

| FRONT PAGE SUMMARY                     |                                   |                                       |                | Tour Sheet Serial Number |     | Vendor Software Version |      | Year           | Month             | Day   | DAILY CHECKS |           | OP RM |         |                          |
|--|-----------------------------------|---------------------------------------|----------------|--------------------------|-----|-------------------------|------|----------------|-------------------|---|--------------|-----------|-------|---------|--------------------------|
| License No                             | Well Name                         | PREC465                               | 20161206       | 2A                       | RMS | 2016.14.37064           | 2016 | 12             | 06                | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Posted if Required<br><input type="checkbox"/> (4) Well Licence & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Baked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (9) CAADC Rig Safety Inspection Checklist (once/monthly)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Major Risks Checked |              | FB        | RT    |         |                          |
| 32575                                  | ARCRES HZ SEPTIMUS H11-34-81-18W6 | Surface Location                      | 11-34-81-18 W6 | Prov                     | BC  | Loc Type                | DLS  | Unique Well Id | 103/09-35-81-18W6 | Rig No  | 465          | Well Type | HORIZ | ReEntry | <input type="checkbox"/> |
| Company                                |                                   | Contractor                            |                | Spud Date Time           |     | Rig Release Date Time   |      |                |                   |   |              |           |       |         |                          |
| ARC Resources Ltd.                     |                                   | Precision Drilling, div of PDC        |                |                          |     |                         |      |                |                   |   |              |           |       |         |                          |
| Contractor's REP                       |                                   | Contractor's Job No                   |                |                          |     |                         |      |                |                   |   |              |           |       |         |                          |
| 16DR0084                               |                                   | 34                                    |                |                          |     |                         |      |                |                   |   |              |           |       |         |                          |
| Signature of Operator's Representative |                                   | Signature of Contractor's Rig Manager |                |                          |     |                         |      |                |                   |   |              |           |       |         |                          |
| PAUL BOUTILLIER                        |                                   | ROD TOMPKINS                          |                |                          |     |                         |      |                |                   |   |              |           |       |         |                          |



| Code   | Hours  |              |         |         |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | TOTAL | Kilobytes | Top Fuel |
|--------|--------|--------------|---------|---------|-----------------|-------|-------------|------------|--------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|-----------|----------|
|        | 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 |       |           |          |
| Tour 1 |        |              |         |         |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       |       |           |          |
| Tour 2 | 4.75   |              |         |         |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       |       |           |          |
| Tour 3 | 3.50   |              |         |         |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       |       |           |          |
| TOTAL  | 8.25   |              |         |         |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 0.75           |           |            |           |       |       |           |          |

|                  |         |          |                 |               |
|------------------|---------|----------|-----------------|---------------|
| FUEL @ 08:00 HRS | Rig     | 12588    | Subsea          | 11965         |
|                  | Time    | 06:00    | Temp            | -20           |
|                  | Weather | OVERCAST | Wind Direction  | N             |
|                  |         |          | Wind Strength   | UP TO 19 KM/H |
|                  |         |          | Moist Condition | FAIR          |

|      |   |                      |              |            |      |          |      |
|------|---|----------------------|--------------|------------|------|----------|------|
| TOUR | 1 | SIGNATURE OF DRILLER | ROD TOMPKINS | START TIME | 0:00 | END TIME | 8:00 |
|------|---|----------------------|--------------|------------|------|----------|------|

| BITS  | DRILLING ASSEMBLY   | MUD RECORD   | DEVIATION SURVEYS   | TIME LOG  |
|---|---|--|---|---|
|   |   |  |   |   |
| Bit Number<br>Size<br>IADC Code<br>Manufacturer<br>Type<br>Serial No<br>Jets<br>Depth Out (m)<br>Depth In (m)<br>Total Drilled (m)<br>Hrs Run Today<br>Cumulative Hrs Run<br>Entry Date | No Component OD ID Length<br>Kelly Down<br>Taper<br>Weight of DC<br>Weight of String<br>Hole Drag Up Down<br>Torque At Bottom<br>Fill On Bottom | Mud Type Water Oil Other<br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>Remarks | Time Depth Deviation Direction Type<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>MUD MATERIALS ADDED<br>Product Amount Type | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |

|      |   |                      |             |            |      |          |       |
|------|---|----------------------|-------------|------------|------|----------|-------|
| TOUR | 2 | SIGNATURE OF DRILLER | DAVE LOEWEN | START TIME | 8:00 | END TIME | 20:00 |
|------|---|----------------------|-------------|------------|------|----------|-------|

| BITS  | DRILLING ASSEMBLY   | MUD RECORD   | DEVIATION SURVEYS   | TIME LOG  |
|---|---|--|---|---|
|   |   |  |   |   |
| Bit Number<br>Size<br>IADC Code<br>Manufacturer<br>Type<br>Serial No<br>Jets<br>Depth Out (m)<br>Depth In (m)<br>Total Drilled (m)<br>Hrs Run Today<br>Cumulative Hrs Run<br>Entry Date | No Component OD ID Length<br>Kelly Down<br>Taper<br>Weight of DC<br>Weight of String<br>Hole Drag Up Down<br>Torque At Bottom<br>Fill On Bottom | Mud Type Water Oil Other<br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>Remarks | Time Depth Deviation Direction Type<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>MUD MATERIALS ADDED<br>Product Amount Type | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |

|      |   |                      |             |            |       |          |       |
|------|---|----------------------|-------------|------------|-------|----------|-------|
| 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<br>Size<br>IADC Code<br>Manufacturer<br>Type<br>Serial No<br>Jets<br>Depth Out (m)<br>Depth In (m)<br>Total Drilled (m)<br>Hrs Run Today<br>Cumulative Hrs Run<br>Entry Date | No Component OD ID Length<br>Kelly Down<br>Taper<br>Weight of DC<br>Weight of String<br>Hole Drag Up Down<br>Torque At Bottom<br>Fill On Bottom | Mud Type Water Oil Other<br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>Remarks | Time Depth Deviation Direction Type<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>MUD MATERIALS ADDED<br>Product Amount Type | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |

| FRONT PAGE SUMMARY   |  |  |  |  |  |  |  |  |  | Tour Sheet Number                                   |  | Vendor Software Version     |  | Year              |  | Month            |  | Day |  | DAILY CHECKS  |                                   |  |    |  | OP |  | RM |  |
|--|--|--|--|--|--|--|--|--|--|---|--|-----------------------------|--|-------------------|--|------------------|--|-----|--|---|-----------------------------------|--|----|--|----|--|----|--|
| License No: 32575<br>Well Name: ARCRRES HZ SEPTIMUS H11-34-81-18W6 |  |  |  |  |  |  |  |  |  | PREC465 20161207 1A                                 |  | RMS 2016.6.14.37064         |  | 2016              |  | 12               |  | 07  |  | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted If Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) H2S Tests Performed<br>(7) Visually Inspected BOPs Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CAODC Rig Safety Inspection Checklist (once/week/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Motor Vibs Checked |                                   |  |    |  | DS |  | RT |  |
| Contractor: Precision Drilling, div of PDC<br>Company's Job No: 34 |  |  |  |  |  |  |  |  |  | BC  |  | DLS                         |  | 103/09-35-81-18W6 |  | Well Type: HORIZ |  |     |  |   | ReEntry: <input type="checkbox"/> |  | DS |  | RT |  |    |  |
| Signature of Operator's Representative: DOUG SHEA                  |  |  |  |  |  |  |  |  |  | Signature of Contractor's Rig Manager: ROD TOMPKINS |  | Spud Date Time: 07-Dec-2016 |  | 00:00             |  |                  |  |     |  |   | RT                                |  | RT |  |    |  |    |  |



| Code   | Rig Up |   |   |   |      |      |   |   |   |    |      |      |    |    |    |    |    |    |    |    |      |      |      |      |    | TOTAL | FUEL @ 08:00 HRS |   |
|--------|--------|---|---|---|------|------|---|---|---|----|------|------|----|----|----|----|----|----|----|----|------|------|------|------|----|-------|------------------|---|
|        | 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 | 1.25   |   |   |   | 2.25 | 0.50 |   |   |   |    |      |      |    |    |    |    |    |    |    |    | 3.25 | 0.75 |      |      |    | 8.00  | 33744            | 11641   |
| Tour 2 |        |   |   |   | 4.25 |      |   |   |   |    | 1.50 | 1.00 |    |    |    |    |    |    |    |    |      | 0.75 |      | 4.50 |    | 12.00 | 06:00            | 1:27  |
| Tour 3 |        |   |   |   |      |      |   |   |   |    |      |      |    |    |    |    |    |    |    |    |      | 3.75 | 0.25 |      |    | 4.00  | OVERCAST         | Wind Direction: N<br>Wind Strength: UP TO 19 KM/H |
| TOTAL  | 1.25   |   |   |   | 2.25 | 4.75 |   |   |   |    | 1.50 | 1.00 |    |    |    |    |    |    |    |    | 7.00 | 1.75 |      | 4.50 |    | 24.00 | 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: 1<br>Size: 279<br>IADC Code: S 4 2 3<br>Manufacturer: SICOTTE<br>Type: SS516GB<br>Serial No: 12806<br>Jars: 14.3 14.3 14.3<br>Depth Out (m): 0.00<br>Total Drilled (m): 110.00<br>Hrs Run Today: 1.25<br>Cumulative Hrs Run: 1.25<br>Entry Date: 07-Dec-2016 | No: 1<br>Component: 279MM BIT<br>OD: 279<br>ID: 1.027<br>Length: 1.027<br>Time: 05:00<br>Density: 1080<br>Funnel Viscosity: 70<br>Fluid Loss: 8.5<br>pH: 8.5<br>Location of Sample: SHAKER<br>Depth: 80.00<br>PVT: 45 | Mud Type: Water<br>Water: <input checked="" type="checkbox"/><br>Oil: <input type="checkbox"/><br>Other: <input type="checkbox"/> | Time: 05:00<br>Density: 1080<br>Funnel Viscosity: 70<br>Fluid Loss: 8.5<br>pH: 8.5<br>Location of Sample: SHAKER<br>Depth: 80.00<br>PVT: 45 | Time: 05:00<br>Depth: 80.00<br>Deviation: 0.00<br>Direction: 0.00<br>Type: 0.00 | From: 0:00<br>To: 0:15<br>Elapsed: 0:15<br>Code: 21<br>Details Of Operations In Sequence & Remarks:<br>SAFETY MEETING WITH DIRECTIONAL REVIEW CTA 2-1<br>HANDLE DIRECTIONAL TOOLS, MAKE UP 8" 4 STAGE MOTOR SET AT 1.5DEG,<br>279MM BIT MONELS, GAP SUB AND JARS, TROUBLESHOOT FROZEN MUD MOTOR<br>PRE-SPUD SAFETY MEETING WITH RIG CREW, OIL COMPANY REP AND TOOL<br>PUSH<br>3:30 3:45 0:25 21F<br>3:45 5:00 1:25 2<br>5:00 6:30 1:50 5<br>6:30 7:00 0:50 6B<br>7:00 7:45 0:75 5D<br>7:45 8:00 0:25 21 |        |  |                   |        |  |          |  |  |
| CUTTING STRUCTURE  | HOLE CONDITION  | REDUCED PUMP SPEED  | MUD MATERIALS ADDED   |   |   | BOILER |  |                   | SAFETY |  |          |  |  |
| TO: 0.00<br>MDC: 110.00<br>LDC: 88.00<br>BRS: 88.00  | Kelly Down: -10.95<br>Total: 110.00<br>Weight of DC: 20.00  | Pump # Pressure Strokes/min Depth   | COTTON SEAL: 1 TOTE<br>MAGMA FIBER: 4 SX<br>KWIKSEAL: 6 SX  | BoilerNo HoursRun pH StackTemp<br>1 8.00 10.5 340<br>2 8.00 10.5 340            | MEHL MACP   |        |  |                   |        |  |          |  |  |
| TOUR 2 SIGNATURE OF DRILLER: DAVE LOEWEN   |   |   |   |   | START TIME: 8:00 END TIME: 20:00  |        |  |                   |        |  |          |  |  |

