTH IN	2901 00
TOTAL M DRILLED	103 00
TOTAL HRS RUN	16 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED
TIME	130	400
DENSITY (KG/M3)	1055	1055
FUNNEL VISCOSITY	51	51
FLUID LOSS (cm3)	6 5	6 5
pH	11 0	11 0
PVT	53 60	53 10

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARACARB 5	1	SX
BARACARB 50	1	SX
BARITE	20	SX
FILTER CHEK	1	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2991 20	3004 46	D	30	9

CIRCULATION PRESSURE kPa: 11200

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		140 0	75

REDUCED PUMP SPEED: 4700 @ 38 @ 3003

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2983 30	7 00	224 7
2989 50	7 00	228 8

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
15	330	3 25	2	DRILL 156mm HOLE F/2991 20-T/3004 46
330	345	0 25	10	DEV SURVEY ACCUM
345	445	1 00	5	CIRCULATE BOTTOMS UP
445	630	1 75	6	PUMP PILL,FLOW CHECK & POOH TO CASING SHOE
630	730	1 00	9	CUT OFF DRLL LINE
730	800	0 50	6	POOH
800				

NOTES: FT CROWN SAVER; FT REMOTE CHOKE; SLIP & CUT-32m W MJ-2242; ACCUM MJ-167309

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	88	WELL CONTROL	19099

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 13	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0.50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L. SUB	121	2.29
6	D C	121	56 38
1	JAR	0	4 83
9	D C	121	84 88
18	H W D P	125	163.23
93	D P STANDS		2646.56
1	D P SINGLES		9 49
KELLY DOWN			9 41
TOTAL			3004 48
WT OF D C	10		
WT OF STRING	72		

BIT RECORD

BIT NO	2
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRGSP
SERIAL NO	CF900
JETS	O O / O
DEPTH OUT	3004 00
DEPTH IN	2901 00
TOTAL M DRILLED	103 00
TOTAL HRS RUN	16 00

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	0 00	
DENSITY (KG/M3)		
FUNNEL VISCOSITY		
FLUID LOSS (cm3)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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 0		140 0	

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1200	4 00	6	POOH
1200	1245	0 75	20	LAY DOWN DIRECTIONAL TOOLS
1245	1530	2 75	22	WAIT ON LOGGERS
1530	1545	0 25	7	RIG SERVICE F/N HCR
1545	1600	0 25	11	WIRE LINE LOGS

NOTES: MONTIOR WELL WHILE OUT OF HOLE; MEAS 11 09 CALC 10 87 DIFF 0.22M3

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	345	68	TRIPPING	19348

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 13	
6	D C	121	56 38
1	JAR	0	4 83
9	D C	121	84 88
18	H W D P	125	163.23
93	D P STANDS		2646 56
1	D P SINGLES		9 49
KELLY DOWN			9 41
TOTAL			2974 91
WT OF D C	10		
WT OF STRING	72		

BIT RECORD

BIT NO	2
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRGSP
SERIAL NO	CF900
JETS	O O / O
DEPTH OUT	3004 00
DEPTH IN	2901 00
TOTAL M DRILLED	103 00
TOTAL HRS RUN	16 00

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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
3004 00				

CIRCULATION PRESSURE kPa:

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		140 0	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T UPPER PIPE RAMS CLOSE 3 SEC
1615	2400	7 75	11	RIG TO & LOG 156m m HOLE

NOTES:

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350		LOGGING	19348

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	10

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	145

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		JAMES HOLBEN	8 00			JH
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ

RATE SCHEDULE: X REGULAR ___ REPAIR ___ INVERT

CREW SAFETY DAYS: 34

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	8 00			BB
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS

RATE SCHEDULE: X REGULAR ___ REPAIR ___ INVERT

CREW SAFETY DAYS: 34

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		ROD WOLD	8 00			RW
MOTOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP
FLOOR HAND		JOHN WIPF	8 00			JW
LEASE HAND		COLE HEPBURN	8 00			CH

RATE SCHEDULE: X REGULAR ___ REPAIR ___ INVERT

CREW SAFETY DAYS: 34

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122.55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 9

RIG NO 4

FUEL @ 06.00 HRS — RIG 217 | BOILER

TEMPERATURE

CURRENT CONDITIONS CLEAR

WIND DIRECTION CALM

ROAD CONDITION ICE

LAST CASING TUBING OR LINER

	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DRILL STRING

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

WAIT - RIG

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 DRILG 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						5 75			1 00											1 25						
DAY		6 00	0 25			1 50				0 25																
EVE.		6 75					0 25			1 00																
TOTAL		12 75	0 25			7 25	0 25		1 00	1 25										1 25						

SHALE SHAKER (S)

NO	TYPE	TYPE
2	FSI	
SCREENS CHANGED	YES	NO
TOP	200	200
MIDDLE	200	200
BOTTOM	200	200

RENTALS / SERVICES

	MORN	DAY	EVE
CENTRIFUGE	8 00	8 00	8 00

TOTALS	MORN	DAY	EVE
	8 00	8 00	8 00

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 00	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L SUB	121	2.29
6	D C	121	56 38
1	JAR	0	4 83
9	D C	121	84 88
18	H W D P	125	163.23
89	D P STANDS		2532 70
2	D P SINGLES		18 99
	KELLY DOWN		10 94
	TOTAL		2901.50
	WT OF D C	10	
	WT OF STRING	72	

BIT RECORD

BIT NO	2
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRGSP
SERIAL NO	CF900
JETS	O O / O
DEPTH OUT	
DEPTH IN	2901 00
TOTAL M DRILLED	
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 | [X] WATER BASED | [ ] OIL BASED

TIME	
DENSITY (KG/M3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2901 50				

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	152 0		140 0	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	230	2 50	6	POOH
230	345	1 25	20	DIR. WORK
345	445	1 00	6	RIH W/BHA
445	545	1 00	9	CUT OFF DRILL LINE
545	800	2 25	6	RIH W/BIT #2
800				
				SLIP & CUT 9 6m (5034 MJ)
				ACCUM MJ-165067

NOTES FLOW CHECKS @ 2890,2727 1584 323 & 0

CALC 10.27m3 MEAS -10 17m3 DIFF 10m3

FLOW CHECKS @ 0 1620

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	50	TRIPPING	19598

DAY TOUR

MUD RECORD

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

				FROM	TO	D-R-C	RPM	WOB
TIME	1000	1300	1900	2901 50	2939 00	D	30	10
DENSITY (KG/M3)	1035	1035	1035					
FUNNEL VISCOSITY	56	56	55					
FLUID LOSS (cm3)	7 5	7 5	7 5					
pH	10 5	10 5	10 5					

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARACARB 5	5	SX
BARACARB 50	5	SX
FILTER CHEK	1	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
10700	152 0		140 0	72

REDUCED PUMP SPEED

5650 @ 43 @ 2939

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2888 40	7 00	216 8
2897 90	6 90	219 0
2907 40	6 80	221 5
2916 90	7 10	219 5

DRILLER SIGNATURE

BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	930	1 50	6	RIH
930	945	0 25	3	WASH TO BOTTOM
945	1545	6 00	2	DRILL 156mm HOLE F/ 2901 - 2939M
1545	1600	0 25	10	ACC SURVEYS
1600				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	94	TONGS	19848

EVENING TOUR

MUD RECORD

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

				FROM	TO	D-R-C	RPM	WOB
TIME	2000	2200	2400	2939 00	2991 00	D	30	10
DENSITY (KG/M3)	1050	1050	1050					
FUNNEL VISCOSITY	50	50	50					
FLUID LOSS (cm3)	7 5	7 5	7 5					
pH	10 5	11 0	11 0					
P V T	53 60	54 10	54 30					

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
11070	152 0		140 0	75

REDUCED PUMP SPEED

4780 @ 39 @ 2977

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2926 40	7 00	221 3
2935 90	6 40	221 6
2945 30	6 50	220 7
2954 80	6 50	220 8
2964 30	6 90	224 3

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
1615	2300	6 75	2	DRILL 156mm HOLE F/ 2939 -2991 20
2300	2400	1 00	10	DEV SURVEY ACCUM
2400				

NOTES CHECK BRAKE PINS & LINKAGE

LEL LEVELS MONITORED

SURVEY 2973 8 INC 7 1 AZM 224 9

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	85	MSDS	19348

PASON *DATAHUB*

Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	9
OPERATOR ANADARKO CANADA ENERGY	**CONTRACTOR** SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER GEORGE McDONALD	**RIG NO** 4		
PROVINCE N W T	**CAMP** [X] YES [ ] NO	**RIG SAFETY DAYS** 144	

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		JAMES HOLBEN	8 00			JH
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ

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

CREW SAFETY DAYS 33

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		BRAD BRAITHWAITE	12 00			BB
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		CHAD SPIES	12 00			CS

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

CREW SAFETY DAYS 33

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		JAMES HOLBEN	4 00			JH
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ

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

CREW SAFETY DAYS 33

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60:34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 8

RIG NO 4

FUEL @ 08:00 HRS

RIG 247 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION SLIPPERY

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DRILL STRING	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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	TOTALS
MORN		6 75					0 25			1 00																	8 00
DAY		7 50					0 25			0 25																	8 00
EVE.		3 50			1 25	2 50	0 25			0 50																	8 00
TOTAL		17 75			1 25	2 50	0 75			1 75																	24 00

SHALE SHAKER (S) | RENTALS / SERVICES | MORN | DAY | EVE

NO 2 | TYPE F S I | TYPE

SCREENS CHANGED [ ] YES [ ] NO | CENTRIFUGE

TOP 200 | TOP 200

MIDDLE 200 | MIDDLE 200

BOTTOM 200 | BOTTOM 200

DRILLING CREW PAYROLL DATA

WELL NAME & NO: ANADARKO ET AL ARROWHEAD RIVER-C55 | YEAR 2003 | MONTH 3 | DAY 8

OPERATOR: ANADARKO CANADA ENERGY | CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER: GEORGE McDONALD | RIG NO 4

PROVINCE: N W T | CAMP [X] YES [ ] NO | RIG SAFETY DAYS 143

MORNING TOUR — FROM 0 TO 800

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 D	0 00
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	121	9 36
1	MONEL	120	9 44
1	P B L. SUB	121	2 29
6	D C	121	56 38
1	JAR	121	4 83
9	D C	0	84 88
18	H W D P	121	163 23
87	D P	STANDS	2475 80
	D P	SINGLES	
KELLY DOWN			5 33
TOTAL			2820 00

WT OF D C 10

WT OF STRING 71

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O O / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	271 00
TOTAL HRS RUN	37 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-5
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	130	400	630
DENSITY (KG/M3)	1020	1025	1030
FUNNEL VISCOSITY	50	53	52
FLUID LOSS (cm3)	7 5	7 5	7 5
pH	10 5	10 5	10 5
PVT	55 60	55 20	56 30

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARABUF	1	SX
N-VIS P +	6	SX
FILTER CHEK	3	SX
BARACARB 5	4	SX
BARACARB 50	4	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2770 00	2820 00	D	30	12

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
10700	152 0		140 0	75

REDUCED PUMP SPEED: 4530 @ 36 @ 2807

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2755 60	11 20	212 7
2765 10	11 20	212 0
2774 60	11 00	211 8
2784 10	10 00	209
2793 60	8 70	206 0

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FT HCR-2 SEC TO OPEN
15	700	6 75	2	DRILL 156mm HOLE F/2770-T/2820
700	800	1 00	10	DEV SURVEY ACCUM

NOTES: FT CROWN SAVER

VISUAL INSPECTION OF FLARE & DEGASSER LINES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	80	LOCK-OUT PROCEDURE	19848

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

CREW SAFETY DAYS: 32

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		JAMES HOLBEN	8 00			JH
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ

DAY TOUR — FROM 800 TO 1600

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 D	0 00
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 38
1	MONEL	120	9 44
1	P B L. SUB	121	2 29
6	D C	121	56 38
1	JAR	0	4 83
9	D C	121	84 88
18	H W D P	125	163 23
89	D P	STANDS	2532 70
	D P	SINGLES	
KELLY DOWN			5 43
TOTAL			2877 00

WT OF D C. 10

WT OF STRING 720

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O O / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	328 00
TOTAL HRS RUN	45 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	10 UP 5 DOWN
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	900		
DENSITY (KG/M3)	1025		
FUNNEL VISCOSITY	51		
FLUID LOSS (cm3)	7 0		
pH	10 5		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2820 00	2877 00	D	30	10

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
11000	152 0		140 0	75

REDUCED PUMP SPEED: 5080 @ 34 @ 2882

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2803 10	8 90	206 8
2812 50	8 60	207 8
2822 00	8 40	207 9
2831 50	8 40	207 5
2841 00	7 80	209 0

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/N PIPE RAMS 3sec CLOSE
815	1545	7 50	2	DRILL 156mm HOLE F/ 2820- 2877M
1545	1600	0 25	10	ACC SURVEYS

NOTES: CHECKED BRAKE LINKAGES

SURVEY 2850 5 INC 7 5 AZ 208 5

2860 0 INC 7 4 AZ 210 5

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	345	89	STEAM	19848

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

CREW SAFETY DAYS: 32

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	12 00			BB
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		CHAD SPIES	12 00			CS

EVENING TOUR — FROM 1600 TO 2400

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 D	0 00
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L. SUB	121	2 29
6	D C	121	56 38
1	JAR	0	4 83
9	D C	121	84 88
18	H W D P	125	163.23
89	D P	STANDS	2532 70
2	D P	SINGLES	18 99
KELLY DOWN			10 94
TOTAL			2901 50

WT OF D C 10

WT OF STRING 72

BIT RECORD

BIT NO	1	2
SIZE	156 0	156 0
IADC CODE		
MANUFACTURER	R B I	R B I
TYPE	C15LRCSP	C15LRGSP
SERIAL NO	CF901	CF900
JETS	O O / 0	O O / O
DEPTH OUT	2901 00	2901 00
DEPTH IN	2549 00	
TOTAL M DRILLED	352 00	
TOTAL HRS RUN	45 00	

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	2000		
DENSITY (KG/M3)	1040		
FUNNEL VISCOSITY	49		
FLUID LOSS (cm3)	7 5		
pH	11 0		
P V T	53 40		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2877 00	2901 50	D	30	10

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
10700	152 0		140 0	75

REDUCED PUMP SPEED: 4150 @ 36 @ 2899

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2869 50	7 50	215 6
2878 90	6 90	213 2

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0.25	7	RIG SERVICE
1615	1945	3 50	2	DRILL 156mm HOLE F/ 2877 -T/2901
1945	2015	0 50	10	DEV SURVEY ACCUM
2015	2130	1 25	5	CIRCULATE BOTTOMS UP
2130	2400	2 50	6	PUMP PILL & POOH

NOTES: CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	80	TRIPPING	19598

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

CREW SAFETY DAYS: 32

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		JAMES HOLBEN	4 00			JH
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 7

RIG NO 4

FUEL @ 00 00 HRS — RIG 162 — BOILER

SHALE SHAKER — TEMPERATURE -30 — CURRENT CONDITIONS COLD — WIND DIRECTION — ROAD CONDITION SLIPPERY

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

HOURS PER TOUR

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 DRILG 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 50					0 25			1 25																
DAY		7 50					0 25			0 25																
EVE.		6 75					0 25			1 00																
TOTAL		20 75					0 75			2 50																

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 — TYPE F S I — TYPE				
8 00	SCREENS CHANGED — YES — NO	CENTRIFUGE			
8 00	200 TOP 200 TOP				
8 00	200 MIDDLE 200 MIDDLE				
24 00	200 BOTTOM 200 BOTTOM				

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 00	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 38
1	MONEL	120	9 44
1	P B L SUB	121	2 29
6	D C	121	56 38
1	JAR	120	4 83
9	D C	121	84 88
18	H W D P	125	163 23
61	D P STANDS		2305 06
1	D P SINGLES		9 49
	KELLY DOWN		12 87
	TOTAL		2668 29
	WT OF D C	10	
	WT OF STRING	70	

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	117 00
TOTAL HRS RUN	16 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

MORNING TOUR — MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED
TIME	130	330	630
DENSITY (KG/M3)	1010	1010	1010
FUNNEL VISCOSITY	38	39	42
FLUID LOSS (cm3)	10 0	9 0	9 0
pH	11 0	11 0	11 0
PVT	56 80	56 90	57 10

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARABUF	5	SX
N-VIS P +	30	SX
FILTER CHEK	15	SX
TRIETHANOLAMINE	1	BBL

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

MORNING TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2614 00	2666 00	D	30	12

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
9100	152 0		140 0	75

REDUCED PUMP SPEED: 4150 @ 42 @ 2665

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1603 90	16 20	214 0
1613 40	16 10	215 3
1622 80	15 90	215 0
1632 30	15 70	215 1
1641 80	15 60	215 0

DRILLER SIGNATURE: DENNIS TESSIER

MORNING TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
15	645	6 50	2	DRILL 156mm HOLE F/2614-T/ 2666m
645	800	1 25	10	DEV SURVEY ACCUM

NOTES: FT CROWN SAVER
CHECK BACKUP LINES & BREAK-OUT LINE
CHECK OIL LEVEL IN ACCUM

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	80	TORQUE	20347

DRILLING CREW PAYROLL DATA

WELL NAME & NO: ANADARKO ET AL ARROWHEAD RIVER-C55 — YEAR 2003 — MONTH 3 — DAY 7
OPERATOR: ANADARKO CANADA ENERGY — CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP
RIG MANAGER: GEORGE McDONALD — RIG NO 4
PROVINCE: N W T — CAMP X YES NO — RIG SAFETY DAYS 142

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		JAMES HOLBEN	8 00			JH
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ

RATE SCHEDULE: X REGULAR — REPAIR — INVERT

CREW SAFETY DAYS: 31

DAY TOUR

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	168 00
TOTAL HRS RUN	24 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

DAY TOUR — MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED
TIME	800	1300	1900
DENSITY (KG/M3)	1010	1010	1010
FUNNEL VISCOSITY	42	43	47
FLUID LOSS (cm3)	10 0	8 0	7 5
pH	10 5	10 5	10 5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARABUF	2	SX
N-VIS P +	30	SX
FILTER CHEK	15	SX
SULFTECH	2	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DAY TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2666 00	2717 00	D	30	12

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
9500	152 0		140 0	75

REDUCED PUMP SPEED: 3150 @ 34 @ 2710

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2651 30	15 20	211 8
2660 80	15 20	202 4
2670 30	15 20	201 0
2679 70	15 20	200 0
2689 20	14 40	203 6

DRILLER SIGNATURE: BRAD BRAITHWAITE

DAY TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
815	1545	7 50	2	DRILL 156mm HOLE F/2666-T/ 2717 m
1545	1600	0 25	10	ACC SURVEYS
1600				

NOTES: CHECKED BRAKE LINKAGES
SURVEY 2698 7M 13 6 INC 208 6 AZ

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	83	H2S	20347

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	12 00			BB
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		CHAD SPIES	12 00			CS

RATE SCHEDULE: X REGULAR — REPAIR — INVERT

CREW SAFETY DAYS: 31

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 00	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L SUB	121	2.29
6	D C	121	56 38
1	JAR	0	4.83
9	D C	121	84 88
18	H W D P	125	163.23
83	D P STANDS		2361 97
1	D P SINGLES		9 49
	KELLY DOWN		6 67
	TOTAL		2717 00
	WT OF D C	10	
	WT OF STRING	70	

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	221 00
TOTAL HRS RUN	30 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-4
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

EVENING TOUR — MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED
TIME	2000	2200	2400
DENSITY (KG/M3)	1020	1020	1020
FUNNEL VISCOSITY	47	49	50
FLUID LOSS (cm3)	7 5	7 5	7 5
pH	10 5	10 5	10 5
PVT	59 30	56 30	55 70

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

EVENING TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2717 00	2770 00	D	30	12

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
10200	152 0		140 0	75

REDUCED PUMP SPEED: 4500 @ 40 @ 2760

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2708 20	13 20	209 5
2717 70	12 90	209 8
2727 20	13 10	210 1
2736 70	12 40	210 9
2746 20	11 32	212

DRILLER SIGNATURE: DENNIS TESSIER

EVENING TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
1615	2300	6 75	2	DRILL 156mm HOLE F/ 2717 -T/2770
2300	2400	1 00	10	DEV SURVEY ACCUM

NOTES: CHECK BRAKE PINS & LINKAGE
LEL LEVELS MOITORED

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	84	STEAM	20347

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		JAMES HOLBEN	4 00			JH
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ

RATE SCHEDULE: X REGULAR — REPAIR — INVERT

CREW SAFETY DAYS: 31

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60.34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 6

RIG NO 4

FUEL @ 08 00 HRS: RIG 200 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 75	5 00	0 25												2 00						
DAY		2 50				4 75			0 75																	
EVE.		6 75					0 25			1 00																
TOTAL		9 25				0 75	9 75	0 50	0 75	1 00										2 00						

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS SERVICES	MORN	DAY	EVE
8 00	2	F S I				
8 00	SCREENS CHANGED YES NO	TYPE	CENTRIFUGE			
8 00	TOP 200	TOP 200				
24 00	MIDDLE 200	MIDDLE 200				
	BOTTOM 200	BOTTOM 200				

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 00	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L. SUB	121	2.29
6	D C	121	56 38
1	JAR	120	4 83
9	D C	121	84 88
18	H W D P	125	163.23
78	D P	STANDS	2219 72
1	D P	SINGLES	9 50
KELLY DOWN			11 37
TOTAL			2579 46
WT OF D C	10		
WT OF STRING	68		

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	2551 00
DEPTH IN	2549 00
TOTAL M DRILLED	2 00
TOTAL HRS RUN	0 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)	

MORNING TOUR

MUD RECORD: MUD TYPE — [X] WATER BASED [ ] OIL BASED

TIME	45
DENSITY (KG/M3)	1015
FUNNEL VISCOSITY	35
FLUID LOSS (cm3)	
pH	11 0
PVT	52 80

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARABUF	3	SX
N-VIS P +	20	SX
FILTER CHEK	10	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2551 00				

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5750	152 0		140 0	77

REDUCED PUMP SPEED: 1160 @ 34 @ 2530

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
15	100	0 75	5	COND MUD & CIRC
100	530	4 50	6	POOH TO PICK UP DIRECTIONAL TOOLS
530	730	2 00	20	PICK UP DIRECTIONAL TOOLS & PULSE TEST MWD TOOL
730	800	0 50	6	RIH W/BHA

