

FRONT PAGE SUMMARY
Company: ARCREZ HZ Septimus H11-34-81-18W6
Contractor: Precision Drilling, div of PDC
Rig No: 465
Well Type: HORIZ
Date: 09-Dec-2016
Time: 18:00



Table with 25 columns (Code 1-25) and 4 rows (Tour 1-3, TOTAL). Includes 'HOURS' column and 'FUEL @ 08:00 HRS' summary.

TOUR 1 SIGNATURE OF DRILLER: DAVE LOEWEN START TIME: 0:00 END TIME: 8:00

TOUR 1 Data Section: BITS (SICOTTE SS516GB), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, CUTTING STRUCTURE, METRES DRILLED, HOLE CONDITION, REDUCED PUMP SPEED, BOILER.

TOUR 2 SIGNATURE OF DRILLER: RYAN NEWTON START TIME: 8:00 END TIME: 20:00

TOUR 2 Data Section: BITS (SICOTTE SS516GB), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, CUTTING STRUCTURE, METRES DRILLED, HOLE CONDITION, REDUCED PUMP SPEED, BOILER.

TOUR 3 SIGNATURE OF DRILLER: DAVE LOEWEN START TIME: 20:00 END TIME: 24:00

TOUR 3 Data Section: BITS (SICOTTE SS516GB), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, CUTTING STRUCTURE, METRES DRILLED, HOLE CONDITION, REDUCED PUMP SPEED, BOILER.

FRONT PAGE SUMMARY

License No	Well Name	Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
32574	ARCRES HZ Septimus H11-34-81-18W6	PREC465 20161210 1A	RMS 2016.6.14.37064	2016	12	10
Contractor	BC	Pro	Loc Type	Unique Well ID	DAILY CHECKS	
ARC Resources Ltd.	Precision Drilling, div of PDC	465	HORIZ	102/09-35-081-18W5	<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Posted if Required <input type="checkbox"/> (4) Well Licence & Stick Diagram Posted <input type="checkbox"/> (5) Flow Lines Baked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOPs/Flare Lines & Degasser Lines <input type="checkbox"/> (8) RIG Tests Performed <input type="checkbox"/> (9) Safety Meeting (on/crow/month) <input type="checkbox"/> (10) CADCOC Rig Safety Inspection Checklist (on/crow/month) <input type="checkbox"/> (11) Mast Inspection before Raising or Lowering <input type="checkbox"/> (12) Crown Saver Checked <input type="checkbox"/> (13) Major Vibs Checked	
Company's #FF#	Contractor's Job No	Rig No	Squad Date Time	Rig Status	OP	RM
16DR10083	35	09-Dec-2016	18:00	RE-Entry	DS	RT
Signature of Operator's Representative	Signature of Contractor's Rig Manager	Rig Producer Call Time	<input type="checkbox"/> (1) Safety Meeting <input type="checkbox"/> (2) Well Inspection before Raising or Lowering <input type="checkbox"/> (3) Mast Inspection before Raising or Lowering <input type="checkbox"/> (4) Crown Saver Checked <input type="checkbox"/> (5) Major Vibs Checked			
DOUG SHEA	ROD TOMPKINS					

Code	Rig Up	Drill Actual	Reaming	Coiling	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Dring Line	Dev Survey	Wireline Logs	Run Cg & Cement	Wait On Cement	Night BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other	TOTAL	FUEL @ 08:00 HRS	Weather													
																													Tour 1	Tour 2	Tour 3	TOTAL	Wind	Temp	Overcast	Wind Direction	Wind Strength				
																										8.00	FUEL @ 08:00 HRS	25085	11641	06:00	25	Overcast	N	19	KMH						
					0.25	1.00							1.50	1.50							0.25		7.50			12.00							0.25		0.25		0.50		15.50		
					0.25	1.00	0.25						2.25	4.25												4.00								FAIR							

TOUR **1** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**

BITS	DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG											
	Bit Number	1	279		No	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details of Operations in Sequence & Remarks		
	Size	279			1	279MM BIT	279	1	0.27									0:00	8:00	8:00	23A	W/O CEMENTER		
CUTTING STRUCTURE	HOLE CONDITION <td colspan="4">REDUCED PUMP SPEED <td colspan="4">BOILER <td colspan="4">SAFETY </td></td></td>				REDUCED PUMP SPEED <td colspan="4">BOILER <td colspan="4">SAFETY </td></td>				BOILER <td colspan="4">SAFETY </td>				SAFETY											
	Hole Drag	Up	Down	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	Safety Topic	MEHL	MACP										
	0			1				1	4.00	10	340													

TOUR **2** SIGNATURE OF DRILLER **RYAN NEWTON** START TIME **8:00** END TIME **20:00**

BITS	DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG											
	Bit Number	1	279		No	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details of Operations in Sequence & Remarks		
	Size	279			1	279MM BIT	279	1	0.27									8:00	14:00	6:00	23A	W/O CEMENTER		
CUTTING STRUCTURE	HOLE CONDITION <td colspan="4">REDUCED PUMP SPEED <td colspan="4">BOILER <td colspan="4">SAFETY </td></td></td>				REDUCED PUMP SPEED <td colspan="4">BOILER <td colspan="4">SAFETY </td></td>				BOILER <td colspan="4">SAFETY </td>				SAFETY											
	Hole Drag	Up	Down	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	Safety Topic	MEHL	MACP										
	0			1				1	12.00	10.5	340	CRITICAL LIFTING AND SLINGING DEVICES												

TOUR **3** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **20:00** END TIME **24:00**

BITS	DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG											
	Bit Number	1	279		No	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details of Operations in Sequence & Remarks		
	Size	279			1	279MM BIT	279	1	0.27									20:00	20:15	0:25	21	CREW CHANGE HAND OVER MEETING, DISCUSSED ONGOING TASKS, HAZARD IDS AND OBSERVATIONS WITH BOTH CREWS.		
CUTTING STRUCTURE	HOLE CONDITION <td colspan="4">REDUCED PUMP SPEED <td colspan="4">BOILER <td colspan="4">SAFETY </td></td></td>				REDUCED PUMP SPEED <td colspan="4">BOILER <td colspan="4">SAFETY </td></td>				BOILER <td colspan="4">SAFETY </td>				SAFETY											
	Hole Drag	Up	Down	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	Safety Topic	MEHL	MACP										
	0			1				1	4.00	10	340	CEMENTING												

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161211 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 11	DAILY CHECKS		OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location	Prov BC	Loc Type	Unique Well Id 102/09-35-081-18W5	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Postcard If Required (4) Well License & Stick Diagram Checked (5) Flare Lines Inspected (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines (8) Safety Meeting (on/crew/month) (9) CADC Rig Safety Inspection Checklist (on/crew/month) (10) Mast Inspection before Raising or Lowering (11) Crown Saver Checked (12) Major Valve Checked		DS RT	DS RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor's Job No. 35	Rig No 465	Well Type HORIZ	Re-Entry <input type="checkbox"/>	Signatures of Operator's Representative DOUG SHEA Signature of Contractor's Rig Manager ROD TOMPKINS		RT	RT



Code	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	TOTAL	FUEL @ 08:00 HRS
Tour 1		1.00										1.50	5.50													8.00	23049 10190
Tour 2		4.25			5.25	2.50																				12.00	06:00 1:21
Tour 3					0.75	2.75																				4.00	OVERCAST
TOTAL		5.25			6.00	5.25						1.50	5.50													24.00	FAIR

TOUR **1** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**



BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 1	Size 279	No 1	Component 279MM BIT	OD 279	ID 1.027	Mud Type Water	Wt % Oil	Time 09:15	Depth 06:15
IADC Code	Manufacturer SICOTTE	Type SS516GB	Serial No 12807	JMS 14.3 14.3 14.3	Depth Out (m) 0.00	Depth In (m) 110.00	Hrs Run Today 1.00	Cumulative Hrs Run 1.00	Entry Date 09-Dec-2016
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY	
TO 11	BO 110.00	Up 0	Down 0	Pump # 1	Pressure 165	Strokes/min 70	Depth 10000	Boiler No 1	Hours Run 8.00
Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STANDING IN THE DIRECT LINE OF FIRE WHEN ANOTHER WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.	

TOUR **2** SIGNATURE OF DRILLER **RYAN NEWTON** START TIME **8:00** END TIME **20:00**

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 1	Size 279	No 1	Component 279MM BIT	OD 279	ID 1.027	Mud Type Water	Wt % Oil	Time 09:45	Depth 76.60
IADC Code	Manufacturer SICOTTE	Type SS516GB	Serial No 12807	JMS 14.3 14.3 14.3	Depth Out (m) 464.00	Depth In (m) 464.00	Hrs Run Today 3.25	Cumulative Hrs Run 4.25	Entry Date 09-Dec-2016
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY	
TO 110.00	BO 464.00	Up 0	Down 0	Pump # 1	Pressure 165	Strokes/min 70	Depth 11000	Boiler No 1	Hours Run 12.00
Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -	

TOUR **3** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **20:00** END TIME **24:00**

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 1	Size 279	No 1	Component 279MM BIT	OD 279	ID 1.027	Mud Type Water	Wt % Oil	Time 20:15	Depth 20:45
IADC Code	Manufacturer SICOTTE	Type SS516GB	Serial No 12807	JMS 14.3 14.3 14.3	Depth Out (m) 464.00	Depth In (m) 464.00	Hrs Run Today 0.00	Cumulative Hrs Run 4.25	Entry Date 09-Dec-2016
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY	
TO 4	BO 109.18	Up 0	Down 0	Pump # 1	Pressure 165	Strokes/min 70	Depth 6000	Boiler No 1	Hours Run 4.00
Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.	

FRONT PAGE SUMMARY				Core Sheet Serial Number PREC465 20161211 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 11	DAILY CHECKS		OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location BC	Prov BC	Loc Type 102/09-35-081-18W5	Unique Well ID 102/09-35-081-18W5	<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Posted if Required <input type="checkbox"/> (4) Well License & Stick Diagram Posted <input type="checkbox"/> (5) Flare Lines Staked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines <input type="checkbox"/> (8) Major Valve Checked		<input type="checkbox"/> (1) Rig Site Health & Safety Meeting (one/week/month) <input type="checkbox"/> (2) CAODC Rig Safety Inspection Checklist (one/week/month) <input type="checkbox"/> (3) Mast Inspection before Raising or Lowering <input type="checkbox"/> (4) Cover Sliver Checked <input type="checkbox"/> (5) Major Valve Checked	<input type="checkbox"/> DS <input type="checkbox"/> RT <input type="checkbox"/> DS <input type="checkbox"/> RT <input type="checkbox"/> RT <input type="checkbox"/> RT		
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor's Job No. 35	Rig No. 465	Well Type HORIZ	Spud Date Time 09-Dec-2016	Signature of Operator's Representative DOUG SHEA		Signature of Contractor's Rig Manager ROD TOMPKINS		 	

Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER
Code	Rig Up	Drill Actual	Reaming	Coiling	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drill Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other	Hours	Barrel	Temp
Tour 1		1.00													1.50	5.50										8.00	23049	10190
Tour 2		4.25			5.25	2.50																				12.00	06:00	-21
Tour 3		5.25			0.75	2.75															0.50					4.00	OVERCAST	
TOTAL					6.00	5.25									1.50	5.50										24.00	FAIR	UP TO 19 KM/H

TOUR **1** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**

BITS Bit Number: 1 Size: 279 IADC Code: SICOTTE Manufacturer: SS516GB Type: 12807 Serial No: 14.3 14.3 14.3 JHS: 14.3 14.3 14.3 Depth Out (m): 0.00 Total Drilled (m): 110.00 Hrs Run Today: 1.00 Cumulative Hrs Run: 09-Dec-2016 Entry Date: 09-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 279MM BIT 279 1 0.27 1 8" MUD MOTOR 204 1 9.04 1 8" CROSSOVER SUB 204 58 0.92 1 NON WAG SLICK MONEL 166 71 9.24 1 6.5" GAP SUB 163 1 1.68 1 NON WAG SLICK MONEL 166 71 9.39 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.70 1 X/O SUB 135 58 0.80		MUD RECORD Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Other Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run		DEVIATION SURVEYS Time Depth Deviation Direction Type 13:30 244.41 0.60 327.1 14:00 272.24 1.10 307.3 14:45 300.01 0.50 25.7 15:00 327.79 0.40 356.2 15:30 355.58 0.40 308.3 16:00 383.41 0.40 304		TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks			
	CUTTING STRUCTURE Kelly Down: -11.18 Total: 110.00 Weight of DC: 4.00 Weight of String: 25.00		REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 PARALLEL 165 70 11000 10.00 2 PARALLEL 165 70 11000 1.00		MUD MATERIALS ADDED Product Amount Type		REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STANDING IN THE DIRECT LINE OF FIRE WHEN ANOTHER WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.			
	METRES DRILLED From To D-R-C RPM WOB		HOLE CONDITION Hole Drag Up Down Torque At Bottom Fill On Bottom		BOILER BoilerNo HoursRun pH StackTemp		SAFETY Safety Topic MEHL MACP			
	TOUR 2 SIGNATURE OF DRILLER RYAN NEWTON START TIME 8:00 END TIME 20:00		DRILLING ASSEMBLY No. Component OD ID Length 1 279MM BIT 279 1 0.27 1 8" MUD MOTOR 204 1 9.04 1 8" CROSSOVER SUB 204 58 0.92 1 NON WAG SLICK MONEL 166 71 9.24 1 6.5" GAP SUB 163 1 1.68 1 NON WAG SLICK MONEL 166 71 9.39 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.70 1 X/O SUB 135 58 0.80		MUD RECORD Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Other Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run		DEVIATION SURVEYS Time Depth Deviation Direction Type 13:30 244.41 0.60 327.1 14:00 272.24 1.10 307.3 14:45 300.01 0.50 25.7 15:00 327.79 0.40 356.2 15:30 355.58 0.40 308.3 16:00 383.41 0.40 304		TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks	
	CUTTING STRUCTURE Kelly Down: -18.93 Total: 464.00 Weight of DC: 8.00 Weight of String: 48.00		REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 PARALLEL 165 70 11000 10.00 2 PARALLEL 165 70 11000 1.00		MUD MATERIALS ADDED Product Amount Type		REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -			
	METRES DRILLED From To D-R-C RPM WOB		HOLE CONDITION Hole Drag Up Down Torque At Bottom Fill On Bottom		BOILER BoilerNo HoursRun pH StackTemp		SAFETY Safety Topic MEHL MACP			
	TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN START TIME 20:00 END TIME 24:00		DRILLING ASSEMBLY No. Component OD ID Length 1 279MM BIT 279 1 0.27 1 8" MUD MOTOR 204 1 9.04 1 8" CROSSOVER SUB 204 58 0.92 1 NON WAG SLICK MONEL 166 71 9.24 1 6.5" GAP SUB 163 1 1.68 1 NON WAG SLICK MONEL 166 71 9.39 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.70 1 X/O SUB 135 58 0.80		MUD RECORD Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Other Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run		DEVIATION SURVEYS Time Depth Deviation Direction Type 13:30 244.41 0.60 327.1 14:00 272.24 1.10 307.3 14:45 300.01 0.50 25.7 15:00 327.79 0.40 356.2 15:30 355.58 0.40 308.3 16:00 383.41 0.40 304		TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks	
	CUTTING STRUCTURE Kelly Down: -18.93 Total: 464.00 Weight of DC: 8.00 Weight of String: 48.00		REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 PARALLEL 165 70 6000 1.00 2 PARALLEL 165 70 6000 1.00		MUD MATERIALS ADDED Product Amount Type		REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.			
	METRES DRILLED From To D-R-C RPM WOB		HOLE CONDITION Hole Drag Up Down Torque At Bottom Fill On Bottom		BOILER BoilerNo HoursRun pH StackTemp		SAFETY Safety Topic MEHL MACP			

TOUR **2** SIGNATURE OF DRILLER **RYAN NEWTON** START TIME **8:00** END TIME **20:00**

BITS Bit Number: 1 Size: 279 IADC Code: SICOTTE Manufacturer: SS516GB Type: 12807 Serial No: 14.3 14.3 14.3 JHS: 14.3 14.3 14.3 Depth Out (m): 464.00 Total Drilled (m): 464.00 Hrs Run Today: 3.25 Cumulative Hrs Run: 4.25 Entry Date: 09-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 279MM BIT 279 1 0.27 1 8" MUD MOTOR 204 1 9.04 1 8" CROSSOVER SUB 204 58 0.92 1 NON WAG SLICK MONEL 166 71 9.24 1 6.5" GAP SUB 163 1 1.68 1 NON WAG SLICK MONEL 166 71 9.39 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.70 1 X/O SUB 135 58 0.80		MUD RECORD Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Other Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run		DEVIATION SURVEYS Time Depth Deviation Direction Type 13:30 244.41 0.60 327.1 14:00 272.24 1.10 307.3 14:45 300.01 0.50 25.7 15:00 327.79 0.40 356.2 15:30 355.58 0.40 308.3 16:00 383.41 0.40 304		TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks			
	CUTTING STRUCTURE Kelly Down: -18.93 Total: 464.00 Weight of DC: 8.00 Weight of String: 48.00		REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 PARALLEL 165 70 11000 10.00 2 PARALLEL 165 70 11000 1.00		MUD MATERIALS ADDED Product Amount Type		REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -			
	METRES DRILLED From To D-R-C RPM WOB		HOLE CONDITION Hole Drag Up Down Torque At Bottom Fill On Bottom		BOILER BoilerNo HoursRun pH StackTemp		SAFETY Safety Topic MEHL MACP			
	TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN START TIME 20:00 END TIME 24:00		DRILLING ASSEMBLY No. Component OD ID Length 1 279MM BIT 279 1 0.27 1 8" MUD MOTOR 204 1 9.04 1 8" CROSSOVER SUB 204 58 0.92 1 NON WAG SLICK MONEL 166 71 9.24 1 6.5" GAP SUB 163 1 1.68 1 NON WAG SLICK MONEL 166 71 9.39 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.70 1 X/O SUB 135 58 0.80		MUD RECORD Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Other Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run		DEVIATION SURVEYS Time Depth Deviation Direction Type 13:30 244.41 0.60 327.1 14:00 272.24 1.10 307.3 14:45 300.01 0.50 25.7 15:00 327.79 0.40 356.2 15:30 355.58 0.40 308.3 16:00 383.41 0.40 304		TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks	
	CUTTING STRUCTURE Kelly Down: -18.93 Total: 464.00 Weight of DC: 8.00 Weight of String: 48.00		REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 PARALLEL 165 70 6000 1.00 2 PARALLEL 165 70 6000 1.00		MUD MATERIALS ADDED Product Amount Type		REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.			
	METRES DRILLED From To D-R-C RPM WOB		HOLE CONDITION Hole Drag Up Down Torque At Bottom Fill On Bottom		BOILER BoilerNo HoursRun pH StackTemp		SAFETY Safety Topic MEHL MACP			

