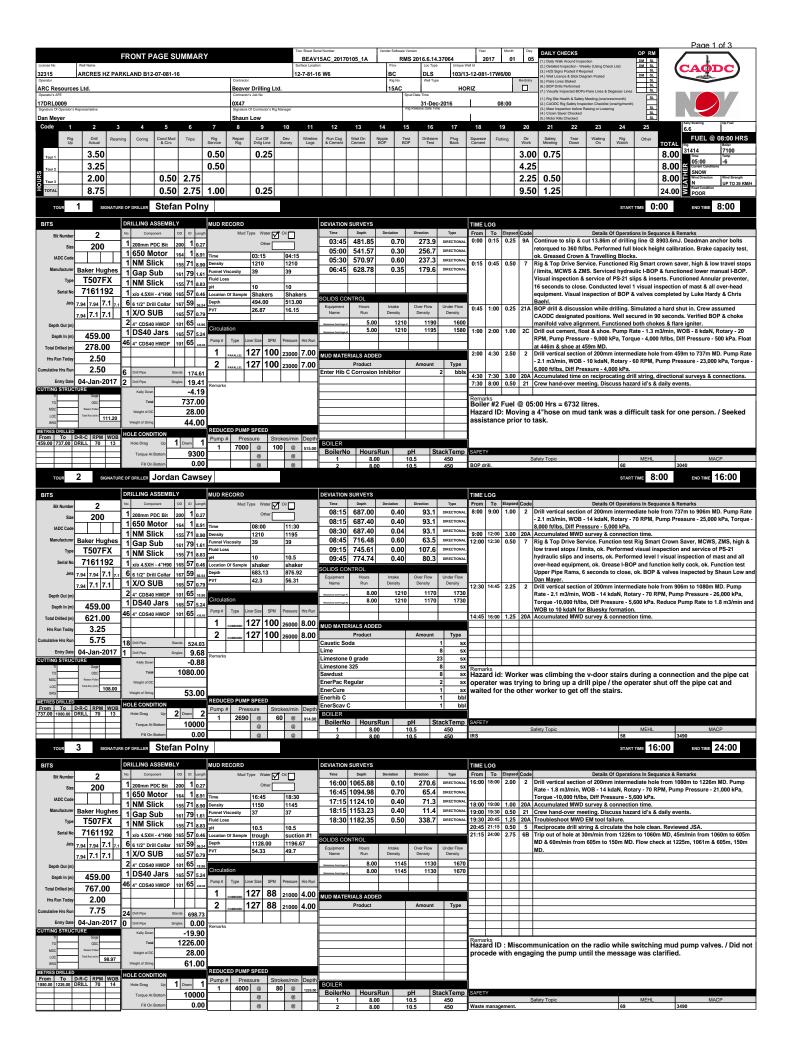
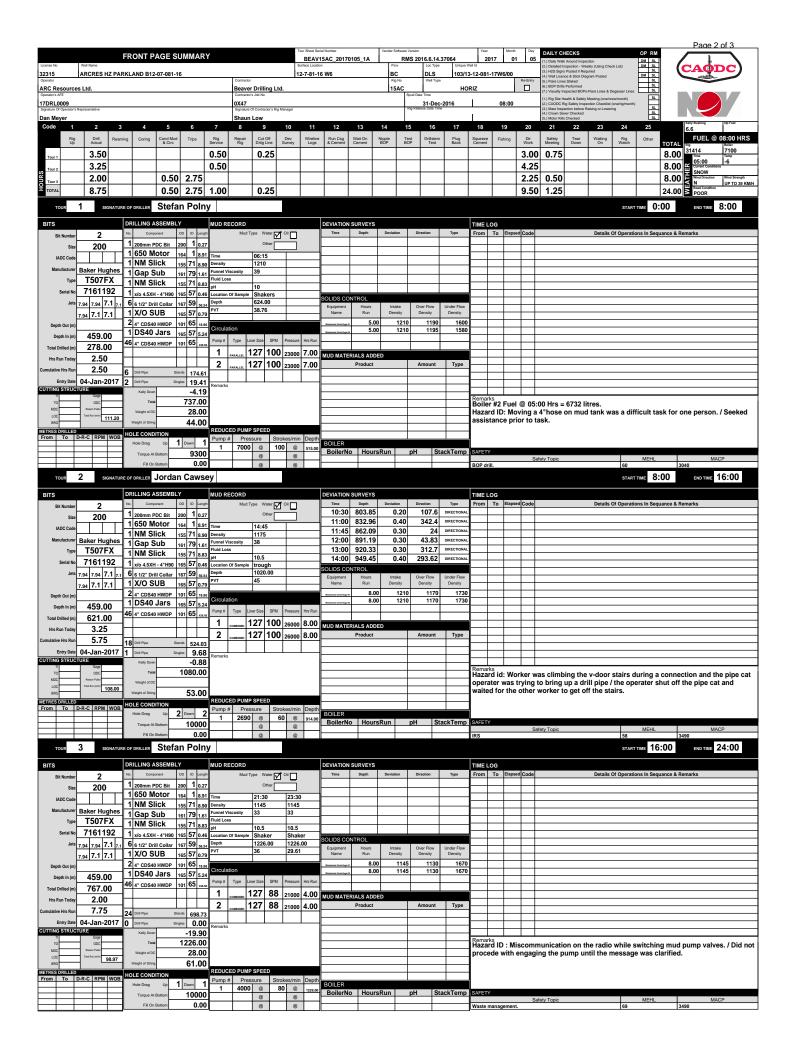
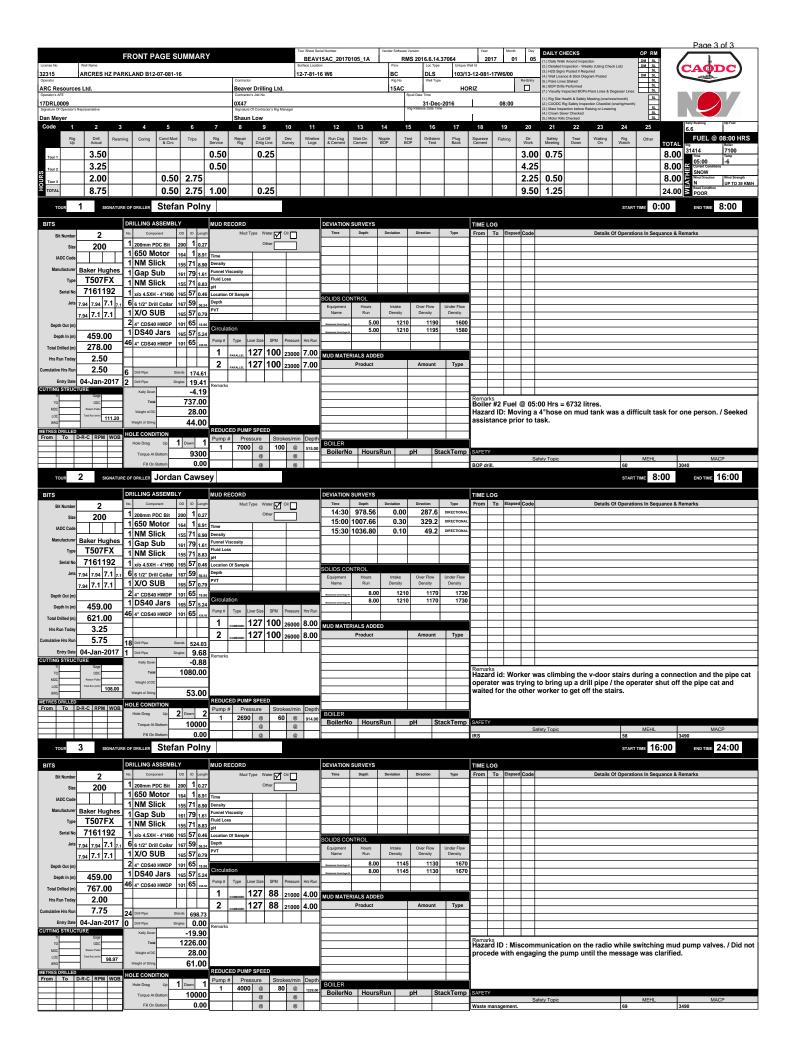
	FRONT PAGE SUMMARY												Tour Sheet Serial Number Vender Software Version BEAV15AC_20170101_1B RMS 2016.6.14.37064						Year Month Day DAILY CHECKS OP RM 2017 01 01 01 (1.) Daily Was Around Inspection DM S.												