| BITS   |   | DRILLING ASSEMBLY   |   |  | MUD RECORD  |        |  | DEVIATION SURVEYS |        |  | TIME LOG |  |  |
|--|---|---|---|--|---|--------|--|-------------------|--------|--|----------|--|--|
| Bit Number: 1<br>Size: 279<br>IADC Code: S 4 2 3<br>Manufacturer: SICOTTE<br>Type: SS516GB<br>Serial No: 12806<br>Jars: 14.3 14.3 14.3<br>Depth Out (m): 0.00<br>Total Drilled (m): 110.00<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 1.25<br>Entry Date: 07-Dec-2016 | No: 1<br>Component: 279MM BIT<br>OD: 279<br>ID: 1.027<br>Length: 1.027<br>Time: 18:30<br>Density: 1065<br>Funnel Viscosity: 55<br>Fluid Loss: 8.5<br>pH: 8.5<br>Location of Sample: PREMIX<br>Depth: 65 | Mud Type: Water<br>Water: <input checked="" type="checkbox"/><br>Oil: <input type="checkbox"/><br>Other: <input type="checkbox"/> | Time: 18:30<br>Density: 1065<br>Funnel Viscosity: 55<br>Fluid Loss: 8.5<br>pH: 8.5<br>Location of Sample: PREMIX<br>Depth: 65 | Time: 18:30<br>Depth: 65<br>Deviation: 0.00<br>Direction: 0.00<br>Type: 0.00 | From: 8:00<br>To: 8:15<br>Elapsed: 0:15<br>Code: 21<br>Details Of Operations In Sequence & Remarks:<br>SAFETY MEETING HELD PRIOR TO TRIPPING OUT OF HOLE, REVIEWED CTA<br>SECTION 2-4<br>8:15 11:00 2:75 6<br>11:00 15:30 4:50 23A<br>15:30 16:00 0:50 12A<br>16:00 16:15 0:25 21<br>16:15 17:15 1:00 12F<br>17:15 18:15 1:00 13<br>18:15 19:15 1:00 6A<br>19:15 19:45 0:50 6B<br>19:45 20:00 0:25 21 |        |  |                   |        |  |          |  |  |
| CUTTING STRUCTURE  | HOLE CONDITION  | REDUCED PUMP SPEED  | MUD MATERIALS ADDED   |  |   | BOILER |  |                   | SAFETY |  |          |  |  |
| TO: 0.00<br>MDC: 110.00<br>LDC: 88.00<br>BRS: 88.00  | Kelly Down: -10.95<br>Total: 110.00<br>Weight of DC: 20.00  | Pump # Pressure Strokes/min Depth   | ENVIROPLUG: 6 BAGS<br>ENERZAN: 2 BAG<br>EZ GEL: 120 BAGS  | BoilerNo HoursRun pH StackTemp<br>1 12.00 10 340<br>2 12.00 10 340           | 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: 1<br>Size: 279<br>IADC Code: S 4 2 3<br>Manufacturer: SICOTTE<br>Type: SS516GB<br>Serial No: 12806<br>Jars: 14.3 14.3 14.3<br>Depth Out (m): 0.00<br>Total Drilled (m): 110.00<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 1.25<br>Entry Date: 07-Dec-2016 | No: 1<br>Component: 279MM BIT<br>OD: 279<br>ID: 1.027<br>Length: 1.027<br>Time: 20:00<br>Density: 1065<br>Funnel Viscosity: 55<br>Fluid Loss: 8.5<br>pH: 8.5<br>Location of Sample: PREMIX<br>Depth: 65 | Mud Type: Water<br>Water: <input checked="" type="checkbox"/><br>Oil: <input type="checkbox"/><br>Other: <input type="checkbox"/> | Time: 20:00<br>Density: 1065<br>Funnel Viscosity: 55<br>Fluid Loss: 8.5<br>pH: 8.5<br>Location of Sample: PREMIX<br>Depth: 65 | Time: 20:00<br>Depth: 65<br>Deviation: 0.00<br>Direction: 0.00<br>Type: 0.00 | From: 20:00<br>To: 20:15<br>Elapsed: 0:15<br>Code: 21<br>Details Of Operations In Sequence & Remarks:<br>SAFETY MEETING WITH DIRECTIONAL REVIEW CTA 2-1<br>HANDLE DIRECTIONAL TOOLS, PICK UP MOTOR AND MONELS FROM DERRICK<br>AND MAKE UP GAP SUB AND EM TOOL<br>20:15 21:00 0:75 20D<br>21:00 24:00 3:00 20D |        |  |                   |        |  |          |  |  |
| CUTTING STRUCTURE  | HOLE CONDITION  | REDUCED PUMP SPEED  | MUD MATERIALS ADDED   |  |   | BOILER |  |                   | SAFETY |  |          |  |  |
| TO: 0.00<br>MDC: 110.00<br>LDC: 88.00<br>BRS: 88.00  | Kelly Down: -10.95<br>Total: 110.00<br>Weight of DC: 20.00  | Pump # Pressure Strokes/min Depth   |   | BoilerNo HoursRun pH StackTemp<br>1 4.00 10.5 340<br>2 4.00 10.5 340         | MEHL MACP   |        |  |                   |        |  |          |  |  |
| TOUR 3 SIGNATURE OF DRILLER: ERIC OBRIEN   |   |   |   |  | START TIME: 24:00 END TIME: 24:00   |        |  |                   |        |  |          |  |  |

|   |   |   |  |                    |                                     |   |                     |       |       |
|---|---|---|--|--------------------|-------------------------------------|---|---------------------|-------|-------|
| <b>FRONT PAGE SUMMARY</b>                           |   | Tour Sheet Serial Number<br>PREC465 20161208 1B | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>08   | <b>DAILY CHECKS</b> |       | OP RM |
| License No<br>32575                                 | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6        | Location<br>11-34-81-18 W6                      | Prov<br>BC                                     | Lo Type<br>DLS     | Unique Well Id<br>103/09-35-81-18W6 | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weedy (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Postcard If Required<br><input type="checkbox"/> (4) Well Licence & Block Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Staked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (9) CAODC Rig Safety Inspection Checklist (once/week/month)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Motor Vibs Checked |                     | DS RT | DS RT |
| Company<br>ARC Resources Ltd.                       | Contractor<br>Precision Drilling, div of PDC          | Contractor's Job No.<br>34                      | Rig No.<br>465                                 | Well Type<br>HORIZ | ReEntry<br><input type="checkbox"/> | Squad Date Time<br>07-Dec-2016 03:45  |                     | RT    | RT    |
| Signature of Operator's Representative<br>DOUG SHEA | Signature of Contractor's Rig Manager<br>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 | WEATHER |
|--------|--------|--------------|---------|--------|-----------------|-------|-------------|------------|--------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|------------------|---------|
| Code   | Rig Up | Drill Actual | Reaming | Coring | Core Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Dring 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 |       | 33744            | 11641   |
| Tour 1 |        | 4.50         |         |        | 1.50            |       | 0.25        |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 1.75           |           |            |           |       | 8.00  | 06:00            | 27      |
| Tour 2 |        | 0.25         |         |        | 1.75            | 2.75  | 0.50        |            |                    |            |               | 6.00             |                |            |          |                |           |                |         |          |                | 0.75      |            |           |       | 12.00 | 07:00            | 27      |
| Tour 3 |        |              |         |        | 1.50            |       |             |            |                    |            |               | 2.25             |                |            |          |                |           |                |         |          |                | 0.25      |            |           |       | 4.00  | 08:00            | 27      |
| TOTAL  |        | 4.75         |         |        | 4.75            | 2.75  | 0.75        |            |                    |            |               | 8.25             |                |            |          |                |           |                |         |          | 1.75           |           |            |           |       | 24.00 | 09:00            | 27      |

|        |  |                    |                  |
|--------|--|--------------------|------------------|
| TOUR 1 | SIGNATURE OF DRILLER<br><b>ERIC OBRIEN</b> | START TIME<br>0:00 | END TIME<br>8:00 |
|--------|--|--------------------|------------------|

|                          |                         |                          |                        |                           |                           |                           |  |                                 |                                   |                           |                   |                   |                    |                      |              |              |                 |                 |   |  |  |
|--------------------------|-------------------------|--------------------------|------------------------|---------------------------|---------------------------|---------------------------|--|---------------------------------|-----------------------------------|---------------------------|-------------------|-------------------|--------------------|----------------------|--------------|--------------|-----------------|-----------------|---|--|--|
| <b>BITS</b>              |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   |                           |                   |                   |                    |                      |              |              |                 |                 |   |  |  |
| Bit Number<br>1          | Size<br>279             | No<br>1                  | Component<br>279MM BIT | OD<br>279                 | ID<br>1.027               | Mud Type<br>Water         | Water<br><input checked="" type="checkbox"/> | Oil<br><input type="checkbox"/> | Other<br><input type="checkbox"/> | Time<br>03:00             | Depth<br>104.44   | Deviation<br>0.60 | Direction<br>210.2 | Type<br>20D          | From<br>0:00 | To<br>1:45   | Elapsed<br>1:45 | Code<br>20D     | Details Of Operations In Sequence & Remarks |  |  |
| IADC Code<br>S 4 2 3     | Manufacturer<br>SICOTTE | Type<br>SS516GB          | Serial No<br>12806     | JMS<br>14.3 14.3 14.3     | Depth Out (m)<br>447.00   | Depth In (m)<br>0.00      | Total Drilled (m)<br>447.00                  | Hrs Run Today<br>3.75           | Cumulative Hrs Run<br>5.00        | Entry Date<br>07-Dec-2016 | Time<br>03:15     | Depth<br>132.27   | Deviation<br>0.40  | Direction<br>205.7   | Type<br>20C  | From<br>1:45 | To<br>2:30      | Elapsed<br>0:45 | Code<br>20C                                 | HANDLE DIRECTIONAL TOOLS. BREAK OFF BIT, MOTOR DRAINED, RUN MOTOR IN HOLE AND PUMP THROUGH. CLEAN AND MAKE-UP BIT. RE-SCRIBE |  |
| <b>CUTTING STRUCTURE</b> |                         | <b>HOLE CONDITION</b>    |                        | <b>REDUCED PUMP SPEED</b> |                           | <b>BOILER</b>             |  | <b>SAFETY</b>                   |                                   | Time<br>03:45             |                   | Depth<br>160.11   | Deviation<br>0.70  | Direction<br>197.8   | Type<br>20C  | From<br>2:30 | To<br>3:30      | Elapsed<br>1:00 | Code<br>20C                                 | DRILL CEMENT FROM 52M TO 110M  |  |
| TO<br>1                  | LOG<br>1                | DC<br>0                  | WOB<br>0               | Weight of DC<br>4.00      | Weight of String<br>45.00 | Pump #<br>1               | Pressure<br>152                              | Strokes/min<br>96               | Depth<br>18000                    | BoilerNo<br>1             | HoursRun<br>8.00  | pH<br>10.5        | StackTemp<br>340   | Safety Topic<br>MEHL | MEHL         | From<br>3:30 | To<br>4:30      | Elapsed<br>1:00 | Code<br>20C                                 | DRILL 279MM HOLE FROM 110M TO 350M   |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>04:30             |                   | Depth<br>215.84   | Deviation<br>1.00  | Direction<br>132.1   | Type<br>20C  | From<br>4:30 | To<br>5:30      | Elapsed<br>1:00 | Code<br>20C                                 | ACCUMULATED CONNECTIONS AND WORKING DRILL STRING   |  |
| From<br>110.00           | To<br>447.00            | D-R-C<br>DRILL           | RPM<br>50              | WOB<br>5                  | Weight of DC<br>4.00      | Weight of String<br>45.00 | Pump #<br>2                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>2             | HoursRun<br>8.00  | pH<br>10.5        | StackTemp<br>340   | Safety Topic<br>MACP | MACP         | From<br>5:30 | To<br>7:00      | Elapsed<br>1:30 | Code<br>20C                                 | RIG SERVICE. SERVICE TOP DRIVE   |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>05:00             |                   | Depth<br>243.67   | Deviation<br>0.40  | Direction<br>216.2   | Type<br>20C  | From<br>7:00 | To<br>8:00      | Elapsed<br>1:00 | Code<br>20C                                 | DRILL 279MM HOLE FROM 350M - 447M  |  |
| From<br>447.00           | To<br>447.00            | D-R-C<br>DRILL           | RPM<br>70              | WOB<br>11                 | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>1                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>1             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340   | Safety Topic<br>MEHL | MEHL         | From<br>8:00 | To<br>9:00      | Elapsed<br>1:00 | Code<br>20C                                 | RIG SERVICE. SERVICE TOP DRIVE   |  |