TOUR **3** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **20:00** END TIME **24:00**

BITS Bit Number: 1 Size: 279 IADC Code: SICOTTE Manufacturer: SS516GB Type: 12807 Serial No: 14.3 14.3 14.3 JHS: 14.3 14.3 14.3 Depth Out (m): 464.00 Total Drilled (m): 464.00 Hrs Run Today: 0.00 Cumulative Hrs Run: 4.25 Entry Date: 09-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 279MM BIT 279 1 0.27 1 8" MUD MOTOR 204 1 9.04 1 8" CROSSOVER SUB 204 58 0.92 1 NON WAG SLICK MONEL 166 71 9.24 1 6.5" GAP SUB 163 1 1.68 1 NON WAG SLICK MONEL 166 71 9.39 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.70 1 X/O SUB 135 58 0.80		MUD RECORD Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Other Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run		DEVIATION SURVEYS Time Depth Deviation Direction Type 13:30 244.41 0.60 327.1 14:00 272.24 1.10 307.3 14:45 300.01 0.50 25.7 15:00 327.79 0.40 356.2 15:30 355.58 0.40 308.3 16:00 383.41 0.40 304		TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks	
	CUTTING STRUCTURE Kelly Down: -18.93 Total: 464.00 Weight of DC: 8.00 Weight of String: 48.00		REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 PARALLEL 165 70 6000 1.00 2 PARALLEL 165 70 6000 1.00		MUD MATERIALS ADDED Product Amount Type		REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.	
	METRES DRILLED From To D-R-C RPM WOB		HOLE CONDITION Hole Drag Up Down Torque At Bottom Fill On Bottom		BOILER BoilerNo HoursRun pH StackTemp		SAFETY Safety Topic MEHL MACP	

FRONT PAGE SUMMARY				Tour Sheet Serial Number PREC465 20161211 1A		Vendor Software Version RMS 2016.6.14.37064		Year 2016	Month 12	Day 11	DAILY CHECKS		OP RM	
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Contractor Precision Drilling, div of PDC		Provision BC	Location 102/09-35-081-18W5	Rig No 465		Well Type HORIZ		<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Posted if Required <input type="checkbox"/> (4) Well License & Stick Diagram Posted <input type="checkbox"/> (5) Flare Lines Staked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines <input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month) <input type="checkbox"/> (9) CAODC Rig Safety Inspection Checklist (once/week/month) <input type="checkbox"/> (10) Mast Inspection before Raising or Lowering <input type="checkbox"/> (11) Cover Sliver Checked <input type="checkbox"/> (12) Major Vibs Checked		DS RT	DS RT	DS RT
Company ARC Resources Ltd.		Company's Job No 35		Spud Date Time 09-Dec-2016		Rig Release Date Time 18:00		Signature of Operator's Representative DOUG SHEA		Signature of Contractor's Rig Manager ROD TOMPKINS		CAODC 		

Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER	
Code	Rig Up	Drill Actual	Reaming	Coiling	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drill Line	Dev Survey	Wireline Logs	Run Cag & Cement	Wait On Cement	Ngble BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other	Hours	Rig	Labour	
Tour 1		1.00													1.50	5.50											8.00	23049	10190
Tour 2		4.25			5.25	2.50																					12.00	06:00	12:21
Tour 3					0.75	2.75																					4.00	OVERCAST	
TOTAL		5.25			6.00	5.25									1.50	5.50											24.00	FAIR	UP TO 19 KM/H

TOUR **1** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG											
Bit Number 1	Size 279	No 1	Component 279MM BIT	OD 279	ID 1	Length 0.27	Mud Type <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Water	Time 16:30	Depth 411.24	Deviation 0.70	Direction 293.6	Type 272	From 16:30	To 439.09	Elapsed 0.80	Code 0.80	Details Of Operations In Sequence & Remarks		
IADC Code 279	Manufacturer SICOTTE	Type SS516GB	Serial No 12807	JMS 14.3 14.3 14.3	Depth Out (m) 14.3 14.3 14.3	Depth In (m) 0.00	Total Drilled (m) 110.00	Hrs Run Today 1.00	Cumulative Hrs Run 1.00	Entry Date 09-Dec-2016	Kelly Down -11.18 Total 110.00 Weight of DC 4.00 Weight of String 25.00		Density 1.027 Funnel Viscosity 9.04 Fluid Loss 0.92 pH 1.68 Location Of Sample 166 71 9.24 Depth 157 58 5.30 PVT 165 60 56.70 Circulation 135 58 0.80		Equipment Name PARALLEL Hours Run 165 70 Intake Density 11000 Over Flow Density 1000 Under Flow Density 1.00		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STANDING IN THE DIRECT LINE OF FIRE WHEN ANOTHER WORKER WAS SWINGING A SLEDGE HAMMER, GOT WORKER TO STAND BACK.		
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY											
TO 1	FROM 1	D-R-C 0	RPM 0	WOB 0	Hole Drag Up	Pressure 0	Boiler No 0	Safety Topic MEHL											
TOUR 2 SIGNATURE OF DRILLER RYAN NEWTON		START TIME 8:00		END TIME 20:00															

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG											
Bit Number 1	Size 279	No 1	Component 279MM BIT	OD 279	ID 1	Length 0.27	Mud Type <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Water	Time 16:30	Depth 411.24	Deviation 0.70	Direction 293.6	Type 272	From 16:30	To 439.09	Elapsed 0.80	Code 0.80	Details Of Operations In Sequence & Remarks		
IADC Code 279	Manufacturer SICOTTE	Type SS516GB	Serial No 12807	JMS 14.3 14.3 14.3	Depth Out (m) 14.3 14.3 14.3	Depth In (m) 0.00	Total Drilled (m) 464.00	Hrs Run Today 3.25	Cumulative Hrs Run 4.25	Entry Date 09-Dec-2016	Kelly Down -18.93 Total 464.00 Weight of DC 8.00 Weight of String 48.00		Density 1.027 Funnel Viscosity 9.04 Fluid Loss 0.92 pH 1.68 Location Of Sample 166 71 9.24 Depth 157 58 5.30 PVT 165 60 56.70 Circulation 135 58 0.80		Equipment Name PARALLEL Hours Run 165 70 Intake Density 11000 Over Flow Density 1000 Under Flow Density 1.00		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION -		
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY											
TO 2	FROM 4	D-R-C CT	RPM TD	WOB S	Hole Drag Up	Pressure 0	Boiler No 0	Safety Topic MEHL											
TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN		START TIME 20:00		END TIME 24:00															

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG											
Bit Number 1	Size 279	No 1	Component 279MM BIT	OD 279	ID 1	Length 0.27	Mud Type <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Water	Time 16:30	Depth 411.24	Deviation 0.70	Direction 293.6	Type 272	From 16:30	To 439.09	Elapsed 0.80	Code 0.80	Details Of Operations In Sequence & Remarks		
IADC Code 279	Manufacturer SICOTTE	Type SS516GB	Serial No 12807	JMS 14.3 14.3 14.3	Depth Out (m) 14.3 14.3 14.3	Depth In (m) 0.00	Total Drilled (m) 464.00	Hrs Run Today 0.00	Cumulative Hrs Run 4.25	Entry Date 09-Dec-2016	Kelly Down -18.93 Total 464.00 Weight of DC 8.00 Weight of String 48.00		Density 1.027 Funnel Viscosity 9.04 Fluid Loss 0.92 pH 1.68 Location Of Sample 166 71 9.24 Depth 157 58 5.30 PVT 165 60 56.70 Circulation 135 58 0.80		Equipment Name PARALLEL Hours Run 165 70 Intake Density 6000 Over Flow Density 6000 Under Flow Density 1.00		Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS INSPECT FLOOR EQUIPMENT TOP DRIVE,DRAWWORKS, DRILL LINE AND DRILL ANCHOR. OBSERVATION - WORKER WAS STEAMING OFF RIG FLOOR WHILE DRILLER WAS WORKING STRING, STEAM IMPAIRED VISION FOR DRILLER. GOT WORKER TO TURN OFF STEAM.		
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY											
TO 4	FROM CT	D-R-C S	RPM TD	WOB X	Hole Drag Up	Pressure 0	Boiler No 0	Safety Topic MEHL											
TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN		START TIME 20:00		END TIME 24:00															

FRONT PAGE SUMMARY
32574 ARCRCES HZ Septimus H11-34-81-18W6
Precision Drilling, div of PDC
35 09-Dec-2016 18:00
DOUG SHEA ROD TOMPKINS



Hours table with columns for Tour 1, 2, 3 and rows for Rigs 1-25. Includes totals for hours and fuel.

TOUR 1 SIGNATURE OF DRILLER DAVE LOEWEN START TIME 0:00 END TIME 8:00

TOUR 2 SIGNATURE OF DRILLER RYAN NEWTON START TIME 8:00 END TIME 20:00
Includes sections for BITS, DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, and HOLE CONDITION.

TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN START TIME 20:00 END TIME 24:00
Includes sections for BITS, DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, and HOLE CONDITION.

TOUR 4 SIGNATURE OF DRILLER DAVE LOEWEN START TIME 0:00 END TIME 24:00
Includes sections for BITS, DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, and HOLE CONDITION.

FRONT PAGE SUMMARY				Tour Sheet Serial Number PREC465 20161213_1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 13	DAILY CHECKS		OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Contractor Precision Drilling, div of PDC	Surface Location 465	Prov BC	Loc Type HORIZ	Unique Well ID 102/09-35-081-18W5	<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Posted If Required <input type="checkbox"/> (4) Well Licence & Stick Diagram Posted <input type="checkbox"/> (5) Flare Lines Baked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOP-Flare Lines & Degasser Lines <input type="checkbox"/> (8) Rig Site Health & Safety Meeting (on/oc/row/month) <input type="checkbox"/> (9) CADC Rig Safety Inspection Checklist (on/oc/row/month) <input type="checkbox"/> (10) Mast Inspection before Raising or Lowering <input type="checkbox"/> (11) Crown Saver Checked <input type="checkbox"/> (12) Motor Vibs Checked		DS	RT	
Company ARC Resources Ltd.	Contractor's Job No. 35	Signature of Contractor's Rig Manager DOUG SHEA	Signature of Operator's Rig Manager ROD TOMPKINS	Rig No. 465	Well Type HORIZ	Re-entry <input type="checkbox"/>	<input type="checkbox"/> (1) Rig Site Health & Safety Meeting (on/oc/row/month) <input type="checkbox"/> (2) CADC Rig Safety Inspection Checklist (on/oc/row/month) <input type="checkbox"/> (3) Mast Inspection before Raising or Lowering <input type="checkbox"/> (4) Crown Saver Checked <input type="checkbox"/> (5) Motor Vibs Checked		DS	RT	



Code	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	TOTAL	FUEL @ 08:00 HRS
Hours		2.25					1.75	0.25													1.50	0.75				1.50	8.00
Tour 1		7.75					3.50	0.25																		12.00	42552
Tour 2		3.00					0.50	0.25																		4.00	10190
Tour 3		13.00					4.00	1.75	0.75												1.50	1.50				24.00	15
TOTAL																											OVERCAST
																									WEATHER	Wind Direction N	Wind Strength UP TO 19 KM/H

TOUR 1	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 0:00	END TIME 8:00
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BITS Bit Number: 2 Size: 200 IADC Code: 1 Manufacturer: BAKER HUGHES Type: T507X Serial No: 7161176 Jct: 7.9 7.9 7.9 Depth Out (m): 464.00 Total Drilled (m): 34.00 Hrs Run Today: 0.50 Cumulative Hrs Run: 0.50 Entry Date: 12-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 200MM BIT 200 1 0.27 1 6.5" MOTOR T8 5 STG 167 1 8.93 1 NON WAG SLICK MODEL 166 71 9.34 1 6.5" GAP SUB 163 1 1.68 2 NON WAG SLICK MODEL 166 71 18.62 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.73 1 X/O SUB 135 58 0.80 42 4.5" HWDP 114 73 485.23	MUD RECORD Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Time: 03:15 Density: 1160 Funnel Viscosity: 30 Fluid Loss: 10.5 pH: 10.5 Location Of Sample: TNK 2 Depth: 0 PVT: 0 Circulation Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 105 5000 3.00	DEVIATION SURVEYS Time Depth Deviation Direction Type 0:00 0:15 0:25 7 0:15 1:45 1:50 25 1:45 2:00 0:25 21 2:00 3:30 1:50 20D 3:30 5:15 1:75 6A 5:15 5:30 0:25 21A 5:30 7:15 1:75 2C 7:15 7:45 0:50 2 7:45 8:00 0:25 21	TIME LOG Details Of Operations In Sequence & Remarks 0:00 0:15 0:25 7 RIG SERVICE, SERVICE TOP DRIVE 0:15 1:45 1:50 25 CHANGE OUT SAVER SUB ON TOP DRIVE, RE-TIE WIRE ALL OVER HEAD BOLTS. 1:45 2:00 0:25 21 SAFETY MEETING HELD PRIOR TO HANDLING BHA AND TRIPPING IN THE HOLE. 2:00 3:30 1:50 20D REVIEWED CTA 2-5 3:30 5:15 1:75 6A PICK UP 200MM DIRECTIONAL BHA AND MAKE UP BIT #2. 5:15 5:30 0:25 21A TRIP IN HOLE 5:30 7:15 1:75 2C SOUR BOP DRILL MAN DOWN RIG. CREW PACKED UP AND WELL SECURED 7:15 7:45 0:50 2 IN 3MIN 10SECS.OPEN HCR 2 SEC CLOSE ANNULAR 18 SEC 7:45 8:00 0:25 21 DRILL OUT TAG CASING FLOAT COLLAR @ 449M, TAG CASING SHOE @ 463M 200MM HOLE FROM 464M TO 498M CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER/ARC REPRESENTATIVES/CREWS
CUTTING STRUCTURE TO: 0.00 MID: 0.00 LCL: 68.00 BRS: 0.00				
HOLE CONDITION Hole Drag Up 1 Down 1 Torque At Bottom 0 Fill On Bottom 0				
REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 4000 @ 79 @ 464.00				
MUD MATERIALS ADDED Product Amount Type CAUSTIC 1 BAG LIME 4 BAGS				
BOILER BoilerNo HoursRun pH StackTemp 1 8.00 10 340 2 8.00 10 340				
REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES,FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS,TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, FUNCTION ALL BOP COMPONENTS PRIOR TO PRESSURE TEST HAZARD ID: WORKER LEFT STEAM HOSE IN BIRD BATH UNATTENDED, WATER GOT VERY HOT.				