32315 Operator													12-7-81-16 W6				BC DLS 103/13		Well Id 3-12-081	-17W6/0		Re-Entry	(2.) Detailed I (3.) H2S Sign	nspection - We s Posted if Red nce & Stick Dia	eeldy (Using Cl quired	heck List)	DM SL	1 '	CAC	DC)
	Resource	s Ltd.								Drilling L	td.				15.	AC	HO Spud Date Time						(6.) BOP Drill: (7.) Visually Ir	s Performed rspected BOPs		L Degasser Line	es Eq.	3			
17DRL Signature	L0009 Of Operator's	Representative							0X47 Signature 0	M Contractor's Ri	g Manager	31-Dec-2016 Rig Releaded Coller Frida								08:00 (1.1 No gille health & Safety Meeting (predictiveninosth) (5.5 C) CACCO Fig Biglish (prepection Chesidel (contigionath) (3.1 Mass Inspection before Rawing or Lowering (5.6 Meeting Chesidel (5.								\\ L			
Dan M Code		2	3	4	5	6		7	Shaun 8	Low 9	10	11	12	13	14	15 16 17			18	19		20	(5.) Motor Kills 21) Motor Kills Checked			TKelly Bushine TC			Ор Ри	iel
	Rig Up	Drill Actual	Reaming	Coring	Cond Mu & Circ	ud Trip	os ;	Rig Service	Repair Rig	Cut Off Drilg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstern Test	Plug Back	Squeeze Cement	Fishin	9	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	тота	FUEL	@ 08:0	0 HRS
Tour	r1				1.2	5	I						3.50	2.00							I		0.25					7.0	25715 Time	710 Temp	
2 Tour	r 2			_			4										-			_	4					1	-		06:00 Current Co	-11 SNOW	
TOTA		+			1.2	5	+						3 50	2.00				+			+		0.25		 	+	+	7.0	W Road Cone	UP 1	Strength TO 19 KM/H
	TOUR	1 8	IGNATURE O	E DBILLED	_		olny	T			T		0.00	2.00									0.23			OTA	аттіме О	:00		■ 8:0	n
BITS					ASSEMB			MUD RE	CORR				DEVIATION	SURVEYS					TIME L									.00	END III	0.0	
	Bit Number		No		mponent	OD ID	_	MOD KE		pe Water	Z Oil		Time	Depth	Deviation	on E	Direction	Type	From	To EI	apsed (Code			Details	s Of Opera	tions In Sec	quance &	Remarks m/min from		
	Size		\dashv			H	+	Time		Other 01:00	04:0											M	lakeup ca	sing bow	vl landing	g joint.			Land casing		
M	IADC Code		#				П	Density Funnel Vi	iecoelty	1200 61	1100									3.30	1.25	M		tall PS21.	. Remove	casing h	andling e		t. Continue		
	Туре							Fluid Los		10	10								3:30 3:45	3:45 C	0.25	21D S	afety mee	eting & JS	SA reviev	w with Tri	can.	llows: P	umped 3m ² ‡	H2O ahe	ad. 24T
	Serial No Jets		\dashv			H	+	Location Depth	Of Sample	Shakers 459.00	Shal 459.		SOLIDS CO	NTROL	+							T	SC 1700K	(G 1% CA	ACL2 2%	AFA-6 2	% LCM-2	(21.72m	‡). Displace . 6m ‡ ceme	d with 14	.55m′‡
	50.5							PVT		99.99	101.		Equipment Name	Hours Run	Inta Den:	sity	Over Flow Density	Under Flow Density	5:00 7:00 2.00			sı	urface Plu	ug down	@ 05:00	Hrs. No f	all back.				
	epth Out (m)		_			\vdash	H	Circula	tion				Mackstone Certiflage	. 0.0		0	0	0					ig#15AC Well pau:			ng at 07:0	Ohrs Jan.	01/2017*			
	Depth In (m) Il Drilled (m)		\dashv				\Box	Pump#		er Size SPN		e Hrs Run																			
	s Run Today						\Box	1 2		52 35 52 35	1100	4.00	MUD MATE	RIALS AD	DED		Amount	Туре													
	tive Hrs Run Entry Date		\dashv	Drill Pipe Drill Pipe		Stands Singles	\exists		- moddet												\dashv										
	IG STRUC	TURE		Kelly Do	wn	Jingwa		Remarks											Remai												
T ME	TO	ODC Rasson Pulled		To Weight of D	ntal DC		-												Boile	r #2 fu			Ohrs = 7			tion of	ST-100 i	iron ro	ughneck.		