|        |  |                    |                   |
|--------|--|--------------------|-------------------|
| TOUR 2 | SIGNATURE OF DRILLER<br><b>DAVE LOEWEN</b> | START TIME<br>8:00 | END TIME<br>20:00 |
|--------|--|--------------------|-------------------|

|                          |                         |                          |                        |                           |                           |                           |  |                                 |                                   |                           |                   |                   |                    |                      |              |               |                 |                 |   |  |  |
|--------------------------|-------------------------|--------------------------|------------------------|---------------------------|---------------------------|---------------------------|--|---------------------------------|-----------------------------------|---------------------------|-------------------|-------------------|--------------------|----------------------|--------------|---------------|-----------------|-----------------|---|--|--|
| <b>BITS</b>              |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   |                           |                   |                   |                    |                      |              |               |                 |                 |   |  |  |
| Bit Number<br>1          | Size<br>279             | No<br>1                  | Component<br>279MM BIT | OD<br>279                 | ID<br>1.027               | Mud Type<br>Water         | Water<br><input checked="" type="checkbox"/> | Oil<br><input type="checkbox"/> | Other<br><input type="checkbox"/> | Time<br>08:15             | Depth<br>410.52   | Deviation<br>0.30 | Direction<br>287.8 | Type<br>21           | From<br>8:00 | To<br>8:15    | Elapsed<br>0:15 | Code<br>21      | Details Of Operations In Sequence & Remarks |  |  |
| IADC Code<br>S 4 2 3     | Manufacturer<br>SICOTTE | Type<br>SS516GB          | Serial No<br>12806     | JMS<br>14.3 14.3 14.3     | Depth Out (m)<br>464.00   | Depth In (m)<br>0.00      | Total Drilled (m)<br>464.00                  | Hrs Run Today<br>0.25           | Cumulative Hrs Run<br>5.25        | Entry Date<br>07-Dec-2016 | Time<br>08:30     | Depth<br>410.52   | Deviation<br>0.30  | Direction<br>287.8   | Type<br>21   | From<br>8:15  | To<br>8:30      | Elapsed<br>0:15 | Code<br>21                                  | CREW CHANGE HAND OVER MEETING. DISCUSSED ONGOING TASKS HAZARD ID AND OBSERVATIONS WITH BOTH CREWS.   |  |
| <b>CUTTING STRUCTURE</b> |                         | <b>HOLE CONDITION</b>    |                        | <b>REDUCED PUMP SPEED</b> |                           | <b>BOILER</b>             |  | <b>SAFETY</b>                   |                                   | Time<br>09:15             |                   | Depth<br>9.15     | Deviation<br>0.25  | Direction<br>21      | Type<br>21   | From<br>8:30  | To<br>9:15      | Elapsed<br>0:45 | Code<br>21                                  | DRILL 279MM HOLE FROM 447M - 464M  |  |
| TO<br>1                  | LOG<br>1                | DC<br>0                  | WOB<br>0               | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>1               | Pressure<br>152                              | Strokes/min<br>96               | Depth<br>19000                    | BoilerNo<br>1             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340   | Safety Topic<br>MEHL | MEHL         | From<br>9:15  | To<br>9:30      | Elapsed<br>0:15 | Code<br>21                                  | CIRCULATE HOLE CLEAN PRIOR TO TRIP OUT OF HOLE.  |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>09:30             |                   | Depth<br>9.15     | Deviation<br>0.25  | Direction<br>21      | Type<br>21   | From<br>9:30  | To<br>11:00     | Elapsed<br>1:30 | Code<br>21                                  | SAFETY MEETING HELD PRIOR TO TRIPPING OUT OF HOLE. REVIEWED CTA SECTION 2-4  |  |
| From<br>464.00           | To<br>464.00            | D-R-C<br>DRILL           | RPM<br>70              | WOB<br>11                 | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>2                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>2             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340   | Safety Topic<br>MACP | MACP         | From<br>11:00 | To<br>12:15     | Elapsed<br>1:15 | Code<br>21                                  | TRIP OUT OF HOLE TO RUN CASING   |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>11:00             |                   | Depth<br>11:00    | Deviation<br>1.25  | Direction<br>6D      | Type<br>6D   | From<br>12:15 | To<br>12:45     | Elapsed<br>0:30 | Code<br>7A                                  | LAY DOWN JARS AND M.W.D TOOL. AND GAP SUB. RACK BACK DC'S AND MONELS.  |  |
| From<br>464.00           | To<br>464.00            | D-R-C<br>DRILL           | RPM<br>70              | WOB<br>11                 | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>1                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>1             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340   | Safety Topic<br>MEHL | MEHL         | From<br>12:45 | To<br>13:15     | Elapsed<br>0:30 | Code<br>12A                                 | CLEAN RIG FLOOR PRIOR TO RIGGING UP POWER TONGS.   |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>12:45             |                   | Depth<br>13:15    | Deviation<br>0.50  | Direction<br>12A     | Type<br>12A  | From<br>13:15 | To<br>13:30     | Elapsed<br>0:15 | Code<br>21                                  | RIG UP TO RUN CASING. ELEVATOR CERT# DCE 802   |  |
| From<br>464.00           | To<br>464.00            | D-R-C<br>DRILL           | RPM<br>70              | WOB<br>11                 | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>2                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>2             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340   | Safety Topic<br>MACP | MACP         | From<br>13:30 | To<br>19:00     | Elapsed<br>5:30 | Code<br>12B                                 | SAFETY MEETING HELD PRIOR TO RUNNING CASING. REVIEWED CTA SECTION 4-1  |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>13:30             |                   | Depth<br>19:00    | Deviation<br>5.50  | Direction<br>12B     | Type<br>12B  | From<br>19:00 | To<br>20:00     | Elapsed<br>1:00 | Code<br>5                                   | RUN CASING. RUN 34 JOINTS OF LT&C 219.1MM 41.669KG/M CASING. LAND W/ CASING BOWL HANGER @ 464M TOTAL LENGTH 464.32M( CASING TIGHT RUNNING ALL THE WAY IN HOLE) |  |
| From<br>464.00           | To<br>464.00            | D-R-C<br>DRILL           | RPM<br>70              | WOB<br>11                 | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>1                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>1             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340   | Safety Topic<br>MEHL | MEHL         | From<br>20:00 | To<br>20:00     | Elapsed<br>0:00 | Code<br>5                                   | WORK CASING FREE PRESSURING UP AND HYDRAULICING  |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>19:00             |                   | Depth<br>20:00    | Deviation<br>1.00  | Direction<br>5       | Type<br>5    | From<br>20:00 | To<br>20:00     | Elapsed<br>0:00 | Code<br>5                                   | visually inspected all csg related equip ok rt   |  |

|        |  |                     |                   |
|--------|--|---------------------|-------------------|
| TOUR 3 | SIGNATURE OF DRILLER<br><b>RYAN NEWTON</b> | START TIME<br>20:00 | END TIME<br>24:00 |
|--------|--|---------------------|-------------------|

|                          |                         |                          |                        |                           |                           |                           |  |                                 |                                   |                           |                   |                   |                   |                      |               |               |                 |                 |   |  |  |
|--------------------------|-------------------------|--------------------------|------------------------|---------------------------|---------------------------|---------------------------|--|---------------------------------|-----------------------------------|---------------------------|-------------------|-------------------|-------------------|----------------------|---------------|---------------|-----------------|-----------------|---|--|--|
| <b>BITS</b>              |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   |                           |                   |                   |                   |                      |               |               |                 |                 |   |  |  |
| Bit Number<br>1          | Size<br>279             | No<br>1                  | Component<br>279MM BIT | OD<br>279                 | ID<br>1.027               | Mud Type<br>Water         | Water<br><input checked="" type="checkbox"/> | Oil<br><input type="checkbox"/> | Other<br><input type="checkbox"/> | Time<br>20:00             | Depth<br>21:30    | Deviation<br>1.50 | Direction<br>5    | Type<br>5            | From<br>20:00 | To<br>21:30   | Elapsed<br>1:30 | Code<br>5       | Details Of Operations In Sequence & Remarks |  |  |
| IADC Code<br>S 4 2 3     | Manufacturer<br>SICOTTE | Type<br>SS516GB          | Serial No<br>12806     | JMS<br>14.3 14.3 14.3     | Depth Out (m)<br>464.00   | Depth In (m)<br>0.00      | Total Drilled (m)<br>464.00                  | Hrs Run Today<br>0.25           | Cumulative Hrs Run<br>5.25        | Entry Date<br>07-Dec-2016 | Time<br>21:30     | Depth<br>21:45    | Deviation<br>0.25 | Direction<br>21      | Type<br>21    | From<br>21:30 | To<br>21:45     | Elapsed<br>0:15 | Code<br>21                                  | CONDITION MUD & CIRCULATE  |  |
| <b>CUTTING STRUCTURE</b> |                         | <b>HOLE CONDITION</b>    |                        | <b>REDUCED PUMP SPEED</b> |                           | <b>BOILER</b>             |  | <b>SAFETY</b>                   |                                   | Time<br>21:45             |                   | Depth<br>22:15    | Deviation<br>0.50 | Direction<br>12C     | Type<br>12C   | From<br>21:45 | To<br>22:15     | Elapsed<br>0:30 | Code<br>12C                                 | SAFETY MEETING PRIOR TO CEMENTING CASING   |  |
| TO<br>1                  | LOG<br>1                | DC<br>0                  | WOB<br>0               | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>1               | Pressure<br>152                              | Strokes/min<br>96               | Depth<br>19000                    | BoilerNo<br>1             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340  | Safety Topic<br>MEHL | MEHL          | From<br>22:15 | To<br>22:45     | Elapsed<br>0:30 | Code<br>12C                                 | RIG IN CEMENTERS   |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>22:15             |                   | Depth<br>24:00    | Deviation<br>1.75 | Direction<br>12C     | Type<br>12C   | From<br>22:45 | To<br>24:00     | Elapsed<br>1:15 | Code<br>12C                                 | Pumped 4m 1/2 H2O ahead, 28.67' (25.9m) 1% TSC 1700KG 1% CACL2 2% AFA-6 2% LCM-2. Displaced with 15.10m 1/2 Fresh H2O. Staged last 4m3. Bump Plug 3500 Kpa over FCP. Floats Held 100L flow back. Pressure test casing 1MPa Low, 10000Kpa High for 10 min each. 11m 1/2 cement returns to surface, no fall back annulus. Plug down @ 23:30 Hrs.12/08/2016. Annulus static |  |
| From<br>464.00           | To<br>464.00            | D-R-C<br>DRILL           | RPM<br>70              | WOB<br>11                 | Weight of DC<br>4.00      | Weight of String<br>48.00 | Pump #<br>2                                  | Pressure<br>152                 | Strokes/min<br>96                 | BoilerNo<br>2             | HoursRun<br>12.00 | pH<br>10          | StackTemp<br>340  | Safety Topic<br>MACP | MACP          | From<br>24:00 | To<br>24:00     | Elapsed<br>0:00 | Code<br>5                                   | CEMENTING CASING   |  |
| <b>METRES DRILLED</b>    |                         | <b>DRILLING ASSEMBLY</b> |                        | <b>MUD RECORD</b>         |                           | <b>DEVIATION SURVEYS</b>  |  | <b>TIME LOG</b>                 |                                   | Time<br>24:00             |                   | Depth<br>24:00    | Deviation<br>1.75 | Direction<br>12C     | Type<br>12C   | From<br>24:00 | To<br>24:00     | Elapsed<br>0:00 | Code<br>5                                   | FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS & LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR. INSPECT TONGS & LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS   |  |