TOUR 2	SIGNATURE OF DRILLER RYAN NEWTON	START TIME 8:00	END TIME 20:00
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BITS Bit Number: 2 Size: 200 IADC Code: 1 Manufacturer: BAKER HUGHES Type: T507X Serial No: 7161176 Jct: 7.9 7.9 7.9 Depth Out (m): 464.00 Total Drilled (m): 769.00 Hrs Run Today: 7.75 Cumulative Hrs Run: 8.25 Entry Date: 12-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 200MM BIT 200 1 0.27 1 6.5" MOTOR T8 5 STG 167 1 8.93 1 NON WAG SLICK MODEL 166 71 9.34 1 6.5" GAP SUB 163 1 1.68 2 NON WAG SLICK MODEL 166 71 18.62 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.73 1 X/O SUB 135 58 0.80 48 4.5" HWDP 114 73 485.23	MUD RECORD Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Time: 08:00 Density: 1150 Funnel Viscosity: 30 Fluid Loss: 10 pH: 10 Location Of Sample: SHAKER SHAKER Depth: 500.00 PVT: 70 Circulation Pump # Type Liner Size SPM Pressure Hrs Run 1 PARALLEL 127 95 17000 12.00 2 PARALLEL 127 95 17000 12.00	DEVIATION SURVEYS Time Depth Deviation Direction Type 8:00 8:15 0:25 21A 8:15 16:00 7:75 2 16:00 19:30 3:50 5 19:30 19:45 0:25 7 19:45 20:00 0:25 21	TIME LOG Details Of Operations In Sequence & Remarks 8:00 8:15 0:25 21A SOUR BOP/MAN DOWN DRILL WITH CREW WELL SECURE 40 SEC SEARCH 8:15 16:00 7:75 2 ROUTE COMPLETED 3:45 SEC 16:00 19:30 3:50 5 DRILL 200MM HOLE FROM 498M TO 1233M 19:30 19:45 0:25 7 ACCUMULATIVE TIME TO WORK STRING MAKE CONNECTIONS AND TOOLFACE ORIENTATION 19:45 20:00 0:25 21 RIG SERVICE FUNCTION UPPER PIPE RAMS 7 SEC TO CLOSE CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER/ARC REPRESENTATIVES/CREWS
CUTTING STRUCTURE TO: 0.00 MID: 0.00 LCL: 93.21 BRS: 0.00				
HOLE CONDITION Hole Drag Up 1 Down 1 Torque At Bottom 7500 Fill On Bottom 0				
REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 4720 @ 95 @ 633.00 2 4800 @ 95 @ 633.00 1 5000 @ 95 @ 787.00				
MUD MATERIALS ADDED Product Amount Type ENERPAC 1 SXS ENERPAC 1 SXS CAL CARB 0 24 SXS CAL CARB 325 8 SXS SULPHAMIC ACID 12 SXS				
BOILER BoilerNo HoursRun pH StackTemp 1 12.00 10 340 2 12.00 10 340				
REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES,FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS,TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: HANDRAILS ON STAIRS TO UPPER LEVEL OF SUB WERE IMPROPERLY PLACED CAUSING UNNECESSARY PINCH POINTS/SECURED HANDRAILS IN THE				

TOUR 3	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 20:00	END TIME 24:00
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BITS Bit Number: 2 Size: 200 IADC Code: 1 Manufacturer: BAKER HUGHES Type: T507X Serial No: 7161176 Jct: 7.9 7.9 7.9 Depth Out (m): 1375.00 Total Drilled (m): 464.00 Hrs Run Today: 3.00 Cumulative Hrs Run: 11.25 Entry Date: 12-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 200MM BIT 200 1 0.27 1 6.5" MOTOR T8 5 STG 167 1 8.93 1 NON WAG SLICK MODEL 166 71 9.34 1 6.5" GAP SUB 163 1 1.68 2 NON WAG SLICK MODEL 166 71 18.62 1 6.5" HYDMECH JARS 157 58 5.30 6 DRILL COLLAR 165 60 56.73 1 X/O SUB 135 58 0.80 48 4.5" HWDP 114 73 485.23	MUD RECORD Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Time: 21:45 Density: 1180 Funnel Viscosity: 30 Fluid Loss: 9.5 pH: 9.5 Location Of Sample: SHAKERS SHAKERS Depth: 1296.00 PVT: 60 Circulation Pump # Type Liner Size SPM Pressure Hrs Run 1 127 69 14000 4.00 2 127 69 14000 4.00	DEVIATION SURVEYS Time Depth Deviation Direction Type 20:45 1233.14 0.10 85.1 21:15 1262.41 0.30 244.7 22:00 1291.60 0.40 226.2 22:45 1320.77 0.80 215.1 23:45 1349.94 0.50 232	TIME LOG Details Of Operations In Sequence & Remarks 20:00 20:15 0:25 21 CREW CHANGE HAND OVER MEETING, DISCUSSED ONGOING TASKS, HAZARD ID'S AND OBSERVATIONS WITH BOTH CREWS. 20:15 23:15 3:00 2 DRILL 200MM VERTICAL SECTION FROM 1233M - 1375M 23:15 23:45 0:50 5 ACCUMULATED TIME WORKING PIPE AND CONNECTIONS 23:45 24:00 0:25 7 RIG SERVICE, GREASE AND SERVICE TOP DRIVE, FUNCTION LOWER PIPERAMS (6SECS TO CLOSE).
CUTTING STRUCTURE TO: 0.00 MID: 0.00 LCL: 80.98 BRS: 0.00				
HOLE CONDITION Hole Drag Up 1 Down 1 Torque At Bottom 5500 Fill On Bottom 0				
REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 1 3960 @ 79 @ 1276.00 1 3920 @ 79 @ 1276.00				
MUD MATERIALS ADDED Product Amount Type ENERPAC 1 EACH CAL CARB 0 15 EACH CAUSTIC 1 EACH LIME 4 EACH ENERGURE 1 EACH ENERCLEAR 1802 1 EACH CHEMCLEAN 1 EACH				
BOILER BoilerNo HoursRun pH StackTemp 1 4.00 10 340 2 4.00 10 340				
REMARKS FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES,FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS,TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: NOTICED DURING INSPECTION OF STABBING VALVE THAT THE THREADS WERE ALL ICED UP FROM WASHING THE RIG FLOOR, THAWED OFF				

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161214 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 14	DAILY CHECKS		OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location	Prov BC	Loc Type	Unique Well ID 102/09-35-081-18W5	<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Disabled Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Posted If Required <input type="checkbox"/> (4) Well License & Stick Diagram Posted <input type="checkbox"/> (5) Flare Lines Staked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOP-Flare Lines & Degasser Lines		<input type="checkbox"/> (1) Rig Site Health & Safety Meeting (once/week/month) <input type="checkbox"/> (2) CADCDC Rig Safety Inspection Checklist (once/week/month) <input type="checkbox"/> (3) Mast Inspection before Raising or Lowering <input type="checkbox"/> (4) Crown Saver Checked <input type="checkbox"/> (5) Major Risks Checked	 
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No 35	Rig No 465	Well Type HORIZ	Re-entry <input type="checkbox"/>				
Signature of Operator's Representative DOUG SHEA	Signature of Contractor's Rig Manager ROD TOMPKINS	Spoil Date Time 09-Dec-2016	Rig Release Date Time 18:00						

Code	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	TOTAL	FUEL @ 08:00 HRS
HOURS	Rig Up	Drill Actual	Reaming	Coiling	Core Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Dring Line	Dev Survey	Wireline Logs	Ran Cap & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other		
Tour 1		7.00			0.50		0.25																			8.00	36346 10190
Tour 2		10.25			1.25		0.25																			12.00	06:00 1:21
Tour 3		2.00			1.00	0.25	0.25																			4.00	PARTLY CLOUDY Wind Direction N Wind Strength UP TO 19 KM/H Road Condition FAIR
TOTAL		19.25			2.75	0.25	0.75																			24.00	

TOUR 1	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 0:00	END TIME 8:00
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BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 2	Size 200	No 1	Component 200MM BIT	OD 200	ID 1.027	Mud Type Water	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	Other <input type="checkbox"/>
IADC Code	Manufacturer BAKER HUGHES	Type T507X	Serial No 7161176	Jobs 7.9 7.9 7.9	Depth Out (m) 464.00	Depth In (m) 1044.00	Hrs Run Today 7.00	Cumulative Hrs Run 18.25	Entry Date 12-Dec-2016
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY	
TO 7	LOC 7	BRG 13	Kelly Down -3.07	Torque At Bottom 6000	Pump # 1	Pressure 3900	Strokes/min 78	Depth 78	BoilerNo 1
MDC 57.21	Weight of DC 8.00	Weight of String 74.00	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: STAND PIPE PRESSURE GAUGE WAS FROZEN WITH SURFACE MUD GIVING A FALSE READING. UNTHAWED GAUGE.	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: NOTICED 100 LB PROPANS BOTTLE LYING ON SIDE IN WHEELBARROW WHILE ATTACHED TO TIGER TORCH/REMOVED BOTTLE AND STOOD UP WHILE IN	BoilerNo 2	HoursRun 8.00	pH 10	StackTemp 340	Lockouts MEHL 3528 MACP

TOUR 2	SIGNATURE OF DRILLER RYAN NEWTON	START TIME 8:00	END TIME 20:00
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BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 2	Size 200	No 1	Component 200MM BIT	OD 200	ID 1.027	Mud Type Water	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	Other <input type="checkbox"/>
IADC Code	Manufacturer BAKER HUGHES	Type T507X	Serial No 7161176	Jobs 7.9 7.9 7.9	Depth Out (m) 464.00	Depth In (m) 1191.00	Hrs Run Today 10.25	Cumulative Hrs Run 28.50	Entry Date 12-Dec-2016
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY	
TO 7	LOC 7	BRG 12	Kelly Down -4.42	Torque At Bottom 7200	Pump # 1	Pressure 3960	Strokes/min 78	Depth 78	BoilerNo 1
MDC 41.79	Weight of DC 10.00	Weight of String 78.00	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: NOTICED 100 LB PROPANS BOTTLE LYING ON SIDE IN WHEELBARROW WHILE ATTACHED TO TIGER TORCH/REMOVED BOTTLE AND STOOD UP WHILE IN	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: NOTICED 100 LB PROPANS BOTTLE LYING ON SIDE IN WHEELBARROW WHILE ATTACHED TO TIGER TORCH/REMOVED BOTTLE AND STOOD UP WHILE IN	BoilerNo 2	HoursRun 12.00	pH 10.5	StackTemp 340	Lockouts MEHL 3528 MACP

TOUR 3	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 20:00	END TIME 24:00
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BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 2	Size 200	No 1	Component 200MM BIT	OD 200	ID 1.027	Mud Type Water	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	Other <input type="checkbox"/>
IADC Code	Manufacturer BAKER HUGHES	Type T507X	Serial No 7161176	Jobs 7.9 7.9 7.9	Depth Out (m) 1705.00	Depth In (m) 1241.00	Hrs Run Today 2.00	Cumulative Hrs Run 30.50	Entry Date 12-Dec-2016
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		BOILER		SAFETY	
TO 7	LOC 7	BRG 14.5	Kelly Down -9.81	Torque At Bottom 7500	Pump # 1	Pressure 3850	Strokes/min 78	Depth 78	BoilerNo 1
MDC 40.69	Weight of DC 10.00	Weight of String 69.00	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: NOTICED ON CAMLOCK COMING OFF OF INVERT TANK THAT THE LATCHES DID NOT HAVE A SECONDARY LOCK. PUT ZIP TIES AROUND CAMLOCK WINGS TO ENSURE	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHORS HAZARD ID: NOTICED ON CAMLOCK COMING OFF OF INVERT TANK THAT THE LATCHES DID NOT HAVE A SECONDARY LOCK. PUT ZIP TIES AROUND CAMLOCK WINGS TO ENSURE	BoilerNo 2	HoursRun 4.00	pH 10	StackTemp 340	Lockouts MEHL 3528 MACP

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161215 1A	Vendor Software Version RMS 2016.14.37064	Year 2016	Month 12	Day 15	DAILY CHECKS		OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	BC BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Postcard If Required (4) Well License & Stick Diagram Posted (5) Flare Lines Staked (6) BOP Tests Performed (7) Visually Inspected BOP's Flare Lines & Degasser Lines		DS RT	DS RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor's Job No. 35	Rig No. 465	Well Type HORIZ	Re-Entry <input type="checkbox"/>	(1) Rig Site Health & Safety Meeting (once/week/month) (2) CAODC Rig Safety Inspection Checklist (once/week/month) (3) Mast Inspection before Raising or Lowering (4) Crown Saver Checked (5) Motor Vibs Checked		DS RT	DS RT
Signature of Operator's Representative DOUG SHEA	Signature of Contractor's Rig Manager ROD TOMPKINS	Squad Date Time 09-Dec-2016	Rig Release Date Time 18:00					RT	RT



Code	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	TOTAL	FUEL @ 08:00 HRS
Tour 1							4.50																			8.00	Rig 31382 Labor 10190
Tour 2	5.50				1.75	2.75	0.25		0.75												0.50	0.50				12.00	Time 06:00 Fuel 21
Tour 3	3.25				0.25	0.25																0.25				4.00	OVERCAST Wind Direction N Wind Strength UP TO 19 KM/H
TOTAL	8.75				2.00	7.25	0.50		0.75												3.50	1.25				24.00	WEATHER FAIR

TOUR **1** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 3	Size 200	No 1	Component 200MM BIT	OD 200	ID 1.027	Mud Type Water	W <input checked="" type="checkbox"/>	G <input type="checkbox"/>	O <input type="checkbox"/>
IADC Code 1	Manufacturer HALLIBURTON	Type MMD64M	Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1705.00	Time 13:15	Depth 0.60	Deviation 28.5	From 0:00
Manufacturer HALLIBURTON	Type MMD64M	Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1705.00	Total Drilled (m) 0.00	Density 1150	Direction 0.80	Type 21	To 3:00
Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1705.00	Total Drilled (m) 0.00	Cumulative Hrs Run 0.00	Entry Date 15-Dec-2016	Funnel Viscosity 30	StackTemp 340	Details of Operations In Sequence & Remarks	
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		MUD MATERIALS ADDED		Remarks	
Kelly Down 0		Torque At Bottom 6500		Pump # Pressure Strokes/min Depth 1 3755 @ 69 @ 1754.60		Product Amount Type 1 CAUSTIC 1 sxs		FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. OBSERVATION: WHILE HANDLING BHA, WORKERS BROKE APART THE GAP SUB AND WERE ABOUT TO MOUSEHOLE IT. WORKER GRABBED SUB THEN LET GO AND TURNED AROUND SAFETY	

TOUR **2** SIGNATURE OF DRILLER **RYAN NEWTON** START TIME **8:00** END TIME **20:00**

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 3	Size 200	No 1	Component 200MM BIT	OD 200	ID 1.027	Mud Type Water	W <input checked="" type="checkbox"/>	G <input type="checkbox"/>	O <input type="checkbox"/>
IADC Code 1	Manufacturer HALLIBURTON	Type MMD64M	Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1705.00	Time 09:00	Depth 1670.80	Deviation 0.60	From 8:00
Manufacturer HALLIBURTON	Type MMD64M	Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1705.00	Total Drilled (m) 78.00	Density 1150	Direction 0.80	Type 21	To 8:15
Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1705.00	Total Drilled (m) 78.00	Cumulative Hrs Run 5.50	Entry Date 15-Dec-2016	Funnel Viscosity 30	StackTemp 340	Details of Operations In Sequence & Remarks	
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		MUD MATERIALS ADDED		Remarks	
Kelly Down 0		Torque At Bottom 6500		Pump # Pressure Strokes/min Depth 1 3755 @ 69 @ 1754.60		Product Amount Type 1 CAUSTIC 1 sxs		FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. OBSERVATION: WHILE HANDLING BHA, WORKERS BROKE APART THE GAP SUB AND WERE ABOUT TO MOUSEHOLE IT. WORKER GRABBED SUB THEN LET GO AND TURNED AROUND SAFETY	

TOUR **3** SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **20:00** END TIME **24:00**

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG	
Bit Number 3	Size 200	No 1	Component 200MM BIT	OD 200	ID 1.027	Mud Type Water	W <input checked="" type="checkbox"/>	G <input type="checkbox"/>	O <input type="checkbox"/>
IADC Code 1	Manufacturer HALLIBURTON	Type MMD64M	Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1810.00	Time 20:00	Depth 20:00	Deviation 0.25	From 20:00
Manufacturer HALLIBURTON	Type MMD64M	Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1810.00	Total Drilled (m) 105.00	Density 1155	Direction 1150	Type 21	To 20:15
Serial No 12860043	Jts 7.9 7.9 7.9	Depth Out (m) 1810.00	Total Drilled (m) 105.00	Cumulative Hrs Run 8.75	Entry Date 15-Dec-2016	Funnel Viscosity 30	StackTemp 340	Details of Operations In Sequence & Remarks	
CUTTING STRUCTURE		HOLE CONDITION		REDUCED PUMP SPEED		MUD MATERIALS ADDED		Remarks	
Kelly Down -1.91		Torque At Bottom 7000		Pump # Pressure Strokes/min Depth 1 3800 @ 69 @ 1782.00		Product Amount Type 1 DEFOAMER 1 EACH		FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. HAZARD ID - WORKER LEFT STEAM BLANKET BY BLOWER EXHUST ON PUMPS CAUSING THE INTAKES TO FREEZE OVER W/ ICE NOT ALLOWING ANY AIR FLOW TO ELECTRIC	

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161215 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 15	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	Well Type HORIZ	(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 Baked (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines	DS RT DS RT DS RT DS RT RT RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor's Job No. 35	465	Squad Date Time 09-Dec-2016	18:00	Signature of Operator's Representative DOUG SHEA	(1) Rig Site Health & Safety Meeting (once/week/month) (2) CADCDC Rig Safety Inspection Checklist (once/week/month) (3) Mast Inspection before Raising or Lowering (4) Cover Slower Checked (5) Motor Vibs Checked	RT RT



Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER
Code	Rig Up	Drill Actual	Reaming	Coiling	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Dring Line	Dev Survey	Wireline Logs	Run Cag & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other		Rig Fuel	Power
Tour 1						4.50																				8.00	31382	10190
Tour 2		5.50				1.75	2.75	0.25		0.75																12.00	06:00	121
Tour 3		3.25				0.25		0.25																		4.00	OVERCAST	
TOTAL		8.75				2.00	7.25	0.50		0.75																24.00	FAIR	Wind Strength UP TO 19 KM/H

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 3 Size: 200 IADC Code: HALLIBURTON Manufacturer: MMD64M Type: 12860043 Serial No: 7.9 7.9 7.9 Jct: 7.9 7.9 Depth Out (m): 1705.00 Total Drilled (m): Hrs Run Today: Cumulative Hrs Run: 0.00 Entry Date:	1 200MM BIT 200 1 0.27 1 6.5" MOTOR 78 S STG 167 1 8.62 1 6.5" NON MAG PONY 162 72 1.55 1 6.5" NON MAG FLEX MODEL 163 72 9.24 1 6.5" GAP SUB 163 1 1.68 1 6.5" UBHO SUB 156 65 0.92 1 6.5" NON MAG FLEX MODEL 163 72 27.31 1 6.5" HYDMECH JARS 157 58 5.30 1 X/O SUB 135 58 0.80 48 4.5" HWDP 114 73 46.23	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 18:30 Density: 1160 Funnel Viscosity: 30 Fluid Loss: 10 pH: shaker Location Of Sample: 1775.00 Depth: 57 PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 PARALLEL 127 69 11120 9.00 2 PARALLEL 127 69 11120 9.00	Time Depth Deviation Direction Type 17:15 1749.69 14.90 107.8 18:30 1759.21 16.60 104.1 19:45 1768.77 18.70 104	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	REMARKS
TO: 3 CT: BHA LCL: S BRG: 40.69	Kelly Down: 0 Total: 1697.62 Weight of DC: 0.00 Weight of String: 76.00	Pump # Pressure Strokes/min Depth 1 3755 @ 69 @ 1754.60 2 3800 @ 69 @ 1754.60	BoilerNo HoursRun pH StackTemp	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. OBSERVATION: WHILE HANDLING BHA, WORKERS BROKE APART THE GAP SUB AND WERE ABOUT TO MOUSEHOLE IT. WORKER GRABBED SUB THEN LET GO AND TURNED AROUND SAFETY

TOUR 2 SIGNATURE OF DRILLER **RYAN NEWTON** START TIME **8:00** END TIME **20:00**

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 3 Size: 200 IADC Code: HALLIBURTON Manufacturer: MMD64M Type: 12860043 Serial No: 7.9 7.9 7.9 Jct: 7.9 7.9 Depth Out (m): 1705.00 Total Drilled (m): 78.00 Hrs Run Today: 5.50 Cumulative Hrs Run: 5.50 Entry Date: 15-Dec-2016	1 200MM BIT 200 1 0.27 1 6.5" MOTOR 78 S STG 167 1 8.62 1 6.5" NON MAG PONY 162 72 1.55 1 6.5" NON MAG FLEX MODEL 163 72 9.24 1 6.5" GAP SUB 163 1 1.68 1 6.5" UBHO SUB 156 65 0.92 1 6.5" NON MAG FLEX MODEL 163 72 27.31 1 6.5" HYDMECH JARS 157 58 5.30 1 X/O SUB 135 58 0.80 48 4.5" HWDP 114 73 46.23	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 18:30 Density: 1160 Funnel Viscosity: 30 Fluid Loss: 10 pH: shaker Location Of Sample: 1775.00 Depth: 57 PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 PARALLEL 127 69 11120 9.00 2 PARALLEL 127 69 11120 9.00	Time Depth Deviation Direction Type 17:15 1749.69 14.90 107.8 18:30 1759.21 16.60 104.1 19:45 1768.77 18.70 104	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	REMARKS
TO: 3 CT: BHA LCL: S BRG: 14.18	Kelly Down: -0.77 Total: 1783.00 Weight of DC: 0.00 Weight of String: 76.00	Pump # Pressure Strokes/min Depth 1 3755 @ 69 @ 1754.60 2 3800 @ 69 @ 1754.60	BoilerNo HoursRun pH StackTemp	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.