LO BR	RG	Total Run (m/hr)		Weight of Stri	ing			PEDIIC	ED PUMP	SPEED									Haza	rd ID. :	= Ma	king ı	up float	collar,	hand v	vas pos	itioned	betwee	n power t		d
From	To	D-R-C RPM	WOB	Hole Drag		1 Down		Pump #		sure Si	trokes/mi		BOILER]		3		gp						,		
				Torque /	At Bottom		0			@	@		BoilerN 1		rsRun .00	pH 10.5		ackTemp 450	SAFET	Y		Safe	ety Topic				MEHL			MACP	
	TOUR	2 s	IGNATURE O		n Bottom	aun L	0.00			@	@		2	7	.00	10.5	5	450	Cemen	ting.						36	8 HIME 8	:00	0	■ 16:0	10
		Z			ASSEMB														_							SIAF	dilimi C	.00	ENDIIN	10.0	,,,
BITS	Bit Number		No		mponent	OD ID	_	MUD RE		pe Water	Oil		Time	SURVEYS Depth	Deviatio	on E	Direction	Type	From		apsed (Code			Details	s Of Opera	tions In Sec	quance &	Remarks		
	Size		⊒⊢			H	+			Other	乛								H												
	IADC Code		#					Time Density Funnel Vi											H												
	Туре						+	Fluid Los											H												
	Serial No Jets		\dashv				\blacksquare	Location Depth	Of Sample				SOLIDS CO	NTROL		\perp			F												
	Jets		\pm					PVT				=	Equipment Name	Hours Run	Inta Dens	ke C sity	Over Flow Density	Under Flow Density				-									
	epth Out (m)						HÌ	Circula	tion																						
	Depth In (m) al Drilled (m)						\Box	Pump#	Type Lin	er Size SPN	Pressure	e Hrs Run																			
Hrs	Run Today					H	+					+	MUD MATE	RIALS AD	DED		Amount	Туре													
	tive Hrs Run Entry Date		_	Drill Pipe		Stands Singles										-		-													
	IG STRUC	TURE		Kelly Do		singles		Remarks																							
T MD		ODC Reason Puled		To Weight of E	_														Remai	KS											
LO BR	RG	Total Run (m/hr)		Weight of Stri	ing														1												
From	To	D-R-C RPM	WOB	OLE CON Hole Drag	DITION Up	Down			ED PUMP Fres	sure Si	trokes/mi		BOILER			╧															
	Ħ	1	目	Torque /	_					@	@			o Hou	rsRun	pН	St	ackTemp	SAFET	Y		Saf	ety Topic				MEHL			MACP	
	TOUR	3 s	IGNATURE O		Sha	aun L	οw	\vdash		@	@															27.1	аттіме 10			■ 24:0	00
BITS		· °			ASSEMB			MUD RE	COPP				DEVIATION	SURVEYS					TIME L	06						STA	1				
	Bit Number		No		mponent	OD ID		OD RI		pe Water	Oil		Time	Depth	Deviatio	on E	Direction	Type		To El	apsed (Code			Details	s Of Opera	tions In Sec	quance &	Remarks		
	Size		_				+	Time		Other	괻								H												
	IADC Code		+					Density Funnel Vi	icoccitu		#					-			H												
	Туре						+	Fluid Los											H												
	Serial No Jets		$\dashv \vdash$			H	\Box		Of Sample		+		SOLIDS CO	NTROL	+	+					_	_									
	00.5					\Box		PVT			+		Equipment Name	Hours Run	Intai Dens		Over Flow Density	Under Flow Density	F	_]	1									
	epth Out (m) Depth In (m)		<u>-</u>			+	+i	Circula	tion		F				\pm	\pm			H		\exists	$-\Gamma$									
	Depth In (m)					H	\square	Pump#	Type Lin	er Size SPN	Pressure	e Hrs Run									4										
	Run Today		<u> </u>				Ш			+	+	+	MUD MATE	Product			Amount	Туре				\Rightarrow									
	tive Hrs Run Entry Date		$ \vdash$	Drill Pipe Drill Pipe		Stands Singles	-									F			H		1										
CUTTIN	IG STRUC	Gage		Kelly Do	wn			Remarks								\pm			Remai	ks											
MD LO		ODC Resson Pulled Total Run Imbri		Weight of D	_											\pm			Lional	-											
BR				Weight of Stri	ing			REDUC	ED PUMP	SPEED									1												
From	То	D-R-C RPM	WOB HO	Hole Drag	DITION Up	Down		Pump #			trokes/mi		BOILER						L												
\vdash	-		+	Torque /	At Bottom				1	@	@		BoilerN	o Hou	rsRun	pН	St	ackTemp	SAFET	Y		Saf	ety Topic				MEHL			MACP	

	FRONT PAGE SUMMARY												Tour Sheet Serial Number Vender Software Version BEAV15AC_20170103_2A RMS 2016.6.14.37064						117 C		03 (1.) Daily Walk Around Inspection (2.) Detailed Inspection - Weekly (Using Check List)							
32315	cense No Well Name													Pro	Prov Loc Type Unique W			Vell Id	17W6/00		(2.) Detailed I (3.) H2S Sign	nspection - We s Posted if Rec	eekly (Usin quired		DM SL DM SL DM SL	(CAO	DC)
32315 ARCKES HZ PARKLAND B12-U7-U81-16 Contractor ARC Resources Ltd. Beaver Drilling Ltd.												6 W6		Rig	Rig No Well Type 15AC HOF					Re-Entry	(5.) Flare Line (6.) BOP Drills	s Performed			ш	`		
Operator's	AFE	Ltu.						Contractor	's Job No	-tu.				113		ate Time		1			(1.) Rig Site H	lealth & Safety	Meeting (es & Degasser Line (one/crew/month)	SL			