|   |   |   |  |                    |                                     |   |  |       |  |
|---|---|---|--|--------------------|-------------------------------------|---|--|-------|--|
| <b>FRONT PAGE SUMMARY</b>                           |   | Tour Sheet Serial Number<br>PREC465 20161208 1B | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>08   | <b>DAILY CHECKS</b>  | OP RM |  |
| License No<br>32575                                 | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6        | Surface Location<br>11-34-81-18 W6              | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well Id<br>103/09-35-81-18W6 | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (on/crow/month)<br>(9) CAODC Rig Safety Inspection Checklist (on/crow/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Motor Vibs Checked |  |       | DS RT<br>DS RT<br>DS RT<br>DS RT<br>DS RT<br>DS RT<br>DS RT<br>DS RT |
| Company<br>ARC Resources Ltd.                       | Contractor<br>Precision Drilling, div of PDC          | Contractor's Job No<br>34                       | Rig No<br>465                                  | Well Type<br>HORIZ | Squad Date Time<br>07-Dec-2016      | 03:45   | (1) Rig Site Health & Safety Meeting (on/crow/month)<br>(2) CAODC Rig Safety Inspection Checklist (on/crow/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Motor Vibs Checked |       |  |
| Signature of Operator's Representative<br>DOUG SHEA | Signature of Contractor's Rig Manager<br>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 |
|--------|--------|--------------|---------|---------|-----------------|-------|--------------|------------|--------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|------------------|
| HOURS  | Rig Up | Drill Actual | Reaming | Coiling | Core Mud & Circ | Trips | Rig Services | 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 |       | Rig              |
| Tour 1 |        | 4.50         |         |         | 1.50            |       | 0.25         |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 1.75           |           |            |           |       | 8.00  | 33744            |
| Tour 2 |        | 0.25         |         |         | 1.75            | 2.75  | 0.50         |            |                    |            |               | 6.00             |                |            |          |                |           |                |         |          |                | 0.75      |            |           |       | 12.00 | 06:00            |
| Tour 3 |        |              |         |         | 1.50            |       |              |            |                    |            |               | 2.25             |                |            |          |                |           |                |         |          |                | 0.25      |            |           |       | 4.00  | OVERCAST         |
| TOTAL  |        | 4.75         |         |         | 4.75            | 2.75  | 0.75         |            |                    |            |               | 8.25             |                |            |          |                |           |                |         |          | 1.75           | 1.00      |            |           |       | 24.00 | FAIR             |

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

|   |   |  |  |   |
|---|---|--|--|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 1<br>Size: 279<br>IADC Code: S 4 2 3<br>Manufacturer: SICOTTE<br>Type: SS516GB<br>Serial No: 12806<br>JMS: 14.3 14.3 14.3<br>Depth Out (m): 447.00<br>Depth In (m): 0.00<br>Total Drilled (m): 447.00<br>Hrs Run Today: 3.75<br>Cumulative Hrs Run: 5.00<br>Entry Date: 07-Dec-2016 | 1 279MM BIT 279 1 0.27<br>1 8" MUD MOTOR 204 1 8.80<br>1 8" CROSSOVER SUB 204 58 0.92<br>1 NON WAG SLICK MONEL 166 71 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 NON WAG SLICK MONEL 166 71 9.39<br>1 6.5" HYDMECH JARS 157 58 5.30<br>3 DRILL COLLAR 165 60 28.43<br>1 X/O SUB 135 58 0.80 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 07:30 271.44 0.50 287.8<br>07:30 299.22 0.90 269.6<br>07:30 327.01 0.60 277.2<br>07:30 354.84 0.80 265.1<br>07:30 382.67 0.10 21.5<br>07:45 410.52 0.30 287.8<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>MUD MATERIALS ADDED<br>Product Amount Type<br>1 PARALLEL 152 96 18000 3.50<br>2 PARALLEL 152 96 18000 3.50 | Time Depth Deviation Direction Type<br>07:30 271.44 0.50 287.8<br>07:30 299.22 0.90 269.6<br>07:30 327.01 0.60 277.2<br>07:30 354.84 0.80 265.1<br>07:30 382.67 0.10 21.5<br>07:45 410.52 0.30 287.8 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>   |
| Kelly Down: -7.36<br>Total: 447.00<br>Weight of DC: 4.00<br>Weight of String: 45.00   | Hole Drag Up: 1 Down: 1<br>Torque At Bottom: 11000<br>Fill On Bottom  | Pump # Pressure Strokes/min Depth<br>1 PARALLEL 152 96 18000 3.50<br>2 PARALLEL 152 96 18000 3.50  | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP  |
| <b>METRES DRILLED</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>   |
| From To D-R-C RPM WOB   | Hole Drag Up: 1 Down: 1<br>Torque At Bottom: 11000<br>Fill On Bottom  | Pump # Pressure Strokes/min Depth<br>1 PARALLEL 152 96 19000<br>2 PARALLEL 152 96 19000  | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP  |

TOUR 2 SIGNATURE OF DRILLER **DAVE LOEWEN** START TIME 8:00 END TIME 20:00

|   |   |  |  |   |
|---|---|--|--|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 1<br>Size: 279<br>IADC Code: S 4 2 3<br>Manufacturer: SICOTTE<br>Type: SS516GB<br>Serial No: 12806<br>JMS: 14.3 14.3 14.3<br>Depth Out (m): 464.00<br>Depth In (m): 0.00<br>Total Drilled (m): 464.00<br>Hrs Run Today: 0.25<br>Cumulative Hrs Run: 5.25<br>Entry Date: 07-Dec-2016 | 1 279MM BIT 279 1 0.27<br>1 8" MUD MOTOR 204 1 8.80<br>1 8" CROSSOVER SUB 204 58 0.92<br>1 NON WAG SLICK MONEL 166 71 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 NON WAG SLICK MONEL 166 71 9.39<br>1 6.5" HYDMECH JARS 157 58 5.30<br>3 DRILL COLLAR 165 60 28.43<br>1 X/O SUB 135 58 0.80 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 07:30 271.44 0.50 287.8<br>07:30 299.22 0.90 269.6<br>07:30 327.01 0.60 277.2<br>07:30 354.84 0.80 265.1<br>07:30 382.67 0.10 21.5<br>07:45 410.52 0.30 287.8<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>MUD MATERIALS ADDED<br>Product Amount Type<br>1 PARALLEL 152 96 18000 3.50<br>2 PARALLEL 152 96 18000 3.50 | Time Depth Deviation Direction Type<br>07:30 271.44 0.50 287.8<br>07:30 299.22 0.90 269.6<br>07:30 327.01 0.60 277.2<br>07:30 354.84 0.80 265.1<br>07:30 382.67 0.10 21.5<br>07:45 410.52 0.30 287.8 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>   |
| Kelly Down: 9.24<br>Total: 464.00<br>Weight of DC: 4.00<br>Weight of String: 48.00  | Hole Drag Up: 1 Down: 1<br>Torque At Bottom: 11000<br>Fill On Bottom  | Pump # Pressure Strokes/min Depth<br>1 PARALLEL 152 96 19000<br>2 PARALLEL 152 96 19000  | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP  |
| <b>METRES DRILLED</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>   |
| From To D-R-C RPM WOB   | Hole Drag Up: 1 Down: 1<br>Torque At Bottom: 11000<br>Fill On Bottom  | Pump # Pressure Strokes/min Depth<br>1 PARALLEL 152 96 19000<br>2 PARALLEL 152 96 19000  | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP  |

TOUR 3 SIGNATURE OF DRILLER **RYAN NEWTON** START TIME 20:00 END TIME 24:00

|   |  |   |  |   |
|---|--|---|--|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number:<br>Size:<br>IADC Code:<br>Manufacturer:<br>Type:<br>Serial No:<br>JMS:<br>Depth Out (m):<br>Depth In (m):<br>Total Drilled (m):<br>Hrs Run Today:<br>Cumulative Hrs Run:<br>Entry Date: | No Component OD ID Length<br>1 279MM BIT 279 1 0.27<br>1 8" MUD MOTOR 204 1 8.80<br>1 8" CROSSOVER SUB 204 58 0.92<br>1 NON WAG SLICK MONEL 166 71 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 NON WAG SLICK MONEL 166 71 9.39<br>1 6.5" HYDMECH JARS 157 58 5.30<br>3 DRILL COLLAR 165 60 28.43<br>1 X/O SUB 135 58 0.80 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 PARALLEL 152 96 18000 3.50<br>2 PARALLEL 152 96 18000 3.50 | Time Depth Deviation Direction Type<br>From To Elapsed Code<br>Details Of Operations In Sequence & Remarks | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>   |
| Kelly Down:<br>Total:<br>Weight of DC:<br>Weight of String:   | Hole Drag Up:<br>Down:<br>Torque At Bottom:<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth   | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP  |
| <b>METRES DRILLED</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>   |
| From To D-R-C RPM WOB   | Hole Drag Up:<br>Down:<br>Torque At Bottom:<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth   | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP  |