TOUR 3 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **20:00** END TIME **24:00**

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 3 Size: 200 IADC Code: HALLIBURTON Manufacturer: MMD64M Type: 12860043 Serial No: 7.9 7.9 7.9 Jct: 7.9 7.9 Depth Out (m): 1810.00 Depth In (m): 1705.00 Total Drilled (m): 105.00 Hrs Run Today: 3.25 Cumulative Hrs Run: 8.75 Entry Date: 15-Dec-2016	1 200MM BIT 200 1 0.27 1 6.5" MOTOR 78 S STG 167 1 8.62 1 6.5" NON MAG PONY 162 72 1.55 1 6.5" NON MAG FLEX MODEL 163 72 9.24 1 6.5" GAP SUB 163 1 1.68 1 6.5" UBHO SUB 156 65 0.92 1 6.5" NON MAG FLEX MODEL 163 72 27.31 1 6.5" HYDMECH JARS 157 58 5.30 1 X/O SUB 135 58 0.80 48 4.5" HWDP 114 73 46.23	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 18:30 Density: 1160 Funnel Viscosity: 30 Fluid Loss: 10 pH: shaker Location Of Sample: 1775.00 Depth: 57 PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 PARALLEL 127 69 11800 4.00 2 PARALLEL 127 69 11800 4.00	Time Depth Deviation Direction Type 4:00 1160 1150 1640 4:00 1160 1150 1625	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	REMARKS
TO: 3 CT: BHA LCL: S BRG: 12.00	Kelly Down: -1.91 Total: 1810.77 Weight of DC: 0.00 Weight of String: 76.00	Pump # Pressure Strokes/min Depth 1 3800 @ 69 @ 1782.00 2 3860 @ 69 @ 1782.00	BoilerNo HoursRun pH StackTemp	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. HAZARD ID - WORKER LEFT STEAM BLANKET BY BLOWER EXHUST ON PUMPS CAUSING THE INTAKES TO FREEZE OVER W/ ICE NOT ALLOWING ANY AIR FLOW TO ELECTRIC

FRONT PAGE SUMMARY				Tour Sheet Serial Number PREC465 20161216 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 16	DAILY CHECKS		OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5			<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Postcard If Required <input type="checkbox"/> (4) Well License & Stick Diagram Posted <input type="checkbox"/> (5) Flare Lines Staked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOPs Flare Lines & Degasser Lines <input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month) <input type="checkbox"/> (9) CADCDC Rig Safety Inspection Checklist (once/week/month) <input type="checkbox"/> (10) Mast Inspection before Raising or Lowering <input type="checkbox"/> (11) Crown Saver Checked <input type="checkbox"/> (12) Motor Vibs Checked		DS RT DS RT DS RT RT	
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No. 35	Rig No. 465	Well Type HORIZ	Re-Entry <input type="checkbox"/>	Spud Date Time 09-Dec-2016		18:00			
Signature of Operator's Representative DOUG SHEA	Signature of Contractor's Rig Manager ROD TOMPKINS										



Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER	
Tour 1		5.25			1.00		0.25														1.25	0.25				8.00	27481	10190	
Tour 2		8.75			2.75		0.25																			12.00	06:00	26	
Tour 3		3.00			0.25		0.25														0.25	0.25				4.00	OVERCAST	Wind Direction N	Wind Strength UP TO 19 KM/H
TOTAL		17.00			4.00		0.75														1.50	0.75				24.00	FAIR	Up to 19 KM/H	

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME 0:00 END TIME 8:00

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG																		
Bit Number 3	Size 200	No 1	Component 200MM BIT	OD 200	ID 167	Mud Type Water	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	From 0:00	To 2:45	Elapsed 2:45	Code 2	Details of Operations In Sequence & Remarks													
IADC Code 1	Manufacturer HALLIBURTON	1	6.5" MOTOR 7/8 S STG	167	1	Time 01:00	04:30		0:00	2:45	2:45	20C	DRILL 200MM BUILD SECTION FROM 1810M - 1825M													
Type MMD64M	Serial No 12860043	1	6.5" NON MAG PONY	162	72	Density 1155	1155		2:45	4:00	1:15	2	TROUBLE SHOOT EM TOOL. RACK BACK 1 STAND TO ESTABLISH DOWNLINK													
Jct 7.9 7.9 7.9	Depth Out (m) 1705.00	1	6.5" GAP SUB	163	1	Funnel Viscosity 30	30		4:00	5:45	1:45	2	DRILL 200MM BUILD SECTION FROM 1825M - 1841M													
Total Drilled (m) 152.00	Hrs Run Today 5.75	1	6.5" UBHO SUB	156	65	Fluid Loss 10.5	10		5:45	6:00	0:15	7	RIG SERVICE, GREASE AND SERVICE TOP DRIVE. FUNCTION ANNULAR (19SECS TO CLOSE)													
Cumulative Hrs Run 14.50	Entry Date 15-Dec-2016	1	6.5" HYDMECH JARS	157	58	pH 9.5	9.5		6:00	6:45	0:45	2	DRILL 200MM BUILD SECTION FROM 1841M - 1857M													
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED		BOILER		MUD MATERIALS ADDED		SAFETY		REMARKS																
Standards 1369.47	Up 2	Down 3	Pressure 3800	Strokes/min 69	BoilerNo 1	Product CHEM CLEAN	Amount 1	Type EACH	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. HAZARD ID - BOLTS ON SUIT CASE STAIRS HAD BACKED OFF OF HANDRAILS. INSTALLED LOCKNUTS AND TIGHTEN																	
Weight of DC 0.00	Torque At Bottom 7000	Pressure 3760	Strokes/min 69	BoilerNo 2	Product ENERCLEAR 1802	Amount 2	Type EACH	USE OF STEAM																		
Weight of String 77.00	Fill On Bottom	Pressure 3760	Strokes/min 69	BoilerNo 2	Product ENERSCAV	Amount 2	Type EACH	MEHL																		
TOUR 2 SIGNATURE OF DRILLER RYAN NEWTON	START TIME 8:00	END TIME 20:00																								

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG																		
Bit Number 3	Size 200	No 1	Component 200MM BIT	OD 200	ID 167	Mud Type Water	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	From 8:00	To 8:15	Elapsed 0:15	Code 7	Details of Operations In Sequence & Remarks													
IADC Code 1	Manufacturer HALLIBURTON	1	6.5" MOTOR 7/8 S STG	167	1	Time 11:00	16:00		8:00	8:15	0:15	7	RIG SERVICE FUNCTION UPPER PIPE RAMS 7 SEC TO CLOSE													
Type MMD64M	Serial No 12860043	1	6.5" NON MAG PONY	162	72	Density 1155	1140		8:15	17:00	8:45	2	DRILL 200MM HOLE FROM 1857M TO 1922M													
Jct 7.9 7.9 7.9	Depth Out (m) 1705.00	1	6.5" GAP SUB	163	1	Funnel Viscosity 30	30		17:00	19:45	2:45	5	ACCUMULATIVE TIME TO WORK STRING MAKE CONNECTIONS AND TOOL FACE ORIENTATION													
Total Drilled (m) 152.00	Hrs Run Today 8.75	1	6.5" UBHO SUB	156	65	Fluid Loss 9.5	9.5		19:45	20:00	0:15	21	CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER/ARC REPRESENTATIVES/CREWS													
Cumulative Hrs Run 23.25	Entry Date 15-Dec-2016	1	6.5" HYDMECH JARS	157	58	pH 9.5	9.5		REMARKS																	
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED		BOILER		MUD MATERIALS ADDED		SAFETY		FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.																
Standards 1427.39	Up 2	Down 2	Pressure 3780	Strokes/min 69	BoilerNo 1	Product ENERRHIB	Amount 2	Type EACH	DERRICK CONNECTIONS																	
Weight of DC 0.00	Torque At Bottom 7000	Pressure 3850	Strokes/min 69	BoilerNo 2	Product ENERSCAV	Amount 2	Type EACH	MEHL																		
Weight of String 77.00	Fill On Bottom	Pressure 3850	Strokes/min 69	BoilerNo 2	Product LIME	Amount 6	Type EACH	3528																		
TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 20:00	END TIME 24:00																								

BITS		DRILLING ASSEMBLY		MUD RECORD		DEVIATION SURVEYS		TIME LOG																		
Bit Number 3	Size 200	No 1	Component 200MM BIT	OD 200	ID 167	Mud Type Water	Water <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	From 20:00	To 20:15	Elapsed 0:15	Code 21	Details of Operations In Sequence & Remarks													
IADC Code 1	Manufacturer HALLIBURTON	1	6.5" MOTOR 7/8 S STG	167	1	Time 21:45	23:30		20:00	20:15	0:15	21	CREW CHANGE HAND OVER MEETING. DISCUSSED HAZARD IDS AND OBSERVATIONS WITH BOTH CREWS.													
Type MMD64M	Serial No 12860043	1	6.5" NON MAG PONY	162	72	Density 1140	1150		20:15	23:15	3:00	2	DRILL 200MM BUILD SECTION FROM 1922M - 1957M													
Jct 7.9 7.9 7.9	Depth Out (m) 1705.00	1	6.5" GAP SUB	163	1	Funnel Viscosity 30	30		23:15	23:30	0:15	5	ACCUMULATED TIME WORKING PIPE AND CONNECTIONS.													
Total Drilled (m) 252.00	Hrs Run Today 3.00	1	6.5" UBHO SUB	156	65	Fluid Loss 10.5	10		23:30	23:45	0:15	20A	ACCUMULATED M.W.D SURVEY TIME													
Cumulative Hrs Run 26.25	Entry Date 15-Dec-2016	1	6.5" HYDMECH JARS	157	58	pH 9.5	9.5		23:45	24:00	0:15	7	RIG SERVICE, GREASE AND SERVICE TOP DRIVE. FUNCTION LOWER PIPERAMS (6SECS TO CLOSE).													
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED		BOILER		MUD MATERIALS ADDED		SAFETY		REMARKS																
Standards 1456.35	Up 4	Down 7	Pressure 4060	Strokes/min 69	BoilerNo 1	Product ENERRHIB	Amount 1	Type EACH	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. OBSERVATION - WORKER WENT TO USE A STEAM HOSE TO HEAT UP HIS BOOTS, INFORMED WORKER THAT YOU COULD GET SERIOUSLY BURNED. WORKER AGREED NOT TO																	
Weight of DC 0.00	Torque At Bottom 7000	Pressure 4040	Strokes/min 69	BoilerNo 2	Product ENERSCAV	Amount 1	Type EACH	MEHL																		
Weight of String 78.00	Fill On Bottom	Pressure 4040	Strokes/min 69	BoilerNo 2	Product LIME	Amount 1	Type EACH	1170																		
TOUR 3 SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 20:00	END TIME 24:00																								

FRONT PAGE SUMMARY
Tour Sheet Serial Number: PREC465 20161217 1A
Vender Software Version: RMS 2016.6.14.37064
Year: 2016, Month: 12, Day: 17
Daily Checks: (1) Daily Walk Around Inspection, (2) Detailed Inspection - Weighly (Using Check List), (3) H2S Signs Postcard If Required, (4) Well Licence & Stick Diagram Posted, (5) Flare Lines Baked, (6) BOP Tests Performed, (7) Visually Inspected BOPs-Flare Lines & Degasser Lines, (8) Rig Site Health & Safety Meeting (once/week/month), (9) CAADC Rig Safety Inspection Checklist (once/week/month), (10) Mast Inspection before Raising or Lowering, (11) Cover Slaver Checked, (12) Motor Vibs Checked



License No: 32574, Well Name: ARCREZ HZ Septimus H11-34-81-18W6
Contractor: Precision Drilling, div of PDC
Rig No: 465, Well Type: HORIZ
Signature of Operator's Representative: ALLEN LUNGA
Signature of Contractor's Rig Manager: ROD TOMPKINS

Hours summary table with columns: Code, Rig Up, Drilling, Reaming, Coring, Core Mud & Circ, Trips, Rig Service, Repair Rig, Cut Off Drilling Line, Dev Survey, Wireline Logs, Run Cap & Cement, Wait On Cement, Night/BOP, Test BOP, Drilstat Test, Plug Back, Squeeze Cement, Fishing, Dir Work, Safety Meeting, Tear Down, Waiting On, Rig Watch, Other. Includes Total hours for Tour 1: 8.00.

TOUR 1 SIGNATURE OF DRILLER: DAVE LOEWEN
START TIME: 0:00, END TIME: 8:00

Main data table for Tour 1. Includes: BITS (200MM BIT), DRILLING ASSEMBLY (MMD64M), MUD RECORD (Mud Type: Water, 03:00 Time, 1145 Density), DEVIATION SURVEYS (01:45 1942.28 54.00 107.2), TIME LOG (0:00 to 8:00), CUTTING STRUCTURE (Total Drilled: 335.00), METRES DRILLED (Total Drilled: 335.00), HOLE CONDITION (4 Down, 6 Up), REDUCED PUMP SPEED (1 4060 @ 69 @ 1928.00), SOLIDS CONTROL, MUD MATERIALS ADDED (CES SECONDARY, ENERMUL P-100, WETTER, LIME), BOILER (1 8.00 pH 10 StackTemp 340), SAFETY (MEHL, MACP).

TOUR 2 SIGNATURE OF DRILLER: RYAN NEWTON
START TIME: 8:00, END TIME: 20:00

Main data table for Tour 2. Includes: BITS (200MM BIT), DRILLING ASSEMBLY (MMD64M), MUD RECORD (Mud Type: Water, 14:15 Time, 1190 Density), DEVIATION SURVEYS (08:30 2029.43 71.50 104.1), TIME LOG (8:00 to 20:00), CUTTING STRUCTURE (Total Drilled: 378.00), METRES DRILLED (Total Drilled: 378.00), HOLE CONDITION (2 Down, 3 Up), REDUCED PUMP SPEED (1 6048 @ 73 @ 2071.00), SOLIDS CONTROL (Centrifuge #1: 4.00, 1200, 1140, 1960), MUD MATERIALS ADDED (BARITE, CES WETTER), BOILER (1 12.00 pH 10.5 StackTemp 340), SAFETY (MEHL, MACP).

TOUR 3 SIGNATURE OF DRILLER: DAVE LOEWEN
START TIME: 20:00, END TIME: 24:00

Main data table for Tour 3. Includes: BITS (159MM BIT), DRILLING ASSEMBLY (E228924), MUD RECORD (Mud Type: Water, 9:57 Time, 1089 Density), DEVIATION SURVEYS (20:00 2015.10 71.50 104.1), TIME LOG (20:00 to 24:00), CUTTING STRUCTURE (Total Drilled: 0.00), METRES DRILLED (Total Drilled: 0.00), HOLE CONDITION (2 Down, 3 Up), REDUCED PUMP SPEED (1 4000 @ 73 @ 2071.00), SOLIDS CONTROL, MUD MATERIALS ADDED (LIME, CES SECONDARY, CES WETTER, ENERMUL P-100, CALCIUM CHLORIDE), BOILER (1 4.00 pH 10 StackTemp 340), SAFETY (MEHL, MACP).