NOTES: CHECK BRAKE PINS & LINKAGE
FT BLIND RAMS-3 SEC TO CLOSE
CALC -9 30 MEAS -8 95 DIFF 35m3

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	70	TRIPPING	20098

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	6
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD	RIG NO: 4		
PROVINCE: N W T	CAMP [X] YES [ ] NO	RIG SAFETY DAYS: 141	

MORNING TOUR FROM: 0 TO: 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND		JAMES HOLBEN	8 00		JH
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ

INJURIES

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

CREW SAFETY DAYS: 30

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 00	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L. SUB	121	2.29
6	D C	121	56 38
1	JAR	120	4 83
9	D C	121	84 88
18	H W D P	125	163 23
77	D P	STANDS	2200 75
2	D P	SINGLES	18 95
KELLY DOWN			4 43
TOTAL			2563 00
WT OF D C	10		
WT OF STRING	68		

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	14 00
TOTAL HRS RUN	3 25

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 RECORD: MUD TYPE — [X] WATER BASED [ ] OIL BASED

TIME	
DENSITY (KG/M3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	
PVT	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2551 00	2563 00	D	30	12

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8300	152 0		140 0	75

REDUCED PUMP SPEED: 2450 @ 34 @ 2580

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2547 31	12 70	245 1

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	930	1 50	6	RIH
930	1015	0 75	9	CUT OFF DRLL LINE
1015	1330	3 25	6	RIH
1330	1600	2 50	2	DRILL 156mm HOLE F/ 2551-2563M
1600				

NOTES: SLIP AND CUT 12 5M 8000 MJ
CUM MJ 160035
LEL LEVELS MONITORED

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	345	82	STEAM	20098

DAY TOUR FROM: 800 TO: 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		BRAD BRAITHWAITE	12 00		BB
DERRICK HAND		MELVIN WELSH	12 00		MW
MOTOR HAND		BOB LIVINGSTONE	12 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00		CJ
FLOOR HAND		CHAD SPIES	12 00		CS

INJURIES

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

CREW SAFETY DAYS: 30

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 00	
1	MOTOR	121	7 32
1	FLOAT SUB	115	0 50
1	UBHO	121	0 64
1	MONEL	120	9 36
1	MONEL	120	9 44
1	P B L. SUB	121	2.29
6	D C	121	56 38
1	JAR	120	4 83
9	D C	121	84 88
18	H W D P	125	163.23
79	D P	STANDS	2248 17
2	D P	SINGLES	18 98
KELLY DOWN			7 98
TOTAL			2614 00
WT OF D C	10		
WT OF STRING	70		

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	65 00
TOTAL HRS RUN	10 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-5
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

EVENING TOUR

MUD RECORD: MUD TYPE — [X] WATER BASED [ ] OIL BASED

TIME	1400	1800	2000
DENSITY (KG/M3)	1010	1010	1010
FUNNEL VISCOSITY	35	35	35
FLUID LOSS (cm3)	10 0	10 0	10 0
pH	11 0	11 0	11 0

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARABUF	2	SX
N-VIS P +	7	SX
FILTER CHEK	5	SX
TRIETHANOLAMINE	1	BBL

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2563 00	2614 00	D	30	12

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8400	152 0		140 0	75

REDUCED PUMP SPEED: 2450 @ 34 @ 2580

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2556 80	14 40	242 4
2566 30	16 20	231 5
2575 70	17 30	225 5
2585 20	16 90	216 4
2594 40	16 80	215 1

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0.25	7	RIG SERVICE F/N PIPE RAMS 3sec CLOSE
1615	2300	6 75	2	DRILL 156mm HOLE F/2563-T/2614
2300	2400	1 00	10	DEV SURVEY ACCUM

NOTES: CHECK BRAKE PINS & LINKAGE
FT REMOTE CHOKE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	78	MUD MOTOR	20347

EVENING TOUR FROM: 1600 TO: 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	4 00		DT
DERRICK HAND		DON PIERROT	4 00		DP
MOTOR HAND		JAMES HOLBEN	4 00		JH
FLOOR HAND		CONRAD FRASER	4 00		CF
FLOOR HAND		GORDON JOE	4 00		GJ

INJURIES

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

CREW SAFETY DAYS: 30

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34:04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 5

RIG NO 4

FUEL @ 08:00 HRS — RIG 183 — BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 FLOAT

UNIT 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	TOTALS
MORN		0 75			1 75	0 25									1 25						0 25					3 75	8 00
DAY						8 00																					8 00
EVE.					6 25	1 50	0 25																				8 00
TOTAL		0 75			8 00	9 75	0 25								1 25						0 25					3 75	24 00

SHALE SHAKER (S) — NO 2 — TYPE — SCREENS CHANGED — YES — NO — TYPE: CENTRIFUGE

RENTALS / SERVICES

	MORN	DAY	EVE
TOP	200	200	
MIDDLE	200	200	
BOTTOM	200	200	

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	5

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	140

MORNING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO	BIT	O D	LENGTH
1	BIT	0 17	
6	D C	120	56 38
1	JAR	120	4 83
9	D C	120	84 88
18	H W D P	125	163 23
78	D P STANDS		2219 72
1	D P SINGLES		9 50
KELLY DOWN			11 37
TOTAL			2551 00
WT OF D C	10		
WT OF STRING	68		

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	2551 00
DEPTH IN	2549 00
TOTAL M DRILLED	2 00
TOTAL HRS RUN	0 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	195
FILL ON BOTTOM (M)	

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

TIME	100	300	515
DENSITY (KG/M3)	1000	1000	1010
FUNNEL VISCOSITY	28	28	28
FLUID LOSS (cm3)			
pH			
PVT	49 30	49 30	49 20

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2505 00	2551 00	D	40	3

CIRCULATION PRESSURE kPa: 6750

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		140 0	75

REDUCED PUMP SPEED: 1400 @ 36 @ 2550

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	345	3 75	26	DRILL OUT FLOAT COLLAR & SHOE
345	430	0 75	2	DRILL F/2549-T/2551
430	530	1 00	5	CIRCULATE BOTTOMS UP
530	645	1 25	15	PERFORM LEAK-OFF TEST
645	730	0 75	5	CIRCULATE BOTTOMS UP
730	745	0 25	21	SAFETY MTG (BOP DRILL)
745	800	0 25	6	POOH

NOTES: CHECK BRAKE PINS & LINKAGE; FT CROWN SAVER; HELD BOP DRILL W/CREW-WELL SECURED IN 73 SEC

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	75	BOP DRILL	20587

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 29

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		JAMES HOLBEN	8 00			JH
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ

DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO	BIT	O D	LENGTH
1	BIT	0 17	
	CASING SCRAPER	118	1 80
1	BIT SUB	125	0 92
6	D C	120	56 38
1	JAR	120	4.83
9	D C	120	84 88
18	H W D P	125	163.23
78	D P STANDS		2219 72
1	D P SINGLES		9 50
KELLY DOWN			11 37
TOTAL			2552.80
WT OF D C	10		
WT OF STRING	68		

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	2551 00
DEPTH IN	2549 00
TOTAL M DRILLED	2 00
TOTAL HRS RUN	0 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)	

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

TIME			1900
DENSITY (KG/M3)			1010
FUNNEL VISCOSITY			28
FLUID LOSS (cm3)			
pH			11 5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARABUF	1	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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 0		140 0	

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1300	5 00	6	POOH FLOW CHECK@ 2551, 2395 1412,321 0m
1300	1600	3 00	6	RIH WITH CASING SCRAPER

NOTES: STRAP MEASURED= 2553 50; TALLY= 2552 67 0 83M DIFF; MEASRED VOLUME= 9 37M3; CALCULATED VOLUME= 9 30M3

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	90	TRIPPING	0

RATE SCHEDULE: ☐ REGULAR ☐ REPAIR X INVERT

CREW SAFETY DAYS: 29

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		BRAD BRAITHWAITE	12 00			BB
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		CHAD SPIES	12 00			CS

EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO	BIT	O D	LENGTH
1	BIT	0 17	
	CASING SCRAPER	118	1 80
1	BIT SUB	125	0 92
6	D C	120	56 38
1	JAR	120	4 83
9	D C	120	84 88
18	H W D P	125	163 23
78	D P STANDS		2219 72
1	D P SINGLES		9 50
KELLY DOWN			11 37
TOTAL			2552 80
WT OF D C	10		
WT OF STRING	68		

BIT RECORD

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	2551 00
DEPTH IN	2549 00
TOTAL M DRILLED	2 00
TOTAL HRS RUN	0 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)	

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

TIME			2130
DENSITY (KG/M3)			1015
FUNNEL VISCOSITY			32
FLUID LOSS (cm3)			
pH			11 5
P V T			50 60

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2551 00				

CIRCULATION PRESSURE kPa: 6160

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		140 0	76

REDUCED PUMP SPEED: 1160 @ 34 @ 2530

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1730	1 50	6	RIH WITH CASING SCRAPER
1730	1745	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
1745	2400	6 25	5	COND MUD & CIRC

NOTES: CHECK BRAKE PINS & LINKAGE; CHECK OIL LEVEL IN ACCUM

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	68	MSDS	20098

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 29

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER				DT
DERRICK HAND		DON PIERROT				DP
MOTOR HAND		JAMES HOLBEN				JH
FLOOR HAND		CONRAD FRASER				CF
FLOOR HAND		GORDON JOE				GJ

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34:04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 4

RIG NO 4

FUEL @ 08:00 HRS

RIG 197 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DRILL STRING	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 INSTALL WEAR BUSHING	24 STRIP BOPS	25 CHANGE KELLY	26 DRILL OUT CEMENT	TOTALS
MORN						2 75	0 25								2 75						0 25		0 50	1 50			8 00
DAY						5 75															0 25		2 00				8 00
EVE.						4 25	0 25																		2 50	1 00	8 00
TOTAL						12 75	0 50								2 75						0 50		2 50	1 50	2 50	1 00	24 00

SHALE SHAKER (S)			RENTALS · SERVICES	MORN	DAY	EVE
NO	TYPE					
2	FSI					
SCREENS CHANGED	YES	NO	CENTRIFUGE			
200 TOP	200 TOP					
200 MIDDLE	200 MIDDLE					
200 BOTTOM	200 BOTTOM					

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	4

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	139

MORNING TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 17	
1	BIT SUB	125	0 92
6	D C	120	56 38
1	JAR	120	4 83
9	D C	120	84 88
18	H W D P	125	163 23
	D P STANDS		
	D P SINGLES		
	KELLY DOWN		
	TOTAL		310 41
	WT OF D C		
	WT OF STRING		

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE
15	300	2 75	15	TEST B O P PRESSURE TEST ANNULAR,LOWER & UPPER PIPE RAMS
				BLIND RAMS,INSIDE BOP STABBING VALVE
300	430	1 50	24	STRAP COLLARS ID OD STRAP HWDP & DP
430	500	0 50	23	INSTALL WEAR BUSHING
500	515	0 25	21	SAFETY MTG
515	800	2 75	6	RIG UP LAYDOWN MACHINE & PICK UP BHA & MAKE UP

NOTES CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	15	LAYDOWN MACHINE	

RATE SCHEDULE		REGULAR		REPAIR	X	INVERT

CREW SAFETY DAYS

28

MORNING TOUR	FROM 0	TO 800	INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND		JAMES HOLBEN	8 00		JH
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ

DAY TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 17	
1	BIT SUB	125	0 82
6	D C	120	56 38
1	JAR	120	4 83
9	D C	120	84 88
18	H W D P	125	163.23
	D P STANDS		
	D P SINGLES		
	KELLY DOWN		
	TOTAL		310 41
	WT OF D C		
	WT OF STRING		

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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

BRAD BRAITHWAITE

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	21	SAFETY MTG WITH LAYDOWN TRUCK
815	1400	5 75	6	PICK UP BHA, PICK UP 3 1/2" DRILL STRING
1400	1600	2 00	23	ACCUMULATED STRAP TIME
1600				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	345	72	LAYDOWN TRUCK	

RATE SCHEDULE		REGULAR		REPAIR	X	INVERT

CREW SAFETY DAYS

28

DAY TOUR	FROM 800	TO 1600	INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		BRAD BRAITHWAITE	12 00		BB
DERRICK HAND		MELVIN WELSH	12 00		MW
MOTOR HAND		BOB LIVINGSTONE	12 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00		CJ
FLOOR HAND		CHAD SPIES	12 00		CS

EVENING TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 17	
1	BIT SUB	125	0 92
6	D C	120	56 38
1	JAR	120	4 83
9	D C	120	84 88
18	H W D P	125	163 23
78	D P STANDS		2162 84
	D P SINGLES		18 96
	KELLY DOWN		13 04
	TOTAL		2505.25
	WT OF D C	8	
	WT OF STRING	68	

BIT NO	1
SIZE	156 0
IADC CODE	
MANUFACTURER	R B I
TYPE	C15LRCSP
SERIAL NO	CF901
JETS	O 0 / 0
DEPTH OUT	
DEPTH IN	2549 00
TOTAL M DRILLED	
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	190
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED
TIME		2330
DENSITY (KG/M3)		1000
FUNNEL VISCOSITY		28
FLUID LOSS (cm3)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
	2505 00	D	40	3

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6800	152 0		140 0	75

REDUCED PUMP SPEED

@	0	@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	2000	4 00	6	RIH W/DP
2000	2015	0 25	6	TEAR OUT LAYDOWN TRUCK
2015	2030	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
2030	2300	2 50	25	CHANGE OUT KELLY BAR & ROLLERS
2300	2400	1 00	26	DRILL OUT CEMENT

NOTES CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	70	CHANGING KELLY BAR	0

RATE SCHEDULE		REGULAR		REPAIR	X	INVERT

CREW SAFETY DAYS

28

EVENING TOUR	FROM 1600	TO 2400	INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER			DT
DERRICK HAND		DON PIERROT			DP
MOTOR HAND		JAMES HOLBEN			JH
FLOOR HAND		CONRAD FRASER			CF
FLOOR HAND		GORDON JOE			GJ

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE L	**UNIQUE ID**
60 34.04 92 N 122.55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 3
RIG NO 4
FUEL @ 08 00 HRS
RIG 139 BOILER
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02
	177 8	159 4	38 69	A S T	L-80	185	2546 56	5 60	2546 00

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO: ANADARKO ET AL ARROWHEAD RIVER-C55 | YEAR 2003 | MONTH 3 | DAY 3
OPERATOR: ANADARKO CANADA ENERGY | CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP
RIG MANAGER: GEORGE McDONALD | RIG NO 4
PROVINCE: N W T | CAMP X YES NO | RIG SAFETY DAYS 138

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 DRILG 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 COMPACT SPEEDHEAD	23	24	25	26	TOTALS	MORN	DAY	EVE
MORN							0 25					7 75															8 00			
DAY					6 00		0 25					1 50									0 25						8 00			
EVE.												2 00		1 00	1 75							3 25					8 00			
TOTAL					6 00		0 50					11 25		1 00	1 75						0 25	3 25					24 00			

SHALE SHAKER (S): NO 2 | TYPE F S1 | SCREENS CHANGED YES NO | TOP 200 | MIDDLE 200 | BOTTOM 200 | TOP 200 | MIDDLE 200 | BOTTOM 200

RENTALS / SERVICES: CENTRIFUGE

MORNING TOUR

BIT RECORD: BIT NO; SIZE; IADC CODE; MANUFACTURER; TYPE; SERIAL NO; JETS; DEPTH OUT; DEPTH IN; TOTAL M DRILLED; 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)

DRILLING ASSEMBLY (AT END OF TOUR) — NO | BIT | O D | LENGTH

DP STANDS; DP SINGLES; KELLY DOWN; TOTAL; WT OF D C; WT OF STRING

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

DESILTER: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

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: JIM NEILSON

METRES DRILLED: FROM | TO | D-R-C | RPM | WOB

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

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/T PASON CHOKE
15	800	7 75	12	RUN CASING / FILL PIPE & CIRCULATE OUT AIR
800				

NOTES: CHECK BEAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	92	POWER TONGS	7974

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		ROD WOLD	8 00		RW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP
FLOOR HAND		JOHN WIPF	8 00		JW
LEASE HAND		PETER LESAGE	8 00		PL

RATE SCHEDULE | REGULAR | REPAIR X | INVERT

CREW SAFETY DAYS: 27

DAY TOUR

BIT RECORD: BIT NO; SIZE; IADC CODE; MANUFACTURER; TYPE; SERIAL NO; JETS; DEPTH OUT; DEPTH IN; TOTAL M DRILLED; 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)

DRILLING ASSEMBLY (AT END OF TOUR) — NO | BIT | O D | LENGTH

DP STANDS; DP SINGLES; KELLY DOWN; TOTAL; WT OF D C; WT OF STRING

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

DESILTER: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

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: DENNIS TESSIER

METRES DRILLED: FROM | TO | D-R-C | RPM | WOB

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

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE ft casing rams-3 sec to close
815	1415	6 00	5	CIRCULATE CASING
1415	1430	0 25	21	SAFETY MTG
1430	1600	1 50	12	CEMENT CASING
1600				
				RAN 186 JOINTS OF 177 8 MM 38 69 KG/M L-80 INTERMEDIATE
				CASING TOTAL OF 2546 56M WITH B J CEMENTERS CEMENTED
				LEAD CEMENT FROM 2250M TO SURFACE 27 TONNE OF
				1 1 2 + 10% R-3 + 5% CD-31
				TAIL CEMENT 5 3 M/3 , 7 TONNE OF THERMAL CEMENT 40 F + 20%
				R-3 + 40% FL-77 + 50% CD-32

NOTES: LEL LEVELS MONITORED; CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	110	CEMENTING	7974

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND		JAMES HOLBEN	8 00		JH
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ

RATE SCHEDULE | REGULAR | REPAIR | INVERT X

CREW SAFETY DAYS: 27

EVENING TOUR

BIT RECORD: BIT NO; SIZE; IADC CODE; MANUFACTURER; TYPE; SERIAL NO; JETS; DEPTH OUT; DEPTH IN; TOTAL M DRILLED; 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)

DRILLING ASSEMBLY (AT END OF TOUR) — NO | BIT | O D | LENGTH

DP STANDS; DP SINGLES; KELLY DOWN; TOTAL; WT OF D C; WT OF STRING

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

DESILTER: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

CENTRIFUGE: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

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: BRAD BRAITHWAITE

METRES DRILLED: FROM | TO | D-R-C | RPM | WOB

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

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1800	2 00	12	CEMENT CASING AND RIG OUT CEMENTERS
1800	2115	3 25	22	INSTALL COMPACT SPEED HEAD
2115	2215	1 00	14	CHANGE 41/2 PIPE RAMS TO 31/2 PIPE RAMS
2215	2400	1 75	15	PRESSURE TEST BOP
2400				

NOTES:

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	345		PRESSURE TESTING	0

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		BRAD BRAITHWAITE	8 00		BB
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		CHAD SPIES	8 00		CS

RATE SCHEDULE | REGULAR | REPAIR | INVERT X

CREW SAFETY DAYS: 27

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60·34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 3 | DAY 2

RIG NO 4

FUEL @ 00 00 HRS

RIG 167 | BOILER

SAFETY CHECKS

TEMPERATURE 19

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 CHANGE UP	23 RETRIEVE TOOLS	24 LOST TIME	25	26
MORN					2 00	5 50	0 25														0.25					
DAY						6 00	0 25		1 00													0 75				
EVE							0 25					3 50									0 25		4 00			
TOTAL					2 00	11 50	0 75		1 00			3 50									0 50	0 75	4 00			

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	FS I				
8 00	SCREENS CHANGED	YES / NO	CENTRIFUGE			
8 00	200 TOP	200 TOP				
24 00	200 MIDDLE	200 MIDDLE				
	200 BOTTOM	200 BOTTOM				

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O D	0 16
1	BIT SUB	171	0 87
3	D C	172	27 57
1	JAR	172	5 06
9	D C	170	82 33
1	X O	166	0 81
6	H W D P	114	56 13
83	D P	STANDS	2345 47
2	D P	SINGLES	18 70
	KELLY DOWN		12 08
	TOTAL		2549 18
	WT OF D C	26	
	WT OF STRING	84	

BIT RECORD

BIT NO	5
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD513
SERIAL NO	00556
JETS	14 3 X
	5
DEPTH OUT	2549 00
DEPTH IN	2505 00
TOTAL M DRILLED	44 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

TORQUE AT BOTTOM

FILL ON BOTTOM (M)

MORNING TOUR — MUD RECORD

MUD TYPE	WATER BASED / OIL BASED
TIME	530
DENSITY (KG/M3)	965
FUNNEL VISCOSITY	61
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	21	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DRILLER SIGNATURE

JIM NEILSON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2549 00				

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5500	152 0	120	152 0	

REDUCED PUMP SPEED

1000 @ 55 @ 2549

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 8 SEC
15	330	3 25	6	R I H FILL PIPE @ 1550m WASH FR. 2518m -2549m
330	530	2 00	5	COND MUD & CIRC
530	545	0 25	21	HELD SAFTEY MEETING WITH CREW & EZ-LAY PRIOR TO RIG UP
545	800	2 25	6	RIG TO & LAY DOWN DRILL PIPE FC @2539m @ 2398m
800				

NOTES CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	84	LAY-DOWN MACHINE	7974

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	
DEPTH IN	
TOTAL M DRILLED	
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 RECORD

MUD TYPE	WATER BASED / OIL BASED
TIME	
DENSITY (KG/M3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	49	SX
CAL CARB 325	1	SX
EZ-MUL	1	BBL
RM-63	1	BBL
SAWDUST	40	SX
LIME	6	SX
CAGE / FLOOR DRY	10	SX
INVENT CORRECTION ABOVE		

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DRILLER SIGNATURE

DENNIS TESSIER

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 0		152 0	

REDUCED PUMP SPEED

@ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1400	6 00	6	POOH TO RUN CASING
1400	1415	0 25	7	RIG SERVICE FT BLIND RAMS-3 SEC TO CLOSE
1415	1515	1 00	9	CUT OFF DRLL LINE(19 METERS)
1515	1600	0 75	22	CHANGE UPPER PIPE RAMS TO 7" CASING RAMS

NOTES FLOW CHECKS @ 2539,2395 1215 172 & 0
CALC 9 94m3 MEAS 10 32 DIFF - 38m3
SLIP & CUT 19 METERS DRILL LINE
CUM MJ-152569

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	80	LAY DOWN MACHINE	7974

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	
DEPTH IN	
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