| FRONT PAGE SUMMARY |                                   |                                |                     | Tour Sheet Serial Number |    | Vendor Software Version |   | Year           | Month   | Day | DAILY CHECKS   |   | OP RM   |  |
|--------------------|-----------------------------------|--------------------------------|---------------------|--------------------------|----|-------------------------|---|----------------|---|-----|--|---|---|--|
| License No         | Well Name                         | PREC465 20161209 1A            | RMS 2016.6.14.37064 | 2016                     | 12 | 09                      | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Posted If Required<br><input type="checkbox"/> (4) Well Licence & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Baked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (on/crow/month)<br><input type="checkbox"/> (9) CAADC Rig Safety Inspection Checklist (on/crow/month)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Motor Vibs Checked |                | DS: <input type="checkbox"/> FT: <input type="checkbox"/><br>DR: <input type="checkbox"/> RT: <input type="checkbox"/><br>SR: <input type="checkbox"/> TR: <input type="checkbox"/><br>BR: <input type="checkbox"/> FR: <input type="checkbox"/><br>GR: <input type="checkbox"/> HR: <input type="checkbox"/><br>IR: <input type="checkbox"/> LR: <input type="checkbox"/><br>MR: <input type="checkbox"/> NR: <input type="checkbox"/><br>OR: <input type="checkbox"/> PR: <input type="checkbox"/><br>QR: <input type="checkbox"/> RR: <input type="checkbox"/><br>SR: <input type="checkbox"/> TR: <input type="checkbox"/><br>UR: <input type="checkbox"/> VR: <input type="checkbox"/><br>WR: <input type="checkbox"/> XR: <input type="checkbox"/><br>YR: <input type="checkbox"/> ZR: <input type="checkbox"/> |     |  |   |   |  |
| 32575              | ARCRES HZ SEPTIMUS H11-34-81-18W6 | Surface Location               | 11-34-81-18 W6      | Prov                     | BC | Loc Type                | DLS   | Unique Well Id | 103/09-35-81-18W6   |     | (1) Rig Site Health & Safety Meeting (on/crow/month)<br>(2) CAADC Rig Safety Inspection Checklist (on/crow/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Motor Vibs Checked |   | RIG No: 465<br>Well Type: HORIZ<br>Re-Entry: <input type="checkbox"/> |  |
| Company Name       |                                   | Contractor                     |                     | Squad Date Time          |    | Rig Release Date Time   |   |                |   |     |  | Kelly Logging<br>Log Fair<br>5021   |   |  |
| ARC Resources Ltd. |                                   | Precision Drilling, div of PDC |                     | 07-Dec-2016              |    | 03:45                   |   |                |   |     |  | FUEL @ 08:00 HRS<br>Rig 28723 Meter 11641<br>Time 02:00 Temp -28<br>Current conditions<br>WEATHER OVERCAST<br>Wind Direction N Wind Strength UP TO 19 KM/H<br>Road Condition FAIR |   |  |

| Code   | ROD TOMPKINS |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | TOTAL | KELLY LOGGING | LOG FAIR |
|--------|--------------|--------------|---------|--------|-----------------|-------|-------------|------------|--------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|---------------|----------|
|        | 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 | Rig M/P      | Drill Actual | Reaming | Coring | Cond Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drill Line | Dev Survey | Wireline Logs | Run Csg & Cement | Wait On Cement | Nipple BOP | Test BOP | Drillstem Test | Plug Back | Squeeze Cement | Fishing | Dir Work | Safety Meeting | Tear Down | Walking On | Rig Watch | Other | 2.00  |               |          |
| Tour 2 |              |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       |       |               |          |
| Tour 3 |              |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       |       |               |          |
| TOTAL  |              |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 2.00  |               |          |

|        |                      |             |            |      |          |      |
|--------|----------------------|-------------|------------|------|----------|------|
| 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         |                  | 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                         |  |  |  |  |
| Size               |                  |                   |                  |                  |                |        |          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |          |           |           |              | 0:00   | 2:00 | 2:00    | 22   | Prep Rig to Walk to H11-34-81-18W6. Well paused @ 02:00hrs Dec 9/16 |  |  |  |  |
| IADC Code          |                  |                   |                  |                  |                |        | Time     | Density                             | Funnel Viscosity         | Fluid Loss               |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Manufacturer       |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Type               |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Serial No          |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Jets               |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Depth Out (m)      |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Depth In (m)       |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Total Drilled (m)  |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Hrs Run Today      |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Cumulative Hrs Run |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Entry Date         |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| CUTTING STRUCTURE  |                  | Kelly Down        |                  |                  | HOLE CONDITION |        |          | REDUCED PUMP SPEED                  |                          |                          |          | BOILER   |           |           |              | SAFETY |      |         |      |   |  |  |  |  |
| TO                 | Grigs            | TO                | CCC              | Hole Drag        | Up             | Down   | Pump #   | Pressure                            | Strokes/min              | Depth                    | BoilerNo | HoursRun | pH        | StackTemp | Safety Topic | MEHL   | MACP |         |      |   |  |  |  |  |
| MDC                | Ream/Pulse       | MDC               | Ream/Pulse       | Torque At Bottom |                |        |          | @                                   | @                        | @                        | 1        | 2.00     | 10        | 340       |              |        |      |         |      |   |  |  |  |  |
| LOC                | Test Run (inch)  | LOC               | Test Run (inch)  | Fill On Bottom   |                |        |          | @                                   | @                        | @                        | 2        | 2.00     | 10        | 340       |              |        |      |         |      |   |  |  |  |  |
| BRG                | Weight of String | BRG               | Weight of String |                  |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |

|        |                      |              |            |      |          |       |
|--------|----------------------|--------------|------------|------|----------|-------|
| TOUR 2 | SIGNATURE OF DRILLER | ROD TOMPKINS | START TIME | 8:00 | END TIME | 20:00 |
|--------|----------------------|--------------|------------|------|----------|-------|

| BITS               |                  | DRILLING ASSEMBLY |                  |                  | MUD RECORD     |        |          | DEVIATION SURVEYS                   |                          |                          |          | TIME LOG |           |           |              |        |      |         |      |   |  |  |  |  |
|--------------------|------------------|-------------------|------------------|------------------|----------------|--------|----------|-------------------------------------|--------------------------|--------------------------|----------|----------|-----------|-----------|--------------|--------|------|---------|------|---|--|--|--|--|
| Bit Number         |                  | 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 |  |  |  |  |
| Size               |                  |                   |                  |                  |                |        |          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| IADC Code          |                  |                   |                  |                  |                |        | Time     | Density                             | Funnel Viscosity         | Fluid Loss               |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Manufacturer       |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Type               |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Serial No          |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Jets               |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Depth Out (m)      |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Depth In (m)       |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Total Drilled (m)  |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Hrs Run Today      |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Cumulative Hrs Run |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Entry Date         |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| CUTTING STRUCTURE  |                  | Kelly Down        |                  |                  | HOLE CONDITION |        |          | REDUCED PUMP SPEED                  |                          |                          |          | BOILER   |           |           |              | SAFETY |      |         |      |   |  |  |  |  |
| TO                 | Grigs            | TO                | CCC              | Hole Drag        | Up             | Down   | Pump #   | Pressure                            | Strokes/min              | Depth                    | BoilerNo | HoursRun | pH        | StackTemp | Safety Topic | MEHL   | MACP |         |      |   |  |  |  |  |
| MDC                | Ream/Pulse       | MDC               | Ream/Pulse       | Torque At Bottom |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| LOC                | Test Run (inch)  | LOC               | Test Run (inch)  | Fill On Bottom   |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| BRG                | Weight of String | BRG               | Weight of String |                  |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |

|        |                      |              |            |       |          |       |
|--------|----------------------|--------------|------------|-------|----------|-------|
| TOUR 3 | SIGNATURE OF DRILLER | ROD TOMPKINS | START TIME | 20:00 | END TIME | 24:00 |
|--------|----------------------|--------------|------------|-------|----------|-------|

| BITS               |                  | DRILLING ASSEMBLY |                  |                  | MUD RECORD     |        |          | DEVIATION SURVEYS                   |                          |                          |          | TIME LOG |           |           |              |        |      |         |      |   |  |  |  |  |
|--------------------|------------------|-------------------|------------------|------------------|----------------|--------|----------|-------------------------------------|--------------------------|--------------------------|----------|----------|-----------|-----------|--------------|--------|------|---------|------|---|--|--|--|--|
| Bit Number         |                  | 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 |  |  |  |  |
| Size               |                  |                   |                  |                  |                |        |          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| IADC Code          |                  |                   |                  |                  |                |        | Time     | Density                             | Funnel Viscosity         | Fluid Loss               |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Manufacturer       |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Type               |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Serial No          |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Jets               |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Depth Out (m)      |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Depth In (m)       |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Total Drilled (m)  |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Hrs Run Today      |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Cumulative Hrs Run |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| Entry Date         |                  |                   |                  |                  |                |        |          |                                     |                          |                          |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| CUTTING STRUCTURE  |                  | Kelly Down        |                  |                  | HOLE CONDITION |        |          | REDUCED PUMP SPEED                  |                          |                          |          | BOILER   |           |           |              | SAFETY |      |         |      |   |  |  |  |  |
| TO                 | Grigs            | TO                | CCC              | Hole Drag        | Up             | Down   | Pump #   | Pressure                            | Strokes/min              | Depth                    | BoilerNo | HoursRun | pH        | StackTemp | Safety Topic | MEHL   | MACP |         |      |   |  |  |  |  |
| MDC                | Ream/Pulse       | MDC               | Ream/Pulse       | Torque At Bottom |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| LOC                | Test Run (inch)  | LOC               | Test Run (inch)  | Fill On Bottom   |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |
| BRG                | Weight of String | BRG               | Weight of String |                  |                |        |          | @                                   | @                        | @                        |          |          |           |           |              |        |      |         |      |   |  |  |  |  |





|   |   |  |  |                    |                                      |   |                     |          |
|---|---|--|--|--------------------|--------------------------------------|---|---------------------|----------|
| <b>FRONT PAGE SUMMARY</b>                               |   | Tour Sheet Number<br>PREC465 20161222 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                          | Day<br>22   | <b>DAILY CHECKS</b> | OP RM    |
| License No<br>32575                                     | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6        | Surface Location<br>11-34-81-18 W6       | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well ID<br>103/09-35-81-18W6  | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Postcard If Required<br><input type="checkbox"/> (4) Well Licence & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Baked<br><input type="checkbox"/> (6) HCR Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOP's Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Flare Line Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (9) CAODC Rig Safety Inspection Checklist (once/monthly)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Motor Vibs Checked |                     | AL<br>RT |
| Company<br>ARC Resources Ltd.                           | Contractor<br>Precision Drilling, div of PDC          | Contractor's Job No.<br>36               | Well Type<br>465                               | Well Type<br>HORIZ | Re-Entry<br><input type="checkbox"/> |   |                     | AL<br>RT |
| Signature of Operator's Representative<br>ALLAN LUNGLAL | Signature of Contractor's Rig Manager<br>ROD TOMPKINS | Spoil Date Time<br>07-Dec-2016           | Rig Release Date Time<br>03:45                 |                    |                                      |   |                     | AL<br>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 |      |      |   |   | 0.25 |      |   |      |      |    |    |    |    | 1.50 | 1.50 |    |    |    |    |    |    |    |    |    | 0.50  | 8.00             |
| Tour 2 |      | 6.50 |      |   |   | 0.75 | 0.25 |   | 1.00 | 2.75 |    |    |    |    |      |      |    |    |    |    |    |    |    |    |    | 12.00 | 06:00            |
| Tour 3 |      |      | 3.00 |   |   |      | 0.25 |   |      | 0.50 |    |    |    |    |      |      |    |    |    |    |    |    |    |    |    | 4.00  | OVERCAST         |
| TOTAL  | 1.25 | 9.50 |      |   |   | 1.00 | 0.50 |   | 1.00 | 3.25 |    |    |    |    | 1.50 | 1.50 |    |    |    |    |    |    |    |    |    | 0.50  | 24.00            |