FRONT PAGE SUMMARY						Tour Sheet Serial Number PREC465 20161217 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 17	DAILY CHECKS	OP RM	
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6				Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5				(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Postcard If Required (4) Well Licence & Stick Diagram Posted (5) Flare Lines Scaled (6) BOP Sills Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines	AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC					Company Job No. 465	Well Type HORIZ	Spoil Date Time 09-Dec-2016	Re-Entry 18:00		(8) BOP Sills Performed (9) Major Sills Checked (10) Crown Block Checked (11) Major Sills Checked	AL RT	
Signature of Operator's Representative ALLEN LUNGAL											Signature of Contractor's Rig Manager ROD TOMPKINS		



Code	Rig Up	Drill Actual	Reaming	Coiling	Cord Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drilling Line	Dev Survey	Wireline Logs	Run Cap & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other	TOTAL		FUEL @ 08:00 HRS		Weather				
																										Hours	Fuel	Time	Temp					
Tour 1		5.50			2.00			0.25																			8.00	23049	9636	06:00	-22	OVERCAST		
Tour 2		5.00			2.25	4.75																						12.00					WINDY	
Tour 3		10.50			4.25	4.75	0.25															3.75	0.25					4.00					FAIR	
TOTAL																												24.00						FAIR

WATER FUEL @ 08:00 HRS
23049 9636
Time Temp
06:00 -22
OVERCAST
Wind Direction W Wind Strength UP TO 19 KM/H
Road Condition FAIR

TOUR 1	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 0:00	END TIME 8:00
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BITS		DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG								
Bit Number 3	IADC Code	No.	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks			
Size 200		1	200MM BIT	200	1	0.27				05:15	2000.34	68.20	104.9									
Manufacturer HALLIBURTON	Type MMD64M	1	6.5" MOTOR 218 STG	167	1	8.62				06:15	2009.92	70.20	103.6									
Serial No 12860043	Jars 7.9 7.9 7.9 7.9	1	6.5" NON MAG PONY	162	72	1.55	Density			07:00	2019.67	71.80	103.8									
Depth Out (m) 1705.00	Total Drilled (m) 335.00	1	6.5" GAP SUB	163	1	1.68	Funnel Viscosity															
Hrs Run Today 5.50	Cumulative Hrs Run 31.75	1	6.5" UBHO SUB	156	65	0.92	Fluid Loss															
Entry Date 15-Dec-2016	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. HAZARD ID - ROLL PIN BACKED OUT ON TONGS THAT HOLD THE TONG TIE IN PLACE. REPLACED ROLL PIN																					
CUTTING STRUCTURE		REDUCED PUMP SPEED				BOILER				SAFETY												
Hole Drag	Up	4	Down	6	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	Safety Topic									
MDC	WOB				1	4060	@	69	@				MEHL MACP									
LOC	RPM				2	4040	@	69	@				97 3528									
BRG																						
TOUR 2	SIGNATURE OF DRILLER RYAN NEWTON	START TIME 8:00	END TIME 20:00																			

BITS		DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG								
Bit Number 3	IADC Code	No.	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks			
Size 200		1	200MM BIT	200	1	0.27																
Manufacturer HALLIBURTON	Type MMD64M	1	6.5" MOTOR 218 STG	167	1	8.62	Density															
Serial No 12860043	Jars 7.9 7.9 7.9 7.9	1	6.5" NON MAG PONY	162	72	1.55	Funnel Viscosity															
Depth Out (m) 2083.00	Total Drilled (m) 378.00	1	6.5" GAP SUB	163	1	1.68	Fluid Loss															
Hrs Run Today 5.00	Cumulative Hrs Run 36.75	1	6.5" UBHO SUB	156	65	0.92	pH															
Entry Date 15-Dec-2016	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.																					
CUTTING STRUCTURE		REDUCED PUMP SPEED				BOILER				SAFETY												
Hole Drag	Up	2	Down	3	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	Safety Topic									
MDC	WOB				1	6048	@	73	@				90 2982									
LOC	RPM				2	6048	@	73	@				TRIPPING									
BRG																						
TOUR 3	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 20:00	END TIME 24:00																			

BITS		DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG								
Bit Number 4	IADC Code	No.	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks			
Size 159		1	159MM BIT	159	1	0.21																
Manufacturer REED	Type SK413M-A1GZ	1	NEAR BIT INC SUB	135	1	1.04	Density															
Serial No E228924	Jars 9.5 9.5	1	8 STAGE MOTOR	127	1	9.12	Funnel Viscosity															
Depth Out (m) 2083.00	Total Drilled (m) 0.00	1	NON MAG FLEX MONEL	118	70	9.49	Fluid Loss															
Hrs Run Today 0.00	Cumulative Hrs Run 0.00	2	GAP SUB GSS09	128	1	1.64	pH															
Entry Date 17-Dec-2016	Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR. HAZARD ID - WORKER BLOCKING DRILLERS LINE OF SIGHT WHEN HANDLING BHA																					
CUTTING STRUCTURE		REDUCED PUMP SPEED				BOILER				SAFETY												
Hole Drag	Up		Down		Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	Safety Topic									
MDC	WOB												HANDLING DIRECTIONAL BHA									
LOC	RPM																					
BRG																						
TOUR 4	SIGNATURE OF DRILLER DAVE LOEWEN	START TIME 0:00	END TIME 0:00																			

FRONT PAGE SUMMARY		Tool Sheet Serial Number PREC465 20161218 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 18	DAILY CHECKS			OP RM	
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Flow BC	Log Type DLS	Unique Well Id 102/09-35-081-18W5	(1) Daily Walk Around Inspection (2) Disabled Inspection - Weighly (Using Check List) (3) H2S Signs Postcard if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Banded (6) BOP Tests Performed (7) Visually Inspected BOP-Flare Lines & Degasser Lines (8) RIG Site Health & Safety Meeting (once/week/month) (9) CAODC Rig Safety Inspection Checklist (once/monthly) (10) Mast Inspection before Raising or Lowering (11) Crown Saver Checked (12) Motor Kilo Checked			AL RT AL RT AL RT AL RT ST ST		
Company ARC Resources Ltd. Contractor # 455 16DR10083		Contractor Precision Drilling, div of PDC Company's Job No. 35	Well Type 465	Direction HORIZ	Start Date Time 09-Dec-2016	Rig Release Date Time 18:00				CAODC NW	
Signature of Operator's Representative ALLEN LUNGA		Signature of Contractor's Rig Manager ROD TOMPKINS									

Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER	
Hours	1.25				0.50	5.00			0.75																	8.00	18971	9636	
Tour 1	7.50				4.00	0.25																				12.00	06:00	-2	
Tour 2	2.50				1.00	0.25																				4.00	PARTLY CLOUDY		
Tour 3	11.25				5.50	5.00		0.75																		24.00	FAIR	UP TO 19 KM/H	
WIND																										Direction	E	Speed	UP TO 19 KM/H
MOISTURE																										Condition	FAIR	Humidity	

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME 0:00 END TIME 8:00

BIT	DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG			
	No	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed
Bit Number	4															
Size	159															
IADC Code	1															
Manufacturer	REED															
Type	SK413M-A1GZ															
Serial No	E228924															
Jts	9.5 9.5															
Jts	9.5 9.5															
Depth Out (m)	2083.00															
Depth In (m)																
Total Drilled (m)	42.00															
Hrs Run Today	1.25															
Cumulative Hrs Run	1.25															
Entry Date	17-Dec-2016															
CUTTING STRUCTURE		Kelly Down		Total		Weight of DC		Kilograms		Remarks		MUD MATERIALS ADDED				
33.60		2184.59		0.00		0.00						BARITE 30 EACH REMARKS: FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.				
METRES DRILLED		HOLE CONDITION		REDUCED PUMP SPEED		Circulation		SOLIDS CONTROL		MUD MATERIALS ADDED		TIME LOG				
From To D-R-C RPM WOB		Up Down		Pump # Pressure Strokes/min Depth		Pump # Type Liner Size SPM Pressure Hrs Run		Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density		Product Amount Type		Details of Operations In Sequence & Remarks				
2083.00 2125.00 DRILL 50 11		2 2		2 5140 @ 52 @ 2082.00		2 PARALLEL 127 104 26500 2.00		Centrifuge #1 6.00 1180 1090 1740		BARITE 30 EACH		0:00 1:00 1:00 6A TRIP IN HOLE TO 458M. FILL PIPE 1:00 1:15 0:25 21 SAFETY MEETING HELD PRIOR TO SLIP AND CUT. REVIEWED CTA 4.1 1:15 2:00 0:75 9A SLIP / CUT DRILLING LINE - CUT DRILLING LINE X 6M. PERFORM BAKE CAPACITY TEST, DYNAMIC BRAKE TEST. CALIBRATE BLOCKS, FIT TRAVEL STOPS, CROWN SAVER AND MCWS. 2:00 6:00 4:00 6A TRIP IN HOLE, FLOW CHECK @ 1029M. FILL PIPE EVERY 500M, WASH LAST STAND TO BOTTOM. 6:00 7:15 1:25 2 DRILL 159MM LATERAL SECTION FROM 2083M - 2125M 7:15 7:45 0:50 5 ACCUMULATED TIME WORKING PIPE AND CONNECTIONS 7:45 8:00 0:25 21 SAFETY MEETING HELD WITH CREW GOING ON LONG CHANGE, REVIEWED DEFENSIVE DRIVING, OBEY POSTED SPEED LIMITS AND PULLING OVER TO REST WHEN NEEDED.				
8:00 2125.00 DRILL 50 11		3 5		2 5630 @ 52 @ 2366.00		1 SINGLE 127 104 26500 12.00		Centrifuge #2 5.00 1180 1090 1740		CALCIUM CHLORIDE 10 EACH LIME 45 EACH ENERSTONE-D 8 EACH CES SECONDARY 1 EACH ENERMUL P-100 1 EACH CES SECONDARY 1 EACH		8:00 8:15 0:25 7 RIG SERVICE FUNCTION LOWER PIPE RAMS 7 SEC TO CLOSE 8:15 15:45 7:50 2 DRILL 159MM HOLE FROM 2125M TO 15:45 19:45 4:00 5 ACCUMULATIVE TIME TO WORK STRING MAKE CONNECTIONS AND FOR TOOLFACE ORIENTATION 19:45 20:00 0:25 21 CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER/ARC REPRESENTATIVES/CREWS				

TOUR 2 SIGNATURE OF DRILLER **RYAN NEWTON** START TIME 8:00 END TIME 20:00

BIT	DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG			
	No	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed
Bit Number	4															
Size	159															
IADC Code	1															
Manufacturer	REED															
Type	SK413M-A1GZ															
Serial No	E228924															
Jts	9.5 9.5															
Jts	9.5 9.5															
Depth Out (m)	2083.00															
Depth In (m)																
Total Drilled (m)	508.00															
Hrs Run Today	7.50															
Cumulative Hrs Run	8.75															
Entry Date	17-Dec-2016															
CUTTING STRUCTURE		Kelly Down		Total		Weight of DC		Kilograms		Remarks		MUD MATERIALS ADDED				
58.06		2591.00		-1.83		64.00						BARITE 84 EACH CALCIUM CHLORIDE 10 EACH LIME 45 EACH ENERTONE-D 8 EACH CES SECONDARY 1 EACH ENERMUL P-100 1 EACH CES SECONDARY 1 EACH				
METRES DRILLED		HOLE CONDITION		REDUCED PUMP SPEED		Circulation		SOLIDS CONTROL		MUD MATERIALS ADDED		TIME LOG				
From To D-R-C RPM WOB		Up Down		Pump # Pressure Strokes/min Depth		Pump # Type Liner Size SPM Pressure Hrs Run		Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density		Product Amount Type		Details of Operations In Sequence & Remarks				
2125.00 2591.00 DRILL 50 10		3 5		2 5630 @ 52 @ 2366.00		1 SINGLE 127 104 26500 12.00		Centrifuge #1 6.00 1180 1090 1740		BARITE 84 EACH CALCIUM CHLORIDE 10 EACH LIME 45 EACH ENERTONE-D 8 EACH CES SECONDARY 1 EACH ENERMUL P-100 1 EACH CES SECONDARY 1 EACH		20:00 20:15 0:25 21A SOUR BOP/ MAN-DOWN DRILL HELD WITH RIG CREW, OPEN HCR (2 SECONDS), CLOSE UPPER PIPE RAMS (7 SECONDS), WELL SECURE IN 45 SECONDS, RIG EVACUATED AND MEN PACKED UP IN 1:20, SEARCH COMPLETED IN 3:35 20:15 22:45 2:50 2 DRILL 159MM LATERAL SECTION FROM 2591M TO 2791M 22:45 23:45 1:00 5 ACCUMULATED CONNECTIONS AND WORKING PIPE, ORIENTING TOOL FACE 23:45 24:00 0:25 7 RIG SERVICE, FUNCTION ANNULAR (21 SECONDS TO CLOSE)				

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BIT	DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG			
	No	Component	OD	ID	Length	Mud Type	Water	Oil	Time	Depth	Deviation	Direction	Type	From	To	Elapsed
Bit Number	4															
Size	159															
IADC Code	1															
Manufacturer	REED															
Type	SK413M-A1GZ															
Serial No	E228924															
Jts	9.5 9.5															
Jts	9.5 9.5															
Depth Out (m)	2083.00															
Depth In (m)																
Total Drilled (m)	708.00															
Hrs Run Today	2.50															
Cumulative Hrs Run	11.25															
Entry Date	17-Dec-2016															
CUTTING STRUCTURE		Kelly Down		Total		Weight of DC		Kilograms		Remarks		MUD MATERIALS ADDED				
62.83		2791.00		-8.53		67.00						BARITE 84 EACH ENERTONE-D 4 EACH CALCIUM CHLORIDE 5 EACH LIME 30 EACH CES WETTER 1 EACH CES SECONDARY 1 EACH ENERMUL P-100 1 EACH				
METRES DRILLED		HOLE CONDITION		REDUCED PUMP SPEED		Circulation		SOLIDS CONTROL		MUD MATERIALS ADDED		TIME LOG				
From To D-R-C RPM WOB		Up Down		Pump # Pressure Strokes/min Depth		Pump # Type Liner Size SPM Pressure Hrs Run		Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density		Product Amount Type		Details of Operations In Sequence & Remarks				
2591.00 2791.00 DRILL 50 11		5 7		2 5870 @ 52 @ 2562.00		1 SINGLE 127 104 26500 3.00		Centrifuge #1 4.00 1170 1060 1745		BARITE 84 EACH ENERTONE-D 4 EACH CALCIUM CHLORIDE 5 EACH LIME 30 EACH CES WETTER 1 EACH CES SECONDARY 1 EACH ENERMUL P-100 1 EACH		20:00 20:15 0:25 21A SOUR BOP/ MAN-DOWN DRILL HELD WITH RIG CREW, OPEN HCR (2 SECONDS), CLOSE UPPER PIPE RAMS (7 SECONDS), WELL SECURE IN 45 SECONDS, RIG EVACUATED AND MEN PACKED UP IN 1:20, SEARCH COMPLETED IN 3:35 20:15 22:45 2:50 2 DRILL 159MM LATERAL SECTION FROM 2591M TO 2791M 22:45 23:45 1:00 5 ACCUMULATED CONNECTIONS AND WORKING PIPE, ORIENTING TOOL FACE 23:45 24:00 0:25 7 RIG SERVICE, FUNCTION ANNULAR (21 SECONDS TO CLOSE)				

TOUR 4 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 24:00 END TIME 35:28

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161218 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 18	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	Well Type HORIZ	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Posted if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines (8) Rig Site Health & Safety Meeting (on/crow/month) (9) CAODC Rig Safety Inspection Checklist (on/crow/month) (10) Mast Inspection before Raising or Lowering (11) Cover Slower Checked (12) Motor Vibs Checked	AL RT AL RT AL RT AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No 35	Rig No 465	Squad Date Time 09-Dec-2016	18:00	Signature of Operator's Representative ALLEN LUNGAL	Signature of Contractor's Rig Manager ROD TOMPKINS	AL RT AL RT AL RT AL RT AL RT AL RT AL RT AL RT



Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER				
Hours	Rig Up	Drill Actual	Reaming	Coring	Core Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Dring Line	Dev Survey	Wireline Logs	Run Cag & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	18971	9636	06:00	2	PARTLY CLOUDY		
Tour 1		1.25			0.50	5.00			0.75																	8.00	18971	9636	06:00	2	PARTLY CLOUDY	
Tour 2		7.50			4.00		0.25																			12.00						
Tour 3		2.50			1.00		0.25																			4.00						
TOTAL		11.25			5.50	5.00	0.50		0.75																	24.00						FAIR

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): Depth In (m): 2083.00 Total Drilled (m): 42.00 Hrs Run Today: 1.25 Cumulative Hrs Run: 1.25 Entry Date: 17-Dec-2016	No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78 71 Drill Pipe Stands 2126.00 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 16:00 Density: 1160 Funnel Viscosity: 62 Fluid Loss: pH: Location Of Sample: SHAKERS Depth: 2393.00 PVT: 74 Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 2 PARALLEL 127 104 26500 2.00	Time Depth Deviation Direction Type 11:30 2198.52 88.70 86.4 12:15 2213.11 89.10 86.9 12:30 2227.70 88.80 88.2 13:00 2242.29 90.00 89.7 13:15 2256.89 90.50 88.5 13:45 2271.47 90.80 91.2	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: 0.00 Tear: 2184.59 Weight of DC: 33.60 Weight of String: Hole Drag Up: 2 Down: 2 Torque At Bottom: 6000 Fill On Bottom: Hole Drag Up: 3 Down: 5 Torque At Bottom: 9100 Fill On Bottom: Kelly Down: -8.53 Tear: 2791.00 Weight of DC: 62.83 Weight of String: 67.00	Pump # Pressure Strokes/min Depth 2 5140 @ 52 @ 2082.00 2 5630 @ 52 @ 2393.00 1 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 6.00 1180 1090 1740 Centrifuge #2 5.00 1180 1090 1740	Product Amount Type	
METRES DRILLED	REMARKS	BOILER	SAFETY	DRIVING HOME LONG CHANGE MORNING
From To D-R-C RPM WOB	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP	
TOUR 2 SIGNATURE OF DRILLER RYAN NEWTON START TIME 8:00 END TIME 20:00				