17DRL Signature	Of Operator's I	epresentative							Of Contractor's F	tig Manager					Rig Re	31-Dec	2016	<u> </u>	08:00		(3.) Mast Insp (4.) Crown Sa	ection before F wer Checked	Raising or	ecklist (one/rig/mont Lowering	SL SL SL			
Dan Mo		2	3	4	5	6	7	Shaun 8	Low 9	10	11	12	13	14	15 16 17			18	19	20	(5.) Motor Kill: 21	s Checked	23 24 25			Kelly Bushing Op Fuel		
	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ		Rig Service	Repair Rig	Cut Off Drilg Line	Dev Survey	Wireline Logs	Run Csg & Cement		Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiti		Other			08:00 HRS
		Actual			a circ		Service	rug	Ding Line	Survey	Logs	& Cellielli	Cemen	BOF	BOF	1654	Back	Cellielk		WORK	Meeting	Down	Oi	ii waicii		TOTAL	18765	7100
Tour																											05:00	-12
Your	5.5	1												1.50							1.00					8.00	LIGHT SNO Wind Direction	Wind Strength
Tour	5.5	_											_	1.50							1.00						W Road Condition FAIR	UP TO 29 KM/H
					Sha	un I o	.,														-				TIME 0	00	END TIME	8.00
TOUR 1 SIGNATURE OF DRILLER Shaun Low																								SIAF	I IIMI U	.00	END TIME	0.00
BITS DRILLING ASSEMBLY MUD RECOR													SURVEYS					TIME LO					ų					
E	Bit Number		No	Cor	mponent	OD ID Ler	gth	Mud T	ype Water Other	<u> </u>		Time	Depth	Deviati	ion E	Nirection	Type	From	To Elap	sed Code			Det	ails Of Opera	ions In Seq	uance & R	emarks	
	Size IADC Code		\dashv				Time		[一								\vdash		+								
	anufacturer		$\dashv \vdash$			\Box	Density																					
	Туре			-			Fluid Lo	iscosity ss																				
	Serial No						pH Location	of Sample										\vdash		+								
	Jets						Depth PVT					SOLIDS CO Equipment	Hours	Inta		Over Flow	Under Flow			+								
			Щ-	-		++	-Ë					Name	Run	Den	sity	Density	Density											
	oth Out (m)		_ 				Circula	ation																				
	epth In (m) Drilled (m)						Pump#	Type Li	ner Size SP	M Pressure	Hrs Run		1							+								
	Run Today		┰┡	-			_		_	-	Ш	MUD MATE	ERIALS ADDI	Đ						\blacksquare								
Cumulati	ve Hrs Run			Drill Pipe	Si	ands	1		_	-	\vdash		Product			Amount	Туре											
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MD		ODC Resson Pulled		Weight of I			1								_													
LO	G T	Total Run (m/hr)		Weight of Str	ing													1										
Marriae From	To I	-R-C RPN	I WOB	OLE CON				# Pres		trokes/mi	Depth							1										
				Hole Drag	Up As Dawson	Down			@	@		BOILER	lo Hours	Run	pН	Sta	ackTemp	SAFETY										
					On Bottom		╅		@	@										Si	afety Topic				MEHL		MA	CP
,	TOUR	2	IGNATURE O	F DRILLER	Jorda	n Caws	sev																	STAF	MIME 8	:00	END TIME	16:00
					ASSEMBL			E0000					. OLIDAGO					I										
BITS	Bit Number		No		mponent	OD ID Ler		ECORD Mud T	ype Water	Oil		Time	SURVEYS Depth	Deviation	ion E	irection	Type	From	To Elap	sed Code			Det	ails Of Opera	ions In Seq	uance & R	emarks	
	Size								Other											\blacksquare								
	IADC Code		┰┞				Time			T										\perp								
Ma	anufacturer						Density Funnel \	/iscosity																				
	Туре						Fluid Lo	SS										₽		+								
	Serial No		\dashv					of Sample				SOLIDS CO	ONTROL							\blacksquare								
	Jets	+	\dashv				Depth					Equipment Name	Hours Run	Inta		Over Flow Density	Under Flow Density											
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Total	Drilled (m)					++	rumps	Type Li	ilei dize	w Pressure	-																	
	Run Today										\Box	MUD MATE	Product	ΞD		Amount	Туре											
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	Entry Date G STRUC	URE		Drill Pipe Kelly Do	_	ngles	Remark	5										\vdash		+								
TO	0	Gage		To	otal												1	Remark	(S	-								
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BRI	DRILLED			Weight of Str	ing		REDU	CED PUMP	SPEED									1										
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H	\exists		\boxminus	Torque .	At Bottom		Ł	\perp	@	@			lo Hours	Run	pН	Sta	ackTemp	SAFETY		S	afety Topic				MEHL		544	CP
					On Bottom				@	@											,							
	rour	3	IIGNATURE O	F DRILLER	Stefa	ın Poli	าง																	STAF	16 milities	:00	END TIME	24:00
BITS			DI	RILLING	ASSEMBL	Y	MUD R	ECORD				DEVIATION	SURVEYS					TIME LO										