DRILLER SIGNATURE

JIM NEILSON

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

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FT CASING RAMS-3 SEC TO CLOSE
1615	1645	0 50	12	RRIG TO RUN CASING
1645	2045	4 00	23	WAIT ON 4 1/2 IF X/O
2045	2100	0 25	21	SAFETY MTG WITH CREW & TONG & EZ-LAY
2100	2400	3 00	12	RUN CASING
2400				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350		RUNNING CASING	7974

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	2

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES / NO	137

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		ROD WOLD	8 00			RW
MOTOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP
FLOOR HAND		JOHN WIPF	8 00			JW
LEASE HAND		PETER LESAGE	8 00			PL

RATE SCHEDULE | REGULAR | REPAIR X | INVERT

CREW SAFETY DAYS
26

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	12 00			DT
DERRICK HAND		DON PIERROT	12 00			DP
MOTOR HAND		JAMES HOLBEN	12 00			JH
FLOOR HAND		CONRAD FRASER	12 00			CF
FLOOR HAND		GORDON JOE	12 00			GJ

RATE SCHEDULE | REGULAR | REPAIR X | INVERT

CREW SAFETY DAYS
26

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	4 00			JN
DERRICK HAND		ROD WOLD	4 00			RW
MOTOR HAND		MARK WARKENTON	4 00			MW
FLOOR HAND		DAVE PATTERSON	4 00			DP
FLOOR HAND		JOHN WIPF	4 00			JW
LEASE HAND		PETER LESAGE	4 00			PL

RATE SCHEDULE | REGULAR | REPAIR X | INVERT

CREW SAFETY DAYS
26

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60.34.04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 3 DAY 1

RIG NO 4

FUEL @ 05 00 HRS

RIG 207 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

WEATHER REPORT

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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			2 50			4 75	0 25													0 50						
DAY			1 75		2 25	3 75	0 25																			
EVE.						2 50	0 25				5 25															
TOTAL			4 25		2 25	11 00	0 75				5 25									0 50						

TOTALS	SHALE SHAKER (S) NO	TYPE	SCREENS CHANGED	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I	YES NO	CENTRIFUGE			
8 00	200 TOP	200 TOP					
8 00	200 MIDDLE	200 MIDDLE					
24 00	200 BOTTOM	200 BOTTOM					

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	BIT SUB	171	0 87
1	REAMER	187	1 35
1	SQUARE COLLAR	168	4 14
3	D C	172	27 57
1	JAR	172	5 08
9	D C	170	82 33
1	X O	168	0 81
6	H W D P	114	56 13
83	D P STANDS		2345 47
2	D P SINGLES		18 70
KELLY DOWN			6 60
TOTAL			2549 19
WT OF D C	26		
WT OF STRING	84		

BIT RECORD

BIT NO	5
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD513
SERIAL NO	00556
JETS	14 3 X
	5
DEPTH OUT	2549 00
DEPTH IN	2505 00
TOTAL M DRILLED	44 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	2-10
TORQUE AT BOTTOM	200
FILL ON BOTTOM (M)	

MORNING 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
2549 00		R	50	4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5500	152 0	120	152 0	

REDUCED PUMP SPEED

1050 @ 52 @ 2517

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	30	0 50	20	DIR. WORK
30	45	0 25	7	RIG SERVICE F/T BLIND CLOSE 4SEC
45	530	4 75	6	M/U BIT & B H A FILL PIPE @ 1550m
530	800	2 50	3	REAMING FR. 2479m -2549

NOTES CHECKBRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	90	REAMING	7974

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	3	1

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES ☐ NO	136

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		ROD WOLD	8 00			RW
MOTOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP
FLOOR HAND		JOHN WIPF	8 00			JW
LEASE HAND		PETER LESAGE	8 00			PL

RATE SCHEDULE		REGULAR		REPAIR	X	INVERT

CREW SAFETY DAYS

25

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	BIT SUB	171	0 87
1	REAMER	187	1 35
1	SQUARE COLLAR	168	4 14
3	D C	172	27 57
1	JAR	172	5 08
9	D C	170	82 33
1	X O	168	0 81
6	H W D P	114	56 13
83	D P STANDS		2345 47
2	D P SINGLES		18 70
KELLY DOWN			6 60
TOTAL			2549 19
WT OF D C	26		
WT OF STRING	84		

BIT RECORD

BIT NO	5
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD513
SERIAL NO	00556
JETS	14 3 X
	5
DEPTH OUT	2549 00
DEPTH IN	2505 00
TOTAL M DRILLED	44 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	
TORQUE AT BOTTOM	
FILL ON BOTTOM (M)	

DAY TOUR

MUD RECORD

MUD TYPE ☐ WATER BASED X OIL BASED

TIME	900	1130	1300
DENSITY (KG/M3)	960	960	960
FUNNEL VISCOSITY	55	55	55
FLUID LOSS (cm3)			
pH			
P V T	55 20	55 10	55 10

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5300	152 0	120	152 0	

REDUCED PUMP SPEED

1030 @ 55 @ 2547

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	900	1 00	3	REAM TO BOTTOM
900	1000	1 00	5	CIRCULATE BOTTOMS UP
1000	1045	0 75	6	WIPER TRIP
1045	1130	0 75	3	REAM TO BOTTOM
1130	1145	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
1145	1300	1 25	5	COND MUD & CIRC
1300	1600	3 00	6	PUMP PILL & POOH
1600				

NOTES LEL LEVELS MONITORED
CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	92	TRIPPING	7974

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	12 00			DT
DERRICK HAND		DON PIERROT	12 00			DP
MOTOR HAND		JAMES HOLBEN	12 00			JH
FLOOR HAND		CONRAD FRASER	12 00			CF
FLOOR HAND		GORDON JOE	12 00			GJ

RATE SCHEDULE		REGULAR		REPAIR	X	INVERT

CREW SAFETY DAYS

25

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	BIT SUB	171	0 87
3	D C	172	27 57
1	JAR	172	5 08
9	D C	170	82 33
1	X O	168	0 81
6	H W D P	114	56 13
83	D P STANDS		2345 47
2	D P SINGLES		18 70
KELLY DOWN			6 60
TOTAL			2543 70
WT OF D C	26		
WT OF STRING	84		

BIT RECORD

BIT NO	5
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD513
SERIAL NO	00556
JETS	14 3 5
	X
DEPTH OUT	2549 00
DEPTH IN	2505 00
TOTAL M DRILLED	44 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	
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			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	152 0		152 0	

REDUCED PUMP SPEED

@ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FUNCTION ANNULAR-10 SEC TO CLOSE
1615	1815	2 00	6	POOH TO LOG
1815	2330	5 25	11	RIG TO LOG & LOG W/SCHLUMBERGER TOOLS PEX - EDAC - SONIC
2330	2400	0 50	6	M/U BIT & R.I H FC @ON BANK
2400				
				DISCHARGE SCREENS CLEANED ON PUMPS 1 & 2
				CHANGE HEADS & LINERS TO 5 1/2" IN PUMP # 2
				CHECK CHAINS IN DRAW WORKS

NOTES CALC -10 04m3 MEAS -10 40m3 DIFF 38m3
TALLY 2384 17 STRAP 2384.27 DIFF .20
FT BLIND RAMS-2 SEC TO CLOSE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	52	LOGGING	7974

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	4 00			JN
DERRICK HAND		ROD WOLD	4 00			RW
MOTOR HAND		MARK WARKENTON	4 00			MW
FLOOR HAND		DAVE PATTERSON	4 00			DP
FLOOR HAND		JOHN WIPF	4 00			JW
LEASE HAND		PETER LESAGE	4 00			PL

RATE SCHEDULE		REGULAR		REPAIR	X	INVERT

CREW SAFETY DAYS

25

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60:34 04 92 N 122 55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R.M.
(1) Daily Walk Around Inspection	DC	
(2) Detailed Inspection Weekly (Using Check List)	DC	
(3) H2S Signs Posted if Required	DC	
(4) Well Licence & Stick Diagram Posted	DC	
(5) Flare Lines Staked	DC	
(6) BOP Drills Performed	DC	
(7) Visually Inspect BOPs- Flare Lines & Degasser Lines	DC	
(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 2003 | MONTH 2 | DAY 28

RIG NO 4

FUEL @ 08 00 HRS: RIG 160 | BOILER

TEMPERATURE | CURRENT CONDITIONS | WIND DIRECTION | ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 PUMP GYRO-SURVEY & PUMP L	23	24	25	26
MORN		2 75				4 25	0 25			0 75																
DAY		3 50	1 25		2 50		0 25			0 50																
EVE.					1 50	5 25	0 25													0 50		0 50				
TOTAL		6 25	1 25		4 00	9 50	0 75			1 25										0 50		0 50				

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS SERVICES	MORN	DAY	EVE
8 00	2	F S I				
8 00	SCREENS CHANGED [ ] YES [ ] NO	TYPE	CENTRIFUGE			
8 00	200 TOP	200 TOP				
8 00	200 MIDDLE	200 MIDDLE				
24 00	200 BOTTOM	200 BOTTOM				

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
3		172	27 57
1	JAR	172	5 06
9	D C	170	82 33
1	X O	168	0 81
6	H W D P	114	56 13
83	D P STANDS		2317 11
	D P SINGLES		9 69
KELLY DOWN			11 97
TOTAL			2539 00
WT OF D C	26		
WT OF STRING	88		

BIT RECORD

BIT NO	4	5
SIZE	215 9	215 9
IADC CODE		
MANUFACTURER	UNITED DIAMOND	UNITED DIAMOND
TYPE	UD 513	UD513
SERIAL NO	00556	00556
JETS	14 3 X	14 3 X
	5	5
DEPTH OUT	2505 00	
DEPTH IN	2052 00	2505 00
TOTAL M DRILLED	453 00	34 00
TOTAL HRS RUN	51 25	2 75

CUTTING STRUCTURE

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

HOLE CONDITION: HOLE DRAG 2-4; TORQUE AT BOTTOM; FILL ON BOTTOM (M)

MUD RECORD

MUD TYPE	[ ] WATER BASED [X] OIL BASED		
TIME	600		
DENSITY (KG/M3)	960		
FUNNEL VISCOSITY	63		
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2505 00	2539 00	D	40	7

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/T BLIND RAMS CLOSE 4 SEC
15	430	4 25	6	R I H WASH 3 SINGALS TO BOTTOM
430	715	2 75	2	DRILLDRILL 215 m m HOLE FR 2505m - 2539m
715	800	0 75	10	DEV SURVEY ACC
800				

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
INVERT	9	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	960	955	1890
8 00	960	955	1770

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8700	152 0	120	152 0	

REDUCED PUMP SPEED: 2100 @ 50 @ 2520

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2495 90	3 50	237 9
2505 70	4 70	234 2

DRILLER SIGNATURE: JIM NEILSON

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	92	TONGS	7974

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
3	D C	172	27 57
1	JAR	172	5 06
9	D C	170	82 33
1	X O	168	0 81
6	H W D P	114	56 13
82	D P STANDS		2317 11
2	D P SINGLES		19 09
KELLY DOWN			12 75
TOTAL			2549 18
WT OF D C	26		
WT OF STRING	85		

BIT RECORD

BIT NO	5
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD513
SERIAL NO	00556
JETS	14 3 X
	5
DEPTH OUT	2549 00
DEPTH IN	2505 00
TOTAL M DRILLED	44 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; TORQUE AT BOTTOM 190; FILL ON BOTTOM (M)

MUD RECORD

MUD TYPE	[ ] WATER BASED [X] OIL BASED		
TIME	900	0	1545
DENSITY (KG/M3)	955	955	955
FUNNEL VISCOSITY	57	55	55
FLUID LOSS (cm3)			
pH			
P V T	57 10	56 30	56 30

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2539 00	2549 00	D	35	9

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
815	900	0 75	2	DRILL T/2540m
900	1015	1 25	3	PULL 3 SINGLES & REAM TO BOTTOM
1015	1300	2 75	2	DRILL F/2540-T/2549
1300	1330	0 50	10	DEV SURVEY ACCUM
1330	1600	2 50	5	COND MUD & CIRC
1600				

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB O	14	SX
CAL CARB 325	14	SX
LIME	5	SX
BAROFIBER	5	SX
BARITE	25	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	955	950	1870
8 00	955	950	1850

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
7600	152 0	116	152 0	

REDUCED PUMP SPEED: 2180 @ 54 @ 2528

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2515 40	7 00	229 8
2525 10	9 20	237 6
2534 50	11 00	244 4

DRILLER SIGNATURE: DENNIS TESSIER

NOTES: LEL LEVELS MONITORED; CHECK BRAKE PINS & LINKAGE; FT REMOTE CHOKE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	92	TORQUE	7974

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
3	D C	172	27 57
1	JAR	172	5 06
9	D C	170	82 33
1	X O	168	0 81
6	H W D P	114	56 13
82	D P STANDS		2317 11
2	D P SINGLES		19 09
KELLY DOWN			12 75
TOTAL			2549 18
WT OF D C	26		
WT OF STRING	85		

BIT RECORD

BIT NO	5
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD513
SERIAL NO	00556
JETS	14 3 5
	X
DEPTH OUT	2549 00
DEPTH IN	2505 00
TOTAL M DRILLED	44 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; 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			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2549 19				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T UPPER PIPE RAMS CLOSE 3 SEC
1615	1745	1 50	5	COND MUD & CIRC
1745	1815	0 50	22	PUMP GYRO-SURVEY DOWN & PUMP PILL
1815	2330	5 25	6	POOH FC @2535m 2375m 1240m 252m ON BANK RETIVE GYRO TOOL
2330	2400	0 50	20	DIR. WORK
2400				

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa

	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
7500	152 0	116	152 0	

REDUCED PUMP SPEED: 1590 @ 49 @ 2547

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

NOTES: CHECK BRAKE LINKAGES

STRAP 2337 26 CAL=10 46

TALLY 2336 20 MEAS =10 51

DIFF +1 06 DIFF = 05

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	80	TRIPPING	7974

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	28
OPERATOR	**CONTRACTOR**		
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER	**RIG NO**		
GEORGE McDONALD	4		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N W T	[X] YES [ ] NO	135	

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		ROD WOLD	8 00			RW
MOTOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP
FLOOR HAND		JOHN WIPF	8 00			JW
LEASE HAND		PETER LESAGE	8 00			PL

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

CREW SAFETY DAYS: 24

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	12 00			DT
DERRICK HAND		DON PIERROT	12 00			DP
MOTOR HAND		JAMES HOLBEN	12 00			JH
FLOOR HAND		CONRAD FRASER	12 00			CF
FLOOR HAND		GORDON JOE	12 00			GJ

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

CREW SAFETY DAYS: 24

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	4 00			JN
DERRICK HAND		ROD WOLD	4 00			RW
MOTOR HAND		MARK WARKENTON	4 00			MW
FLOOR HAND		DAVE PATTERSON	4 00			DP
FLOOR HAND		JOHN WIPF	4 00			JW
LEASE HAND		PETER LESAGE	4 00			PL

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

CREW SAFETY DAYS: 24

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60.34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R M
(1) Daily Walk Around Inspection	DC	
(2) Detailed Inspection Weekly (Using Check List)	DC	
(3) H2S Signs Posted If Required	DC	
(4) Well Licence & Stack Diagram Posted	DC	
(5) Flare Lines Staked	DC	
(6) BOP Drills Performed	DC	
(7) Visually Inspect BOPs- Flare Lines & Degasser Lines	DC	
(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 2003 MONTH 2 DAY 27

RIG NO 4

FUEL @ 08:00 HRS — RIG 200 — BOILER

TEMPERATURE — CURRENT CONDITIONS — WIND DIRECTION — ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	27

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	52

WAIT - RIGUP

	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILG 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 00					0 25			1 75											
DAY		4 75			1 00	0 50	0 25			1 50											
EVE.						5 50	0 25		0 75											1 50	
TOTAL		10 75			1 00	6 00	0 75		0 75	3 25										1 50	

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE F S I				
8 00	SCREENS CHANGED YES NO	CENTRIFUGE			
8 00	TOP 200 / TOP 200				
8 00	MIDDLE 200 / MIDDLE 200				
24 00	BOTTOM 200 / BOTTOM 200				

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
78	D P STANDS		2204 35
	D P SINGLES		
	KELLY DOWN		13 02
	TOTAL		2449 46
	WT OF D C	33	
	WT OF STRING	92	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 X
	5
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	397 00
TOTAL HRS RUN	46 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-8
TORQUE AT BOTTOM	160
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	100	300	500
DENSITY (KG/M3)	960	965	955
FUNNEL VISCOSITY	58	61	58
FLUID LOSS (cm3)			
pH			
PVT	52 60	53 30	57 60

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
INVERMUL	1	BBL
CAL CARB O	14	SX
CAL CARB 325	14	SX
LIME	5	SX
BAROFIBER	5	SX
BASE OIL	3	M3
INVERT	4	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	965	960	1870
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	965	960	1760

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2374 00	2449 00	D	40	6

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8350	152 0		152 0	115

REDUCED PUMP SPEED: 2890 @ 61 @ 2383

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2359 70	2 50	282 5
2368 90	2 40	276 7
2378 20	2 60	268 6
2387 40	2 90	258 8
2396 70	3 00	256 9

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 9 SEC
15	615	6 00	2	DRILL 215m m HOLE FR 2374m -2449m
615	800	1 75	10	DEV SURVEY ACC

NOTES: CHECK BRAKE LINKAGES
SURVEY @ 2406 0 INC 3 0 AZ 251 7
SURVEY @ 2415 3 INC 3 1 AZ 251 0
SURVEY @ 2425 0 INC 3 1 AZ 250 1

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	105	DRILLING	7327

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 23

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		ROD WOLD	8 00		RW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP
FLOOR HAND		JOHN WIPF	8 00		JW
LEASE HAND		PETER LESAGE	8 00		PL

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
80	D P STANDS		2260 61
	D P SINGLES		
	KELLY DOWN		13 02
	TOTAL		2505 72
	WT OF D C	33	
	WT OF STRING	94	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 X
	5
DEPTH OUT	2505 00
DEPTH IN	2052 00
TOTAL M DRILLED	453 00
TOTAL HRS RUN	51 25

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 — WATER BASED [ ] OIL BASED [ ]

MUD TYPE			
TIME	830	1100	1400
DENSITY (KG/M3)	960	960	960
FUNNEL VISCOSITY	55	55	58
FLUID LOSS (cm3)			
pH			
P V T	55 40	53 80	52 80

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB O	14	SX
LIME	5	SX
BAROFIBER	5	SX
BARITE	25	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2449 00	2505 00	D	40	6

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8000	152 0	116	152 0	

REDUCED PUMP SPEED: 2750 @ 60 @ 2494

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2434 50	2 80	251 9
2443 70	2 70	260 4
2453 40	2 90	261 3
2462 60	2 50	250 6
2472 20	2 80	239 7
2481 50	2 80	234 7

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
815	1300	4 75	2	DRILL F/2449-T/2505
1300	1430	1 50	10	DEV SURVEY ACCUM
1430	1530	1 00	5	CIRCULATE BOTTOMS UP
1530	1600	0 50	6	PUMP PILL & FLOW CHECK

NOTES: LEL LEVELS MONITORED
CHECK BRAKE PINS & LINKAGE
CHECK OIL LEVEL IN ACCUM

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	100	MSDS	7974

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 23

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	12 00		DT
DERRICK HAND		DON PIERROT	12 00		DP
MOTOR HAND		JAMES HOLBEN	12 00		JH
FLOOR HAND		CONRAD FRASER	12 00		CF
FLOOR HAND		GORDON JOE	12 00		GJ

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0.81
6	H W D P	114	56 13
80	D P STANDS		2260 61
	D P SINGLES		
	KELLY DOWN		13 02
	TOTAL		2473 86
	WT OF D C	33	
	WT OF STRING	94	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 5
	X
DEPTH OUT	2505 00
DEPTH IN	2052 00
TOTAL M DRILLED	453 00
TOTAL HRS RUN	51 25

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 — WATER BASED [ ] OIL BASED [X]

MUD TYPE			
TIME			
DENSITY (KG/M3)			
FUNNEL VISCOSITY			
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2505 00				

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	152 0		152 0	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
1615	2100	4 75	6	POOH
2100	2230	1 50	20	DIR. WORK
2230	2315	0 75	6	R I H FC 0N BANK @ 482m
2315	2400	0 75	9	CUT OFF DRLL LINE
2400				

NOTES: FLOW CHECKS @2494,2378 1215 424 & 0 CUM MJ =140945
CALC 10 74m3 MEAS DIFF - 04

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	40	SLIP & CUT	7974

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 23

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	4 00		JN
DERRICK HAND		ROD WOLD	4 00		RW
MOTOR HAND		MARK WARKENTON	4 00		MW
FLOOR HAND		DAVE PATTERSON	4 00		DP
FLOOR HAND		JOHN WIPF	4 00		JW
LEASE HAND		PETER LESAGE	4 00		PL

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60[illegible].04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 26

RIG NO 4

FUEL @ 08 00 HRS — RIG 160 — BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DRILL STRING	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

CODE HO	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 DRILG 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			1 00																
DAY		6 25					0 25			1 25											0 25					
EVE		6 25					0 25			1 50																
TOTAL		19 25					0 75			3 75											0 25					

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I				
8 00	SCREENS CHANGED [ ] YES [ ] NO	TYPE	CENTRIFUGE			
8 00	TOP 200	TOP 200				
8 00	MIDDLE 200	MIDDLE 200				
24 00	BOTTOM 200	BOTTOM 200				

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	26
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD	RIG NO: 4		
PROVINCE: N W T	CAMP [X] YES [ ] NO	RIG SAFETY DAYS: 51	

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
72	D P STANDS		2033 11
	D P SINGLES		
	KELLY DOWN		5 80
	TOTAL		2271 00
	WT OF D C	33	
	WT OF STRING	86	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 X / 5
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	219 00
TOTAL HRS RUN	28 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-12
TORQUE AT BOTTOM	180
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	WATER BASED [ ]	OIL BASED [X]		
TIME	200	400	600	
DENSITY (KG/M3)	950	955	955	
FUNNEL VISCOSITY	63	65	62	
FLUID LOSS (cm3)				
pH				

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
LIME	5	SX
BAROFIBER	5	SX
CAL CARB O	14	SX
CAL CARB 325	14	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	955	950	1860
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	955	950	1790

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2217 00	2271 00	D	40	6

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8100	152 0		152 0	115

REDUCED PUMP SPEED: 2500 @ 55 @ 2232

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2207 80	1 80	202 9
2217 40	1 37	191 1
2227 20	1 35	165 8
2236 50	1 85	163 7

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/T PASON CHOKE
15	700	6 75	2	DRILL 215m m HOLE FR 2217m - 2271
700	800	1 00	10	DEV SURVEY ACC
800				