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): Depth In (m): 2083.00 Total Drilled (m): 508.00 Hrs Run Today: 7.50 Cumulative Hrs Run: 8.75 Entry Date: 17-Dec-2016	No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78 87 Drill Pipe Stands 2534.24 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 16:00 Density: 1160 Funnel Viscosity: 62 Fluid Loss: pH: Location Of Sample: SHAKERS Depth: 2393.00 PVT: 74 Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 2 SINGLE 127 104 26500 12.00	Time Depth Deviation Direction Type 11:30 2198.52 88.70 86.4 12:15 2213.11 89.10 86.9 12:30 2227.70 88.80 88.2 13:00 2242.29 90.00 89.7 13:15 2256.89 90.50 88.5 13:45 2271.47 90.80 91.2	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: -1.83 Tear: 2591.00 Weight of DC: 58.06 Weight of String: 64.00 Hole Drag Up: 3 Down: 5 Torque At Bottom: 9100 Fill On Bottom: Kelly Down: -8.53 Tear: 2791.00 Weight of DC: 62.83 Weight of String: 67.00	Pump # Pressure Strokes/min Depth 2 5630 @ 52 @ 2393.00 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1170 1060 1745	Product Amount Type	
METRES DRILLED	REMARKS	BOILER	SAFETY	DERRICK CONNECTIONS
From To D-R-C RPM WOB	FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP	
TOUR 3 SIGNATURE OF DRILLER ERIC OBRIEN START TIME 20:00 END TIME 24:00				

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): Depth In (m): 2083.00 Total Drilled (m): 708.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 11.25 Entry Date: 17-Dec-2016	No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 139.15 5 Drill Pipe Stands 139.15 1 Drill Pipe Singles 9.29	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 16:00 Density: 1160 Funnel Viscosity: 62 Fluid Loss: pH: Location Of Sample: SHAKERS Depth: 2393.00 PVT: 74 Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 26500 3.00 2 SINGLE 127 104 26500 0.50	Time Depth Deviation Direction Type 21:45 2662.87 88.50 91 22:00 2676.79 89.80 90.1 22:30 2690.70 90.00 91.3 22:45 2704.62 91.10 91.6 23:00 2718.53 92.40 91.2 23:15 2732.45 93.00 89.6	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: -8.53 Tear: 2791.00 Weight of DC: 62.83 Weight of String: 67.00 Hole Drag Up: 5 Down: 7 Torque At Bottom: 9500 Fill On Bottom: Kelly Down: -8.53 Tear: 2791.00 Weight of DC: 62.83 Weight of String: 67.00	Pump # Pressure Strokes/min Depth 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1170 1060 1745	Product Amount Type	
METRES DRILLED	REMARKS	BOILER	SAFETY	SOUR BOP DRILL
From To D-R-C RPM WOB	FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP	74 3528

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161218 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 18	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Flow BC	Log Type DLS	Unique Well ID 102/09-35-081-18W5	Re-Entry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Posted if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines (8) Rig Site Health & Safety Meeting (on/crow/month) (9) CAODC Rig Safety Inspection Checklist (on/crow/month) (10) Mast Inspection before Raising or Lowering (11) Cover Sliver Checked (12) Major Vibs Checked	AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No 35	Rig No 465	Well Type HORIZ	Squad Date Time 09-Dec-2016	18:00		
Signature of Operator's Representative ALLEN LUNGA	Signature of Contractor's Rig Manager ROD TOMPKINS							



Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER				
Hours	Rig Up	Drill Actual	Reaming	Coring	Core Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Dring Line	Dev Survey	Wireline Logs	Run Cag & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other	18971	9636	06:00	2	PARTLY CLOUDY		
Tour 1		1.25			0.50	5.00			0.75																	8.00	18971	9636	06:00	2	PARTLY CLOUDY	
Tour 2		7.50			4.00		0.25																			12.00						
Tour 3		2.50			1.00		0.25																			4.00						
TOTAL		11.25			5.50	5.00	0.50		0.75																	24.00						FAIR

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): 9.5 9.5 Depth In (m): 2083.00 Total Drilled (m): 42.00 Hrs Run Today: 1.25 Cumulative Hrs Run: 1.25 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Density: Funnel Viscosity: Fluid Loss: pH: Location Of Sample: Depth: PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 2 PARALLEL 127 104 26500 2.00	Time Depth Deviation Direction Type 13:45 2285.83 91.30 90.7 14:30 2300.43 91.40 90.4 14:30 2315.03 92.20 90.3 14:45 2329.63 91.50 90.5 15:15 2344.22 90.90 89.6 16:00 2373.02 93.50 89.2	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: 0.00 Total: 2184.59 Weight of DC: 33.60 Weight of String:	Hole Drag Up: 2 Down: 2 Torque At Bottom: 6000 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5140 @ 52 @ 2082.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 6.00 1180 1090 1740 Centrifuge #2 5.00 1180 1090 1740	Product Amount Type
METRES DRILLED	BOILER	SAFETY	Remarks: FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.	
From To D-R-C RPM WOB	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP	DRIVING HOME LONG CHANGE MORNING	

TOUR 2 SIGNATURE OF DRILLER **RYAN NEWTON** START TIME 8:00 END TIME 20:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): 9.5 9.5 Depth In (m): 2083.00 Total Drilled (m): 508.00 Hrs Run Today: 7.50 Cumulative Hrs Run: 8.75 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Density: Funnel Viscosity: Fluid Loss: pH: Location Of Sample: Depth: PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 2 SINGLE 127 104 26500 12.00	Time Depth Deviation Direction Type 23:30 2746.37 92.50 88.9 23:45 2760.31 92.60 88.8 2760.31 92.60 88.8	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: -1.83 Total: 2591.00 Weight of DC: 58.06 Weight of String:	Hole Drag Up: 3 Down: 5 Torque At Bottom: 9100 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5630 @ 52 @ 2360.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1170 1060 1745	Product Amount Type
METRES DRILLED	BOILER	SAFETY	Remarks: FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.	
From To D-R-C RPM WOB	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP	DERRICK CONNECTIONS	

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): 9.5 9.5 Depth In (m): 2083.00 Total Drilled (m): 708.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 11.25 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 139.15 5 Drill Pipe Stands 139.15 1 Drill Pipe Singles 9.29	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Density: Funnel Viscosity: Fluid Loss: pH: Location Of Sample: Depth: PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 26500 3.00 2 SINGLE 127 104 26500 0.50	Time Depth Deviation Direction Type 2760.31 92.60 88.8	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: -8.53 Total: 2791.00 Weight of DC: 62.83 Weight of String:	Hole Drag Up: 5 Down: 7 Torque At Bottom: 9500 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density	Product Amount Type
METRES DRILLED	BOILER	SAFETY	Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES	
From To D-R-C RPM WOB	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP	SOUR BOP DRILL 74 3528	

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161218 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 18	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	Re-Entry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Posted if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOP-Flare Lines & Degasser Lines	AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No 35	Rig No 465	Well Type HORIZ	Squad Date Time 09-Dec-2016	18:00	(1) Rig Site Health & Safety Meeting (on/crow/month) (2) CAODC Rig Safety Inspection Checklist (on/crow/month) (3) Mast Inspection before Raising or Lowering (4) Crown Saver Checked (5) Motor Vibs Checked	RT RT
Signature of Operator's Representative ALLEN LUNGAL	Signature of Contractor's Rig Manager ROD TOMPKINS							RT



Code	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	TOTAL	FUEL @ 08:00 HRS
Tour 1		1.25			0.50	5.00					0.75															8.00	18971 06:00 Temp -2
Tour 2		7.50			4.00		0.25																			12.00	06:00 PARTLY CLOUDY
Tour 3		2.50			1.00		0.25																			4.00	06:00 PARTLY CLOUDY
TOTAL		11.25			5.50	5.00	0.25				0.75															24.00	06:00 PARTLY CLOUDY

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): Depth In (m): 2083.00 Total Drilled (m): 42.00 Hrs Run Today: 1.25 Cumulative Hrs Run: 1.25 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Density: Funnel Viscosity: Fluid Loss: pH: Location Of Sample: Depth: PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 2 PARALLEL 127 104 26500 2.00	Time Depth Deviation Direction Type 16:15 2387.62 93.70 90 16:45 2402.05 92.70 88.5 17:00 2416.65 92.10 89.7 17:15 2431.20 91.00 89.1 17:30 2445.70 91.30 89.1 17:45 2460.39 90.80 90.7	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: 0.00 Tear: 2184.59 Weight of DC: 33.60 Weight of String:	Hole Drag Up: 2 Down: 2 Torque At Bottom: 6000 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5140 @ 52 @ 2082.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 6.00 1180 1090 1740 Centrifuge #2 5.00 1180 1090 1740	Product Amount Type
METRES DRILLED	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	SAFETY
From To D-R-C RPM WOB	Hole Drag Up: 3 Down: 5 Torque At Bottom: 9100 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5630 @ 52 @ 2360.00	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP

TOUR 2 SIGNATURE OF DRILLER **RYAN NEWTON** START TIME 8:00 END TIME 20:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): Depth In (m): 2083.00 Total Drilled (m): 508.00 Hrs Run Today: 7.50 Cumulative Hrs Run: 8.75 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Density: Funnel Viscosity: Fluid Loss: pH: Location Of Sample: Depth: PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 2 SINGLE 127 104 26500 12.00	Time Depth Deviation Direction Type 16:15 2387.62 93.70 90 16:45 2402.05 92.70 88.5 17:00 2416.65 92.10 89.7 17:15 2431.20 91.00 89.1 17:30 2445.70 91.30 89.1 17:45 2460.39 90.80 90.7	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: -1.83 Tear: 2591.00 Weight of DC: 58.06 Weight of String: 64.00	Hole Drag Up: 3 Down: 5 Torque At Bottom: 9100 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5630 @ 52 @ 2360.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1170 1060 1745	Product Amount Type
METRES DRILLED	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	SAFETY
From To D-R-C RPM WOB	Hole Drag Up: 5 Down: 7 Torque At Bottom: 9500 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): Depth In (m): 2083.00 Total Drilled (m): 708.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 11.25 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Density: Funnel Viscosity: Fluid Loss: pH: Location Of Sample: Depth: PVT: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 26500 3.00 2 SINGLE 127 104 26500 0.50	Time Depth Deviation Direction Type 4.00 1170 1060 1745	From To Elapsed Code Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	SOLIDS CONTROL	MUD MATERIALS ADDED
Kelly Down: -8.53 Tear: 2791.00 Weight of DC: 62.83 Weight of String: 67.00	Hole Drag Up: 5 Down: 7 Torque At Bottom: 9500 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density	Product Amount Type
METRES DRILLED	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	SAFETY
From To D-R-C RPM WOB	Hole Drag Up: 7 Down: 7 Torque At Bottom: 9500 Fill On Bottom:	Pump # Pressure Strokes/min Depth 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	BoilerNo HoursRun pH StackTemp	Safety Topic MEHL MACP

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161218 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 18	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	Re-Entry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Postcard if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOP-Flare Lines & Degasser Lines (8) Rig Site Health & Safety Meeting (on/crow/month) (9) CAODC Rig Safety Inspection Checklist (on/crow/month) (10) Mast Inspection before Raising or Lowering (11) Cover Slower Checked (12) Motor Vibs Checked	AL RT AL RT AL RT AL RT AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No 35	Rig No 465	Well Type HORIZ	Squad Date Time 09-Dec-2016	18:00		
Signature of Operator's Representative ALLEN LUNGA	Signature of Contractor's Rig Manager ROD TOMPKINS							



Code	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	TOTAL	FUEL @ 08:00 HRS
Tour 1		1.25				0.50	5.00																			8.00	18971 06:00 Temp -2
Tour 2		7.50				4.00	0.25																			12.00	PARTLY CLOUDY Wind Direction E Wind Strength UP TO 19 KM/H
Tour 3		2.50				1.00	0.25																			4.00	WEATHER Fair
TOTAL		11.25				5.50	5.00	0.50	0.75																	24.00	WEATHER Fair

TOUR 1 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME **0:00** END TIME **8:00**

BITS Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): 9.5 9.5 Depth In (m): 2083.00 Total Drilled (m): 42.00 Hrs Run Today: 1.25 Cumulative Hrs Run: 1.25 Entry Date: 17-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78	MUD RECORD Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run 2 PARALLEL 127 104 26500 2.00	DEVIATION SURVEYS Time Depth Deviation Direction Type 18:00 2474.89 91.20 90.5 18:15 2489.32 91.20 91.1 19:00 2503.82 91.90 91.8 19:00 2518.58 91.00 90 19:30 2533.05 90.10 90.1 19:30 2547.51 91.90 91.8	TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.				
					CUTTING STRUCTURE TO: 33.60 MDC: LDC: BRS: METRES DRILLED From To D-R-C RPM WOB HOLE CONDITION Hole Drag Up 2 Down 2 Torque At Bottom 6000 Fill On Bottom Kelly Down: 0.00 Total: 2184.59 Weight of DC Weight of String REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 2 5140 @ 52 @ 2082.00	SOIDS CONTROL Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 6.00 1180 1090 1740 Centrifuge #2 5.00 1180 1090 1740		
							MUD MATERIALS ADDED Product Amount Type SAFETY Safety Topic MEHL MACP DRIVING HOME LONG CHANGE MORNING	
								TOUR 2 SIGNATURE OF DRILLER RYAN NEWTON START TIME 8:00 END TIME 20:00

BITS Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): 9.5 9.5 Depth In (m): 2083.00 Total Drilled (m): 508.00 Hrs Run Today: 7.50 Cumulative Hrs Run: 8.75 Entry Date: 17-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 2 CROSSOVER SUB 130 60 1.72 1 5" JARS 130 58 5.20 2 CROSSOVER SUB 130 60 1.56 1 AGITATOR 124 68 7.41 1 CROSSOVER SUB 130 60 0.78	MUD RECORD Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run 2 SINGLE 127 104 26500 12.00	DEVIATION SURVEYS Time Depth Deviation Direction Type 18:00 2474.89 91.20 90.5 18:15 2489.32 91.20 91.1 19:00 2503.82 91.90 91.8 19:00 2518.58 91.00 90 19:30 2533.05 90.10 90.1 19:30 2547.51 91.90 91.8	TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks FUNCTION CROWNSAVER HIGH/LOW TRAVEL STOPS/LIMITS. INSPECT FLARE AND DEGASSER LINES, FUNCTION CHOKES AND FLARE STACK IGNITOR. INSPECT BOP AND ALL WELL CONTROL EQUIPMENT INSPECT SLIPS, TONGS B&V, DOG COLLARS TOP DRIVE, DRAWWORKS, DRILL LINE AND DRILL LINE ANCHOR.				
					CUTTING STRUCTURE TO: 58.06 MDC: LDC: BRS: METRES DRILLED From To D-R-C RPM WOB HOLE CONDITION Hole Drag Up 3 Down 5 Torque At Bottom 9100 Fill On Bottom Kelly Down: -1.83 Total: 2591.00 Weight of DC Weight of String REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 2 5630 @ 52 @ 2360.00	SOIDS CONTROL Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1170 1060 1745		
							MUD MATERIALS ADDED Product Amount Type SAFETY Safety Topic MEHL MACP DERRICK CONNECTIONS	
								TOUR 3 SIGNATURE OF DRILLER ERIC OBRIEN START TIME 20:00 END TIME 24:00

BITS Bit Number: 4 Size: 159 IADC Code: Manufacturer: REED Type: SK413M-A1GZ Serial No: E228924 Jts: 9.5 9.5 Depth Out (m): 9.5 9.5 Depth In (m): 2083.00 Total Drilled (m): 708.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 11.25 Entry Date: 17-Dec-2016	DRILLING ASSEMBLY No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78	MUD RECORD Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time Density Funnel Viscosity Fluid Loss pH Location Of Sample Depth PVT Circulation Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 26500 3.00 2 SINGLE 127 104 26500 0.50	DEVIATION SURVEYS Time Depth Deviation Direction Type 18:00 2474.89 91.20 90.5 18:15 2489.32 91.20 91.1 19:00 2503.82 91.90 91.8 19:00 2518.58 91.00 90 19:30 2533.05 90.10 90.1 19:30 2547.51 91.90 91.8	TIME LOG From To Elapsed Code Details Of Operations In Sequence & Remarks FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES				
					CUTTING STRUCTURE TO: 62.93 MDC: LDC: BRS: METRES DRILLED From To D-R-C RPM WOB HOLE CONDITION Hole Drag Up 5 Down 7 Torque At Bottom 9500 Fill On Bottom Kelly Down: -8.53 Total: 2791.00 Weight of DC Weight of String REDUCED PUMP SPEED Pump # Pressure Strokes/min Depth 2 5870 @ 52 @ 2562.00 1 5980 @ 52 @ 2650.00	SOIDS CONTROL Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1170 1060 1745		
							MUD MATERIALS ADDED Product Amount Type SAFETY Safety Topic MEHL MACP SOUR BOP DRILL	
								TOUR 3 SIGNATURE OF DRILLER ERIC OBRIEN START TIME 20:00 END TIME 24:00

FRONT PAGE SUMMARY		Tool Sheet Serial Number PREC465 20161219 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 19	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Lot Type DLS	Unique Well ID 102/09-35-081-18W5	ReEntry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weekly (Using Check List) (3) H2S Signs Postcard If Required (4) Well License & Stick Diagram Posted (5) Flare Lines Staked (6) BOP Tests Performed (7) Visually Inspected BOPs Flare Lines & Degasser Lines	AL RT AL RT AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Company Job No. 35	Rig No 465	Well Type HORIZ	Squad Date Time 09-Dec-2016	18:00	(1) Rig Site Health & Safety Meeting (once/week/month) (2) CADCDC Rig Safety Inspection Checklist (once/week/month) (3) Mast Inspection before Raising or Lowering (4) Crown Saver Checked (5) Motor Vibs Checked	RT RT RT RT RT RT RT
Signature of Operator's Representative ALLEN LUNGLAL	Signature of Contractor's Rig Manager ROD TOMPKINS							RT RT RT RT RT RT RT



Code	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	TOTAL	FUEL @ 08:00 HRS
Hours																										8.00	15070
Tour 1																										8.00	9530
Tour 2																										12.00	06:00
Tour 3																										4.00	OVERCAST
TOTAL																										24.00	FAIR

TOUR 1 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 JMS: 9.5 9.5 Depth Out (m): 3140.00 Depth In (m): 2083.00 Total Drilled (m): 1057.00 Hrs Run Today: 4.50 Cumulative Hrs Run: 15.75 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 1 Drill Pipe Stands 29.23 2 Drill Pipe Singles 19.43	Mud Type: Water Time: 02:15 04:45 Density: 1170 1170 Funnel Viscosity: 57 56 Fluid Loss: 1.64 pH: 7.9 Location of Sample: SHAKER SHAKER Depth: 2903.00 3029.00 PVT: 79 69 Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 104 Pressure 2800 Hs Run 6.50 REDUCED PUMP SPEED: Pump # 1 Pressure 52 @ 52 @ 2848.00 2 Pressure 6670 @ 52 @ 2848.00 1 Pressure 7020 @ 52 @ 3029.00	Time: 00:15 2788.17 91.60 88.9 00:30 2802.10 91.20 88.9 00:45 2816.02 90.60 90 01:00 2829.93 91.60 88.2 01:15 2843.82 92.70 88.5 01:30 2857.70 92.80 87.9	From: 0:00 To: 4:00 Elapsed: 4:00 Code: 2 4:00 7:00 3:00 10 7:00 7:15 0:25 7 7:15 7:45 0:50 2 7:45 8:00 0:25 21 Details of Operations In Sequence & Remarks DRILL 159MM HOLE FROM 2791M - 3065M ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS. RIG SERVICE, FUNCTION ANNUAL, 22 SECONDS TO CLOSE. DRILL 159MM HOLE FROM 3068M - 3140M CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER, ARC REPRESENTATIVES & RIG CREWS.