ı	Bit Number		No	Cor	mponent	OD ID Ler	gth	Mud T	ype Water	a oil		Time	Depth	Deviati	ion E	Nirection	Type		To Elap		Review .IS	A & vier		ails Of Opera				
	Size		—,⊢	1		+	-		Other	구								16:30 1	19:00 2.5	0 1A	Walk Beav	er Rig#15	5AC 20	0m from 12-1	7-081-16V	V6M to B	12-07-081-16W	/6M.
	IADC Code		₩	L		士士	Time Density			\perp								19:30 2	20:30 1.0	0 1A	Walk Beav	er Rig#15	5AC 20	Discuss had Dm from 12-	7-081-16V	V6M to B	12-07-081-16W	/6M.
Ma	nufacturer Type		-			\Box	Funnel \	/iscosity ss			=				+			20:30	22:30 2.0	0 1	Rig up Bea	ver Rig#	15AC	prior to Nip	le up BOF	's. Adjus	st suitcases &	cable festoon. nat under catch
	Serial No		\dashv			+	pН											22:30	24:00 4 5		ank & spo	t shale b	in. Ins	tall escape l	ine & cem	ent block		
	Jets	$\neg \neg$	$\dashv \vdash$			$\pm \pm$	Depth	Of Sample				SOLIDS CO	ONTROL	Inta	ıka .	Over Flow	Under Flow	22.30	1.5	.5 14A	.oview JS.	· · · · · · · · · · · · · · · · · · ·	up 30	a.iti 13 3/	, 5000# E	-∪ı ο α ā	reiateu equi	p.dent.
						\Box	PVT				_=	Name	Run	Den	sity	Density	Density											
	pth Out (m)		<u> </u>	-		+	Circula	ation				Mackatore Centrifuge	0.00		0	0	0			$+$ \Box								
	epth In (m)		_			+	Pump#	Type Li	ner Size SP	M Pressure	Hrs Run									\dashv								
	Drilled (m) Run Today		-			\Box	1	-	27 1		0.00	MUD MATE	ERIALS ADD	D						\pm								
	ve Hrs Run		\dashv	Drill Pipe		ands	2_	1	152 1	0	0.00		Product			Amount	Туре			$\pm \pm$								
	Entry Date			Drill Pipe		ngles	Remark				Щ							\vdash		$+ \mp$								
CUTTIN	G STRUC	Gage		Kelly Do	rwn		- Contack	-										Remort	(8									
MDI		ODC Ressor Pulled		To Weight of I			\dashv								-						a heavy passing		verhe	ad in the	upper s	ubstruc	ture / Clear	ed workers
LOI BRI	G	Total Run (m/hr)		Weight of Str	-													1	p		- aconing							
Market From		-R-C RPN	I WOB	OLE CON	IDITION		REDU(# Pres		trokes/mi	Depth							1										
Ħ	I		\Box	Hole Drag	Up	Down	- ump	. 168	@	@		BOILER BoilerN	lo Hours	Run	pН	St	ackTemp	SAFETY										
			+	Torque .	nc Bottom)		-		@	@		1	8.0	0	10.5	5	450			Si	afety Topic				MEHL		MA	CP







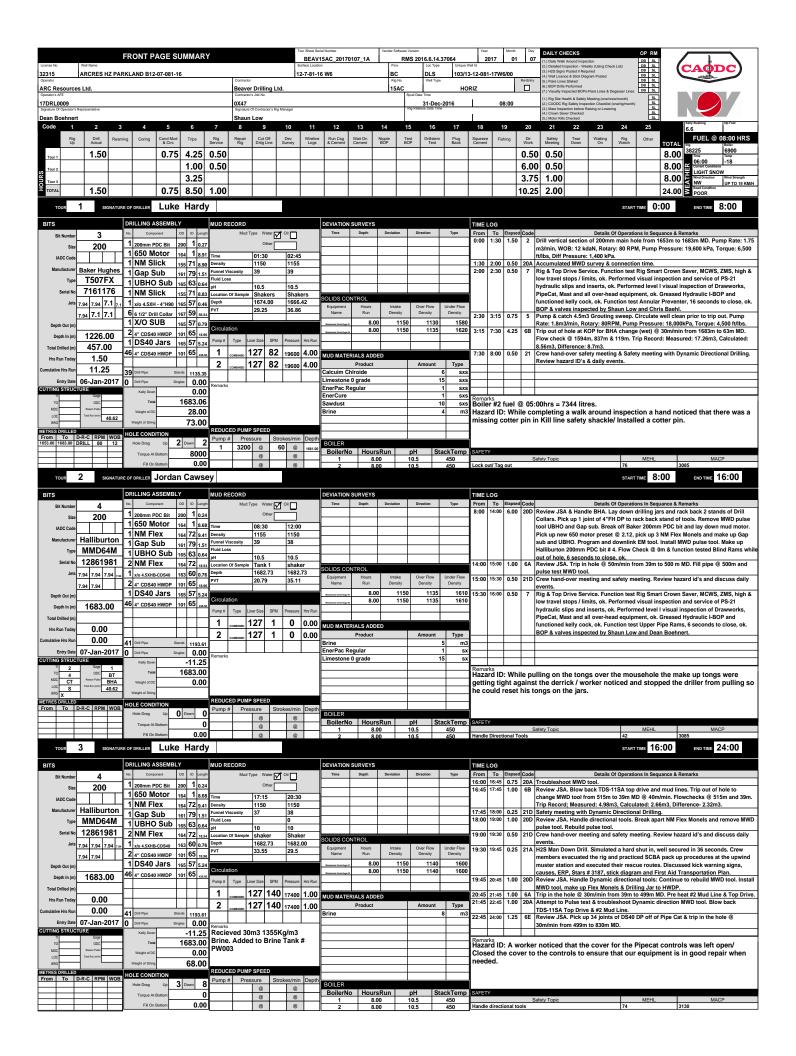
FRONT PAGE SUMMARY BEAV15AC_20170106_1A RMS 2016.6.14.37064 2017 01 ARCRES HZ PARKLAND B12-07-081-16 ARC Resources Ltd. Beaver Drilling Ltd. 15AC HORIZ 0X47 17DRL0009 31-Dec-2016 Nipple BOP Test BOP Plug Back Dir Work Repair Rig 7100 3.25 0.50 3.50 0.75 8.00 8.00 # 4.00 0.50 3.25 0.25 5.75 1.50 0.75 8.00 9.75 3.25 1.00 8.25 1.75 24.00 STARTITIME 0:00 ENDTIME 8:00 UREOF DRILLER Luke Hardy 1 DRILLING ASSEMBLY DEVIATION SURVEYS TIME LOG Details Of Operations In Sequance & Remarks 3 Water Oil
 From
 To
 Elapsed Code
 Details Of Operations In Sequence & Remail

 0:00
 0:45
 0.75
 6B
 Continue to trip out of hole at 60m/min from 150m to 0m MD.
 1 200mm PDC Bit 1 0.27 200 0:45 1:00 0.25 21D Safety meeting Dynamic Directional prior to handling tools.
1:00 4:15 3.25 20D Handle Dynamic directional tools: Break & lay down Gap sub, Remove EM tool, 1 650 Motor 164 1 8.91 Handle Dynamic directional tools: Break & lay down Gap sub, Remove EM tool, Install new UBHO sub, Gap sub & build new EM tool. Drain & break PDC Bit #2. Scribe mud motor with UBHO. Make up Bit #3, install EM tool. Install & torque Muleshoe. Make up Gap sub & install MWD tool. Trip record: Calculated 6.43m3, 1 NM Slick 155 71 8.90 Baker Hughes 1 Gap Sub 161 79 1.51 T507FX 1 UBHO Sub 165 63 0.64 10.5 10.5 Measured 10.60m3, Difference +4.17m3.
Rig & Top Drive Service. Function test Rig Smart Crown Saver, MCWS, ZMS, high & 7161176 1 NM Slick 155 71 8.83 Shake 167.27 30.1 4:45 low travel stops / limits, ok, Performed visual inspection and service of PS-21 7.94 7.94 7.1 7.1 1 x/o 4.5XH - 4"H90 165 57 0.46 hydraulic slips and inserts, ok. Performed level I visual inspection of mast and all 31.48 7.94 7.1 7.1 6 6 1/2" Drill Collar remains and animates, or. Ferrolline reverse in visual inspection of mast and an head equipment, ok. Grease i-BOP and function kelly cock, ok. Function test her Pipe Rams, 6 seconds to close, ok. BOP & valves inspected by Shaun Low a 1 X/O SUB 165 57 0.79 1145 1125 1650 4:45 5:15 0.50 6 A Trip in the hole @ 50m/min from 29m to 165m MD
5:15 5:30 0.25 DAP Pulse test Dynamic tools @ 165m MD.