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	100	HOUSE KEEPING	7974

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

CREW SAFETY DAYS: 22

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		ROD WOLD	8 00			RW
MOTOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP
FLOOR HAND		JOHN WIPF	8 00			JW
LEASE HAND		PETER LESAGE	8 00			PL

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
73	D P STANDS		2062 83
1	D P SINGLES		9 63
	KELLY DOWN		13 02
	TOTAL		2317.57
	WT OF D C	33	
	WT OF STRING	88	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 X / 5
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	265 00
TOTAL HRS RUN	34 25

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-8
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	WATER BASED [ ]	OIL BASED [X]		
TIME	900	1200	1500	
DENSITY (KG/M3)	955	960	960	
FUNNEL VISCOSITY	63	61	63	
FLUID LOSS (cm3)				
pH				
PVT	53 10	51 90	55 30	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB O	14	SX
CAL CARB 325	14	SX
LIME	5	SX
BAROFIBER	5	SX
INVERT	5	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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
8 00	955	950	1910

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2271 00	2317 00	D	30	5

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8400	152 0		152 0	115

REDUCED PUMP SPEED: 3180 @ 65 @ 2316

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2255 00	1 00	158 9
2264 20	0 50	359 2
2273 50	1 60	352 1
2283 20	2 70	360 0
2292 90	2 60	357 4

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
815	1430	6 25	2	DRILL F/2271-T/2317
1430	1545	1 25	10	DEV SURVEY ACCUM
1545	1600	0 25	21	SAFETY MTG (BOP DRILL)
1600				

NOTES: LEL LEVELS MONITORED
FUNCTION CROWN SAVER
HELD BOP DRILL W/CREW-WELL SECURED IN 68 SEC

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	105	BOP DRILL	7974

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

CREW SAFETY DAYS: 22

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	12 00			DT
DERRICK HAND		DON PIERROT	12 00			DP
MOTOR HAND		JAMES HOLBEN	12 00			JH
FLOOR HAND		CONRAD FRASER	12 00			CF
FLOOR HAND		GORDON JOE	12 00			GJ

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
75	D P STANDS		2120 31
1	D P SINGLES		9 23
	KELLY DOWN		13 02
	TOTAL		2374 65
	WT OF D C	33	
	WT OF STRING	89	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 5 / X
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	322 00
TOTAL HRS RUN	40 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-10
TORQUE AT BOTTOM	160
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	WATER BASED [ ]	OIL BASED [X]		
TIME	1800	2000	2330	
DENSITY (KG/M3)	960	960	960	
FUNNEL VISCOSITY	61	56	56	
FLUID LOSS (cm3)				
pH				
P V T	54 00	53 00		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	960	950	1870
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	960	955	1910

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2317 00	2374 00	D	30	6

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8200	152 0		152 0	115

REDUCED PUMP SPEED: 65 @ 3180 @ 2316

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2302 60	2 50	6 7
2312 30	1 90	356 3
2321 90	2 00	347 0
2331 10	1 40	331 0
2340 90	1 86	304 6

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
1615	2230	6 25	2	DRILL 215m m HOLE FR 2317m - 2374m
2230	2400	1 50	10	DEV SURVEY ACCUM

NOTES: CHECK BRAKE LINKAGES
2350 4 INC 2 3 AZ 283 8

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	110	TONG DIES	7974

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

CREW SAFETY DAYS: 22

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	4 00			JN
DERRICK HAND		ROD WOLD	4 00			RW
MOTOR HAND		MARK WARKENTON	4 00			MW
FLOOR HAND		DAVE PATTERSON	4 00			DP
FLOOR HAND		JOHN WIPF	4 00			JW
LEASE HAND		PETER LESAGE	4 00			PL

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 [redacted]:04 92 N 122.55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 25

RIG NO 4

FUEL @ 08:00 HRS — RIG [ ] BOILER [ ]

WEATHER — TEMPERATURE; CURRENT CONDITIONS; WIND DIRECTION; ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DAILY 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 DRILG 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 STUCK PIPE	24	25	26
MORN		5 00					0 25			1 25													1 50			
DAY		6 25					0 25			1 50													8 00			
EVE.		5 50					0 25	1 50		0 75													8 00			
TOTAL		16 75					0 75	1 50		3 50													1 50			

TOTALS	SHALE SHAKER (S) NO	TYPE	SCREENS CHANGED	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I	YES [ ] NO	CENTRIFUGE			
8 00	TOP 200	TOP 200					
8 00	MIDDLE 200	MIDDLE 200					
24 00	BOTTOM 200	BOTTOM 200					

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 08
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
67	D P STANDS		1892 78
	D P SINGLES		
	KELLY DOWN		6 13
	TOTAL		2131 00
	WT OF D C	33	
	WT OF STRING	84	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 X; 5
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	79 00
TOTAL HRS RUN	9 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2 UP
TORQUE AT BOTTOM	200
FILL ON BOTTOM (M)	

MORNING TOUR — MUD RECORD

MUD TYPE [ ] WATER BASED [ ] OIL BASED

TIME	200	400	700
DENSITY (KG/M3)	945	950	940
FUNNEL VISCOSITY	61	64	63
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
RM-63	1	BBL
INVERT	7	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1860
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1790

DRILLER SIGNATURE: JIM NEILSON

MORNING TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2090 00	2131 00	D	40	6

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

8600 | 152 0 | | 152 0 | 120

REDUCED PUMP SPEED: 2250 @ 55 @ 2099

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2075 60	5 20	82 8
2084 90	4 50	87 3
2094 50	3 80	101 8
2104 20	3 70	117 0
2113 50	3 98	136 9

MORNING TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 9 SEC
15	315	3 00	2	DRILL 215 m m HOLE FR 2090m -2114m
315	445	1 50	23	WORK TIGHT HOLE & REAM
445	645	2 00	2	DRILL 215 m m HOLE FR. 2114m - 2131m
645	800	1 25	10	DEV SURVEY ACC

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	110	DIR DRILLING	8039

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	25

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES [ ] NO	50

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		ROD WOLD	8 00		RW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP
FLOOR HAND		JOHN WIPF	8 00		JW
LEASE HAND		PETER LESAGE	8 00		PL

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

CREW SAFETY DAYS: 21

DAY TOUR — BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 X; 5
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	126 00
TOTAL HRS RUN	15 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-8
TORQUE AT BOTTOM	180
FILL ON BOTTOM (M)	

DAY TOUR — MUD RECORD

MUD TYPE [ ] WATER BASED [ ] OIL BASED

TIME	900	1200	1500
DENSITY (KG/M3)	940	945	945
FUNNEL VISCOSITY	58	57	58
FLUID LOSS (cm3)			
pH			
P V T	57 20	55 80	54 90

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BAROFIBER	10	SX
CAL CARB 325	21	SX
CAL CARB O	21	SX
DURA TONE	10	SX
LIME	5	SX
SUSPEND TONE	10	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	940	1910
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1870

DRILLER SIGNATURE: DENNIS TESSIER

DAY TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2131 00	2178 60	D	30	6

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

7800 | 152 0 | | 152 0 | 115

REDUCED PUMP SPEED: 2460 @ 57 @ 2164

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2113 50	4 00	136 1
2122 90	3 60	138 9
2132 50	2 90	153 7
2141 80	3 10	168 6
2151 00	3 40	172 3
2160 30	3 20	167 3

DAY TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE FUNCTION HCR-2 SEC TO OPEN
815	1430	6 25	2	DRILL F/2131-T/2178
1430	1600	1 50	10	DEV SURVEY ACCUM

NOTES: LEL LEVELS MONITORED; CHECK BRAKE LINKAGE & PINS

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	115	TORQUE	8039

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	12 00		DT
DERRICK HAND		DON PIERROT	12 00		DP
MOTOR HAND		JAMES HOLBEN	12 00		JH
FLOOR HAND		CONRAD FRASER	12 00		CF
FLOOR HAND		GORDON JOE	12 00		GJ

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

CREW SAFETY DAYS: 21

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
68	D P STANDS		1920 93
	D P SINGLES		18 55
	KELLY DOWN		7 03
	TOTAL		2178 60
	WT OF D C	33	
	WT OF STRING	85	

BIT RECORD

BIT NO	4
SIZE	215 9
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00556
JETS	14 3 5; X
DEPTH OUT	
DEPTH IN	2052 00
TOTAL M DRILLED	165 00
TOTAL HRS RUN	21 25

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-10
TORQUE AT BOTTOM	180
FILL ON BOTTOM (M)	

EVENING TOUR — MUD RECORD

MUD TYPE [ ] WATER BASED [ ] OIL BASED

TIME	1800	2100	
DENSITY (KG/M3)	950	950	
FUNNEL VISCOSITY	57	60	
FLUID LOSS (cm3)			
pH			
P V T	54 50		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
H2O	3	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1820
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
	950	945	1770

DRILLER SIGNATURE: JIM NEILSON

EVENING TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2178 60	2217 00	D	30	6

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

7900 | 152 0 | | 152 0 | 115

REDUCED PUMP SPEED: 2600 @ 59 @ 2202

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2169 60	2 80	178 0
2179 30	2 99	181 7
2188 90	2 42	182 5
2198 90	198 53	198 3

EVENING TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T UPPER PIPE RAM CLOSE 3 SEC
1615	1730	1 25	2	DRILL F/2178-T/2186
1730	1900	1 50	8	REPAIR RIG
1900	2315	4 25	2	DRILL F/2186-T/2217
2315	2400	0 75	10	DEV SURVEY ACC

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	100	STEAM	8039

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	4 00		JN
DERRICK HAND		ROD WOLD	4 00		RW
MOTOR HAND		MARK WARKENTON	4 00		MW
FLOOR HAND		DAVE PATTERSON	4 00		DP
FLOOR HAND		JOHN WIPF	4 00		JW
LEASE HAND		PETER LESAGE	4 00		PL

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

CREW SAFETY DAYS: 21

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60.[redacted] 04 92 N 122:55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 24

RIG NO 4

FUEL @ 08:00 HRS — RIG 239 BOILER 0

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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

	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		7 50					0 25			0 25																
DAY		1 75			0 75	4 00	0 25			0 25										1 00						
EVE		4 50				2 75	0 25			0 25										0 25						
TOTAL		13 75			0 75	6 75	0 75			0 75										1 25						

SHALE SHAKER (S) — RENTALS - SERVICES

TOTALS	MORN	DAY	EVE
	8 00		
SCREENS CHANGED NO 2 TYPE F S I — TYPE — YES — NO	CENTRIFUGE		
TOP	8 00		
200 / 200			
MIDDLE	8 00		
200 / 200			
BOTTOM	24 00		
200 / 200			

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 08
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
63	D P	STANDS	1778 78
2	D P	SINGLES	19.29
KELLY DOWN			13 02
TOTAL			2043 18
WT OF D C	33		
WT OF STRING	83		

BIT RECORD

BIT NO	3	
SIZE	215 9	
IADC CODE		
MANUFACTURER	UNITED DIAMOND	
TYPE	UD513	
SERIAL NO	00559	
JETS	15 9	X
	5	
DEPTH OUT		
DEPTH IN	1852 00	
TOTAL M DRILLED	191 00	
TOTAL HRS RUN	20 25	

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2
TORQUE AT BOTTOM	180
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	100	330	630
DENSITY (KG/M3)	950	950	950
FUNNEL VISCOSITY	57	58	60
FLUID LOSS (cm3)			
pH			
PVT	53 70	54 00	54 20

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
LIME	5	SX
SUSPEND TONE	10	SX
DURA TONE	10	SX
CAL CARB O	21	SX
CAL CARB 325	21	SX
BAROFIBER	10	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1720

CENT

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1720

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1965 00	2043 00	D	45	5

CIRCULATION PRESSURE kPa: 8500

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		152 0	120

REDUCED PUMP SPEED: 2080 @ 55 @ 2004

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1971 70	4 50	77 7
1990 40	4 90	75 8
2008 90	4 70	80 1

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FT PIPE RAMS-3 SEC TO CLOSE
15	745	7 50	2	DRILL F/1965-T/2043
745	800	0 25	10	DEV SURVEY ACCUM

NOTES: CHECK BRAKE PINS & LINKAGE; CHECK PITBULL FLOATS; FT REMOTE CHOKE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	85	PPE	8039

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
84	D P	STANDS	1807 58
	D P	SINGLES	
KELLY DOWN			13 02
TOTAL			2052.69
WT OF D C	33		
WT OF STRING	83		

BIT RECORD

BIT NO	3	
SIZE	215 9	
IADC CODE		
MANUFACTURER	UNITED DIAMOND	
TYPE	UD513	
SERIAL NO	00559	
JETS	15 9	X
	5	
DEPTH OUT	2052 00	
DEPTH IN	1852 00	
TOTAL M DRILLED	200 00	
TOTAL HRS RUN	22 00	

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2 UP
TORQUE AT BOTTOM	180
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	900		
DENSITY (KG/M3)	940		
FUNNEL VISCOSITY	56		
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2043 00	2052 00	D	40	6

CIRCULATION PRESSURE kPa: 8400

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		152 0	120

REDUCED PUMP SPEED: 2050 @ 54 @ 2052

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2037 70	5 60	75 8

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	1000	1 75	2	DRILL 215m m HOLE FR. 2043m - 2052m
1000	1015	0 25	10	DEV SURVEY
1015	1100	0 75	5	COND MUD & CIRC
1100	1500	4 00	6	HOIST BIT# 3 FC @2043m 1911m 1000m 303m ON BANK
1500	1600	1 00	20	DIR. WORK
1600				

NOTES: CHECK BRAKE LINKAGES; CAL=9 30; MEAS =9.27; DIFF = 03

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	83	TRIPPING	8104

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D 0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 08
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
65	D P	STANDS	1838.24
1	D P	SINGLES	9.27
KELLY DOWN			13 02
TOTAL			2090 62
WT OF D C	33		
WT OF STRING	83		

BIT RECORD

BIT NO	3	4
SIZE	215 9	215 9
IADC CODE		
MANUFACTURER	UNITED DIAMOND	UNITED DIAMOND
TYPE	UD513	UD 513
SERIAL NO	00559	00556
JETS	15 9 5	14 3 5
	X	X
DEPTH OUT	2052 00	
DEPTH IN	1852 00	2052 00
TOTAL M DRILLED	200 00	38 00
TOTAL HRS RUN	22 00	4 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	2100	2330	
DENSITY (KG/M3)	945	950	
FUNNEL VISCOSITY	60	58	
FLUID LOSS (cm3)			
pH			
P V T	52 80	53 60	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
DURA TONE	10	SX
LIME	5	SX
H2O	2	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	2080

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	950	945	1990

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
2052 00	2090 00	D	30	4

CIRCULATION PRESSURE kPa: 8500

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
0 0		0 0	120

REDUCED PUMP SPEED: 2070 @ 55 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
2047 50	6 13	79 8
2056 70	5 62	78 4
2066 40	5 15	78 5

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	20	DIR WORK
1615	1900	2 75	6	RIH
1900	1915	0 25	7	RIG SERVICE FT ANNULAR-10 SEC TO CLOSE
1915	2345	4 50	2	DRILL F/2052-T/2090
2345	2400	0.25	10	DEV SURVEY ACCUM
2400				

NOTES:

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	95	TRIPPING	8039

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	24
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD	RIG NO: 4		
PROVINCE: N W T	CAMP: [X] YES [ ] NO	RIG SAFETY DAYS: 49	

MORNING TOUR — FROM: 0 TO: 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		CHAD SPIES	8 00		CS
LEASE HAND		BRUCE SABOURIN	8 00		BS

RATE SCHEDULE | REGULAR | REPAIR [X] | INVERT

CREW SAFETY DAYS: 20

DAY TOUR — FROM: 800 TO: 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		ROD WOLD	8 00		RW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP
LEASE HAND		PETER LESAGE	8 00		PL

RATE SCHEDULE | REGULAR | REPAIR | INVERT [X]

CREW SAFETY DAYS: 20

EVENING TOUR — FROM: 1600 TO: 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND		JAMES HOLBEN	8 00		JH
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ
LEASE HAND					

RATE SCHEDULE | REGULAR | REPAIR | INVERT [X]

CREW SAFETY DAYS: 20

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122 55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 23

RIG NO 4

FUEL @ 08:00 HRS: RIG 170 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	23
OPERATOR	**CONTRACTOR**		
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER	**RIG NO**		
GEORGE McDONALD	4		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N W T	X YES NO	48	

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 DRLG 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 CHANGE KELLY BAR STRIPPER	23	24	25	26
MORN						3 50	0 25		1 00											2 00		1 25				
DAY		5 25				2 50	0 25																			
EVE.		7 50					0 25			0 25																
TOTAL		12 75				6 00	0 75		1 00	0 25										2 00		1 25				

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE FSI				
8 00	SCREENS CHANGED YES NO	CENTRIFUGE			
8 00	TOP 200 / TOP 200				
8 00	MIDDLE 200 / MIDDLE 200				
24 00	BOTTOM 200 / BOTTOM 200				

MORNING TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	187	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
57	D P STANDS		1610 22
1	D P SINGLES		9 24
KELLY DOWN			6 09
TOTAL			1857 64
WT OF D C	33		
WT OF STRING	79		

	1	2	3
BIT NO	2	3	
SIZE	215 0	215 9	
IADC CODE			
MANUFACTURER	UNITED DIAMOND	UNITED DIAMOND	
TYPE	UD 513	UD513	
SERIAL NO	00556	00559	
JETS	14 3 X	15 9 X	
	5	5	
DEPTH OUT	1852 00		
DEPTH IN	845 00	1852 00	
TOTAL M DRILLED	1007 00		
TOTAL HRS RUN	66 00		

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 [X]

	1	2	3
TIME	200	400	600
DENSITY (KG/M3)	930	930	930
FUNNEL VISCOSITY	54	54	54
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
GELTONE V	6	SX
SUSPEND TONE	3	SX
BARITE	20	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	930	925	1700

CENT

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
0 00			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1852 00				

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0		152 0	

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	145	1 75	6	POOH
145	200	0 25	7	RIG SERVICE FUNCTION BLIND RAMS-2 SEC TO CLOSE
200	400	2 00	20	HANDLE TOOLS (CHANGE OUT MOTOR & BIT,PICK UP REAMER & SQUARE DC)
400	445	0 75	6	RIH W/BHA & 1 STD DP
445	545	1 00	9	SLIP & CUT (25 METERS)
545	700	1 25	22	CHANGE OUT KELLY BAR STRIPPER
700	800	1 00	6	RIH

NOTES: FLOW CHECK @ 0
CALC -8 70m3 MEAS -8 86m3 DIFF 16m3
SLIP & CUT 25 METERS OF DRILL LINE
FLOW CHECKS @ 0 & 259

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	40	SLIP & CUT	8169

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 19

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS
LEASE HAND		BRUCE SABOURIN	8 00			BS

DAY TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	187	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
58	D P STANDS		1638 29
	D P SINGLES		
KELLY DOWN			8 62
TOTAL			1877 00
WT OF D C	33		
WT OF STRING	80		

	1	2	3
BIT NO	3		
SIZE	215 9		
IADC CODE			
MANUFACTURER	UNITED DIAMOND		
TYPE	UD513		
SERIAL NO	00559		
JETS	15 9 X		
	5		
DEPTH OUT			
DEPTH IN	1852 00		
TOTAL M DRILLED	25 00		
TOTAL HRS RUN	5 25		

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	1-2 UP
TORQUE AT BOTTOM	195
FILL ON BOTTOM (M)	

MUD RECORD

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

	1	2	3
TIME	900	1200	1500
DENSITY (KG/M3)	930	930	935
FUNNEL VISCOSITY	54	55	55
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENT

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1852 00	1877 00	D	40	6

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
7500	152 0	120	152 0

REDUCED PUMP SPEED: 1700 @ 55 @ 1864

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1030	2 50	6	FINISH RUNNING IN HOLE
1030	1045	0 25	7	RIG SERVICE F/T UPPER PIPE RAMS CLOSE 4 SEC
1045	1600	5 25	2	DRILL 215 m m HOLE FR. 1882m 1877m

NOTES: CHECK BRAKE LINKAGES
LEL LEVELS MONITORED O K.
ADD 3 5 M3 OF WATER FROM SLOP TANK

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	340	80	PIPE SPINNER	8169

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 19

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
LEASE HAND		PETER LESAGE	12 00			PL

EVENING TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 16	
1	MOTOR	121	7 70
1	FLOAT SUB	187	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
1	REAMER	167	1 35
1	SQUARE DC	168	4 14
3	D C	170	27 72
1	JAR	172	5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
62	D P STANDS		1722 84
	D P SINGLES		
KELLY DOWN			10 07
TOTAL			1965 00
WT OF D C	33		
WT OF STRING	82		

	1	2	3
BIT NO	3		
SIZE	215 9		
IADC CODE			
MANUFACTURER	UNITED DIAMOND		
TYPE	UD513		
SERIAL NO	00559		
JETS	15 9 5		
	X		
DEPTH OUT			
DEPTH IN	1852 00		
TOTAL M DRILLED	113 00		
TOTAL HRS RUN	12 75		

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

MUD RECORD

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

	1	2	3
TIME	1900	2100	2300
DENSITY (KG/M3)	935	940	940
FUNNEL VISCOSITY	55	54	54
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
LIME	5	SX
SUSPEND TONE	5	SX
DURA TONE	10	SX
CAL CARB O	14	SX
CAL CARB 325	14	SX
GELTONE V	10	SX
BAROFIBER	10	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	940	935	1720

CENT

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	940	935	1680

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1877 00	1965 00	D	40	6

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8100	152 0	152 0	120

REDUCED PUMP SPEED: 1780 @ 53 @ 1883

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1887 40	2 20	74 2
1934 00	3 70	76 1
1943 40	3 90	83 7

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 9 SEC
1615	2345	7 50	2	DRILL 215 m m HOLE FR 1877m -1965m
2345	2400	0 25	10	DEV SURVEY ACC

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	85	PINCH POINTS	8104

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 19

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS
LEASE HAND		BRUCE SABOURIN	4 00			BS

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 22

RIG NO 4

FUEL @ 05 00 HRS

RIG 207 BOILER 0

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DRILL STRING

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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	TOTALS
MORN		7 50					0 25			0 25																	8 00
DAY		7 50					0 25			0 25																	8 00
EVE.		4 25				3 25	0 25			0 25																	8 00
TOTAL		19 25				3 25	0 75			0 75																	24 00

SHALE SHAKER (S)