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

|  |  |   |   |  |
|--|--|---|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 2<br>Size: 200<br>IADC Code: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>JMS: 7.9, 7.9, 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 464.00<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 0.00<br>Entry Date: 22-Dec-2016 | No. Component: 200<br>OD: 1<br>ID: 0.27<br>Length: 1.871<br>MOTOR 28 S STG: 167<br>NON MAG SLICK MONEL: 166<br>6.5" GAP SUB: 163<br>NON MAG SLICK MONEL: 166<br>HYDMECH JARS: 157<br>DRILL COLLAR: 165<br>X/O SUB: 135<br>4.5" HWDP: 114 | Mud Type: Water<br>Mud Type: Oil<br>Time: 14:15<br>Density: 1155<br>Funnel Viscosity: 30<br>Fluid Loss: 10.5<br>pH: 10.5<br>Location of Sample: SHAKERS<br>Depth: 604.00<br>PVT: 60<br>Circulation: Pump # 1, Type 1, Liner Size 127, SPM 95, Pressure 20000, Hs Run 6.00 | Time: 12:15<br>Depth: 476.03<br>Deviation: 0.60<br>Direction: 216.7<br>Type: 1<br>12:30 464.00 0.56 223<br>12:45 503.85 0.40 198.4<br>13:15 531.72 0.40 180.7<br>13:30 0.00 0.00 0<br>13:30 438.36 0.50 239.3 | From: 0:00 To: 1:30 Elapsed: 1:50 Code: 14A<br>1:30 2:45 1:25 1<br>2:45 3:00 0:25 21<br>3:00 4:15 1:25 15A<br>4:15 4:30 0:25 15B<br>4:30 5:00 0:50 25<br>5:00 5:30 0:50 21F<br>5:30 5:45 0:25 21<br>5:45 7:30 1:75 20D<br>7:30 7:45 0:25 6A<br>7:45 8:00 0:25 21 |

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

|  |   |   |   |   |
|--|---|---|---|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>JMS: 7.9, 7.9, 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 496.00<br>Hrs Run Today: 5.50<br>Cumulative Hrs Run: 5.50<br>Entry Date: 22-Dec-2016 | No. Component: 1<br>OD: 200<br>ID: 1.027<br>Length: 1.871<br>MOTOR 28 S STG: 167<br>NON MAG SLICK MONEL: 166<br>6.5" GAP SUB: 163<br>NON MAG SLICK MONEL: 166<br>HYDMECH JARS: 157<br>DRILL COLLAR: 165<br>X/O SUB: 135<br>4.5" HWDP: 114 | Mud Type: Water<br>Mud Type: Oil<br>Time: 14:15<br>Density: 1155<br>Funnel Viscosity: 30<br>Fluid Loss: 10.5<br>pH: 10.5<br>Location of Sample: SHAKERS<br>Depth: 604.00<br>PVT: 60<br>Circulation: Pump # 1, Type 1, Liner Size 127, SPM 95, Pressure 20000, Hs Run 6.00 | Time: 12:15<br>Depth: 476.03<br>Deviation: 0.60<br>Direction: 216.7<br>Type: 1<br>12:30 464.00 0.56 223<br>12:45 503.85 0.40 198.4<br>13:15 531.72 0.40 180.7<br>13:30 0.00 0.00 0<br>13:30 438.36 0.50 239.3 | From: 8:00 To: 8:45 Elapsed: 0:75 Code: 6A<br>8:45 9:00 0:25 21<br>9:00 10:00 1:00 9<br>10:00 10:15 0:25 7<br>10:15 10:30 0:25 21A<br>10:30 11:30 1:00 2C<br>11:30 17:00 5:50 2<br>17:00 19:45 2:75 10<br>19:45 20:00 0:25 21 |

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

|  |   |  |   |  |
|--|---|--|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 2<br>Size: 200<br>IADC Code: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>JMS: 7.9, 7.9, 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 695.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 8.50<br>Entry Date: 22-Dec-2016 | No. Component: 1<br>OD: 200<br>ID: 1.027<br>Length: 1.871<br>MOTOR 28 S STG: 167<br>NON MAG SLICK MONEL: 166<br>6.5" GAP SUB: 163<br>NON MAG SLICK MONEL: 166<br>HYDMECH JARS: 157<br>DRILL COLLAR: 165<br>X/O SUB: 135<br>4.5" HWDP: 114 | Mud Type: Water<br>Mud Type: Oil<br>Time: 20:00<br>Density: 1170<br>Funnel Viscosity: 30<br>Fluid Loss: 10<br>pH: 10<br>Location of Sample: SHAKER<br>Depth: 957.00<br>PVT: 74<br>Circulation: Pump # 1, Type 1, Liner Size 127, SPM 86, Pressure 18000, Hs Run 6.75 | Time: 20:15<br>Depth: 969.94<br>Deviation: 0.40<br>Direction: 206.3<br>Type: 1<br>20:45 999.08 0.20 123.4<br>21:15 1028.23 0.50 123.2<br>22:00 1075.38 0.20 304.3<br>22:30 1086.61 0.40 59.1<br>23:15 1115.90 0.80 53.3 | From: 20:00 To: 20:15 Elapsed: 0:25 Code: 21A<br>20:15 23:15 3:00 2<br>23:15 23:45 0:50 10<br>23:45 24:00 0:25 7 |

|   |  |   |   |                           |  |   |  |  |
|---|--|---|---|---------------------------|--|---|--|--|
| <b>FRONT PAGE SUMMARY</b>                                     |  | Tour Sheet Number<br><b>PREC465 20161222 1A</b> | Vendor Software Version<br><b>RMS 2016.6.14.37064</b> | Year<br><b>2016</b>       | Month<br><b>12</b>                         | Day<br><b>22</b>  | <b>DAILY CHECKS</b>  | <b>OP RM</b>   |
| License No<br><b>32575</b>                                    | Well Name<br><b>ARCRES HZ SEPTIMUS H11-34-81-18W6</b>        | Surface Location<br><b>11-34-81-18 W6</b>       | Prov<br><b>BC</b>                                     | Loc Type<br><b>DLS</b>    | Unique Well ID<br><b>103/09-35-81-18W6</b> | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted If Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (one/week/month)<br>(9) CAODC Rig Safety Inspection Checklist (one/week/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Motor Vibs Checked |  | AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>RT<br>RT<br>RT |
| Company<br><b>ARC Resources Ltd.</b>                          | Contractor<br><b>Precision Drilling, div of PDC</b>          | Contractor's Job No.<br><b>36</b>               | Rig No<br><b>465</b>                                  | Well Type<br><b>HORIZ</b> | Squad Date Time<br><b>07-Dec-2016</b>      | 03:45   | (1) Rig Site Health & Safety Meeting (one/week/month)<br>(2) CAODC Rig Safety Inspection Checklist (one/week/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Motor Vibs Checked |  |
| Signature of Operator's Representative<br><b>ALLAN LUNGLA</b> | Signature of Contractor's Rig Manager<br><b>ROD TOMPKINS</b> |   |   |                           |  |   |  |  |



| 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 | 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   | Weather          |                                |
| Tour 1 | 1.25   |              |         |         |                 | 0.25  |             |            |                    |            |               |                  |                |            | 1.50     | 1.50           |           |                |         |          |                |           |            |           | 0.50  | 8.00  | 34573            | 8421                           |
| Tour 2 |        | 6.50         |         |         |                 | 0.75  | 0.25        |            | 1.00               | 2.75       |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 12.00 | 06:00            | -2                             |
| Tour 3 |        | 3.00         |         |         |                 | 0.25  |             |            |                    | 0.50       |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 4.00  | OVERCAST         | Wind Direction<br>E            |
| TOTAL  | 1.25   | 9.50         |         |         |                 | 1.00  | 0.50        |            | 1.00               | 3.25       |               |                  |                | 1.50       | 1.50     |                |           |                |         |          |                |           |            |           | 0.50  | 24.00 | FAIR             | Wind Strength<br>UP TO 19 KM/H |

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

|   |   |   |   |   |
|---|---|---|---|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: <b>2</b><br>Size: <b>200</b><br>IADC Code: <b>200</b><br>Manufacturer: <b>BAKER</b><br>Type: <b>BHT705FX</b><br>Serial No: <b>7161176</b><br>Jts: <b>7.9 7.9 7.9</b><br>Depth Out (m): <b>464.00</b><br>Total Drilled (m): <b>464.00</b><br>Hrs Run Today: <b>0.00</b><br>Cumulative Hrs Run: <b>0.00</b><br>Entry Date: <b>22-Dec-2016</b> | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 28 S STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.72<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.23 | Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 95 20000 6.00<br>2 127 95 20000 6.00 | Time Depth Deviation Direction Type<br>13:45 560.92 0.20 159.5<br>14:15 590.13 0.20 44.9<br>14:45 619.24 0.20 61<br>15:00 648.33 0.10 175<br>15:30 677.65 0.10 107.8<br>16:00 706.88 0.10 287.8 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: <input type="checkbox"/> Gage<br>MOC: <input type="checkbox"/> CUC<br>LOC: <input type="checkbox"/> Reson Pulse<br>BRG: <input type="checkbox"/> Test Run (h) 90.18   | Kelly Down: <input type="checkbox"/><br>Torque At Bottom: <input type="checkbox"/><br>Fill On Bottom: <input type="checkbox"/><br>Hole Drag Up: <b>0</b> Down: <b>0</b><br>Torque At Bottom: <b>8000</b><br>Fill On Bottom: <input type="checkbox"/>  | Pump # Pressure Strokes/min Depth<br>2 1790 @ 50 @ 600.00<br>1 1900 @ 50 @ 750.00   | BoilerNo HoursRun pH StackTemp  | MEHL MACP   |
| TOUR <b>2</b> SIGNATURE OF DRILLER <b>BRENDEAN PREVOST</b> START TIME <b>8:00</b> END TIME <b>20:00</b>   |   |   |   |   |

|   |   |   |   |   |
|---|---|---|---|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: <b>2</b><br>Size: <b>200</b><br>IADC Code: <b>200</b><br>Manufacturer: <b>BAKER</b><br>Type: <b>BHT705FX</b><br>Serial No: <b>7161176</b><br>Jts: <b>7.9 7.9 7.9</b><br>Depth Out (m): <b>464.00</b><br>Total Drilled (m): <b>496.00</b><br>Hrs Run Today: <b>5.50</b><br>Cumulative Hrs Run: <b>5.50</b><br>Entry Date: <b>22-Dec-2016</b> | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 28 S STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.72<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.23 | Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 95 20000 6.00<br>2 127 95 20000 6.00 | Time Depth Deviation Direction Type<br>13:45 560.92 0.20 159.5<br>14:15 590.13 0.20 44.9<br>14:45 619.24 0.20 61<br>15:00 648.33 0.10 175<br>15:30 677.65 0.10 107.8<br>16:00 706.88 0.10 287.8 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: <input type="checkbox"/> Gage<br>MOC: <input type="checkbox"/> CUC<br>LOC: <input type="checkbox"/> Reson Pulse<br>BRG: <input type="checkbox"/> Test Run (h) 90.18   | Kelly Down: <input type="checkbox"/><br>Torque At Bottom: <input type="checkbox"/><br>Fill On Bottom: <input type="checkbox"/><br>Hole Drag Up: <b>0</b> Down: <b>0</b><br>Torque At Bottom: <b>8000</b><br>Fill On Bottom: <input type="checkbox"/>  | Pump # Pressure Strokes/min Depth<br>2 1790 @ 50 @ 600.00<br>1 1900 @ 50 @ 750.00   | BoilerNo HoursRun pH StackTemp  | MEHL MACP   |
| TOUR <b>3</b> SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME <b>20:00</b> END TIME <b>24:00</b>   |   |   |   |   |