5:30 7:30 2.00 6A Trip in the hole @ 50m/min from 165m to 1216m MD. Wash to bottom 1216m to 101 65 1 1226.00 1 DS40 Jars 165 57 5.24 0.00 1 127 90 8100 1.00 46 4" CDS40 HWDP 101 65 0.00 . 1226m MD @ 70 RPM and 1.8m3/min. Trip Record; Calculated: 10.99m3, Measured: 2 SINGLE 127 90 8100 1.00 Amount Type 6.84m3, Difference: 4.15m3. Crew hand-over safety meeting. Review hazard ID's & daily eve 0.00 Sulphamic Acid 698.73 06-Jan-2017 0.00 NG STRU 0.00 1246.44 ^{kemarks}. Solier #2 fuel @ 05:00hrs = 6300 litres. Hazard ID: While Pipe Cat was not operational we had to pick up Drilling Jar with a winch/ A hand was about to guide the Jar into the Vdoor from the Pipe cat, stopped him 28.00 61.00 & had him get completely off of the Pipe cat during hoisting operations. 71 @ 165.00 @ BoilerNo HoursRun pH StackTemp @ @ Safety Topi 0.00 VATURE OF DRILLER Jordan Cawsey STARTITUME 8:00 ENDTIME 16:00 DRILLING ASSEMBLY MUD RECORD **DEVIATION SURVEYS** TIME LOG Details Of Operations In Sequance & Remarks

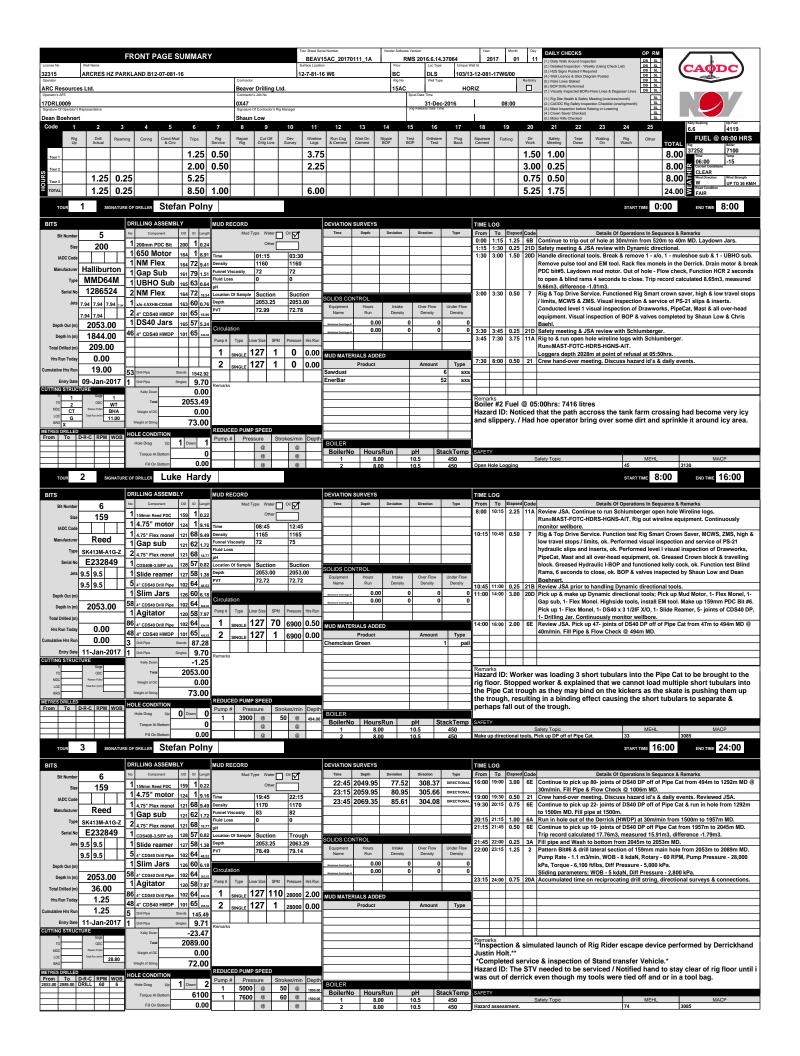
Drill vertical section of 200mm main hole from 1226m to 1439m MD. Pump Rate: 1.8 3 Water Oil 112.9 1 200mm PDC Bit 1 0.27 08:15 1211.50 0.80 200 m3/min, WOB: 13 kdaN, Rotary: 70 RPM, Pump Pressure: 25,000 kPa, Torque: 9,000 09:00 1241.12 0.80 101.8 DIRECTION 1 650 Motor 164 1 8.91 m3/min, WOB: 13 kdaN, Rotary: 70 RPM, Pump Pressure: 25,000 kPa, Torque: 9,000 (Hbs.) piff Pressure: 5,500 kPa, Reduce WOB to 10 kdaN for Cadomin formation. Accumulated MWD survey & connection time. Rig & Top Drive Service. Function test Rig Smart Crown Saver, MCWS, ZMS, high & low travel stops / limits, ok. Performed visual inspection and service of PS-21 hydraulic slips and inserts, ok. Performed level I visual inspection of mast and all 09:15 09:30 1270.23 95.1 DIRECTIO 0.60 1 NM Slick 155 71 8.90 1145 Baker Hughes 10:15 1299.33 0.80 149.9 DIRECTION 1 Gap Sub 161 79 1.51 0.60 T507FX 1 UBHO Sub 165 63 0.64 10.5 10.5 12:00 1386 63 0.70 100.7 DIRECT 7161176 1 NM Slick 155 71 8.83 over-head equipment, ok. Greased Hydraulic I-BOP and functioned kelly cock, ok 1420.00 1274.00 7.94 7.94 **7.1** 7. 1 x/o 4.5XH - 4"H90 165 57 0.46 Function test Upper Pipe Rams, 6 seconds to close, ok, BOP & valves inspected by Shaun Low and Dean Boehnert. H2S Man Down Drill. Simulated a hard shut in prior to entering the sour Baldonnel 7.94 7.1 7.1 6 6 1/2" Drill Collar 167 59 56.54 3:30 13:45 HZS Man Down Drill. Simulated a nard shut in prior to entering me sour barron formation. Well secure in 36 seconds. Crew members evacuated the rig and practiced SCBA pack up procedures at the upwind muster station and executer rescue routes. Discussed kick warning signs, causes, ERP, Stars # 3187, stick 1 X/O SUB 165 57 0.79 8.00 1155 1130 1745 1155 1130 1745 101 65 18.9 1226.00 SPM P 1 DS40 Jars 165 57 5.24 284.00 liagram and First Aid Transportation Plan. Drill vertical section of 200mm main hole for 1 127 88 26000 8.00 46 4" CDS40 HWD 101 65 436 n hole from 1439m to 1510m MD. Pump Rate: 1.8 IUD MATERIALS ADDE 4.00 127 88 26000 8.00 n3/min, WOB: 10 kdaN, Rotary: 80 RPM, Pump Pressure: 23,000 kPa, Torque: 6,000 2 Type ft/lbs, Diff Pressure: 4,000 kPa.
Accumulated MWD survey & connection time. 4.00 960.66 15:15 16:00 0.75 20A 06-Jan-2017 9.69 NG STRU Lime -8.06 austic Soda 1510.00 *Performed weekly service and inspection on ST-100 and Pinecat* "Weekly inspection of rear and inspection on S1-100 and ripecar"
"Weekly inspection of rear e-gress equipment and simulated launch by Matt Zebedee**
Hazard id: While servicing ST-100 worker climbed up on to the equipment / stopped him
and told him to get a ladder that was engineered for climbing on. 28.00 1802 Flocul 68.00 EnerPac Regular Pump # Pressure Strokes/min Depth BOIL ER 3450 @ 60 @ 1439.00 9000 BoilerNo HoursRun pН StackTemp START TIME 16:00 ENDTIME 24:00 SIGNATURE OF DRILLER Luke Hardy DRILLING ASSEMBLY DEVIATION SURVEYS TIME LOG er 🗹 Oil 🔲 3 Drill vertical section of 200mm m Drill vertical section of 200mm main hole from 1510m to 1575m MD. Pump Rate: 1.8 m3/min, WOB: 14 kdaN, Rotary: 80 RPM, Pump Pressure: 23,500 kPa, Torque: 7,000 200 1 0.27 16:15 1503.06 0.80 11.7 1 200mm PDC Bit 200 164 1 8.91 1 650 Motor 16:00 18:45 ft/lbs. Diff Pressure: 3,000 kPa 17:30 1473 98 0.60 7:45 | 19:00 | 1.25 | 20.8 | Accumulated MVD survey & connection time.
9:00 | 19:30 | 0.50 | 21D Crew hand-over safety meeting, Review hazard ID's & daily events.