NO	TYPE	TYPE
2	F 91	
SCREENS CHANGED	YES	NO
TOP 200	TOP 200	
MIDDLE 200	MIDDLE 200	
BOTTOM 200	BOTTOM 200	

RENTALS - SERVICES

	MORN	DAY	EVE
CENTRIFUGE			

DRILLING ASSEMBLY (AT END OF TOUR)

NO		LENGTH
1	BIT O D 0 22	
1	MOTOR 121	7 85
1	FLOAT SUB 167	0 67
1	M W D TOOL CARRIER 168	0 77
1	MONEL 165	8 60
1	MONEL 165	9 08
3	D C 170	27 72
1	JAR 172	5 06
12	D C 170	109 90
1	X O 168	0 81
6	H W D P 114	56 13
54	D P STANDS	1525 23
	D P SINGLES	
KELLY DOWN		13 02
TOTAL		1765 06
WT OF D C	32	
WT OF STRING	78	

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 X
	5
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	920 00
TOTAL HRS RUN	54 25

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

MORNING TOUR

MUD RECORD

MUD TYPE	WATER BASED [ ]	OIL BASED [X]
TIME	200	400	600
DENSITY (KG/M3)	920	920	925
FUNNEL VISCOSITY	49	49	49
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
LIME	10	SX
GELTONE V	20	SX
SUSPEND TONE	10	SX
DURA TONE	10	SX
CAL CARB O	21	SX
CAL CARB 325	21	SX
BAROFIBER	10	SX
INVERMUL	2	BBL
RM-63	1	BBL

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	920	915	1670
CENT			
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	920	915	1670

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1683 00	1765 00	D	45	5

CIRCULATION PRESSURE

kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6700	152 0	120	152 0	

REDUCED PUMP SPEED: 1650 @ 58 @ 1754

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1693 20	1 80	71 9
1740 80	1 70	80 6

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FUNCTION UPPER PIPE RAMS-3 SEC TO CLOSE
15	745	7 50	2	DRILL F/1683-T/1765
745	800	0 25	10	DEV SURVEY ACCUM

NOTES FT REMOTE CHOKE

CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	77	LOCK-OUTS	8233

DRILLING ASSEMBLY (AT END OF TOUR)

NO		LENGTH
1	BIT O D 0 22	
1	MOTOR 121	7 85
1	FLOAT SUB 167	0 67
1	M W D TOOL CARRIER 168	0 77
1	MONEL 165	8 60
1	MONEL 165	9 08
3	D C 170	27 72
1	JAR 172	5 06
12	D C 170	109 90
1	X O 168	0 81
6	H W D P 114	56 13
57	D P STANDS	1610 22
	D P SINGLES	
KELLY DOWN		5 97
TOTAL		1843 00
WT OF D C	32	
WT OF STRING	79	

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 X
	5
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	998 00
TOTAL HRS RUN	61 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-UP
TORQUE AT BOTTOM	180
FILL ON BOTTOM (M)	

DAY TOUR

MUD RECORD

MUD TYPE	WATER BASED [ ]	OIL BASED [ ]
TIME	1000	2000	
DENSITY (KG/M3)	925	930	
FUNNEL VISCOSITY	48	54	
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1765 00	1843 00	D	45	6

CIRCULATION PRESSURE

kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6200	152 0	120	152 0	

REDUCED PUMP SPEED: 1350 @ 55 @ 1774

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1787 50	1 60	81 19

DRILLER SIGNATURE

JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T PASON CHOKE
815	1545	7 50	2	DRILL 215m m HOLE FR.-1765m - 1843m
1545	1600	0 25	10	DEV SURVEY
1600				

NOTES CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	79	PICKER WORK	8169

DRILLING ASSEMBLY (AT END OF TOUR)

NO		LENGTH
1	BIT O D 0 22	
1	MOTOR 121	7 85
1	FLOAT SUB 167	0 67
1	M W D TOOL CARRIER 168	0 77
1	MONEL 165	8 60
1	MONEL 165	9 08
3	D C 170	27 72
1	JAR 172	5 06
12	D C 170	109 90
1	X O 168	0 81
6	H W D P 114	56 13
57	D P STANDS	1610 22
1	D P SINGLES	9 24
KELLY DOWN		6 09
TOTAL		1852 36
WT OF D C	32	
WT OF STRING	79	

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 5
	X
DEPTH OUT	1852 00
DEPTH IN	845 00
TOTAL M DRILLED	1007 00
TOTAL HRS RUN	66 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2
TORQUE AT BOTTOM	228
FILL ON BOTTOM (M)	

EVENING TOUR

MUD RECORD

MUD TYPE	WATER BASED [ ]	OIL BASED [X]
TIME	1700		
DENSITY (KG/M3)	930		
FUNNEL VISCOSITY	54		
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
LIME	10	SX
GELTONE V	20	SX
SUSPEND TONE	10	SX
DURA TONE	10	SX
CAL CARB O	22	SX
CAL CARB 325	22	SX
BAROFIBER	10	SX
INVERT	10	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1843 00	1852 36	D	40	9

CIRCULATION PRESSURE

kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8800	152 0	70	152 0	70

REDUCED PUMP SPEED: 1350 @ 55 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1835 10	1 75	68 49

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FUNCTION PIPE RAMS-3 SEC TO CLOSE
1615	2030	4 25	2	DRILL 215 m m HOLE FR 1843m -
2030	2045	0 25	10	DEV SURVEY ACC
2045	2400	3 25	6	POOH

NOTES FLOW CHECKS @ 1845 1750 903 & 223

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	80	TRIPPING	8169

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	22

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	[X] YES [ ] NO	47

MORNING TOUR — FROM 0 TO 800 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS
LEASE HAND		BRUCE SABOURIN	8 00			BS

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

CREW SAFETY DAYS: 18

DAY TOUR — FROM 800 TO 1600 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
LEASE HAND		PETER LESAGE	12 00			PL

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

CREW SAFETY DAYS: 18

EVENING TOUR — FROM 1600 TO 2400 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS
LEASE HAND		BRUCE SABOURIN	4 00			BS

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

CREW SAFETY DAYS: 18

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34.04 92 N 122.55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 21 | RIG NO 4 | FUEL @ 05 00 HRS | RIG 248 | BOILER | TEMPERATURE | CURRENT CONDITIONS | WIND DIRECTION | ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 50					0 25			0 25																
DAY		7 25					0 25			0 50																
EVE		7 50					0 25			0 25																
TOTAL		22 25					0 75			1 00																

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I	CENTRIFUGE			
8 00	SCREENS CHANGED [ ] YES [ ] NO	TYPE				
8 00	200 TOP	200 TOP				
8 00	200 MIDDLE	200 MIDDLE				
24 00	200 BOTTOM	200 BOTTOM				

DRILLING ASSEMBLY (AT END OF TOUR)

NO			LENGTH
1	BIT	O D 0.22	
1	MOTOR	121	7 85
1	FLOAT SUB	187	0 67
1	M W D TOOL CARRIER	188	0 77
1	MONEL	185	8 60
1	MONEL	185	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
43	D P STANDS		1212.54
	D P SINGLES		
KELLY DOWN			13 02
TOTAL			1452 37
WT OF D C	32		
WT OF STRING	64		

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 X
	5
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	480 00
TOTAL HRS RUN	32 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	3
TORQUE AT BOTTOM	150
FILL ON BOTTOM (M)	

MORNING TOUR — MUD RECORD

MUD TYPE	[ ] WATER BASED	[X] OIL BASED				
TIME	200	400	600			
DENSITY (KG/M3)	905	905	905			
FUNNEL VISCOSITY	45	46	47			
FLUID LOSS (cm3)						
pH						

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1325 00	1452 00	D	45	6

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
INVERMUL	2	BBL
EZ-MUL	1	BBL
LIME	10	SX
GELTONE V	20	SX
SUSPEND TONE	10	SX
DURA TONE	10	SX
CAL CARB O	14	SX
CAL CARB 325	14	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	905	900	1620
8 00	905	900	1660

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6000	152 0	120	152 0	

REDUCED PUMP SPEED: 1510 @ 54 @ 1442

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1316 20	1 30	68 9
1362 80	1 00	69 7
1409 90	1 30	56 4

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FT HCR-2 SEC TO OPEN
15	745	7 50	2	DRILL F/1325-T/1452
745	800	0 25	10	DEV SURVEY ACCUM

NOTES: CHECK OIL LEVEL IN ACCUM
INSPECT TONG LINES & BREAKOUT CABLE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	70	STEAM	8298

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	21
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD		RIG NO: 4	
PROVINCE: N W T	CAMP [X] YES [ ] NO	RIG SAFETY DAYS: 46	

MORNING TOUR FROM 0 TO 800 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS
LEASE HAND		BRUCE SABOURIN	8 00			BS

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

CREW SAFETY DAYS: 17

DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO			LENGTH
1	BIT	O D 0.22	
1	MOTOR	121	7 85
1	FLOAT SUB	187	0 67
1	M W D TOOL CARRIER	188	0 77
1	MONEL	185	8 60
1	MONEL	185	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
43	D P STANDS		1297 12
	D P SINGLES		9 28
KELLY DOWN			13 02
TOTAL			1546.23
WT OF D C	32		
WT OF STRING	69		

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 X
	5
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	701 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	
TORQUE AT BOTTOM	
FILL ON BOTTOM (M)	

DAY TOUR — MUD RECORD

MUD TYPE	[ ] WATER BASED	[X] OIL BASED				
TIME	1000	1300	1700			
DENSITY (KG/M3)	905	905	900			
FUNNEL VISCOSITY	44	43	43			
FLUID LOSS (cm3)						
pH						

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1452.00	1546 00	D	45	6

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
INVERT	27	M3
LIME	10	SX
GELTONE V	20	SX
SUSPEND TONE	10	SX
DURA TONE	10	SX
CAL CARB O	21	SX
CAL CARB 325	21	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6100	152 0	120	152 0	

REDUCED PUMP SPEED: 1530 @ 56 @ 1470

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1455 80	1 00	60 0
1502 80	1 40	62 0

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0.25	7	RIG SERVICE F/T ANNULAR CLOSE 9 SEC
815	1530	7 25	2	DRILL 215m m HOLE FR.1452m - 1546m
1530	1600	0 50	10	DEV SURVEY ACC
1600				

NOTES: CHECK BRAKE LINKAGES
LEL LEVELS MONITORED O K

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	70	JACKING RIG	8363

DAY TOUR FROM 800 TO 1600 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
LEASE HAND		PETER LESAGE	12 00			PL

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

CREW SAFETY DAYS: 17

EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO			LENGTH
1	BIT	O D 0.22	
1	MOTOR	121	7 85
1	FLOAT SUB	187	0 67
1	M W D TOOL CARRIER	188	0 77
1	MONEL	185	8 60
1	MONEL	185	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
51	D P STANDS		1439 40
1	D P SINGLES		9 63
KELLY DOWN			7 16
TOTAL			1683 00
WT OF D C	32		
WT OF STRING	74		

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 5
	X
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	838 00
TOTAL HRS RUN	46 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-3
TORQUE AT BOTTOM	160
FILL ON BOTTOM (M)	

EVENING TOUR — MUD RECORD

MUD TYPE	[ ] WATER BASED	[X] OIL BASED				
TIME	1700	2000	2330			
DENSITY (KG/M3)	920	920	920			
FUNNEL VISCOSITY	49	49	49			
FLUID LOSS (cm3)						
pH						

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1546 00	1683 00	D	45	4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	920	915	1710
CENT			
8 00	920	915	1680

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6300	152 0	120	152 0	

REDUCED PUMP SPEED: 1350 @ 53 @ 1679

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1550 50	1 30	82 9
1597 60	1 20	85 8
1644 90	1 50	66 7

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FUNCTION L PIPE RAMS-3 SEC TO CLOSE
1615	2345	7 50	2	DRILL 215m m HOLE FR 1546m -T/1683
2345	2400	0 25	10	DEV SURVEY ACC

NOTES: FUNCTION CROWN SAVER
CHECK OIL LEVEL IN ACCUM

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	75	LOADER	8233

EVENING TOUR FROM 1600 TO 2400 — INJURIES

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS
LEASE HAND		BRUCE SABOURIN	4 00			BS

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

CREW SAFETY DAYS: 17

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 [redacted] 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 20 | RIG NO 4 | FUEL @ 08:00 HRS 158 | BOILER | TEMPERATURE | CURRENT CONDITIONS | WIND DIRECTION | ROAD CONDITION

LAST CASING TUBING OR LINER

	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	20
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD	RIG NO: 4		
PROVINCE: N W T	CAMP: X YES NO	RIG SAFETY DAYS: 45	

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 DRILG 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 FIND MWD SCREEN & RING; 23; 24; 25; 26

SHIFT	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		7 50					0 25			0 25																
DAY		7 25					0 25			0 50																
EVE.		6 50					0 25			0 25												1 00				
TOTAL		21 25					0 75			1 00												1 00				

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE F S I				
8 00	SCREENS CHANGED YES NO	CENTRIFUGE			
8 00	TOP 200 / TOP 200				
8 00	MIDDLE 200 / MIDDLE 200				
24 00	BOTTOM 200 / BOTTOM 200				

DRILLING ASSEMBLY (AT END OF TOUR)

NO			LENGTH
1	BIT	O D 0 22	
1	MOTOR	121	7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
29	D P	STANDS	817 61
	D P	SINGLES	
KELLY DOWN			13 02
TOTAL			1057 44
WT OF D C	32		
WT OF STRING	56		

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 X / 5
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	212 00
TOTAL HRS RUN	10 75

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

HOLE CONDITION

HOLE DRAG	3
TORQUE AT BOTTOM	160
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	200	400	600
DENSITY (KG/M3)	890	890	890
FUNNEL VISCOSITY	44	44	44
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
899 00	1057 00	D	45	5

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FUNCTION PIPE RAMS-4 SEC TO CLOSE
15	745	7 50	2	DRILL F/899-T/
745	800	0 25	10	DEV SURVEY ACCUM

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
CAL CARB O	20	SX
CAL CARB 325	20	SX
LIME	20	SX
GELTONE V	20	SX
DURA TONE	10	SX
SUSPEND TONE	10	SX
INVERMUL	2	BBL
EZ-MUL	1	BBL
INVERT	10	CUBES

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5400	152 0	120	152 0	

REDUCED PUMP SPEED: 1260 @ 52 @ 1037

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
903 20	1 80	9 4
930 70	1 40	4 2
958 70	1 70	19 9
986 60	1 20	13 2
1014 70	1 30	15 4

DRILLER SIGNATURE: DENNIS TESSIER

NOTES: CHECK BRAKE PINS & LINKAGE; FUNCTION CROWN SAVER

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	360	58	HOUSEKEEPING	8428

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 16

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS
LEASE HAND		BRUCE SABOURIN	8 00			BS

DRILLING ASSEMBLY (AT END OF TOUR)

NO			LENGTH
1	BIT	O D	0.22
1	MOTOR	121	7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
34	D P	STANDS	958 68
	D P	SINGLES	
KELLY DOWN			13 02
TOTAL			1198.51
WT OF D C	32		
WT OF STRING	59		

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 X / 5
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	353 00
TOTAL HRS RUN	18 00

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

HOLE CONDITION

HOLE DRAG	3
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	1000	1400	1700
DENSITY (KG/M3)	9000	900	905
FUNNEL VISCOSITY	43	43	44
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1057 00	1198 00	D	40	5

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T ANNULAR CLOSE 10 SEC
815	1530	7.25	2	DRILL 215m m HOLE FR.-1057-1198
1530	1600	0 50	10	DEV SURVEY ACC
1600				

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
INVERT	30	M3
INVERMUL	2	BBL
EZ-MUL	1	BBL
LIME	10	SX
GELTONE V	20	SX
SUSPEND TONE	10	SX
DURA TONE	10	SX
CAL CARB O	14	SX
CAL CARB 325	14	SX
TRANSFER 15 M3 TO DEGASSER TANK		

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5600	152 0	120	152 0	

REDUCED PUMP SPEED: 1200 @ 52 @ 1169

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1042 40	1 10	9 9
1070 40	2 40	27 5
1164 50	1 40	52

DRILLER SIGNATURE: JIM NEILSON

NOTES: CHECK BRAKE LINKAGES; LEL LEVELS MONITORED O K

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	350	59	INVERT	8363

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 16

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
LEASE HAND		PETER LESAGE	12 00			PL

DRILLING ASSEMBLY (AT END OF TOUR)

NO			LENGTH
1	BIT	O D	0.22
1	MOTOR	121	7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
38	D P	STANDS	1072 52
2	D P	SINGLES	18 84
KELLY DOWN			6 83
TOTAL			1325 00
WT OF D C	32		
WT OF STRING	64		

BIT RECORD

BIT NO	2
SIZE	215 0
IADC CODE	
MANUFACTURER	UNITED DIAMOND
TYPE	UD 513
SERIAL NO	00561
JETS	14 3 5 / X
DEPTH OUT	
DEPTH IN	845 00
TOTAL M DRILLED	480 00
TOTAL HRS RUN	24 50

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

HOLE CONDITION

HOLE DRAG	3
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	2100	2200	2300
DENSITY (KG/M3)	900	900	900
FUNNEL VISCOSITY	44	44	44
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
1198 00	1325 00	D	45	6

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0.25	7	RIG SERVICE
1615	2045	4 50	2	DRILL 215m m HOLE FR 1198m -T/1283
2045	2145	1 00	22	FIND MWD SCREEN & RING
2145	2345	2 00	2	DRILL F/1283-T/1325
2345	2400	0 25	10	DEV SURVEY ACCUM

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	900	895	1210

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	900	895	1210

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5700	152 0	120	152 0	

REDUCED PUMP SPEED: 1580 @ 56 @ 1281

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
1221 40	1 20	67 3
1268 70	1 30	48 1

DRILLER SIGNATURE: DENNIS TESSIER

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	67	PIPE SCREEN	8363

RATE SCHEDULE: REGULAR [ ] REPAIR [X] INVERT

CREW SAFETY DAYS: 16

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS
LEASE HAND		BRUCE SABOURIN	4 00			BS

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122:55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	DPR	R M
(1) Daily Walk Around Inspection	DC	
(2) Detailed Inspection Weekly (Using Check List)	DC	
(3) H2S Signs Posted If Required	DC	
(4) Well Licence & Stick Diagram Posted	DC	
(5) Flare Lines Staked	DC	
(6) BOP Drills Performed	DC	
(7) Visually Inspect BOPs- Flare Lines & Degasser Lines	DC	
(1) Rig Site Health & Safety Meeting (one/crew/month)		
(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 2003 MONTH 2 DAY 19 | RIG NO 4 | FUEL @ 24 00 HRS 196 | BOILER | TEMPERATURE | CURRENT CONDITIONS | WIND DIRECTION | ROAD CONDITION

LAST CASING TUBING OR LINER

O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DRILL STRING

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	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 DRILG 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 50					0 25			0 25																
DAY		5 00			1 50	1 00	0 25			0 25																
EVE		3 25			0 50	3 75	0 25			0 25																
TOTAL		15 75			2 00	4 75	0 75			0 75																

TOTALS

	SHALE SHAKER (S) NO	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I				
8 00	SCREENS CHANGED [ ] YES [ ] NO		CENTRIFUGE			
8 00	200 TOP	200 TOP				
8 00	200 MIDDLE	200 MIDDLE				
24 00	200 BOTTOM	200 BOTTOM				

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 22
1	MOTOR		7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
21	D P STANDS		575 05
2	D P SINGLES		18 98
KELLY DOWN			13 02
TOTAL			833 86
WT OF D C	32		
WT OF STRING	52		

BIT RECORD

BIT NO	1
SIZE	215 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	11 9 X
	8
DEPTH OUT	
DEPTH IN	660 00
TOTAL M DRILLED	173 00
TOTAL HRS RUN	16 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	2-3
TORQUE AT BOTTOM	200
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	100	300	600
DENSITY (KG/M3)	870	870	870
FUNNEL VISCOSITY	42	43	43
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
734 00	833 00	D	60	4

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
GELTONE V	20	SX
SUSPENTONE	10	SX
CAL CARB O	20	SX
CAL CARB 325	20	SX
INVERMUL NT	2	BBL
EZ MUL	1	BBL

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	870	865	1270
8 00	870	865	1280

CIRCULATION PRESSURE

kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
4900	152 0	120	152 0	

REDUCED PUMP SPEED: 1220 @ 56 @ 804

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
734 00	2 40	357 4
762 20	2 50	9
790 30	2 20	353 4

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE FUNCTION PIPE RAMS-3 SEC TO CLOSE
15	745	7 50	2	DRILL 215mm HOLE F/734-T/
745	800	0 25	10	DEV SURVEY ACCUM

NOTES: FUNCTION REMOTE CHOKE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	360	53	PINCH POINTS	8557

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 22
1	MOTOR		7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
21	D P STANDS		594 03
2	D P SINGLES		18 54
KELLY DOWN			5 62
TOTAL			845 00
WT OF D C	32		
WT OF STRING	52		

BIT RECORD

BIT NO	1
SIZE	215 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	11 9 X
	8
DEPTH OUT	845 00
DEPTH IN	660 00
TOTAL M DRILLED	185 00
TOTAL HRS RUN	21 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	UP 2 DOWN 2
TORQUE AT BOTTOM	
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	1400		
DENSITY (KG/M3)	890		
FUNNEL VISCOSITY	43		
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
833 00	845 00	D	50	6

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARITE	20	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE

kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5000	152 0	120	152 0	

REDUCED PUMP SPEED: 1150 @ 54 @ 833

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
818 90	2 20	6 9

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE F/T UPPER PIPE RAMS CLOSE 5 SEC
815	1315	5 00	2	DRILL 215m m HOLE FR. 833m -
1315	1330	0 25	10	DEV SURVEY
1330	1500	1 50	5	COND MUD & CIRC
1500	1600	1 00	6	HOIST BIT #1 FC@ 833m 673m ON BANK
1600				

NOTES: CHECK BRAKE LINKAGES
CAL=4 97
MEAS =4 86
DIFF = 10

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	52	TRIPPING	8557

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 22
1	MOTOR	121	7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	166	0 81
6	H W D P	114	56 13
23	D P STANDS		649 97
1	D P SINGLES		9 56
KELLY DOWN			13 02
TOTAL			899 36
WT OF D C	32		
WT OF STRING	53		