TOUR 2 SIGNATURE OF DRILLER **BRENDEN PREVOST** START TIME 8:00 END TIME 20:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 JMS: 9.5 9.5 Depth Out (m): 2083.00 Depth In (m): 1508.00 Total Drilled (m): 1508.00 Hrs Run Today: 7.25 Cumulative Hrs Run: 23.00 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 1 Drill Pipe Stands 495.07 0 Drill Pipe Singles 0.00	Mud Type: Water Time: 08:15 13:00 Density: 1180 1170 Funnel Viscosity: 57 57 Fluid Loss: 1.64 pH: 8.3 Location of Sample: SHAKER SHAKER Depth: 3153.00 3388.00 PVT: 83 82 Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 104 Pressure 2870 Hs Run 2.00 REDUCED PUMP SPEED: Pump # 1 Pressure 7100 @ 52 @ 3216.00 2 Pressure 7280 @ 52 @ 3365.00 2 Pressure 7510 @ 52 @ 3365.00	Time: 08:00 3123.76 89.80 89.9 08:15 3137.97 90.30 89.4 08:45 3152.50 90.50 90 09:00 3167.19 91.10 92.2 09:30 3182.11 90.30 92.2 09:45 3197.11 90.00 89.6	From: 8:00 To: 9:30 Elapsed: 1:50 Code: 2 9:30 10:15 0:45 10 10:15 10:30 0:25 21A 10:30 12:45 2:25 2 12:45 15:30 2:45 10 15:30 15:45 0:25 7 15:45 16:00 0:25 15B 16:00 19:30 3:50 2 19:30 19:45 0:25 10 19:45 20:00 0:25 21 Details of Operations In Sequence & Remarks DRILL 159MM HOLE FROM 3140M - 3242M ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS. SOUR BOP DRILL OPEN HCR 2 SEC CLOSE ANNUAL 22 SEC. WELL SECURE IN 65 SECONDS. CREW PACKED UP & SEARCH ROUTE COMPLETE 4MIN 55 SECS DISCUSSED KICK WARNING SIGNS AND CREW POSITIONS. DRILL 159MM HOLE FROM 3242M - 3445M ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS. RIG SERVICE, FUNCTION UPPER PIPE RAMS, 5 SECONDS TO CLOSE. ACCUMULATOR FUNCTION TEST. START PRESS. 20300KPA AFTER 4 RAM FUNCTION REMAINING PRESSURE 9500KPA RESULTE TIME 3MIN 7 SEC PRECHARGE 7000KPA N2 X 5 2200PSI N2 X 1 2000PSI DRILL 159MM HOLE FROM 3445M - 3591M ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS. CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER, ARC REPRESENTATIVES & RIG CREWS.

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 JMS: 9.5 9.5 Depth Out (m): 2083.00 Depth In (m): 1710.00 Total Drilled (m): 1710.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 25.50 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 24 Drill Pipe Stands 697.24 0 Drill Pipe Singles 0.00	Mud Type: Water Time: 20:15 21:45 Density: 1170 1170 Funnel Viscosity: 58 57 Fluid Loss: 1.64 pH: 9.2 Location of Sample: SHAKER SHAKER Depth: 3597.00 3674.00 PVT: 92 91 Circulation: Pump # 2 Type SINGLE Liner Size 127 SPM 104 Pressure 3075 Hs Run 1.50 REDUCED PUMP SPEED: Pump # 1 Pressure 7150 @ 52 @ 3648.00 1 Pressure 7400 @ 52 @ 3764.00	Time: 20:00 3575.38 86.60 90 20:45 3604.31 89.30 90.3 21:30 3633.21 89.70 90.8 21:45 3488.85 88.60 92.5 22:00 3662.06 90.70 91.9 22:30 3690.92 91.30 93.6	From: 20:00 To: 22:30 Elapsed: 2:50 Code: 2 22:30 23:45 1:25 10 23:45 24:00 0:25 7 Details of Operations In Sequence & Remarks DRILL 159MM HOLE FROM 3591M - 3793M ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS. RIG SERVICE, FUNCTION LOWER PIPE RAMS, 5 SECONDS TO CLOSE.

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161219 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 19	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	ReEntry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Disabled Inspection - Weighly (Using Check List) (3) H2S Signs Posted if Required (4) Well Licence & Stick Diagram Posted (5) Flow Lines Scaled (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines (8) Rig Site Health & Safety Meeting (on/crow/month) (9) CADCDC Rig Safety Inspection Checklist (on/crow/month) (10) Mast Inspection before Raising or Lowering (11) Cover Saver Checked (12) Motor Vibs Checked	AL RT AL RT AL RT AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor's Job No 35	Rig No 465	Well Type HORIZ	Squad Date Time 09-Dec-2016	18:00		
Signature of Operator's Representative ALLEN LUNGLAL	Signature of Contractor's Rig Manager ROD TOMPKINS							



Code	Rig																				TOTAL	FUEL @ 08:00 HRS	WEATHER									
	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				
Tour 1	4.50						0.25																		8.00	15070	9530	06:00	-1	OVERCAST	Wind Direction E	Wind Strength UP TO 29 KM/H
Tour 2	7.25						0.25								0.25										12.00							
Tour 3	2.50						0.25								1.25										4.00							
TOTAL	14.25						0.75								8.00										24.00							

TOUR 1 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG	Details Of Operations In Sequence & Remarks	
					From	To
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 3140.00 Depth In (m): 2083.00 Total Drilled (m): 1057.00 Hrs Run Today: 4.50 Cumulative Hrs Run: 15.75 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.67 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 55.42 1 Drill Pipe Stands 29.23 2 Drill Pipe Singles 19.43	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Time: 06:30 Density: 1175 Funnel Viscosity: 56 Fluid Loss: pH: Location Of Sample: SHAKER Depth: 3093.00 PVT: 85 Circulation Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 2800 6.50	Time Depth Deviation Direction Type 01:45 2871.59 92.10 90.2 02:00 2885.48 92.10 89.4 02:15 2899.38 91.60 88.3 02:30 2913.27 90.60 89.6 02:45 2927.19 90.60 87.9 03:00 2941.10 91.60 88.2	From To Elapsed Code 06:30 07:00 00:30 07:00 07:30 00:30 07:30 08:00 00:30	Remarks FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES	

TOUR 2 SIGNATURE OF DRILLER **BRENDEAN PREVOST** START TIME 8:00 END TIME 20:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG	Details Of Operations In Sequence & Remarks	
					From	To
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 2083.00 Depth In (m): 1508.00 Total Drilled (m): 1508.00 Hrs Run Today: 7.25 Cumulative Hrs Run: 23.00 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.67 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 55.42 17 Drill Pipe Stands 495.07 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Time: 16:00 Density: 1170 Funnel Viscosity: 58 Fluid Loss: pH: Location Of Sample: SHAKER Depth: 3388.00 PVT: 76 Circulation Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 2870 2.00 2 SINGLE 127 104 2870 8.50	Time Depth Deviation Direction Type 10:45 3226.35 91.30 90.4 11:15 3255.31 91.50 90.2 11:45 3284.30 89.50 90.8 12:15 3315.52 89.50 91.1 13:45 3371.14 91.20 89.2 14:45 3401.14 92.60 89.1	From To Elapsed Code 16:00 16:30 00:30 16:30 17:00 00:30 17:00 17:30 00:30 17:30 18:00 00:30 18:00 18:30 00:30 18:30 19:00 00:30 19:00 19:30 00:30 19:30 20:00 00:30	Remarks FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES DID WEEKLY AER INSPECTION & VISUALLY INSPECTED FLARE AND DEGASSER LINES RT	

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG	Details Of Operations In Sequence & Remarks	
					From	To
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 2083.00 Depth In (m): 1710.00 Total Drilled (m): 1710.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 25.50 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.67 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 55.42 24 Drill Pipe Stands 697.24 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Time: 16:00 Density: 1170 Funnel Viscosity: 58 Fluid Loss: pH: Location Of Sample: SHAKER Depth: 3388.00 PVT: 76 Circulation Pump # Type Liner Size SPM Pressure Hrs Run 2 SINGLE 127 104 3075 1.50 1 SINGLE 127 104 3075 2.00	Time Depth Deviation Direction Type 23:00 3719.86 90.90 91 23:30 3748.64 90.00 92.1	From To Elapsed Code 23:00 23:30 00:30	Remarks FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES	

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161219 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 19	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	Re-Entry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weibly (Using Check List) (3) H2S Signs Posted if Required (4) Well Licence & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines	AL RT AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor Job No 35	Well Type 465	Horiz HORIZ	Spud Date Time 09-Dec-2016	18:00	(1) Rig Site Health & Safety Meeting (on/crow/month) (2) CADC Rig Safety Inspection Checklist (on/crow/month) (3) Mast Inspection before Raising or Lowering (4) Cover Slower Checked (5) Motor Vibs Checked	RT RT RT RT
Signature of Operator's Representative ALLEN LUNGA	Signature of Contractor's Rig Manager ROD TOMPKINS							



Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER				
Hours	Rig Up	Drill Actual	Reaming	Coring	Core Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Dring Line	Dev Survey	Wireline Logs	Run Cag & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other		Top Fuel	Bottom Fuel	Temp	Wind Direction	Wind Strength	
Tour 1		4.50					0.25			3.00											0.25					8.00	15070	9530	-1	06:00		
Tour 2		7.25					0.25			3.75					0.25						0.50					12.00						
Tour 3		2.50					0.25			1.25																4.00						
TOTAL		14.25					0.75			8.00					0.25						0.75					24.00						UP TO 28 KM/H

TOUR 1 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME **0:00** END TIME **8:00**

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG	Details Of Operations In Sequence & Remarks	
					From	To
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 3140.00 Depth In (m): 2083.00 Total Drilled (m): 1057.00 Hrs Run Today: 4.50 Cumulative Hrs Run: 15.75 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.67 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 55.42 1 Drill Pipe Stands 29.23 2 Drill Pipe Singles 19.43	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 03:15 2955.02 90.50 87.6 03:45 2968.93 90.00 88.8 04:00 2982.86 91.10 88.3 04:15 2996.78 90.00 87.3 04:45 3010.71 90.30 88.3 05:00 3024.62 91.80 89.1 Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 104 Pressure 2800 Hrs Run 6.50	Time: 03:15 2955.02 90.50 87.6 03:45 2968.93 90.00 88.8 04:00 2982.86 91.10 88.3 04:15 2996.78 90.00 87.3 04:45 3010.71 90.30 88.3 05:00 3024.62 91.80 89.1 SOLIDS CONTROL: Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 8.00 1170 1090 1745 MUD MATERIALS ADDED: Product Amount Type	From To Elapsed Code Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES		

TOUR 2 SIGNATURE OF DRILLER **BRENDEAN PREVOST** START TIME **8:00** END TIME **20:00**

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG	Details Of Operations In Sequence & Remarks	
					From	To
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 2083.00 Depth In (m): 1508.00 Total Drilled (m): 1508.00 Hrs Run Today: 7.25 Cumulative Hrs Run: 23.00 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.67 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 55.42 17 Drill Pipe Stands 495.07 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 15:45 3430.44 93.70 89.5 17:00 3459.61 91.30 90.7 17:15 3342.76 90.70 91.3 17:45 3488.85 88.60 95.5 18:15 3517.45 88.50 91.8 19:00 3546.59 87.20 91.8 Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 104 Pressure 2870 Hrs Run 2.00 2 SINGLE 127 104 2870 8.50	Time: 15:45 3430.44 93.70 89.5 17:00 3459.61 91.30 90.7 17:15 3342.76 90.70 91.3 17:45 3488.85 88.60 95.5 18:15 3517.45 88.50 91.8 19:00 3546.59 87.20 91.8 SOLIDS CONTROL: Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1180 1160 1890 Centrifuge #2 12.00 1180 1160 1900 MUD MATERIALS ADDED: Product Amount Type	From To Elapsed Code Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES DID WEEKLY AER INSPECTION & VISUALLY INSPECTED FLARE AND DEGASSER LINES RT		

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME **20:00** END TIME **24:00**

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG	Details Of Operations In Sequence & Remarks	
					From	To
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 2083.00 Depth In (m): 1710.00 Total Drilled (m): 1710.00 Hrs Run Today: 2.50 Cumulative Hrs Run: 25.50 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.67 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 55.42 24 Drill Pipe Stands 697.24 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 2 7150 @ 52 @ 3648.00 1 7400 @ 52 @ 3764.00	Time: 2 7150 @ 52 @ 3648.00 1 7400 @ 52 @ 3764.00 SOLIDS CONTROL: Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density Centrifuge #1 4.00 1180 1160 1900 Centrifuge #2 4.00 1180 1160 1900 MUD MATERIALS ADDED: Product Amount Type	From To Elapsed Code Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES		

FRONT PAGE SUMMARY

Tour Sheet Serial Number: PREC465 20161219 1A, Vendor Software Version: RMS 2016.6.14.37064, Year: 2016, Month: 12, Day: 19

DAILY CHECKS

- (1) Daily Walk Around Inspection
(2) Detailed Inspection - Weibly (Using Check List)
(3) H2S Signs Posted if Required
(4) Well Licence & Stick Diagram Posted
(5) Flare Lines Baked
(6) BOP Tests Performed
(7) Visually Inspected BOPs Flare Lines & Degasser Lines
(8) Rig Site Health & Safety Meeting (once/week/month)
(9) CAODC Rig Safety Inspection Checklist (once/week/month)
(10) Mast Inspection before Raising or Lowering
(11) Cover Slaver Checked
(12) Major Vibs Checked



License No: 32574, Well Name: ARCRCES HZ Septimus H11-34-81-18W6, Contractor: Precision Drilling, div of PDC

Compressor: 465, Spool Date Time: 09-Dec-2016, 18:00, Signature of Contractor's Rig Manager: ROD TOMPKINS

Table with columns for Code, Rig Up, Drill Actual, Reaming, Coring, Core Mud & Circ, Trips, Rig Services, Repair Rig, Cut Off Drilling Line, Dev Survey, Wireline Logs, Run Csg & Cement, Wait On Cement, Nightly BOP, Test BOP, Driftstem Test, Plug Back, Squeeze Cement, Fishing, Dir Work, Safety Meeting, Tear Down, Walking On, Rig Watch, Other, TOTAL, FUEL @ 08:00 HRS, WEATHER

TOUR 1 SIGNATURE OF DRILLER: ERIC OBRIEN, START TIME: 0:00, END TIME: 8:00

TOUR 1 Data Section: BITS (159MM BIT, REED, SK413M-A1GZ), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, CUTTING STRUCTURE, METRES DRILLED, HOLE CONDITION, REDUCED PUMP SPEED, MUD MATERIALS ADDED, BOILER, SAFETY, DERRICK CONNECTIONS

TOUR 2 SIGNATURE OF DRILLER: BRENDEN PREVOST, START TIME: 8:00, END TIME: 20:00

TOUR 2 Data Section: BITS (159MM BIT, REED, SK413M-A1GZ), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, CUTTING STRUCTURE, METRES DRILLED, HOLE CONDITION, REDUCED PUMP SPEED, MUD MATERIALS ADDED, BOILER, SAFETY, DERRICK CONNECTIONS

TOUR 3 SIGNATURE OF DRILLER: ERIC OBRIEN, START TIME: 20:00, END TIME: 24:00

TOUR 3 Data Section: BITS (159MM BIT, REED, SK413M-A1GZ), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG, CUTTING STRUCTURE, METRES DRILLED, HOLE CONDITION, REDUCED PUMP SPEED, MUD MATERIALS ADDED, BOILER, SAFETY, DERRICK CONNECTIONS

FRONT PAGE SUMMARY

Tour Sheet Number: PREC465 20161220_1A, Vendor Software Version: RMS 2016.6.14.37064, Year: 2016, Month: 12, Day: 20

DAILY CHECKS: (1) Daily Walk Around Inspection, (2) Detailed Inspection - Weekly (Using Check List), (3) H2S Signs Posted if Required, (4) Well License & Stick Diagram Posted, (5) Flare Lines Staked, (6) BOP Sides Performed, (7) Visually Inspected BOP-Flare Lines & Degasser Lines, (8) Rig Site Health & Safety Meeting (once/week/month), (9) CAODC Rig Safety Inspection Checklist (once/week/month), (10) Mast Inspection before Raising or Lowering, (11) Crown Saver Checked, (12) Motor Vibs Checked



License No: 32574, Well Name: ARCRCES HZ Septimus H11-34-81-18W6, Contractor: Precision Drilling, div of PDC, Company Job No: 35, Spud Date Time: 09-Dec-2016 18:00, Signature of Operator's Representative: ALLEN LUNGAL, Signature of Contractor's Rig Manager: ROD TOMPKINS

Table with columns for Code, Rig Up, Drill Actual, Reaming, Coring, Core Mud & Circ, Trips, Rig Service, Repair Rig, Cut Off Dring Line, Dev Survey, Wireline Logs, Run C&G & Cement, Wait On Cement, Nightie BOP, Test BOP, Drillstem Test, Plug Back, Squeeze Cement, Fishing, Dir Work, Safety Meeting, Tear Down, Waiting On, Rig Watch, Other, TOTAL. Includes a 'HOURS' section for Tour 1, 2, 3, and a 'WEATHER' section.