|   |   |   |   |   |
|---|---|---|---|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: <b>2</b><br>Size: <b>200</b><br>IADC Code: <b>200</b><br>Manufacturer: <b>BAKER</b><br>Type: <b>BHT705FX</b><br>Serial No: <b>7161176</b><br>Jts: <b>7.9 7.9 7.9</b><br>Depth Out (m): <b>464.00</b><br>Total Drilled (m): <b>695.00</b><br>Hrs Run Today: <b>3.00</b><br>Cumulative Hrs Run: <b>8.50</b><br>Entry Date: <b>22-Dec-2016</b> | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 28 S STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.72<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.23 | Mud Type: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 PARALLEL 127 86 18000 6.75<br>2 PARALLEL 127 86 18000 6.75 | Time Depth Deviation Direction Type<br>4:00 1170 1140 1745<br>4:00 1170 1140 1745 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: <input type="checkbox"/> Gage<br>MOC: <input type="checkbox"/> CUC<br>LOC: <input type="checkbox"/> Reson Pulse<br>BRG: <input type="checkbox"/> Test Run (h) 81.76   | Kelly Down: <input type="checkbox"/><br>Torque At Bottom: <input type="checkbox"/><br>Fill On Bottom: <input type="checkbox"/><br>Hole Drag Up: <b>1</b> Down: <b>1</b><br>Torque At Bottom: <b>7800</b><br>Fill On Bottom: <input type="checkbox"/>  | Pump # Pressure Strokes/min Depth<br>1 5050 @ 95 @ 955.00   | BoilerNo HoursRun pH StackTemp  | MEHL MACP   |
| TOUR <b>3</b> SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME <b>20:00</b> END TIME <b>24:00</b>   |   |   |   |   |



|   |   |  |  |                    |                                     |                                      |  |  |
|---|---|--|--|--------------------|-------------------------------------|--------------------------------------|--|--|
| <b>FRONT PAGE SUMMARY</b>                             |   | Tour Sheet Number<br>PREC465 20161222 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>22                            | <b>DAILY CHECKS</b>  | <b>OP RM</b>   |
| License No<br>32575                                   | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6        | Surface Location<br>11-34-81-18 W6       | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well ID<br>103/09-35-81-18W6 | Re-Entry<br><input type="checkbox"/> | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Postcard If Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Staked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Major Valve Checked | AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT |
| Company<br>ARC Resources Ltd.                         | Contractor<br>Precision Drilling, div of PDC          | Contractor's Job No.<br>36               | Rig No<br>465                                  | Well Type<br>HORIZ | Squad Date Time<br>07-Dec-2016      | Rig Release Date Time<br>03:45       | (1) Rig Site Health & Safety Meeting (one/crew/month)<br>(2) CAODC Rig Safety Inspection Checklist (one/crew/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Major Valve Checked  | RT<br>RT<br>RT<br>RT<br>RT<br>RT<br>RT<br>RT                         |
| Signature of Operator's Representative<br>ALLAN LUNGA | Signature of Contractor's Rig Manager<br>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 |
|--------|--------|--------------|---------|---------|-----------------|-------|-------------|------------|-----------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|------------------|
| HOURS  | Rig Up | Drill Actual | Reaming | Coiling | Cond Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drilling 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   |                  |
| Tour 1 | 1.25   |              |         |         |                 | 0.25  |             |            |                       |            |               |                  |                |            | 1.50     | 1.50           |           |                |         |          | 1.75           | 1.25      |            |           |       | 0.50  | 8.00             |
| Tour 2 |        | 6.50         |         |         |                 | 0.75  | 0.25        |            | 1.00                  | 2.75       |               |                  |                |            |          |                |           |                |         |          |                | 0.75      |            |           |       |       | 12.00            |
| Tour 3 |        | 3.00         |         |         |                 | 0.25  |             |            |                       | 0.50       |               |                  |                |            |          |                |           |                |         |          |                | 0.25      |            |           |       |       | 4.00             |
| TOTAL  | 1.25   | 9.50         |         |         |                 | 1.00  | 0.50        |            | 1.00                  | 3.25       |               |                  |                | 1.50       | 1.50     |                |           |                |         |          | 1.75           | 2.25      |            |           |       | 0.50  | 24.00            |

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

|   |  |   |  |   |
|---|--|---|--|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code:<br>Manufacturer: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>Jars: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m):<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 0.00<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 218 5 STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.73<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.23 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other <input type="checkbox"/><br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 95 20000 6.00<br>2 127 95 20000 6.00 | Time Depth Deviation Direction Type<br>16:30 736.08 0.10 174.5<br>17:00 765.36 0.30 127.7<br>17:30 794.63 0.40 17.8<br>18:00 824.02 0.60 266.5<br>18:30 853.16 0.40 248.9<br>19:00 882.42 0.30 253.3 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>   |
| TO: 10<br>MOC:<br>LOC:<br>BRG:<br>Kally Down:<br>Total: 960.00<br>Weight of DC: 6.00<br>Weight of String: 58.00   | Hole Drag Up 0 Down 0<br>Torque At Bottom 8000<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 1790 @ 50 @ 600.00<br>1 1900 @ 50 @ 750.00   | BoilerNo HoursRun pH StackTemp   | MEHL 3209 MACP  |
| TOUR 2 SIGNATURE OF DRILLER <b>BRENDEAN PREVOST</b>   |  |   |  | START TIME 8:00 END TIME 20:00                                      |

|  |  |   |  |   |
|--|--|---|--|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code:<br>Manufacturer: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>Jars: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 496.00<br>Hrs Run Today: 5.50<br>Cumulative Hrs Run: 5.50<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 218 5 STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.73<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.23 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other <input type="checkbox"/><br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 95 20000 6.00<br>2 127 95 20000 6.00 | Time Depth Deviation Direction Type<br>16:30 736.08 0.10 174.5<br>17:00 765.36 0.30 127.7<br>17:30 794.63 0.40 17.8<br>18:00 824.02 0.60 266.5<br>18:30 853.16 0.40 248.9<br>19:00 882.42 0.30 253.3 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>   |
| TO: 10<br>MOC:<br>LOC:<br>BRG:<br>Kally Down:<br>Total: 960.00<br>Weight of DC: 6.00<br>Weight of String: 58.00  | Hole Drag Up 0 Down 0<br>Torque At Bottom 8000<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 1790 @ 50 @ 600.00<br>1 1900 @ 50 @ 750.00   | BoilerNo HoursRun pH StackTemp   | MEHL 3164 MACP  |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b>   |  |   |  | START TIME 20:00 END TIME 24:00                                     |

|  |  |   |   |   |
|--|--|---|---|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code:<br>Manufacturer: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>Jars: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 695.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 8.50<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 218 5 STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.73<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.23 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other <input type="checkbox"/><br>Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 PARALLEL 127 86 18000 6.75<br>2 PARALLEL 127 86 18000 6.75 | Time Depth Deviation Direction Type<br>4:00 1170 1140 1745<br>4:00 1170 1140 1745 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: 10<br>MOC:<br>LOC:<br>BRG:<br>Kally Down:<br>Total: 1159.00<br>Weight of DC: 6.00<br>Weight of String: 65.00   | Hole Drag Up 1 Down 1<br>Torque At Bottom 7800<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>1 5050 @ 95 @ 955.00   | BoilerNo HoursRun pH StackTemp  | MEHL 3164 MACP  |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b>   |  |   |   | START TIME 20:00 END TIME 24:00                                     |

|  |  |  |  |                    |                                      |  |                     |  |
|--|--|--|--|--------------------|--------------------------------------|--|---------------------|--|
| <b>FRONT PAGE SUMMARY</b>                |  | Tour Sheet Number<br>PREC465 20161222 1A           | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                          | Day<br>22  | <b>DAILY CHECKS</b> | OP RM  |
| License No<br>32575                      | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6 | Surface Location<br>11-34-81-18 W6                 | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well ID<br>103/09-35-81-18W6  | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted If Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Staked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) BOP Tests Performed<br>(9) Rig Site Health & Safety Meeting (one/week/month)<br>(10) CAODC Rig Safety Inspection Checklist (one/week/month)<br>(11) Mast Inspection before Raising or Lowering<br>(12) Crown Saver Checked<br>(13) Motor Vibs Checked |                     | AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT |
| Company<br>ARC Resources Ltd.            | Contractor<br>Precision Drilling, div of PDC   | Contractor's Job No<br>36                          | Rig No<br>465                                  | Well Type<br>HORIZ | Re-Entry<br><input type="checkbox"/> | (1) Rig Site Health & Safety Meeting (one/week/month)<br>(2) CAODC Rig Safety Inspection Checklist (one/week/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Motor Vibs Checked   |                     | AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT<br>AL RT                   |
| Operator's Representative<br>ALLAN LUNGA | Contractor's Representative<br>ROD TOMPKINS    | Signature of Operator's Rig Manager<br>07-Dec-2016 | Signature of Contractor's Rig Manager<br>03:45 | Rig Release Date   |                                      |  |                     |  |



| 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 | Coiling | Cond Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drilling 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 | Rig   | Temp             | Wind Direction | Wind Strength |       |   |          |               |  |
| Tour 1 | 1.25   |              |         |         |                 | 0.25  |             |            |                       |            |               |                  |                |            | 1.50     | 1.50           |           |                |         |          | 1.75           | 1.25      |            |           |       | 0.50  | 8.00             | 34573          | 8421          | 06:00 | 2 | OVERCAST | UP TO 19 KM/H |  |
| Tour 2 |        | 6.50         |         |         |                 | 0.75  | 0.25        |            | 1.00                  | 2.75       |               |                  |                |            |          |                |           |                |         |          |                | 0.75      |            |           |       |       | 12.00            |                |               |       |   |          |               |  |
| Tour 3 |        |              | 3.00    |         |                 |       | 0.25        |            |                       | 0.50       |               |                  |                |            |          |                |           |                |         |          |                | 0.25      |            |           |       |       | 4.00             |                |               |       |   |          |               |  |
| TOTAL  | 1.25   | 9.50         |         |         |                 | 1.00  | 0.50        |            | 1.00                  | 3.25       |               |                  |                |            | 1.50     | 1.50           |           |                |         |          |                | 1.75      | 2.25       |           |       |       | 0.50             | 24.00          |               |       |   |          |               |  |

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

|  |  |   |   |   |
|--|--|---|---|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code:<br>Manufacturer: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>Jts: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m):<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 0.00<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 218 5 STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 62.7<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.2 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 95 20000 6.00<br>2 127 95 20000 6.00 | Time Depth Deviation Direction Type<br>19:15 911.60 0.10 227.4<br>20:00 940.78 0.40 212.7 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: 1<br>MOC: 1<br>LOC: 1<br>BRG: 1<br>Kelly Down: 1<br>Tear: 1<br>Weight of DC: 6.00<br>Weight of String: 58.00   | Hole Drag Up 0 Down 0<br>Torque At Bottom 8000<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 1790 @ 50 @ 600.00<br>1 1900 @ 50 @ 750.00   | BoilerNo HoursRun pH StackTemp  | MEHL 3209 MACP  |
| TOUR 2 SIGNATURE OF DRILLER <b>BRENDEAN PREVOST</b> START TIME 8:00 END TIME 20:00   | Remarks: FUNCTION ALL BOP EQUIP OK RT FUNCTION CROWN SAVER UPPER /LOWER TRAVEL STOPS & LIMITS ,MCWS,DRILL LINE & DRILL LINE ANCHOR,INSPECT TONGS AND LINES,IRON ROUGH NECK,SLIPS,ELEVATORS,DOG COLLARS,FUNCTION CHOKE,FLARE IGNITOR,MANIFOLD VALVES AND LINES.   |   |   |   |