BIT RECORD

BIT NO	1	2
SIZE	215 0	215 0
IADC CODE		
MANUFACTURER	SMITH	UNITED DIAMOND
TYPE	S73EHPX	UD 513
SERIAL NO	JS 2536	00561
JETS	11 9 8	14 3 5
	X	X
DEPTH OUT	845 00	
DEPTH IN	660 00	845 00
TOTAL M DRILLED	185 00	54 00
TOTAL HRS RUN	21 00	3 25

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	3 UP & DOWN
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

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

MUD TYPE			
TIME	2100	2200	2300
DENSITY (KG/M3)	895	895	895
FUNNEL VISCOSITY	45	45	45
FLUID LOSS (cm3)			
pH			

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
845 00	899 00	D	45	5

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
3 00	895	890	1250
3 00	895	890	1250

CIRCULATION PRESSURE

kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
5030	152 0	120	152 0	

REDUCED PUMP SPEED: 1150 @ 53 @ 888

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
847 10	1 90	11 0
874 10	2 00	5 8

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FUNCTION ANNULAR-10 SEC TO CLOSE
1615	2000	3 75	6	FINISH RUNNING IN HOLE
2000	2030	0 50	5	WASH TO BOTTOM
2030	2345	3.25	2	DRILL F/845-T/899
2345	2400	0 25	10	DEV SURVEY ACCUM

NOTES: CHECK OIL LEVEL IN ACCUM

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	360	56	MSDS	8363

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	19

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	[X] YES [ ] NO	44

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		MELVIN WELSH	8 00			MW
MOTOR HAND		BOB LIVINGSTONE	8 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00			CJ
FLOOR HAND		CHAD SPIES	8 00			CS
LEASE HAND						

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

CREW SAFETY DAYS: 15

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	12 00			JN
DERRICK HAND		ROD WOLD	12 00			RW
MOTOR HAND		MARK WARKENTON	12 00			MW
FLOOR HAND		DAVE PATTERSON	12 00			DP
LEASE HAND		PETER LESAGE	6 00			PL

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

CREW SAFETY DAYS: 15

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		MELVIN WELSH	4 00			MW
MOTOR HAND		BOB LIVINGSTONE	4 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00			CJ
FLOOR HAND		CHAD SPIES	4 00			CS

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

CREW SAFETY DAYS: 15

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60 34 04 92 N 122:55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 18

RIG NO 4

FUEL @ 0000 HRS

RIG 228 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

Start - Finish

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 WAIT ON VACCUM TRUCK	24	25	26
MORN						3 75	0 25													2 00	0 25	0 50	1 25			
DAY		1 00			2 50		0 25								1 25						0 75			2 25		
EVE.		7 50					0 25			0 25																
TOTAL		8 50			2 50	3 75	0 75			0 25					1 25					2 00	1 00	0 50	1 25	2 25		

TOTALS	SHALE SHAKER (S) NO	TYPE	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	F S I					
8 00	SCREENS CHANGED	X YES	NO	CENTRIFUGE			
8 00	200 TOP	200 TOP					
8 00	200 MIDDLE	200 MIDDLE					
24 00	200 BOTTOM	200 BOTTOM					

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 22
1	MOTOR		7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
14	D P STANDS		393 40
2	D P SINGLES		18 53
KELLY DOWN			
TOTAL			638 74
WT OF D C	32		
WT OF STRING	47		

BIT RECORD

BIT NO	1
SIZE	215 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	11 9 X / 8
DEPTH OUT	
DEPTH IN	660 00
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

MORNING TOUR — 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
0 0		0 0	

REDUCED PUMP SPEED

@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DENNIS TESSIER

MORNING TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	30	0 50	22	INSTALL WEAR BUSHING
30	45	0 25	7	RIG SERVICE FUNCTION BLIND RAMS-2 SEC TO CLOSE
45	100	0 25	21	SAFETY MTG
100	300	2 00	20	PICK UP MOTOR & MONELS & MAKE UP
300	345	0 75	6	PICK UP 3 DCs
345	500	1 25	6	RIH
500	600	1 00	6	LAY OUT 15 DP
600	645	0 75	6	RIH
645	800	1 25	23	WAIT ON VACCUM TRUCK TO DISPLACE TO INVERT
800				

NOTES CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	47	HANDLING TOOLS	

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 22
1	MOTOR		7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
15	D P STANDS		424 49
1	D P SINGLES		9 66
KELLY DOWN			13 02
TOTAL			673 98
WT OF D C	32		
WT OF STRING	47		

BIT RECORD

BIT NO	1
SIZE	215 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	11 9 X / 8
DEPTH OUT	673 00
DEPTH IN	660 00
TOTAL M DRILLED	13 00
TOTAL HRS RUN	1 00

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	
FILL ON BOTTOM (M)	

DAY TOUR — MUD RECORD

MUD TYPE ☐ WATER BASED ☒ OIL BASED

TIME	1700
DENSITY (KG/M3)	880
FUNNEL VISCOSITY	48
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
INVERT	63	M3
SCREENS	6	200

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

DAY TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
660 00	673 00	D	50	3

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
4000	152 0	100	152 0

REDUCED PUMP SPEED

970	@	54	@	673

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

DAY TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	830	0 25	21	BOP DRILL WELL SECURE 70 SEC
830	900	0 50	21	SAFETY MTG ON DISPLACING HOLE
900	1130	2 50	5	DISPLACE HOLE TO INVERT SUCK SHAKER TANK CLEAN & CRIC
1130	1345	2 25	24	DRILL OUT FLOAT & SHOE DRILL TO 664m
1345	1500	1 25	15	FORMATION LEAK OFF TEST
1500	1600	1 00	2	DRILL 215m m HOLE FR 664m - 673m
1600				

NOTES CHECK BRAKE LINKAGES
CHANGE SHAKER SCREENS 6-200

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	48	BOP DRILL	8233

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 22
1	MOTOR		7 85
1	FLOAT SUB	167	0 67
1	M W D TOOL CARRIER	168	0 77
1	MONEL	165	8 60
1	MONEL	165	9 08
3	D C	170	27 72
1	JAR		5 06
12	D C	170	109 90
1	X O	168	0 81
6	H W D P	114	56 13
17	D P STANDS		481 43
2	D P SINGLES		18 50
KELLY DOWN			7 26
TOTAL			734 00
WT OF D C	32		
WT OF STRING	48		

BIT RECORD

BIT NO	1
SIZE	215 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	11 9 8 / X
DEPTH OUT	
DEPTH IN	660 00
TOTAL M DRILLED	74 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	2-3 UP & DOWN
TORQUE AT BOTTOM	160
FILL ON BOTTOM (M)	

EVENING TOUR — MUD RECORD

MUD TYPE ☐ WATER BASED ☒ OIL BASED

TIME	2100	2200	2300
DENSITY (KG/M3)	870	870	870
FUNNEL VISCOSITY	41	42	41
FLUID LOSS (cm3)			
pH			

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	870	865	1280
8 00	870	865	1280

EVENING TOUR — METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
673 00	734 00	D	60	3

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
4800	152 0	120	152 0

REDUCED PUMP SPEED

1050	@	55	@	720

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
668 50	3 20	350 0
677 80	2 80	357 7
687 40	2 90	347 8
697 00	2 90	357 1
706 30	2 50	350 4

DRILLER SIGNATURE

DENNIS TESSIER

EVENING TOUR — TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE FUNCTION ANNULAR-10 SEC TO CLOSE
1615	2345	7 50	2	DRILL 215 m m HOLE FR 673m - 734m
2345	2400	0 25	10	DEV SURVEY ACC

NOTES FUNCTION REMOTE CHOKE
CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	51	INVERT	8233

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	18

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
NWT	X YES ☐ NO	43

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		CHAD SPIES	8 00		CS
LEASE HAND					

INJURIES

RATE SCHEDULE ☐ REGULAR ☐ REPAIR X INVERT

CREW SAFETY DAYS 14

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	12 00		JN
DERRICK HAND		ROD WOLD	12 00		RW
MOTOR HAND		MARK WARKENTON	12 00		MW
FLOOR HAND		DAVE PATTERSON	12 00		DP

INJURIES

RATE SCHEDULE X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS 14

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	4 00		DT
DERRICK HAND		MELVIN WELSH	4 00		MW
MOTOR HAND		BOB LIVINGSTONE	4 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	4 00		CJ
FLOOR HAND		CHAD SPIES	4 00		CS

INJURIES

RATE SCHEDULE ☐ REGULAR ☐ REPAIR X INVERT

CREW SAFETY DAYS 14

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34.04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 17

RIG NO 4

FUEL @ 05 00 HRS

RIG 174 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)
	244 5	224 4	59 50	ALGOMA	L 80	48	659 62	5 60	654 02

DRILL STRING	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 50	7 50											
DAY							0 25							7 75												
EVE.														3 50	3 25						0 25		1 00			
TOTAL							0 25							11 75	10 75						0 25		1 00			

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE F S I				
8 00	SCREENS CHANGED YES NO	CENTRIFUGE			
8 00	80 TOP	80 TOP			
8 00	80 MIDDLE	80 MIDDLE			
24 00	165 BOTTOM	165 BOTTOM			

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	O D	0.22
	D P	STANDS	
	D P	SINGLES	
	KELLY DOWN		
	TOTAL		0.22
	WT OF D C		
	WT OF STRING		

BIT RECORD

BIT NO	1
SIZE	215 9
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	8 X / 11 9
DEPTH OUT	
DEPTH IN	660 00
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		0 0	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DENNIS TESSIER

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	30	0 50	14	FINISH O-RING CHANGE & INSTALL PIN
30	800	7 50	15	TEST B O P PRESSURE TEST BLIND RAMS,UPPER & LOWER PIPE RAMS
				ANNULAR HCR UPPER & LOWER KELLY COCK STABBING VALVE,KILL
				LINE VALVES BACKUP VALVES SWEEP LINES & ALL RELATED EQUIPMENT
				LOW-1400 kpa 10 MINUTES EACH
				HIGH-21000 kpa

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360		PRESSURE TEST	

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
	BIT	O D	
	D P	STANDS	
	D P	SINGLES	
	KELLY DOWN		
	TOTAL		
	WT OF D C		
	WT OF STRING		

BIT RECORD

BIT NO	1
SIZE	215 9
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	8 X / 11 9
DEPTH OUT	
DEPTH IN	660 00
TOTAL M DRILLED	
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
	INVERT	24	M3

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		0 0	

REDUCED PUMP SPEED

@ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

DAVE RUSCHEINSKI

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	7	RIG SERVICE
815	1600	7 75	14	CHANGE POSITION OF KILL LINES & HRC LINES
1600				

NOTES SUCKED OUT KELLY SOCK NOTCHED MATTING FOR BOTTOM KILL LINE & SWEEP LINE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	10	KILL LINES	

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	FLOAT SUB	167	0 77
1	UBHO SUB	168	0 67
1	MONEL	165	8 60
1	MONEL	165	9 08
	D P	STANDS	
	D P	SINGLES	
	KELLY DOWN		
	TOTAL		19 34
	WT OF D C		
	WT OF STRING		

BIT RECORD

BIT NO	1
SIZE	215 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73EHPX
SERIAL NO	JS 2536
JETS	11 9 8 / X
DEPTH OUT	
DEPTH IN	660 00
TOTAL M DRILLED	
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
	GELTONE V	6	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
	0 0		0 0	

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE

JIM NEILSON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
660 00				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1930	3 50	14	FINISH KILL LINES & H C R LINES
1930	2100	1 50	15	M/U TEST PLUG & TIGTHEN LUGS ON CASING BOWL
2100	2115	0 25	21	SAFETY MTG WITH PRESSURE TESTER & CREW
2115	2300	1 75	15	P/T KILL FLANGES & H C R. FLANGES LOW 1400KPA HIGH 21 000 KPA
2300	2400	1 00	23	M/U WEAR BRUSHING & SET

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	10	PRESSURE TEST	

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	17

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	42

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND					
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ
LEASE HAND					

RATE SCHEDULE X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS 13

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DAVE RUSCHEINSKI	8 00		DR
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		CHAD SPIES	8 00		CS

RATE SCHEDULE X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS 13

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		ROD WOLD	8 00		RW
MOTOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP

RATE SCHEDULE X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS 13

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60:34:04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 16

RIG NO 4

FUEL @ 0400 HRS

RIG | BOILER

SAFETY

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

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

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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														5 50	2 50											
DAY							0 25							7 00	0 50						0 25					
EVE							0 25							4 00	3 75											
TOTAL							0 50							16 50	6 75						0 25					

TOTALS	SHALE SHAKER S !		RENTALS / SERVICES	MORN	DAY	EVE
	NO	TYPE	TYPE			
	2	F S I				
8 00	SCREENS CHANGED	YES / NO				
8 00	80 TOP	80 TOP				
8 00	80 MIDDLE	80 MIDDLE				
24 00	165 BOTTOM	165 BOTTOM				

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	16
OPERATOR	**CONTRACTOR**		
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER	**RIG NO**		
GEORGE McDONALD	4		
PROVINCE	**CAMP**	**RIG SAFETY DAYS**	
N W T	X YES / NO	41	

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O D	

LICENCE NO	WELL NAME & NO	DAILY CHECKS	OPR	R M
	ANADARKO ET AL ARROWHEAD RIVER-C55	(1) Daily Walk Around Inspection	DC	GM
OPERATOR	CONTRACTOR	(2) Detailed Inspection Weekly (Using Check List)	DC	GM
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP	(3) H2S Signs Posted If Required	DC	GM
SURFACE LOCATION	UNIQUE ID	(4) Well Licence & Stick Diagram Posted	DC	GM
60 34 04 92 N 122 55 22 35 W	300C55040122450	(5) Flare Lines Staked	DC	GM
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR S RIG MANAGER	(6) BOP Drills Performed		
DENNIS CROSWELL	GEORGE McDONALD	(7) Visually Inspect BOPs- Flare Lines & Degasser Lines	DC	GM

YEAR	MONTH	DAY
2003	2	15

RIG NO 4 — FUEL @ 08:00 HRS — RIG 193 — BOILER — TEMPERATURE — CURRENT CONDITIONS — WIND DIRECTION — ROAD CONDITION

DAILY CHECKS		
(1) Rig Site Health & Safety Meeting (one/crew/month)		GM
(2) CAODC Rig Safet Inspection Checklist (one/rig/month)		GM
(3) Mast Inspection before Raising or Lowering		
(4) Crown Saver Checked		GM
(5) Motor Kills Checked		

LAST CASING TUBING OR LINER

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

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

TIME LOG	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 DRILG 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 CUT CASING	23 REMOVING TEWELD BOWL	24	25	26	TOTALS
MORN													2 50									3 50	2 00				8 00
DAY							0 25							2 75									5 00				8 00
EVE.							0 25							7 75													8 00
TOTAL							0 50						2 50	10 50								3 50	7 00				24 00

SHALE SHAKER (S)	NO	TYPE	TYPE
	2	FSI	
SCREENS CHANGED		YES	NO
TOP	80		TOP
MIDDLE	80		MIDDLE
BOTTOM	165		BOTTOM

RENTALS / SERVICES — MORN — DAY — EVE

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	15

OPERATOR: ANADARKO CANADA ENERGY — CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP
RIG MANAGER: GEORGE McDONALD — RIG NO: 4
PROVINCE: N W T — CAMP: X YES ☐ NO — RIG SAFETY DAYS: 40

MORNING TOUR — FROM 0 TO 800

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 RECORD: BIT NO; SIZE; IADC CODE; MANUFACTURER; TYPE; SERIAL NO; JETS; DEPTH OUT; DEPTH IN; TOTAL M DRILLED; 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

DESILTER: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa | PUMP NO 1 LINER SIZE | PUMP NO 1 SPM | PUMP NO 2 LINER SIZE | PUMP NO 2 SPM
| | 152 0 | | 152 0 | |

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEYS: DEPTH (M) | DEVIATION | DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

METRES DRILLED: FROM | TO | D-R-C | RPM | WOB

TIME LOG: DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	230	2 50	13	WAIT ON CEMENT
230	600	3 50	22	CUT CASING,REMOVE DIVERTER & CUT CONDUCTER
600	800	2 00	23	PREP CASING FOR BOWL HEAT BOWL & WELD ON BOWL
800				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	27	TEAR DOWN DIVERTER	

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		BILL DELOWSKI	8 00			BD
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ
LEASE HAND						

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 11

DAY TOUR — FROM 800 TO 1600

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 RECORD: BIT NO; SIZE; IADC CODE; MANUFACTURER; TYPE; SERIAL NO; JETS; DEPTH OUT; DEPTH IN; TOTAL M DRILLED; 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
	660 00				

MUD MATERIALS ADDED: PRODUCT | AMOUNT | UNIT

SOLIDS CONTROL

DESILTER: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa | PUMP NO 1 LINER SIZE | PUMP NO 1 SPM | PUMP NO 2 LINER SIZE | PUMP NO 2 SPM
| | 152 0 | | 152 0 | |

REDUCED PUMP SPEED: @ | @

DEVIATION SURVEYS: DEPTH (M) | DEVIATION | DIRECTION

DRILLER SIGNATURE: DAVE RUSCHEINSKI

METRES DRILLED: FROM | TO | D-R-C | RPM | WOB

TIME LOG: DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	1000	1 75	23	CONTINUE WELD CASING BOWL
1000	1315	3 25	23	COOL DOWN BOWL TO STRESS TEST CHANGE BREAKER IN SCR
1315	1600	2 75	14	NIPPLE UP B O P , RIG UP SERVICE EQUIPTMENT
1600				

NOTES: CLEAN MUD TANKS

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	15	NIPPLE UP	

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DAVE RUSCHEINSKI	12 00			DR
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		COLIN COLBOURNE	12 00			CC
LEASE HAND		CHAD SPIES	12 00			CS

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 11

EVENING TOUR — FROM 1600 TO 2400

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 RECORD: BIT NO; SIZE; IADC CODE; MANUFACTURER; TYPE; SERIAL NO; JETS; DEPTH OUT; DEPTH IN; TOTAL M DRILLED; 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

DESILTER: HOURS RUN | INTAKE DENSITY (KG/M3) | OVER FLOW DENSITY | UNDER FLOW DENSITY

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

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: DENNIS TESSIER

METRES DRILLED: FROM | TO | D-R-C | RPM | WOB

TIME LOG: DETAILS OF OPERATIONS IN SEQUENCE & REMARKS

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE
1615	2400	7 75	14	NIPPLE UP B O P RIG UP SERVICE EQUIPTMENT

NOTES: RIG UP KETEK EQUIPTMENT WILDCAT AUTO DRILLER

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350		TUGGER LINE	

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		BILL DELOWSKI	4 00			BD
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ
LEASE HAND						

RATE SCHEDULE: X REGULAR ☐ REPAIR ☐ INVERT

CREW SAFETY DAYS: 11

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60 34 04 92 N 122.55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 14
RIG NO 4
FUEL @ 00:00 HRS
RIG 127 | BOILER
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

LAST CASING TUBING OR LINER	OD (mm)	MIN ID (mm)	kg/m	MAKE	GRADE	NO of JOINTS	TOTAL LENGTH	KB TO CSG HEAD	SET AT (m)

DC / DP SIZE	MASS	GRADE	MINIMUM ID	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 50	3 75	0 25					3 25									0 25					
DAY					2 25	1 50	0 25					3 75									0 25					
EVE					1 25	1 75						3 00	2 00								0 25					
TOTAL					4 00	7 00	0 50					10 00	2 00								0 75					

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	I F S I				
8 00	SCREENS CHANGED	YES / NO				
8 25	TOP 80	TOP 80				
24 25	MIDDLE 80	MIDDLE 80				
	BOTTOM 165	BOTTOM 165				

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	14
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD	RIG NO: 4		
PROVINCE: N W T	CAMP: X YES / NO	RIG SAFETY DAYS: 39	

MORNING TOUR — FROM 0 TO 800

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O D	0 25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	228	0 86
1	D C	170	9 27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
15	D P	STANDS	
2	D P	SINGLES	443 86
KELLY DOWN			8 54
TOTAL			660 25
WT OF D C.	30		
WT OF STRING	47		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	660 00
DEPTH IN	148 00
TOTAL M DRILLED	512 00
TOTAL HRS RUN	60 25

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	X WATER BASED	OIL BASED
TIME	15	
DENSITY (KG/M3)	1180	
FUNNEL VISCOSITY	67	
FLUID LOSS (cm3)	6 5	
pH	9 0	
P V T	41 80	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
GEL	20	SX
CAUSTIC	1	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8400	152 0	100	152 0	100

REDUCED PUMP SPEED: @ / @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE
15	45	0 50	5	COND MUD & CIRC
45	300	2 25	6	POOH TO RUN CASING
300	430	1 50	6	LAY OUT 9" DCd & MUD MOTOR
430	445	0 25	21	SAFETY MEETING WITH CREW / TONG HAND / LAYDOWN HAND
445	800	3 25	12	RIG UP POWER TONG & LAYDOWN MACHINE / MAKE UP SHOE & FLOAT
				RUN CASING

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	48	RUNNING CASING	

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		BILL DELOWSKI	8 00			BD
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ
LEASE HAND						

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 10

DAY TOUR — FROM 800 TO 1600

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
	BIT	O D	0 25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	228	0 86
1	D C	170	9 27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
15	D P	STANDS	
2	D P	SINGLES	443 86
KELLY DOWN			8 54
TOTAL			660 25
WT OF D C	30		
WT OF STRING	47		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	660 00
DEPTH IN	148 00
TOTAL M DRILLED	512 00
TOTAL HRS RUN	60 25

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	X WATER BASED	OIL BASED
TIME	1000	1
DENSITY (KG/M3)	1180	1180
FUNNEL VISCOSITY	68	68
FLUID LOSS (cm3)		
pH		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
2400	152 0	100	152 0	

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DAVE RUSCHEINSKI

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
660 00				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	830	0 25	21	SAFETY MEETING WITH CREW / TONG HAND / LAYDOWN HAND
830	945	1 25	12	CONTINUE RUNNING SURFACE CASING
945	1115	1 50	12	RIG OUT POWER TONGS AND LAY DOWN POST, BLOW KELLY
1115	1230	1 25	5	CIRCULATE CASING
1230	1400	1 50	6	RUN IN 20 STD s DRILL PIPE INSIDE CASING
1400	1500	1 00	12	RIG UP CEMENT HEAD PACK OFF TOOL
1500	1600	1 00	5	COND MUD & CIRC CASING
1600				

NOTES: CHECK BRAKE LINKAGE TONGS & LINES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	62	RUN CASING	

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DAVE RUSCHEINSKI	12 00			DR
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		COLIN COLBOURNE	12 00			CC
LEASE HAND		CHAD SPIES	12 00			CS