9:30 | 19:45 | 0.25 | 21A H2S Man Down Drill. Simulated a hard shut in prior to entering the sour Baldonnel formation. Well secure in 36 seconds. Crew members evacuated the rig and 1 NM Slick 155 71 8.90 1140 1150 315.24 18:00 1532.17 Baker Hughes 0.20 1 Gap Sub 161 79 1.51 19:30 1561.30 0.20 287.6 T507FX 1 UBHO Sub 165 63 0.64 21:00 1590.39 0.50 97.4 7161176 1 NM Slick 155 71 8.83 practiced SCBA pack up procedures at the upwind muster station and executer rescue routes. Discussed kick warning signs, causes, ERP, Stars # 3187, stick trough trough OLIDS CONTROL 7.94 7.94 7.1 7.1 1 x/o 4.5XH - 4"H90 165 57 0.46 1510.00 1565.00 diagram and First Aid Transportation Plan.
Drill vertical section of 200mm main hole from 1575m to 1653m MD. Pump Rate: 1.75 6 6 1/2" Drill Collar 7.94 7.1 7.1 167 **59** 56. 1 X/O SUB 165 57 0.7 entrifuge #1 8.00 1160 1145 1630 n3/min, WOB: 14 kdaN, Rotary: 80 RPM, Pump Pressure: 19,700 kPa, Torque: 6,500 1160 1140 ft/lbs, Diff Pressure: 2,200 kPa. Accumulated MWD survey & connection time 2 4" CDS40 HWDP 101 65 18.9 1226.00 1 DS40 Jars 165 57 5.2 427.00 16 4" CDS40 H 1 127 88 23000 8.00 MUD MATERIALS ADDE 101 65 5.75 127 88 23000 8.00 2 Type 9.75 1106.2 06-Jan-2017 0 Drill ∞ 0.00 NG STRU 0.00 Remarks Hazard ID: A worker was laying out tripping tools on the rig floor while it was cold with blowing snow. / Stopped him & asked that he lay all of our tools under a piece of poly, heat with steam so that the dog collars etc operate properly. 1653.93 28.00 43.79 72.00 From To D-R-C RPM WOB 1510.00 1653.00 DRILL 80 14 Pump # Pressure Stro 2 Down 2 7000 @ BoilerNo HoursRun StackTemp 9000 @ Safety Topic

Brine Exposure & MSDS

Brine Exposure & MSDS



ert Exposure/ MSDS/ Mi



	EDONT DACE CHMMARY												ur Sheet Serial Number						Year Month Day DAILY CHECKS OP RM 14 (1) Daily Wals Around Inspection DB SL							$\overline{}$		
32315	Size Size												Buttace Location Prov 2-7-81-16 W6 BC Rig No Rig No				DLS Unique W					(2.) Detailed Inspection - Weekly (Using 6 (3.) H2S Signs Posted if Required (4.) Well Licence & Stick Diagram Posted	DB DB	SL	CAO	DC)		
ARC F	Resource	s Ltd.						Beave Contracto	er Drilling Lt	td.	15AC					Well Type HOF Spud Date Time				ľ	Re-Entry	(5.) Flare Lines Staked (6.) BOP Drills Performed (7.) Visually Inspected BOPs-Flare Lines	& Degasser Lines DB	SL SL				
17DRI Signature		Representative						0X47 Signature	Of Contractor's Rig	Manager					Rig Rei	31-Dec	-2016	1	08:	00		(1.) Rig Site Health & Safety Meeting (on (2.) CAODC Rig Safety Inspection Check (3.) Mast Inspection before Raising or Lo	s(crew/month) ist (one/rig/month) vering	(one/rig/month) SL				
Dean	Boehner	t 2	3	4	5	6	7	Shaur 8	Shaun Low 8 9 10 11 12 13 14 1								-2017 17	18	18: 19		20	(4.) Crown Saver Checked (5.) Motor Kills Checked 21 22 23	24 25		Kelly Bushing	Op Fuel		
Jour	Rig Up	Drill Actual	Reaming	Coring	Cond Mus & Circ	Trips	Rig Service	Repair Rig	Cut Off Drilg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishir		Dir Work	Safety Tear Waiting Meeting Down On	Rig Othe		FUEL @	2955 08:00 HRS		
Toui					2.00		0.50	-				5.00				100						0.50		8.00	28495 Time	7100 Temp		
Tour												3.25		4.50								0.25		8.00	06:00 Current Condit	-1 CLOUDY		
Tour	, 4.0				2.00		0.50					8.25		1.00 5.50					+	+		0.50 2.50 1.25 2.50		8.00 24.00	SW Road Condition	Wind Strength UP TO 39 KM/H		
			SIGNATURE O		Stefa			1				0.23		3.30								1.23 2.30	START TIME	0:00	FAIR END TIME	8:00		
		1																					STARTTIME	0.00	END TIME	8.00		
BITS	Bit Number		No.		ASSEMBI oponent	OD ID	MUD	RECORD Mud	Type Water	oil ⊘ i		DEVIATION Time	Depth	Deviation	Di	irection	Type		To E				s Of Operations In S					
	Size		\dashv						Other									0:00	0:30	0.50		Rig & Top Drive Service. Fu limits, MCWS & ZMS. Visu	al inspection & se	rvice of PS	21 slips & in	serts.		
	IADC Code		4				Time		02:00 1160	04:0 1160								1			i	Functioned Annular preven Inspection of Drawworks, F	ipeCat, Mast & all	over-head	equipment. V			
	Туре						Fluid L	Viscosity	70 0	71 0								0:30	5:30	5.00	12B	nspection of BOP & valves Continue to run in 114.3mm VA Roughneck X 139.7mm,	, 20.09kg/m, P-11	0, LTC X 13	9.7mm, 29.76			
	Serial No		\dashv				Locatio Depth	n Of Sample	Catch Tar 3391.00	nk Cato	h Tank	SOLIDS CO	ONTROL					5:30	7:30	2.00		@ 30m/min from 1710m to Reciprocate casing string &	3387m MD. Break	circulation	at 1717m.			