TOUR 1 SIGNATURE OF DRILLER: ERIC OBRIEN, START TIME: 0:00, END TIME: 8:00

TOUR 1 Summary: BITS (159mm Reed SK413M-A1GZ), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG. Details include bit numbers, IADC codes, manufacturer, type, serial no, joints, depth out, total drilled, cumulative hrs run, entry date, cutting structure, hole condition, reduced pump speed, and boiler logs.

TOUR 2 SIGNATURE OF DRILLER: BRENDEN PREVOST, START TIME: 8:00, END TIME: 20:00

TOUR 2 Summary: BITS (159mm Reed SK413M-A1GZ), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG. Details include bit numbers, IADC codes, manufacturer, type, serial no, joints, depth out, total drilled, cumulative hrs run, entry date, cutting structure, hole condition, reduced pump speed, and boiler logs.

TOUR 3 SIGNATURE OF DRILLER: ERIC OBRIEN, START TIME: 20:00, END TIME: 24:00

TOUR 3 Summary: BITS (159mm Reed SK413M-A1GZ), DRILLING ASSEMBLY, MUD RECORD, DEVIATION SURVEYS, TIME LOG. Details include bit numbers, IADC codes, manufacturer, type, serial no, joints, depth out, total drilled, cumulative hrs run, entry date, cutting structure, hole condition, reduced pump speed, and boiler logs.

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161220 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 20	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov DLS	Loc Type 102/09-35-081-18W5	Re-Entry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weibly (Using Check List) (3) H2S Signs Postcard if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines (8) Rig Site Health & Safety Meeting (on/crow/month) (9) CAODC Rig Safety Inspection Checklist (on/crow/month) (10) Mast Inspection before Raising or Lowering (11) Cover Sheet Checked (12) Major Vibs Checked		
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor Job No 35	Rig No 465	Well Type HORIZ	(1) Rig Site Health & Safety Meeting (on/crow/month) (2) CAODC Rig Safety Inspection Checklist (on/crow/month) (3) Mast Inspection before Raising or Lowering (4) Cover Sheet Checked (5) Major Vibs Checked			
Signature of Operator's Representative ALLEN LUNGA	Signature of Contractor's Rig Manager ROD TOMPKINS	Squad Date Time 09-Dec-2016	Rig Release Date Time 18:00					



Code	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	TOTAL
Tour 1		5.50						0.25																		8.00
Tour 2		1.50			4.00	5.00	0.25			1.00																12.00
Tour 3						1.75	0.25					0.50									1.00	0.25				4.00
TOTAL		7.00			4.00	6.75	0.75			3.00		0.50									1.00	0.75				24.00

Kelly Logging 5319	Log Feet 5319
FUEL @ 08:00 HRS	
9751	9530
Time	Temp
06:00	-4
OVERCAST	
Wind Direction E	Wind Strength UP TO 19 KM/H
Weather FAIR	

TOUR 1 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 4147.00 Depth In (m): 2083.00 Total Drilled (m): 2064.00 Hrs Run Today: 5.00 Cumulative Hrs Run: 30.50 Entry Date: 17-Dec-2016	No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 25 Drill Pipe Stands 726.46 0 Drill Pipe Singles 0.00 Kelly Down: 0.00 Total: 3822.77 Weight of DC: 67.67 Weight of String: 70.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 03:15 3952.44 90.00 88 04:00 3981.69 90.40 87.7 04:45 4010.89 90.10 87.4 05:15 4040.07 90.40 87.8 07:15 4098.35 89.10 87.8 07:45 4127.49 89.20 90.2 Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: 0.00 0 0 0 Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 6.50 MUD MATERIALS ADDED: Product Amount Type	Time Depth Deviation Direction Type From To Elapsed Code Details Of Operations In Sequence & Remarks	Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES OBSERVATION - WORKER WAS CLIMBING THROUGH HIGH PRESSURE LINES BETWEEN SUITCASES, EXPLAINED TO HIM THE DANGERS AND TOLD HIM TO USE SAFETY LOCKOUTS: 91 MEHL 3528 MACP

TOUR 2 SIGNATURE OF DRILLER **BRENDEN PREVOST** START TIME 8:00 END TIME 20:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 4253.00 Depth In (m): 2083.00 Total Drilled (m): 2170.00 Hrs Run Today: 1.50 Cumulative Hrs Run: 32.00 Entry Date: 17-Dec-2016	No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 40 Drill Pipe Stands 1164.10 0 Drill Pipe Singles 0.00 Kelly Down: -7.41 Total: 4253.00 Weight of DC: 67.81 Weight of String: 70.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 13:15 Density: 1170 Funnel Viscosity: 57 Fluid Loss: 57 pH: 8 Location Of Sample: SHAKERS Depth: 4253.00 PVT: 80 Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 7.00 MUD MATERIALS ADDED: Product Amount Type	Time Depth Deviation Direction Type From To Elapsed Code Details Of Operations In Sequence & Remarks	Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES SAFETY TRIPPING: 95 MEHL 3528 MACP

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 4253.00 Depth In (m): 2083.00 Total Drilled (m): 2170.00 Hrs Run Today: 0.00 Cumulative Hrs Run: 32.00 Entry Date: 17-Dec-2016	No. Component OD ID Length 1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 40 Drill Pipe Stands 1164.10 0 Drill Pipe Singles 0.00 Kelly Down: -7.41 Total: 4253.00 Weight of DC: 67.81 Weight of String: 70.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 13:15 Density: 1170 Funnel Viscosity: 57 Fluid Loss: 57 pH: 8 Location Of Sample: SHAKERS Depth: 4253.00 PVT: 80 Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 7.00 MUD MATERIALS ADDED: Product Amount Type	Time Depth Deviation Direction Type From To Elapsed Code Details Of Operations In Sequence & Remarks	Remarks: FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES SAFETY TRIPPING: 73 MEHL 3528 MACP

FRONT PAGE SUMMARY		Tour Sheet Serial Number PREC465 20161220 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 20	DAILY CHECKS	OP RM
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well ID 102/09-35-081-18W5	Re-Entry <input type="checkbox"/>	(1) Daily Walk Around Inspection (2) Detailed Inspection - Weibly (Using Check List) (3) H2S Signs Postcard if Required (4) Well License & Stick Diagram Posted (5) Flare Lines Baked (6) BOP Tests Performed (7) Visually Inspected BOPs-Flare Lines & Degasser Lines (8) Rig Site Health & Safety Meeting (on/crow/month) (9) CADC Rig Safety Inspection Checklist (on/crow/month) (10) Mast Inspection before Raising or Lowering (11) Cover Sliver Checked (12) Motor Vibs Checked	AL RT AL RT AL RT AL RT AL RT
Company ARC Resources Ltd.	Contractor Precision Drilling, div of PDC	Contractor's Job No 35	Rig No 465	Well Type HORIZ	Squad Date Time 09-Dec-2016	18:00		
Signature of Operator's Representative ALLEN LUNGLAL	Signature of Contractor's Rig Manager ROD TOMPKINS							



Code	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	TOTAL	FUEL @ 08:00 HRS	WEATHER		
Hours	Rig Up	Drill Actual	Reaming	Coring	Conn Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drilling Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Ngble BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Walking On	Rig Watch	Other		Temp	Wind Direction	Wind Strength	Moist Condition
Tour 1		5.50					0.25			2.00											0.25					8.00	9751	06:00	-4	OVERCAST
Tour 2		1.50			4.00	5.00	0.25			1.00											0.25					12.00	9530	06:00	-4	OVERCAST
Tour 3						1.75	0.25					0.50									1.00	0.25			0.25	4.00				FAIR
TOTAL		7.00			4.00	6.75	0.75			3.00		0.50									1.00	0.75			0.25	24.00				FAIR

TOUR 1 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 0:00 END TIME 8:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 4147.00 Depth In (m): 2083.00 Total Drilled (m): 2064.00 Hrs Run Today: 5.00 Cumulative Hrs Run: 30.50 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 25 Drill Pipe Stands 726.46 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: 07:45 Depth: 4069.22 Deviation: 91.30 Direction: 87.5 Type: Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: 0.00 0 0 0 MUD MATERIALS ADDED: Product: Amount: Type: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 6.50	Time: 07:45 Depth: 4069.22 Deviation: 91.30 Direction: 87.5 Type: Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: 0.00 0 0 0 MUD MATERIALS ADDED: Product: Amount: Type: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 6.50	From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	SAFETY
Kelly Down: 0.00 Total: 3822.77 Weight of DC: 67.81 Weight of String: 70.00	Hole Drag Up: 10 Down: 30 Torque At Bottom: 12000 Fill On Bottom:	Pump # Pressure Strokes/min Depth 1 7460 @ 52 @ 3822.00 1 7590 @ 52 @ 3988.00 1 7640 @ 52 @ 3952.00	BoilerNo: HoursRun: pH: StackTemp:	MEHL: 3528 MACP:

TOUR 2 SIGNATURE OF DRILLER **BRENDEN PREVOST** START TIME 8:00 END TIME 20:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 4253.00 Depth In (m): 2083.00 Total Drilled (m): 2170.00 Hrs Run Today: 1.50 Cumulative Hrs Run: 32.00 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 40 Drill Pipe Stands 1164.10 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Depth: Deviation: Direction: Type: Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: MUD MATERIALS ADDED: Product: Amount: Type: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 7.00	Time: Depth: Deviation: Direction: Type: Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: MUD MATERIALS ADDED: Product: Amount: Type: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 7.00	From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	SAFETY
Kelly Down: -7.41 Total: 4253.00 Weight of DC: 67.81 Weight of String: 70.00	Hole Drag Up: 10 Down: 33 Torque At Bottom: 12500 Fill On Bottom:	Pump # Pressure Strokes/min Depth 1 7700 @ 52 @ 4253.00	BoilerNo: HoursRun: pH: StackTemp:	MEHL: 3528 MACP:

TOUR 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

BITS	DRILLING ASSEMBLY	MUD RECORD	DEVIATION SURVEYS	TIME LOG
Bit Number: 4 Size: 159 IADC Code: REED Manufacturer: SK413M-A1GZ Type: E228924 Serial No: 9.5 9.5 Jts: 9.5 9.5 Depth Out (m): 4253.00 Depth In (m): 2083.00 Total Drilled (m): 2170.00 Hrs Run Today: 0.00 Cumulative Hrs Run: 32.00 Entry Date: 17-Dec-2016	1 159MM BIT 159 1 0.21 1 NEAR BIT INC SUB 135 1 1.04 1 8 STAGE MOTOR 127 1 9.12 1 NON MAG FLEX MONEL 118 70 9.49 1 GAP SUB GSS09 128 1 1.64 2 NON MAG FLEX MONEL 118 70 18.99 1 SLIDE REAMER 121 58 1.43 1 CROSSOVER SUB 130 60 0.94 5 4.5" DP 135 80 48.27 1 CROSSOVER SUB 130 60 0.78 1 5" JARS 130 58 5.20 1 CROSSOVER SUB 130 60 0.78 57 4.5" DP 135 80 154.27 40 Drill Pipe Stands 1164.10 0 Drill Pipe Singles 0.00	Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other: <input type="checkbox"/> Time: Depth: Deviation: Direction: Type: Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: MUD MATERIALS ADDED: Product: Amount: Type: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 7.00	Time: Depth: Deviation: Direction: Type: Solids Control: Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density: Centrifuge #1: 8.00 1170 1120 1700 Centrifuge #2: MUD MATERIALS ADDED: Product: Amount: Type: Circulation: Pump # Type Liner Size SPM Pressure Hrs Run 1 SINGLE 127 104 31900 7.00	From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks
CUTTING STRUCTURE	HOLE CONDITION	REDUCED PUMP SPEED	BOILER	SAFETY
Kelly Down: -7.41 Total: 4253.00 Weight of DC: 67.81 Weight of String: 70.00	Hole Drag Up: 10 Down: 33 Torque At Bottom: 12500 Fill On Bottom:	Pump # Pressure Strokes/min Depth 1 7700 @ 52 @ 4253.00	BoilerNo: HoursRun: pH: StackTemp:	MEHL: 3528 MACP:

FRONT PAGE SUMMARY				Tour Sheet Serial Number PREC465 20161221 1A	Vendor Software Version RMS 2016.6.14.37064	Year 2016	Month 12	Day 21	DAILY CHECKS						OP RM	
License No 32574	Well Name ARCRES HZ Septimus H11-34-81-18W6	Surface Location 11-34-81-18 W6	Prov BC	Loc Type DLS	Unique Well Id 102/09-35-081-18W5	<input type="checkbox"/> (1) Daily Walk Around Inspection <input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List) <input type="checkbox"/> (3) H2S Signs Posted if Required <input type="checkbox"/> (4) Well License & Stick Diagram Posted <input type="checkbox"/> (5) Flare Lines Staked <input type="checkbox"/> (6) BOP Tests Performed <input type="checkbox"/> (7) Visually Inspected BOPs Flare Lines & Degasser Lines <input type="checkbox"/> (8) Riser Valve Checked <input type="checkbox"/> (9) Riser Valve Checked <input type="checkbox"/> (10) Riser Valve Checked						AL	RT	AL	RT	
Contractor Precision Drilling, div of PDC			Contractor Job No. 465	Squad Date Time HORIZ	Re-Entry <input type="checkbox"/>	<input type="checkbox"/> (1) Rig Site Health & Safety Meeting (once/week/month) <input type="checkbox"/> (2) CADCOC Rig Safety Inspection Checklist (once/week/month) <input type="checkbox"/> (3) Mast Inspection before Raising or Lowering <input type="checkbox"/> (4) Crown Saver Checked <input type="checkbox"/> (5) Mast Valve Checked						AL	RT	AL	RT	
Signature of Operator's Representative ALLEN LUNGA			Signature of Contractor's Rig Manager ROD TOMPKINS	Rig Release Date Time 09-Dec-2016 18:00												



Code	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	TOTAL	FUEL @ 08:00 HRS
Hours	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drill Line	Dev Survey	Wireline Logs	Run Cap & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other		
Tour 1							0.25					7.25														8.00	37233
Tour 2					1.75							8.00		1.75												12.00	06:00
Tour 3	2.00																								2.00	OVERCAST	
TOTAL	2.00				1.75		0.25					15.25		1.75												22.00	FAIR

TOUR 1	SIGNATURE OF DRILLER ERIC OBRIEN	START TIME 0:00	END TIME 8:00
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BITS		DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG									
Bit Number	Size	No	Component	OD	ID	Length	Mud Type	Water	Oil	Other	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details of Operations In Sequence & Remarks			
IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date						0:00	0:15	0:25	21	SAFETY MEETING PRIOR TO RUNNING CASING CTA 3-1			
CUTTING STRUCTURE		HOLE CONDITION				REDUCED PUMP SPEED				BOILER				SAFETY									
TO	LOC	BRG	Kelly Down	Tear	Weight of DC	Weight of String	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	RUNNING CASING								
From	To	D-R-C	RPM	WOB	Hole Drag	Up	Down				1	8.00	10.5	340	60	3528	MACP						
TOUR 2		SIGNATURE OF DRILLER BRENDEN PREVOST												START TIME 8:00 END TIME 20:00									

BITS		DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG									
Bit Number	Size	No	Component	OD	ID	Length	Mud Type	Water	Oil	Other	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details of Operations In Sequence & Remarks			
IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date						8:00	12:30	12:45	12B	RUN CASING, 170 JOINTS 4 1/2" P110 LT&C, FOLLOWED BY 23 JOINTS 5 1/2" P110 VA ROUGHNECK, FOLLOWED BY 120 JOINTS 5 1/2" P110 LT&C			
CUTTING STRUCTURE		HOLE CONDITION				REDUCED PUMP SPEED				BOILER				SAFETY									
TO	LOC	BRG	Kelly Down	Tear	Weight of DC	Weight of String	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	RUNNING CASING								
From	To	D-R-C	RPM	WOB	Hole Drag	Up	Down				1	12.00	10	340	75	3528	MACP						
TOUR 3		SIGNATURE OF DRILLER ERIC OBRIEN												START TIME 20:00 END TIME 24:00									

BITS		DRILLING ASSEMBLY				MUD RECORD				DEVIATION SURVEYS				TIME LOG									
Bit Number	Size	No	Component	OD	ID	Length	Mud Type	Water	Oil	Other	Time	Depth	Deviation	Direction	Type	From	To	Elapsed	Code	Details of Operations In Sequence & Remarks			
IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date						20:00	22:00	2:00	1	RIG OUT RIG AND PREPARE TO WALK TO 111-34-81-18W6			
CUTTING STRUCTURE		HOLE CONDITION				REDUCED PUMP SPEED				BOILER				SAFETY									
TO	LOC	BRG	Kelly Down	Tear	Weight of DC	Weight of String	Pump #	Pressure	Strokes/min	Depth	BoilerNo	HoursRun	pH	StackTemp	RUNNING CASING								
From	To	D-R-C	RPM	WOB	Hole Drag	Up	Down				1	2.00	11	340	75	3528	MACP						
TOUR 3		SIGNATURE OF DRILLER ERIC OBRIEN												START TIME 20:00 END TIME 24:00									