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 10

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	
DEPTH IN	
TOTAL M DRILLED	
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
DESCO	2	SX
SAWDUST	1	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
2020	152 0	105	152 0	

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
660 00				

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1715	1 25	5	COND MUD & CIRC CASING
1715	1730	0 25	21	SAFETY MTG CEMENTING
1715	2015	3 00	12	CEMENT CASING, 1m3 PREFLUSH AHEAD, PRESSURE TEST LINES TO 21000 kpa
2015				3m3 PREFLUSH, 37 3m3 SLURRY, DROP PLUG 4 54m3 DISPLACEMENT
				REVERSE DISPLACE TO WATER
2015	2200	1 75	6	POOH W/DP
2200	2400	2 00	13	WAIT ON CEMENT

NOTES: CHECK BRAKE LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	62	CEMENTING	

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		BILL DELOWSKI	4 00			BD
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ
LEASE HAND						

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 10

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60:34 04 92 N 122:55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 13
RIG NO 4
FUEL @ 08:00 HRS
RIG 128 BOILER
TEMPERATURE
CURRENT CONDITIONS
WIND DIRECTION
ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	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 JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 25					0 25			0 50																
DAY		6 75			0 50	0 25	0 25			0 25																
EVE.		1 50			2 00	4 00	0 25			0 25																
TOTAL		15 50			2 50	4 25	0 75			1 00																

TOTALS	SHALE SHAKER (S) NO	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	SCREENS CHANGED X YES NO	TYPE				
8 00	80 TOP	80 TOP				
8 00	80 MIDDLE	80 MIDDLE				
24 00	165 BOTTOM	165 BOTTOM				

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	13
OPERATOR: ANADARKO CANADA ENERGY	CONTRACTOR: SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER: GEORGE McDONALD		RIG NO: 4	
PROVINCE: N W T	CAMP X YES NO	RIG SAFETY DAYS: 38	

MORNING TOUR

FROM 0 TO 800

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 25	
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9 27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
14	D P STANDS		393 40
	D P SINGLES		
KELLY DOWN			12 66
TOTAL			613 91
WT OF D C	30		
WT OF STRING	45		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	465 00
TOTAL HRS RUN	52 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	170
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED
TIME	130	330	630
DENSITY (KG/M3)	1160	1160	1165
FUNNEL VISCOSITY	44	44	49
FLUID LOSS (cm3)	6 5	6 5	6 5
pH	8 5	8 0	9 5
P V T	45 70	45 70	44 80

MUD MATERIALS ADDED		
PRODUCT	AMOUNT	UNIT
BARAZAN	1	SX
GEL	10	SX
CAUSTIC	1	SX
SHAKER SCREEN	1	165

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1165	1155	1850
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1165	1155	1850

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
565 00	613 00	D	75	3

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	SPM	PUMP NO 2 LINER SIZE	SPM
7000	152 0	100	152 0	100

REDUCED PUMP SPEED

@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
565 00	2 25	
592 00	3 00	

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	715	7 25	2	DRILL F/565-T/613
715	730	0 25	7	RIG SERVICE
730	800	0 50	10	ACCUM SURVEYS

NOTES: CHECK BRAKE PINS & LINKAGE
FUNCTION CROWN SAVER

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	360	47	STEAM	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 9

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		BILL DELOWSKI	8 00			BD
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ
LEASE HAND						

DAY TOUR

FROM 800 TO 1600

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 25	
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9 27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
15	D P STANDS		
1	D P SINGLES		431 09
KELLY DOWN			12 66
TOTAL			651 60
WT OF D C	30		
WT OF STRING	47		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	503 00
TOTAL HRS RUN	58 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	NIL
TORQUE AT BOTTOM	200
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED	FROM	TO	D-R-C	RPM	WOB
TIME	930	1200	1500	613 00	651 00	D	75	3
DENSITY (KG/M3)	1160	1165	1170					
FUNNEL VISCOSITY	52	53	55					
FLUID LOSS (cm3)	7 0	7 0	6 5					
pH	9 0	9 5	9 0					
PVT	45 00	43 90	40 50					

MUD MATERIALS ADDED		
PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1165	1155	1900
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1165	1155	1900

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	SPM	PUMP NO 2 LINER SIZE	SPM
7500	152 0	100	152 0	100

REDUCED PUMP SPEED

@ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
621 00	3 00	

DRILLER SIGNATURE

DAVE RUSCHEINSKI

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	1500	6 75	2	DRILL F/ 613m - 651m
1500	1515	0 25	10	ACCUMULATIVE SURVEY TIME
1515	1545	0 50	5	CIRC HOLE CLEAN
1545	1600	0 25	6	WIPER TRIP TO SURFACE
1600				

NOTES: CHECK BRAKE LINKAGE TONGS & LINES
OFF BTM PRESSURE 6500kpa
GREASE CROWN SHEAVES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	50	ICE BUILD UP	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 9

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DAVE RUSCHEINSKI	12 00			DR
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		COLIN COLBOURNE	12 00			CC
LEASE HAND		CHAD SPIES	12 00			CS

EVENING TOUR

FROM 1600 TO 2400

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 25	
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9 27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
15	D P STANDS		
2	D P SINGLES		443 86
KELLY DOWN			8 54
TOTAL			660 25
WT OF D C	30		
WT OF STRING	47		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 8
	X
DEPTH OUT	660 00
DEPTH IN	148 00
TOTAL M DRILLED	512 00
TOTAL HRS RUN	60 25

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	230
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED	FROM	TO	D-R-C	RPM	WOB
TIME	2200	2400	651 00	660 25	D	70	4
DENSITY (KG/M3)	1180	1170					
FUNNEL VISCOSITY	50	61					
FLUID LOSS (cm3)	6 0	6 0					
pH	8 5	8 5					
P V T	42 90	43 00					

MUD MATERIALS ADDED		
PRODUCT	AMOUNT	UNIT
SHAKER SCREEN	1	80
CAUSTIC	1	SX
GEL	20	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00			
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00			

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	SPM	PUMP NO 2 LINER SIZE	SPM
8100	152 0	100	152 0	100

REDUCED PUMP SPEED

@ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
632 00	2 75	

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1815	2 25	6	CONTINUE TRIP OUT
1815	1830	0 25	7	RIG SERVICE
1830	2015	1 75	6	TRIP IN HOLE, LEAVE 5 STD,s IN DERRICK, PICK UP 15 SINGLES
2015	2030	0 25	5	BREAK CIRCULATION & WASH TO BOTTOM
2030	2200	1 50	2	DRILL F/651-T/660
2200	2215	0 25	10	DEV SURVEY @ 632m-2 3/4 DEGREE
2215	2400	1 75	5	COND MUD & CIRC
				STRAP CALC 651 26 TRIP RECORD CALC4 88m3
				MEAS 651 57 ACT5 09m3
				DIFF + 27 DIFF 21m3

NOTES: CHECK CROWN SAVER TONGS & LINES BRAKE LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	48	PICKING UP PIPE	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 9

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		BILL DELOWSKI	4 00			BD
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ
LEASE HAND						

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34 04 92 N 122 55.22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 MONTH 2 DAY 12

RIG NO 4

FUEL @ 08:00 HRS

RIG 119 BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER

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

	DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
JOINT STRING	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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 25					0 25			0 50																
DAY		7 25					0 25			0 50																
EVE.		7 25					0 25			0 50																
TOTAL		21 75					0 75			1 50																

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE D S I	TYPE			
8 00	SCREENS CHANGED X YES NO				
8 00	TOP 80 MIDDLE 80 BOTTOM 165	TOP 80 MIDDLE 80 BOTTOM 165			
24 00					

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	12

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	37

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0 25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 88
1	D C	170	9 27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
8	H W D P	156	56 13
8	D P STANDS		225 19
1	D P SINGLES		9 27
KELLY DOWN			9 69
TOTAL			452 00
WT OF D C	30		
WT OF STRING	42		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	304 00
TOTAL HRS RUN	30 25 1 00

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: X WATER BASED ☐ OIL BASED

				FROM	TO	D-R-C	RPM	WOB
TIME	130	330	630	399 00	417 00	D	30	4
DENSITY (KG/M3)	1130	1130	1130	417 00	452 00	D	30	2
FUNNEL VISCOSITY	41	40	43					
FLUID LOSS (cm3)	7 5	7 5	7 5					
pH	8 0	9 5	9 0					
P V T	42 90	44 00	45 70					

METRES DRILLED

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARAZAN	1	SX
GEL	10	SX
BAROFOS	1	SX
CAUSTIC	1	SX
SHAKER SCREEN	1	

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
12 00	1130	1120	1875
12 00	1130	1120	1810

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6300	152 0	100	152 0	100

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
396 00	1 25	
424 00	1 00	

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	715	7 25	2	DRILL F/399-T/452
715	730	0 25	7	RIG SERVICE
730	800	0 50	10	ACCUM SURVEYS

NOTES: FUNCTION CROWN SAVER

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	43		

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 8

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		BILL DELOWSKI	8 00			BD
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ
LEASE HAND		SHELDON MICHEL	8 00			SM

DAY TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0.25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9.27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
10	D P STANDS		
2	D P SINGLES		300 30
KELLY DOWN			5 85
TOTAL			514 00
WT OF D C	30		
WT OF STRING	44		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	366 00
TOTAL HRS RUN	37 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	NIL
TORQUE AT BOTTOM	189
FILL ON BOTTOM (M)	

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

				FROM	TO	D-R-C	RPM	WOB
TIME	930	1300	1530	452 00	454 00	D	30	3
DENSITY (KG/M3)	1125	1135	1135	454 00	501 00	D	60	5
FUNNEL VISCOSITY	44	47	46	501 00	514 00	D	75	3
FLUID LOSS (cm3)	8 0	8 0	8 0					
pH	9 5	8 5	8 5					
PVT	45 10	43 90	43 80					

METRES DRILLED

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARAZAN	1	SX
GEL	10	SX
SHAKER SCREEN	2	80

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1135	1125	1860
8 00	1135	1125	1860

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
7000	152 0	100	152 0	100

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
452 00	1 50	
480 00	1 75	

DRILLER SIGNATURE: DAVE RUSCHEINSKI

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	1530	7 25	2	DRILL F/ 452m - 514m
1530	1600	0 50	10	ACCUMULATIVE SURVEY TIME
1600				

NOTES: CHECK BRAKE LINKAGE TONGS & LINES
OFF BTM PRESSURE 6400kpa

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	44	CHEMICALS	0

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 8

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		DAVE RUSCHEINSKI	12 00			DR
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		COLIN COLBOURNE	12 00			CC
LEASE HAND		CHAD SPIES	12 00			CS

EVENING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)		LENGTH
1	BIT	O D	0.25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9.27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
6	H W D P	156	56 13
12	D P STANDS		337 51
1	D P SINGLES		9.26
KELLY DOWN			10 38
TOTAL			565 00
WT OF D C	30		
WT OF STRING	44		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 8
	X
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	417 00
TOTAL HRS RUN	44 75

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	
TORQUE AT BOTTOM	190
FILL ON BOTTOM (M)	

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

				FROM	TO	D-R-C	RPM	WOB
TIME	1730	2130	2330	514 00	530 00	D	75	4
DENSITY (KG/M3)	1140	1160	1160	530 00	565 00	D	75	3
FUNNEL VISCOSITY	46	44	44					
FLUID LOSS (cm3)	8 0	6 5	6 5					
pH	8 5	8 5	8 5					
PVT	43 80	44 80	45 10					

METRES DRILLED

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1160	1150	1880
8 00	1160	1150	1810

CIRCULATION PRESSURE kPa	PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
7000	152 0	100	152 0	100

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
508 00	2 00	
537 00	2 50	

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1615	0 25	7	RIG SERVICE
1615	2330	7 25	2	DRILL F/ 514m - T/565
2330	2400	0 50	10	ACCUMULATIVE SURVEY TIME

NOTES: CHECK BRAKE LINKAGE TONGS & LINES
OFF BTM PRESSURE 6500kpa

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	45	PREFABS	

RATE SCHEDULE	X	REGULAR		REPAIR		INVERT

CREW SAFETY DAYS: 8

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		BILL DELOWSKI	4 00			BD
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ
LEASE HAND						

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34:04 92 N 122.55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 11 | RIG NO 4 | FUEL @ 08:00 HRS | RIG 155 | BOILER | TEMPERATURE 12 | CURRENT CONDITIONS | WIND DIRECTION | ROAD CONDITION

LAST CASING TUBING OR LINER

	O D (mm)	MIN I D (mm)	kg/m	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 JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	11
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
RIG MANAGER	**RIG NO**
GEORGE McDONALD	4
PROVINCE	**CAMP**	**RIG SAFETY DAYS**
N W T	X YES NO	36

CODE NO

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 DRILG 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	TOTALS
MORN		6 75					0 25			1 00																	8 00
DAY		10 75					0 25			1 00																	12 00
EVE.		3 50					0 25			0 25																	4 00
TOTAL		21 00					0 75			2 25																	24 00

SHALE SHAKER (S)

NO	TYPE	SCREENS CHANGED	TOP	BOTTOM
1		YES NO		
2				
DSI			MIDDLE	
			80	165

NO	TYPE	TOP	BOTTOM
1		80	165
2			
DSI		MIDDLE	
		80	

RENTALS / SERVICES

	MORN	DAY	EVE

MORNING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO			O D	LENGTH
1	BIT		0 25	
1	MOTOR		240	8 31
3	D C		230	26 53
1	X O		226	0 86
1	D C		170	9 27
1	JAR		172	5 06
11	D C		170	100 63
1	X O		165	0 81
6	H W D P		156	56 13
2	D P	STANDS		57 05
	D P	SINGLES		
KELLY DOWN				12 66
TOTAL				277 56
WT OF D C		30		
WT OF STRING		39		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	129 00
TOTAL HRS RUN	8 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)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED	
TIME	1230	330	630
DENSITY (KG/M3)	1110	1120	1120
FUNNEL VISCOSITY	40	40	40
FLUID LOSS (cm3)	8 5	8 5	8 5
pH	9 5	9 5	9 5
PVT	39 20	37 40	35 60

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARAZAN	1	SX
GEL	5	SX
BARAFOS	2	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1120	1110	1790
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1120	1110	1750

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
167 00		D	30	3
	277 00	D	30	4

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
8000	152 0	100	152 0	100

REDUCED PUMP SPEED

@	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
170 00	0 50	
199 00	0 50	
228 00	0 75	

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	130	1 50	2	DRILL 311mm HOLE F/167-T/192
130	145	0 25	7	RIG SERVICE
145	200	0 25	10	DEV SURVEY @ 170m-1/2 DEGREE
200	345	1 75	2	DRILL 311mm HOLE F/192-T/220
345	400	0 25	10	DEV SURVEY @ 199m-1/2 DEGREE
400	545	1 75	2	DRILL 311mm HOLE F/220-T/249
545	600	0 25	10	DEV SURVEY @ 228m-3/4 DEGREE
600	745	1 75	2	DRILL 311mm HOLE F/249-T/277
745	800	0 25	10	DEV SURVEY

NOTES: CHECK BRAKE LINKAGE
FUNCTION CROWN SAVER

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	41	MUD MOTOR	

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS
7

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	8 00			DT
DERRICK HAND		DON PIERROT	8 00			DP
MOTOR HAND		BILL DELOWSKI	8 00			BD
FLOOR HAND		CONRAD FRASER	8 00			CF
FLOOR HAND		GORDON JOE	8 00			GJ
LEASE HAND						

DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO			O D	LENGTH
1	BIT		0 25	
1	MOTOR		240	8 31
3	D C		230	26 53
1	X O		226	0 86
1	D C		170	9 27
1	JAR		172	5 06
11	D C		170	100 63
1	X O		165	0 81
6	H W D P		156	56 13
5	D P	STANDS		150 37
1	D P	SINGLES		
KELLY DOWN				12 78
TOTAL				371 00
WT OF D C		30		
WT OF STRING		41		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 X
	8
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	222 00
TOTAL HRS RUN	19 50

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG	NIL
TORQUE AT BOTTOM	210
FILL ON BOTTOM (M)	

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED	
TIME	1000	1200	1800
DENSITY (KG/M3)	1120	1120	1120
FUNNEL VISCOSITY	40	43	44
FLUID LOSS (cm3)	9 5	9 5	7 5
pH	9 5	9 5	9 5
PVT	36 90	38 90	43 40

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
BARAZAN	2	SX
GEL	30	SX
BARAFOS	1	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
12 00	1120	1110	1870
HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
12 00	1120	1110	1870

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
277 00	370 00	D	35	3

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6200	152 0	100	152 0	100

REDUCED PUMP SPEED

@	0	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
256 00	0 25	
284 00	1 00	
312 00	0 25	

DRILLER SIGNATURE

DAVE RUSCHEINSKI

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	815	0 25	7	RIG SERVICE
815	1900	10 75	2	DRILL F/ 277m - 370m
1900	2000	1 00	10	ACCUMULATIVE SURVEY TIME
0				

NOTES: CHECK BRAKE LINKAGE TONGS & LINES
OFF BTM PRESSURE 5800kpa

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
12 00	10 0	350	42	MOUSEHOLE	

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS
7

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DAVE RUSCHEINSKI	12 00			DR
DERRICK HAND		MELVIN WELSH	12 00			MW
MOTOR HAND		BOB LIVINGSTONE	12 00			BL
FLOOR HAND		CARSON JAKIBOWSKI	12 00			CJ
FLOOR HAND		COLIN COLBOURNE	12 00			CC
LEASE HAND		CHAD SPIES	12 00			CS

EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO			O D	LENGTH
1	BIT		0 25	
1	MOTOR		240	8 31
3	D C		230	26 53
1	X O		226	0 86
1	D C		170	9 27
1	JAR		172	5 06
11	D C		170	100 63
1	X O		165	0 81
6	H W D P		156	56 13
6	D P	STANDS		169 39
1	D P	SINGLES		9 28
KELLY DOWN				12 66
TOTAL				399 18
WT OF D C		30		
WT OF STRING		41		

BIT RECORD

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 8
	X
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	251 00
TOTAL HRS RUN	23 00

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	2100	2400	
DENSITY (KG/M3)	1120	1130	
FUNNEL VISCOSITY	41	41	
FLUID LOSS (cm3)	7 5	7 5	
pH	7 5	7 5	
P V T	42 90	43 20	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
370 00	399 00	D	30	3

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
6300	152 0	100	152 0	100

REDUCED PUMP SPEED

@	0	@

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
368 00	0 75	

DRILLER SIGNATURE

DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
2000	2015	0 25	7	RIG SERVICE
2015	2345	3 50	2	DRILL F/370-T/399
2345	2400	0 25	10	DEV SURVEY @ 368m-3/4 DEGREE

NOTES: CHECK BRAKE PINS & LINKAGE

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	42	HOUSEKEEPING	

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS
7

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	4 00			DT
DERRICK HAND		DON PIERROT	4 00			DP
MOTOR HAND		BILL DELOWSKI	4 00			BD
FLOOR HAND		CONRAD FRASER	4 00			CF
FLOOR HAND		GORDON JOE	4 00			GJ
LEASE HAND		SHELDON MICHEL	8 00			SM

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34:04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 10

RIG NO 4

FUEL @ 08:00 HRS | RIG 128 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

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

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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 DRESS BIT PICK UP MOTOR	23	24	25	26
MORN		7 25					0 25			0 50															
DAY		2 50			0 50	2 50	0 25			0 25												2 00			
EVE		2 00	4 25			1 00	0 25			0 25											0 25				
TOTAL		11 75	4 25		0 50	3 50	0 75			1 00											0 25	2 00			

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE D S I	TYPE			
8 00	SCREENS CHANGED X YES NO				
8 00	TOP 80 MIDDLE 80	TOP 80 MIDDLE 80			
24 00	BOTTOM 165	BOTTOM 165			

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	10
OPERATOR ANADARKO CANADA ENERGY	**CONTRACTOR** SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER GEORGE McDONALD	**RIG NO** 4		
PROVINCE N W T	**CAMP** X YES NO	**RIG SAFETY DAYS** 35	

MORNING TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 D	0 30
1	BIT SUB	231	1 08
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9 27
1	X O	166	0 81
1	JAR	172	5 08
12	D C	170	74 71
	D P	STANDS	
	D P	SINGLES	
KELLY DOWN			6 38
TOTAL			125 00
WT OF D C	27		
WT OF STRING	27		

BIT NO	1
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	SDGH
SERIAL NO	YD1813
JETS	15 9 15 9 / 15 9
DEPTH OUT	
DEPTH IN	0 00
TOTAL M DRILLED	125 00
TOTAL HRS RUN	11 00

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	X WATER BASED	OIL BASED	
TIME	200	700	
DENSITY (KG/M3)	1050	1050	
FUNNEL VISCOSITY	38	38	
FLUID LOSS (cm3)			
pH	11 0	11 0	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SAWDUST	12	
BARAFOS	1	
GEL	10	
SCREENS	1	165

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1060	1700	1040
8 00	1060	1710	1040

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
65 00	65 00	D	120	6

CIRCULATION PRESSURE kPa: 2000

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0	80	152 0	80

REDUCED PUMP SPEED: @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
61 00	0 50	
69 00	0 18	

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	15	0 25	7	RIG SERVICE
15	730	7 25	2	DRILL 311m m HOLE FR 65m- 125m
730	800	0 50	10	DEV SURVEY
800				

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	630	30	CONNECTIONS	

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 6

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	8 00		JN
DERRICK HAND		DAN GIURISSEVICH	8 00		DG
MOTOR HAND		ROD WOLDE	8 00		RW
FLOOR HAND		MARK WARKENTON	8 00		MW
FLOOR HAND		DAVE PATTERSON	8 00		DP

DAY TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 D	0.25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9.27
1	JAR	172	5 06
1	JAR	172	5 06
9	D C	170	82 32
	D P	STANDS	
	D P	SINGLES	
KELLY DOWN			
TOTAL			137 66
WT OF D C	30		
WT OF STRING	30		

BIT NO	1A	2A
SIZE	311 0	311 0
IADC CODE		
MANUFACTURER	SMITH	SMITH
TYPE	SDGH	S73HPX
SERIAL NO	YD1813	JS9850
JETS	15 9 15 9 15 X / 15 9 8	
DEPTH OUT	148 00	
DEPTH IN	0 00	148 00
TOTAL M DRILLED	148 00	
TOTAL HRS RUN	13 50	

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	X WATER BASED	OIL BASED	
TIME	1000		
DENSITY (KG/M3)	1090		
FUNNEL VISCOSITY	42		
FLUID LOSS (cm3)			
pH	10 0		
PVT	43 30		