	Jets		\dashv				PVT		46.91	47.3		Equipment Name	Hours Run	Intake Densit		Over Flow Density	Under Flow Density					aydown. Prepare to cemen Crew hand-over meeting. D	t.					
	epth Out (m)						Circu	ation				Mackature Certifuge	" 0.0 " 0.0		0	0	0					Trican & NOV prior to ceme						
	Depth In (m)						Pump #	71 -	iner Size SPM	_																		
	Run Today						1 2	1	127 96 127 1		0.00	MUD MATE	Product	DED		Amount	Type											
Cumulat	tive Hrs Run Entry Date			Drill Pipe		tands	-	SINGLE	127 1	4300	, 0.00	EnerBar	Troduct				12 sxs											
CUTTIN	IG STRUC	TURE		Kelly Dov	son S	ngles	Remark	us	·																			
M	TO DC	ODC Rasson Pulled		To Weight of E	tal IC																	00hrs : 6768 litres re left resting on stab	hing valve. / re	emoved th	em and a	sked hands		
LC BE	RG	Total Run (m/hr)		Weight of Stri	ng																	control equipment.	omig valve. / re	ovcu ti	ciii diid di	sicu nunus		
	S DRILLED To	D-R-C RPM	I WOB	Hole Drag		4 Down	6 Pump		ssure St	rokes/mii		BOILER																
			\equiv	Torque /	At Bottom		0 1	2000	@	50 @ @		BoilerN 1		rsRun .00	pH 10.5		ackTemp 450	SAFET	Y		Si	afety Topic	MEH	iL .	M	ACP		
	TOUR	2	IGNATURE O		n Bottom	0 Har	.00		@	@		2		.00	10.5		450	Cemen	ting.				72 START TIME	8:00	130	16:00		
		2					Ź																STARTTIME	0.00	END TIME	10.00		
BITS	Bit Number		No.		ASSEMBI oponent	OD ID	Length	RECORD Mud	Type Water] oil ⊽ Î		Time	SURVEYS Depth	Deviation	Di	irection	Туре	From	To E				s Of Operations In S					
	Size		\Box						Other	亘					-						12C	Safety meeting & JSA revie Break Top Drive out & Brea	k x/o's connection	ns to Casing	with Rotary	tongs. Rig to		
	IADC Code		-				Time Density	Viscosity										1			1	& Cement 114.3mm, 20.09k Roughneck X 139.7mm, 29. with Trican; Pump 2m3 H20	763kg/m, P-110, L	TC Tapered	Production (Casing string		
	Туре						Fluid L											1				Mith Trican; Pump 2m3 H20 1600kg/m3, 17.40m3 Tail ce 34m3. Bumped Wiper Plug	ment (29 ton) 160	0kg/m3, Laι	nch Wiper P	lug & displace		
	Serial No Jets		$\dashv \vdash$				Locatio	n Of Sample				SOLIDS CO	ONTROL									casing to 21,000kPa for 10 Trican. Rig out Trican ceme	minutes. Flush 50					
	Jets						PVT					Equipment Name	Hours Run	Intake Densit	y O	over Flow Density	Under Flow Density	11:30	16:00	4.50	14B	Rig to, lower casing slips that 13:00hrs on Jan.14/2017.	rough BOP's & s					
	epth Out (m)		_				Circu	ation				Mackatore Certifuge	" 0.0 " 0.0		0	0	0					equipment in preparation to space entry permit.	walk rig to the ne	ext well. Cle	an mud tank	s with confined		
	Depth In (m) Il Drilled (m)						Pump it	71 -	iner Size SPM	Pressure	Hrs Run																	
	Run Today						1 2	1	127 1 127 1	_	0.00	MUD MATE	Product	DED		Amount	Type											
Cumulat	tive Hrs Run Entry Date		_	Drill Pipe Drill Pipe	s	tands ngles	_																					
CUTTIN	IG STRUC	TURE Gage		Kelly Dov	wn		Remark	rs.										Pemar	-ke									
M	TO DC	ODC Resson Pulled		To Weight of E	_		-									Haza conn	Hazard ID: While we were rigging up the Top Drive air nubbin we had difficulty connecting the hose hammer union to the nubbin hammer union because the											
BE		TOTAL NEW SERVES		Weight of Stri	ng		REDU	CED PUM	P SPEED									were damaged Talked to the crew about taking care of our equipment & not to dro items. It causes more work & inefficiency.								ot to drop		
From	То	D-R-C RPM	I WOB	Hole Drag		4 Down	6 Pump			rokes/mii	_	BOILER										·						
				Torque /	_		.00		@	@		BoilerN 1	8.	rsRun .00	pH 10.5		ackTemp 450					afety Topic	MEH	iL.	M	ACP		
	TOUR	3	SIGNATURE O		Stefa				@	@		2	8.	.00	10.5		450	Cemen	ting Casi	ing, Ni	pple de	own BOP's.	71 START TIME	16:00	085 END TIME	24:00		
BITS					ASSEMBI			RECORD				DEVIATION	N SURVEYS					TIME L	og									
	Bit Number		No		ponent	OD ID	Length		Type Water	oil ☑		Time	Depth	Deviation	Di	frection	Туре	From	To E			Detai	s Of Operations In S			remove 1		
	Size		\dashv				Time		Other	\dashv								10.00		2.50	:	suitcase from circuit. Adjust confined space entry permi	t & remove Festo	on hangers.	Clean mud t	anks with		
м	IADC Code lanufacturer		$\dashv \vdash$				Density	Viscosity										18:30	19:00	0.50	21F	Crew hand-over meeting. D Review JSA & visually insp	iscuss hazard id's	& daily eve	nts.			
	Туре						Fluid L				=								21:30		1A	Walk Beaver Rig#15AC 10n Install well head on casing	from B12-07-081	-16W6M to	12-07-081-1			
	Serial No Jets		$\dashv \vdash$			H	Locatio	n Of Sample				SOLIDS CO		+	÷							Beaver Rig#15AC on well C up PipeCat for drilling oper	12-07-081-16W6M ations. Spot flare	. Adjust sui tank & rig u	cases & cab p flare lines.	le festoon. Rig Install mat		
			\Box				PVT					Equipment Name	Run 0.0	Intake Densit		Over Flow Density	Under Flow Density	23:00	24:00	1.00	14A	under catch tank & spot sh Review JSA. Nipple up Sch						
	epth Out (m) Depth In (m)		$ \vdash$			Ш	Circu					Mackatone Certiflage	. 0.0		0	0	0		1		_	C12-07-081-16W6M.						
	Il Drilled (m)			_		H	Pump #	-	127 1	Pressure	0.00	MILE V	DIA: 0)) 	╧						4							
	Run Today		<u> </u>			Ш	2	_	127 1	0	0.00	MUDMATE	Product	DED	,	Amount	Туре		1		4							
	tive Hrs Run Entry Date		_	Drill Pipe Drill Pipe		tands ngles	Remark											H	_		1							
CUTTIN	NG STRUC	Gage ODC		Kelly Dov	vn tal		-											Remar	ks					4 '	41			
MCC																	Used	excav	vator	to p	ere picking up flare li ickup instead and red	uce the risk of	slips, tri	os or strai	ns.			
							CED PUM											K Joh well.**		ere l	oader & JCB zoom be	oom used in p	reparatio	1 & While v	valking rig to			
From	То	D-R-C RPM	I WOB	Hole Drag	Up	Down	Pump	# Pre	ssure Str	rokes/mii		BOILER	lo [U	re Dr. m	<u></u>	10.	ackTo	SV6-	v									
				Torque /	n Rottom		_	T	@	@		BoilerN 1	8.	nsRun .00	pH 10.5		450 450	SAFET			Si	afety Topic	MEH	IL .	M	ACP		