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
HUMALITE	1	SX
PAC R	1	SX
BARAZAN	2	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
125 00	148 00	D	120	6

CIRCULATION PRESSURE kPa: 2900

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0	90	152 0	90

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
116 00	0 50	

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	830	0 50	2	DRILL 311mm HOLE F/125-T/130
830	845	0 25	7	RIG SERVICE
845	900	0 25	10	DEV SURVEY
900	1100	2 00	2	DRILL 311mm HOLE F/130-T/148
1100	1130	0 50	5	CIRCULATE HOLE CLEAN
1130	1300	1 50	6	POOH TO PICK UP MOTOR & PDC
1300	1500	2 00	22	DRESS BIT,STEAM MOTOR & CHECK ALL CONNECTIONS ON MOTOR
1500	1600	1 00	6	RIH W/MOTOR & PDC
1600				

NOTES: FUNCTION CROWN SAVER

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	35	TRIPPING	0

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 6

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	8 00		DT
DERRICK HAND		DON PIERROT	8 00		DP
MOTOR HAND		BILL DELOWSKI	8 00		BD
FLOOR HAND		CONRAD FRASER	8 00		CF
FLOOR HAND		GORDON JOE	8 00		GJ
LEASE HAND		CHAD SPIES	12 00		CS

EVENING TOUR

BIT RECORD

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
1	BIT	0 D	0.25
1	MOTOR	240	8 31
3	D C	230	26 53
1	X O	226	0 86
1	D C	170	9.27
1	JAR	172	5 06
11	D C	170	100 63
1	X O	165	0 81
1	H W D P	156	9 40
	D P	STANDS	
	D P	SINGLES	
KELLY DOWN			5 88
TOTAL			167 00
WT OF D C	30		
WT OF STRING	36		

BIT NO	2A
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	S73HPX
SERIAL NO	JS9850
JETS	15 8 / X
DEPTH OUT	
DEPTH IN	148 00
TOTAL M DRILLED	19 00
TOTAL HRS RUN	2 00

CUTTING STRUCTURE

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

HOLE CONDITION

HOLE DRAG: NIL

TORQUE AT BOTTOM: 200

FILL ON BOTTOM (M): 3 00

MUD RECORD

MUD TYPE	X WATER BASED	OIL BASED		
TIME	1800	2000	2200	
DENSITY (KG/M3)	1100	1100	1100	
FUNNEL VISCOSITY	47	45	45	
FLUID LOSS (cm3)	9 5	9 5	9 5	
pH	10 0	10 0	10 0	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
GEL	6	SX
SAWDUST	2	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

CENTRIFUGE

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY
8 00	1090	1085	1745
8 00	1090	1085	1780

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
75 00	148 00	R	35	1
148 00	167 00	D	35	2

CIRCULATION PRESSURE kPa: 7000

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
152 0	100	152 0	100

REDUCED PUMP SPEED: @ 0 @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DAVE RUSHINSKI

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1700	1 00	6	CONTINUE TRIP IN
1700	1745	0 75	3	WASH/ REAM F/ 75m - 88m
1745	1800	0 25	7	RIG SERVICE
1800	2130	3 50	3	WASH REAM F/ 88m - 148m
2130	2145	0 25	21	SAFETY MTG
2145	2315	1 50	2	DRILL F/ 148m - 164m
2315	2330	0 25	10	DEV SURVEY
2330	2400	0 50	2	DRILL F/ 164m - 167m
2400				

NOTES: CHECK CROWN SAVER TONGS & LINES BRAKE LINKAGE
OFF BTM PRESSURE 6500kpa

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 0	350	36	ORIENTATION	

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 6

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DAVE RUSHINSKI	8 00		DR
DERRICK HAND		MELVIN WELSH	8 00		MW
MOTOR HAND		BOB LIVINGSTONE	8 00		BL
FLOOR HAND		CARSON JAKIBOWSKI	8 00		CJ
FLOOR HAND		COLIN COLBOURNE	8 00		CC

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANA[redacted]RKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60-34.04.92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

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

YEAR 2003 | MONTH 2 | DAY 9

RIG NO 4

FUEL @ 06:00 HRS: RIG 151 | BOILER

DAYLIGHT: TEMPERATURE -5 | CURRENT CONDITIONS | WIND DIRECTION NORTH | ROAD CONDITION ICE

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

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

CODE NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTALS
	RIGUP & TEARDOWN	DRILL ACTUAL	REAMING	CORING	COND MUD & CIRC	TRIPS	RIG SERVICE	REPAIR RIG	CUT OFF DRILG 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		MAKE KELLY				
MORN		1 50					0 25							5 00							0 50		0 75				8 00
DAY		2 75					0 25	0 50		0 25					0 75						0 25	3 25					8 00
EVE.		1 00				1.25																4 00	1 75				8 00
TOTAL		5 25				1 25	0 50	0 50		0 25				5 00	0 75						0 75	7 25	2 50				24 00

SHALE SHAKER (S) — NO 2 | TYPE D S I | SCREENS CHANGED [ ] YES [ ] NO | TOP 80 | MIDDLE 80 | BOTTOM 165 | TYPE | TOP 80 | MIDDLE 80 | BOTTOM 165

RENTALS / SERVICES

MORN	DAY	EVE

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	9

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	[X] YES [ ] NO	34

MORNING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 30	
1	BIT SUB	231	1 08
	DP STANDS		
	DP SINGLES		
	KELLY DOWN		
	TOTAL		1 38
	WT OF D C		
	WT OF STRING		

BIT RECORD

BIT NO	1
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	SDGH
SERIAL NO	YD1813
JETS	15 9 / 15 9 / 15 9
DEPTH OUT	
DEPTH IN	0 00
TOTAL M DRILLED	
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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

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
0 0		0 0	

REDUCED PUMP SPEED

@		@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	500	5 00	14	FINISH NIPPLE UP & DIVERTER LINE & FLARE TANK FLOW LINE
500	530	0 50	21	HELD PRE-SPUD SAFTEY MEETING
530	615	0 75	23	TIGHTEN UP UPPER KELLY COCK LOWER KELLY COCK SAVER SUB
615	630	0 25	7	RIG SERVICE
630	800	1 50	2	P/U 9" D C M/U BIT # 1
800				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	630			

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

CREW SAFETY DAYS: 5

MORNING TOUR FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		DAN GIURISSEVICH	8 00			DG
MOTOR HAND		ROD WOLDE	8 00			RW
FLOOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP

DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 30	
1	BIT SUB	231	1 08
3	D C	230	26 53
1	X O	228	0 86
1	D C	170	9.27
1	X O	166	0 81
	DP STANDS		
	DP SINGLES		
	KELLY DOWN		12 70
	TOTAL		51 55
	WT OF D C	20	
	WT OF STRING	20	

BIT RECORD

BIT NO	1
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	SDGH
SERIAL NO	YD1813
JETS	15 9 / 15 9 / 15 9
DEPTH OUT	
DEPTH IN	0 00
TOTAL M DRILLED	51 00
TOTAL HRS RUN	2 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)	

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

TIME	1130	1400	1600
DENSITY (KG/M3)	1040	1050	1060
FUNNEL VISCOSITY	52	48	50
FLUID LOSS (cm3)			
pH	9 0	9 0	9 0
PVT	52 30	45 00	34 00

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT
SAPP	2	SX

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
0 00	51 00	D	80	6

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
0 0	110	0 0	

REDUCED PUMP SPEED

@	0	@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION
29 00	0 25	

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	845	0 75	15	TEST DIVERTER
845	900	0 25	21	SAFETY MTG
900	1145	2 75	2	DRILL 311mm HOLE F/0 - T/51
1145	1200	0 25	10	DEV SURVEY
1200	1515	3 25	22	TEAR APART FLOWLINE & REASSEMBLE(MUD RING)
1515	1545	0 50	8	REPAIR RIG (CHANGE OUT BRAKER IN SCR SHACK)
1545	1600	0 25	7	RIG SERVICE
1600				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	11 0	650	25	PINCH POINTS	

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

CREW SAFETY DAYS: 5

DAY TOUR FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		DENNIS TESSIER	12 00			DT
DERRICK HAND		DON PIERROT	12 00			DP
MOTOR HAND		BILL DELOWSKI	12 00			BD
FLOOR HAND		CONRAD FRASER	12 00			CF
FLOOR HAND		GORDON JOE	12 00			GJ
LEASE HAND		CHAD SPIES	12 00			CS

EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO		O D	LENGTH
1	BIT	0 30	
1	BIT SUB	231	1 08
3	D C	230	26 53
1	X O	228	0 86
1	D C	170	9.27
1	X O	166	0 81
1	JAR		5 06
1	D C	170	9 17
	DP STANDS		
	DP SINGLES		
	KELLY DOWN		12 70
	TOTAL		65 78
	WT OF D C	20	
	WT OF STRING	20	

BIT RECORD

BIT NO	1
SIZE	311 0
IADC CODE	
MANUFACTURER	SMITH
TYPE	SDGH
SERIAL NO	YD1813
JETS	15 9 / 15 9 / 15 9
DEPTH OUT	
DEPTH IN	0 00
TOTAL M DRILLED	65 00
TOTAL HRS RUN	3 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)	

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

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB
51 00	65 00	D	80	6

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
0 0	110	0 0	

REDUCED PUMP SPEED

@	0	@	

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1700	1 00	2	DRILL 311mm HOLE F/51-T/65
1700	2045	3 75	22	CLEAN MUD RING IN CONDUCTER & FLOWLINE
2045	2130	0 75	6	TRIP FOR MUD RING
2130	2315	1 75	23	WELD ON FLOW LINE
2315	2345	0 50	6	RUN IN HOLE
2345	2400	0 25	22	CLEAN MUD RING IN FLOW LINE
2400				

NOTES: CHECK BRAKE LINKAGES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	630	22	WRINCH LINES	

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

CREW SAFETY DAYS: 5

EVENING TOUR FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		INJURIES YES	INJURIES NO
DRILLER		JIM NEILSON	4 00			JN
DERRICK HAND		DAN GIURISSEVICH	4 00			DG
MOTOR HAND		ROD WOLDE	4 00			RW
FLOOR HAND		MARK WARKENTON	4 00			MW
FLOOR HAND		DAVE PATTERSON	4 00			DP

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER-C55
OPERATOR	**CONTRACTOR**
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	**UNIQUE ID**
60 34.04 92 N 122:55:22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	**SIGNATURE OF CONTRACTOR'S RIG MANAGER**
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R M
(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)		GM
(2) CAODC Rig Safet Inspection Checklist (one/rig/month)		GM
(3) Mast Inspection before Raising or Lowering		GM
(4) Crown Saver Checked		
(5) Motor Kills Checked		

YEAR 2003 | MONTH 2 | DAY 8

RIG NO 4

FUEL @ 0 00 HRS

RIG 100 | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

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

DC / DP SIZE	MASS	GRADE	MINIMUM I D	T JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

BIT / DRILLING HRS

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 DRILG 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 CONDUCTER & DIVERTE	23	24	25	26
MORN	8 00																									
DAY	4 00																					4 00				
EVE														6 00								2 00				
TOTAL	12 00													6 00								6 00				

TOTALS	SHALE SHAKER (S) NO	TYPE	TYPE	RENTALS / SERVICES	MORN	DAY	EVE
8 00	2	D S I					
8 00	SCREENS CHANGED		YES NO				
8 00	80 TOP	80 TOP					
8 00	80 MIDDLE	80 MIDDLE					
24 00	165 BOTTOM	165 BOTTOM					

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER-C55	2003	2	8

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES NO	33

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	8 00			JN
DERRICK HAND		DAN GIURISSEVICH	8 00			DG
MOTOR HAND		ROD WOLDE	8 00			RW
FLOOR HAND		MARK WARKENTON	8 00			MW
FLOOR HAND		DAVE PATTERSON	8 00			DP

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

CREW SAFETY DAYS: 4

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		DENNIS TESSIER	12 00			DT
DERRICK HAND		DON PIERROT	12 00			DP
MOTOR HAND		BILL DELOWSKI	12 00			BD
FLOOR HAND		CONRAD FRASER	12 00			CF
FLOOR HAND		GORDON JOE	12 00			GJ
LEASE HAND		CHAD SPIES	12 00			CS

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

CREW SAFETY DAYS: 4

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS		YES	NO
DRILLER		JIM NEILSON	4 00			JN
DERRICK HAND		DAN GIURISSEVICH	4 00			DG
MOTOR HAND		ROD WOLDE	4 00			RW
FLOOR HAND		MARK WARKENTON	4 00			MW
FLOOR HAND		DAVE PATTERSON	4 00			DP

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

CREW SAFETY DAYS: 4

MORNING TOUR

DRILLING 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
DEPTH IN
TOTAL M DRILLED
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 — WATER BASED ☐ OIL BASED ☐

MUD TYPE
TIME
DENSITY (KG/M3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
		0 0	

REDUCED PUMP SPEED
@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0	800	8 00	1	RIG UP DERRICK / FLOOR / TANKS

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	675		RIG UP	

DAY TOUR

DRILLING 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
DEPTH IN
TOTAL M DRILLED
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 — WATER BASED ☐ OIL BASED ☐

MUD TYPE
TIME
DENSITY (KG/M3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
		0 0	

REDUCED PUMP SPEED
@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	1200	4 00	1	RIG UP TANKS / CENTRIFUGES / UNLOAD DRILL PIPE
1200	1600	4 00	22	WELD CONDUCTOR-DIVERTER ADAPTER

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	630	8	DIVERTER	

EVENING TOUR

DRILLING 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
DEPTH IN
TOTAL M DRILLED
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 — WATER BASED ☐ OIL BASED ☐

MUD TYPE
TIME
DENSITY (KG/M3)
FUNNEL VISCOSITY
FLUID LOSS (cm3)
pH

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa

PUMP NO 1 LINER SIZE	PUMP NO 1 SPM	PUMP NO 2 LINER SIZE	PUMP NO 2 SPM
0 0		0 0	

REDUCED PUMP SPEED
@ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1800	2 00	22	WELD DIVERTER ADAPTER / FLOW NIPPLE / FLARE TANK ADAPTER
1800	2400	6 00	14	NIPPLE UP DIVERTER / FLARE TANK / FLOW NIPPLE / FLOW LINE
2400				

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
8 00	10 5	630	8	HAMMER WERNCHS	0

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER - C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60:34.04 92 N 122:55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR S REPRESENTATIVE	SIGNATURE OF CONTRACTOR S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R M
(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)		GM
(2) CAODC Rig Safet Inspection Checklist (one/rig/month)		GM
(3) Mast Inspection before Raising or Lowering		GM
(4) Crown Saver Checked		GM
(5) Motor KIlls Checked		

YEAR 2003 | MONTH 2 | DAY 7

RIG NO 4

FUEL @ 08:00 HRS — RIG | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	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 JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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	TOTALS
MORN																											
DAY	6 75																				1 25						8 00
EVE.	8 00																										8 00
TOTAL	14 75																				1 25						16 00

SHALE SHAKER (S) — NO | TYPE | SCREENS CHANGED YES NO | TOP | MIDDLE | BOTTOM

RENTALS / SERVICES — MORN | DAY | EVE

MORNING TOUR

NO	DRILLING ASSEMBLY (AT END OF TOUR)	O D	LENGTH
	BIT		

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER - C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60 34 04 92 N 122 55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R.M.
(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 2003 | MONTH 2 | DAY 6

RIG NO 4

FUEL @ 24:00 HRS — RIG | BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	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 JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

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 DRILG 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																										
DAY												1 50	5 50								1 00					
EVE.	1 25												0 50								0 25					
TOTAL	1 25											1 50	6 00								0 25	1 00				

TOTALS	SHALE SHAKER (S)	RENTALS / SERVICES	MORN	DAY	EVE
8 00	NO 2 TYPE D S I	TYPE			
2 00	SCREENS CHANGED YES NO				
10 00	TOP / MIDDLE / BOTTOM	TOP / MIDDLE / BOTTOM			

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER - C55	2003	2	6
OPERATOR	CONTRACTOR		
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP		
RIG MANAGER	RIG NO		
GEORGE McDONALD	4		
PROVINCE	CAMP	RIG SAFETY DAYS	
N W T	X YES NO	30	

MORNING TOUR — FROM 0 TO 800

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON	10 00		JN
DERRICK HAND		DAN GIURISSEVICH	10 00		DG
MOTOR HAND		ROD WOLDE	10 00		RW
FLOOR HAND		MARK WARKENTON	10 00		MW
FLOOR HAND		DAVE PATTERSON	10 00		DP

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 2

DAY TOUR — FROM 800 TO 1600

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		DENNIS TESSIER	10 00		DT
DERRICK HAND		DON PIERROT	10 00		DP
MOTOR HAND		BILL DELOWSKI	10 00		BD
FLOOR HAND		CONRAD FRASER	10 00		CF
FLOOR HAND		GORDON JOE	10 00		GJ

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 2

EVENING TOUR — FROM 1600 TO 2400

CREW	SOC INS NO	NAME	HRS	YES	NO
DRILLER		JIM NEILSON			JN
DERRICK HAND		DAN GIURISSEVICH			DG
MOTOR HAND		ROD WOLDE			RW
FLOOR HAND		MARK WARKENTON			MW
FLOOR HAND		DAVE PATTERSON			DP

RATE SCHEDULE: X REGULAR | REPAIR | INVERT

CREW SAFETY DAYS: 2

NO 1 — MORNING TOUR

DRILLING ASSEMBLY (AT END OF TOUR) — LENGTH

BIT — O D

DP — STANDS
DP — 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	
DEPTH IN	
TOTAL M DRILLED	
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 — ☐ WATER BASED ☐ OIL BASED

MUD TYPE	
TIME	
DENSITY (KG/M3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa | PUMP NO 1 LINER SIZE / SPM | PUMP NO 2 LINER SIZE / SPM

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
0				COMPLETED RATHOLE @ 09 00
				CEMENT TO 10 30
				WAIT ON CEMENT UNTIL 16 30
				INSTALL EXHAUSTS / STAND ALL HANDRAILS & LIGHTS
				INSTALL MAGNETS IN PUMP #1
				PRE-JOB SAFETY MEETING
				INSALL STOOLS & RAISE WINGS ON SUB
				SPOT SUB MATTING
				SHUT DOWN @ DARK - NO NIGHT WORK

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP

NO 2 — DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR) — LENGTH

BIT — O D

DP — STANDS
DP — 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	
DEPTH IN	
TOTAL M DRILLED	
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 RECORD — ☐ WATER BASED ☐ OIL BASED

MUD TYPE	
TIME	
DENSITY (KG/M3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa | PUMP NO 1 LINER SIZE / SPM | PUMP NO 2 LINER SIZE / SPM

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: DENNIS TESSIER

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
800	900	1 00	22	DRILL RATHOLE
900	1030	1 50	12	CEMENT CONDUCTOR
1030	1600	5 50	13	WAIT ON CEMENT

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP
					0

NO 3 — EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR) — LENGTH

BIT — O D

DP — STANDS
DP — 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	
DEPTH IN	
TOTAL M DRILLED	
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 — ☐ WATER BASED ☐ OIL BASED

MUD TYPE	
TIME	
DENSITY (KG/M3)	
FUNNEL VISCOSITY	
FLUID LOSS (cm3)	
pH	

MUD MATERIALS ADDED

PRODUCT	AMOUNT	UNIT

SOLIDS CONTROL

DESILTER

HOURS RUN	INTAKE DENSITY (KG/M3)	OVER FLOW DENSITY	UNDER FLOW DENSITY

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

CIRCULATION PRESSURE kPa | PUMP NO 1 LINER SIZE / SPM | PUMP NO 2 LINER SIZE / SPM

REDUCED PUMP SPEED @ @

DEVIATION SURVEYS

DEPTH (M)	DEVIATION	DIRECTION

DRILLER SIGNATURE: JIM NEILSON

METRES DRILLED

FROM	TO	D-R-C	RPM	WOB

TIME LOG

FROM	TO	ELAPSED TIME	CODE	DETAILS OF OPERATIONS IN SEQUENCE & REMARKS
1600	1630	0 50	13	WAIT ON CEMENT
1630	1645	0 25	21	SAFETY MEETING ON RIG-UP HAZARDS
1645	1800	1 25	1	SPOT MATTING / SUB
				PIN DERRICK / INSTALL MONKEY BOARD
				SPOT MUD TANK

NOTES

HRS RUN	BOILER pH	STACK TEMP	MAXIMUM EXPERIENCED HOOK LOAD	SAFETY TOPIC	MACP

LICENCE NO	WELL NAME & NO
	ANADARKO ET AL ARROWHEAD RIVER - C55
OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP
SURFACE LOCATION	UNIQUE ID
60 34:04 92 N 122:55 22 35 W	300C55040122450
SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR S RIG MANAGER
DENNIS CROSWELL	GEORGE McDONALD

DAILY CHECKS

	OPR	R M
(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 2003 MONTH 2 DAY 5

RIG NO 4

FUEL @ 08:00 HRS

RIG BOILER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD CONDITION

LAST CASING TUBING OR LINER	O D (mm)	MIN I D (mm)	kg/m	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 JNT O D	TYPE THREAD	NO of JOINTS	PUMP TYPE	PUMP MANUFACTURER	STROKE LENGTH
	114	24 70	E	97	155	4 5XH	320	8-P80	NATIONAL	216
	114	62 50	HW	70	155	4 5XH	37	8-P80	NATIONAL	216

PASON *DATAHUB*
Shehtah 4

CDN 3422-2-011204

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 DRILG 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	TOTALS
MORN																						MOVE RIG					
DAY																						8 00					8 00
EVE																						2 00					2 00
TOTAL																						10 00					10 00

SHALE SHAKER (S)

NO	TYPE	TYPE
2	DSI	

SCREENS CHANGED ☐ YES ☐ NO

TOP	TOP
MIDDLE	MIDDLE
BOTTOM	BOTTOM

RENTALS / SERVICES

MORN	DAY	EVE

DRILLING CREW PAYROLL DATA

WELL NAME & NO	YEAR	MONTH	DAY
ANADARKO ET AL ARROWHEAD RIVER - C55	2003	2	5

OPERATOR	CONTRACTOR
ANADARKO CANADA ENERGY	SHEHTAH-WILSON PARTNERSHIP

RIG MANAGER	RIG NO
GEORGE McDONALD	4

PROVINCE	CAMP	RIG SAFETY DAYS
N W T	X YES ☐ NO	29

DRILLING ASSEMBLY (AT END OF TOUR)

NO	BIT	O D	LENGTH