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

|   |  |   |   |   |
|---|--|---|---|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code:<br>Manufacturer: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>Jts: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 496.00<br>Hrs Run Today: 5.50<br>Cumulative Hrs Run: 5.50<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 218 5 STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 62.7<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.2 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 95 20000 6.00<br>2 127 95 20000 6.00 | Time Depth Deviation Direction Type<br>19:15 911.60 0.10 227.4<br>20:00 940.78 0.40 212.7 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: 1<br>MOC: 1<br>LOC: 1<br>BRG: 1<br>Kelly Down: 1<br>Tear: 1<br>Weight of DC: 6.00<br>Weight of String: 58.00  | Hole Drag Up 0 Down 0<br>Torque At Bottom 8000<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 1790 @ 50 @ 600.00<br>1 1900 @ 50 @ 750.00   | BoilerNo HoursRun pH StackTemp  | MEHL 3164 MACP  |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME 20:00 END TIME 24:00  | 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

|   |  |   |   |   |
|---|--|---|---|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code:<br>Manufacturer: BAKER<br>Type: BHT705FX<br>Serial No: 7161176<br>Jts: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Total Drilled (m): 695.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 8.50<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 218 5 STG 167 1 8.71<br>1 NON MAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON MAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 62.7<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.2 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 127 86 18000 6.75<br>2 127 86 18000 6.75 | Time Depth Deviation Direction Type<br>4:00 1170 1140 1745<br>4:00 1170 1140 1745 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: 1<br>MOC: 1<br>LOC: 1<br>BRG: 1<br>Kelly Down: 1<br>Tear: 1<br>Weight of DC: 6.00<br>Weight of String: 65.00  | Hole Drag Up 1 Down 1<br>Torque At Bottom 7800<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>1 5050 @ 95 @ 955.00   | BoilerNo HoursRun pH StackTemp  | MEHL 3164 MACP  |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME 20:00 END TIME 24:00  | 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 3 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME 20:00 END TIME 24:00

|   |   |   |  |                    |                                      |   |                     |   |  |
|---|---|---|--|--------------------|--------------------------------------|---|---------------------|---|--|
| <b>FRONT PAGE SUMMARY</b>                               |   | Tour Sheet Serial Number<br>PREC465 20161223 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                          | Day<br>23   | <b>DAILY CHECKS</b> | OP RM   |  |
| License No<br>32575                                     | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6        | Surface Location<br>11-34-81-18 W6              | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well Id<br>103/09-35-81-18W6  | Run Date<br>21-Dec-2016   | Run Time<br>23:30   | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Disabled Inspection - Weekly (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Posted if Required<br><input type="checkbox"/> (4) Well License & Block Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Baked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (9) CAODC Rig Safety Inspection Checklist (once/week/month)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Motor Vibs Checked | AL RT<br>AL RT<br>AL RT<br>AL RT<br>RT<br>RT<br>RT |
| Company<br>ARC Resources Ltd.                           | Contractor<br>Precision Drilling, div of PDC          | Contractor Job No<br>36                         | Contractor Job No<br>465                       | Well Type<br>HORIZ | Re-Entry<br><input type="checkbox"/> |   |                     |   |  |
| Signature of Operator's Representative<br>ALLAN LUNGLAL | Signature of Contractor's Rig Manager<br>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 | Conc Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Dring Line | Dev Survey | Wireline Logs | Ran Csg & 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 |       | Rig              | Weather          |                             |
| Tour 1 |        | 6.50         |         |         |                 |       | 0.25        |            |                    | 1.00       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 8.00  | 29786            | 6758             |                             |
| Tour 2 |        | 10.25        |         |         |                 |       | 0.25        |            |                    | 1.00       |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       | 12.00 | 06:00            | 19               |                             |
| Tour 3 |        | 3.25         |         |         |                 |       | 0.25        |            |                    | 0.50       |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 4.00  | OVERCAST         |                  |                             |
| TOTAL  |        | 20.00        |         |         |                 |       | 0.75        |            |                    | 2.50       |               |                  |                |            |          |                |           |                |         |          | 0.75           |           |            |           |       | 24.00 | WEATHER FAIR     | Wind Direction E | Wind Strength UP TO 19 KM/H |

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

| BIT NUMBER | SIZE | IADC CODE | MANUFACTURER | TYPE     | SERIAL NO | JTS         | DEPTH OUT (M) | DEPTH IN (M) | TOTAL DRILLED (M) | HRS RUN TODAY | CUMULATIVE HRS RUN | ENTRY DATE  | DRILLING ASSEMBLY |           | MUD RECORD |    | DEVIATION SURVEYS |          | TIME LOG |      |      |       |           |           |      |                                       |      |         |      |      |   |  |
|------------|------|-----------|--------------|----------|-----------|-------------|---------------|--------------|-------------------|---------------|--------------------|-------------|-------------------|-----------|------------|----|-------------------|----------|----------|------|------|-------|-----------|-----------|------|---------------------------------------|------|---------|------|------|---|--|
|            |      |           |              |          |           |             |               |              |                   |               |                    |             | NO                | COMPONENT | OD         | ID | LENGTH            | MUD TYPE | WATER    | GEL  | TIME | DEPTH | DEVIATION | DIRECTION | TYPE | FROM                                  | TO   | ELAPSED | CODE |      |   |  |
| 2          | 200  |           | BAKER        | BHT705FX | 7161176   | 7.9 7.9 7.9 | 1412.00       | 464.00       | 948.00            | 6.50          | 15.00              | 22-Dec-2016 | 1                 | 200MM BIT | 200        | 1  | 0.27              | 00:00    | 1145.11  | 0.70 | 47.8 | 0:00  | 5:00      | 5:00      | 2    | DRILL 200MM HOLE FROM 1159M TO 1364M. |      |         |      |      |   |  |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |                                       | 6:00 | 6:00    | 1:00 | 40   | ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS. |  |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |                                       |      | 6:00    | 6:15 | 0:25 | 7   | RIG SERVICE, FUNCTION ANNUAL (22 SECONDS TO CLOSE).                                    |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |                                       |      | 6:15    | 7:45 | 1:50 | 2   | DRILL 200MM HOLE FROM 1364M TO 1412M.  |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |                                       |      | 7:45    | 8:00 | 0:25 | 21  | CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER, ARC REPRESENTATIVES & RIG CREWS. |

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

| BIT NUMBER | SIZE | IADC CODE | MANUFACTURER | TYPE     | SERIAL NO | JTS         | DEPTH OUT (M) | DEPTH IN (M) | TOTAL DRILLED (M) | HRS RUN TODAY | CUMULATIVE HRS RUN | ENTRY DATE  | DRILLING ASSEMBLY |           | MUD RECORD |    | DEVIATION SURVEYS |          | TIME LOG |      |      |       |           |           |      |   |    |         |       |       |    |   |
|------------|------|-----------|--------------|----------|-----------|-------------|---------------|--------------|-------------------|---------------|--------------------|-------------|-------------------|-----------|------------|----|-------------------|----------|----------|------|------|-------|-----------|-----------|------|---|----|---------|-------|-------|----|---|
|            |      |           |              |          |           |             |               |              |                   |               |                    |             | NO                | COMPONENT | OD         | ID | LENGTH            | MUD TYPE | WATER    | GEL  | TIME | DEPTH | DEVIATION | DIRECTION | TYPE | FROM  | TO | ELAPSED | CODE  |       |    |   |
| 2          | 200  |           | BAKER        | BHT705FX | 7161176   | 7.9 7.9 7.9 | 1412.00       | 464.00       | 1125.00           | 10.25         | 25.25              | 22-Dec-2016 | 1                 | 200MM BIT | 200        | 1  | 0.27              | 08:40    | 1408.15  | 0.70 | 90.1 | 8:00  | 8:15      | 0:25      | 21A  | MONTHLY FIRE DRILL WITH CREW, DISCUSSED CREW POSITIONS, WELL CONTROL AND FIRE PREVENTION. |    |         |       |       |    |   |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |   |    | 8:15    | 18:30 | 10:25 | 2  | DRILL 200MM HOLE FROM 1412M - 1589M.                                  |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |   |    | 18:30   | 18:45 | 0:25  | 7  | RIG SERVICE, FUNCTION UPPER PIPE RAMS, 5 SECONDS TO CLOSE.            |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |   |    | 18:45   | 19:45 | 1:00  | 10 | ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.             |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |   |    | 19:45   | 20:00 | 0:25  | 21 | HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP. |

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

| BIT NUMBER | SIZE | IADC CODE | MANUFACTURER | TYPE     | SERIAL NO | JTS         | DEPTH OUT (M) | DEPTH IN (M) | TOTAL DRILLED (M) | HRS RUN TODAY | CUMULATIVE HRS RUN | ENTRY DATE  | DRILLING ASSEMBLY |           | MUD RECORD |    | DEVIATION SURVEYS |          | TIME LOG |      |      |       |           |           |      |                                      |    |         |       |      |    |  |
|------------|------|-----------|--------------|----------|-----------|-------------|---------------|--------------|-------------------|---------------|--------------------|-------------|-------------------|-----------|------------|----|-------------------|----------|----------|------|------|-------|-----------|-----------|------|--------------------------------------|----|---------|-------|------|----|--|
|            |      |           |              |          |           |             |               |              |                   |               |                    |             | NO                | COMPONENT | OD         | ID | LENGTH            | MUD TYPE | WATER    | GEL  | TIME | DEPTH | DEVIATION | DIRECTION | TYPE | FROM                                 | TO | ELAPSED | CODE  |      |    |  |
| 2          | 200  |           | BAKER        | BHT705FX | 7161176   | 7.9 7.9 7.9 | 1412.00       | 464.00       | 1191.00           | 3.25          | 28.50              | 22-Dec-2016 | 1                 | 200MM BIT | 200        | 1  | 0.27              | 20:30    | 1583.35  | 2.70 | 12.4 | 20:00 | 23:15     | 3:25      | 2    | DRILL 200MM HOLE FROM 1589M - 1655M. |    |         |       |      |    |  |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |                                      |    | 23:15   | 23:45 | 0:50 | 10 | ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.  |
|            |      |           |              |          |           |             |               |              |                   |               |                    |             |                   |           |            |    |                   |          |          |      |      |       |           |           |      |                                      |    | 23:45   | 24:00 | 0:25 | 7  | RIG SERVICE, FUNCTION LOWER PIPE RAMS, 5 SECONDS TO CLOSE. |

|   |   |   |  |                    |                                     |                                     |   |  |
|---|---|---|--|--------------------|-------------------------------------|-------------------------------------|---|--|
| <b>FRONT PAGE SUMMARY</b>                               |   | Tour Sheet Serial Number<br>PREC465 20161223 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>23                           | <b>DAILY CHECKS</b>   | OP RM  |
| License No<br>32575                                     | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6        | Surface Location<br>11-34-81-18 W6              | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well Id<br>103/09-35-81-18W6 | ReEntry<br><input type="checkbox"/> | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weighy (Using Check List)<br>(3) H2S Signs Postcard If Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Scaled<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines | AL RT<br>AL RT<br>AL RT<br>AL RT<br>RT<br>RT |
| Company<br>ARC Resources Ltd.                           | Contractor<br>Precision Drilling, div of PDC          | Company Job No.<br>36                           | Rig No<br>465                                  | Well Type<br>HORIZ | Spoil Date Time<br>21-Dec-2016      | 23:30                               | (1) Rig Site Health & Safety Meeting (on/crew/month)<br>(2) CADCOC Rig Safety Inspection Checklist (on/crew/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Motor Vibs Checked   | RT<br>RT                                     |
| Signature of Operator's Representative<br>ALLAN LUNGLAL | Signature of Contractor's Rig Manager<br>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 | Coiling | Core Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drilling 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         | Weather             |
| Tour 1 |        | 6.50         |         |         |                 |       | 0.25        |            |                       | 1.00       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 8.00  | 29786            | 6758                |
| Tour 2 |        | 10.25        |         |         |                 |       | 0.25        |            |                       | 1.00       |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       | 12.00 | 06:00            | 19                  |
| Tour 3 |        | 3.25         |         |         |                 |       | 0.25        |            |                       | 0.50       |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 4.00  | OVERCAST         |                     |
| TOTAL  |        | 20.00        |         |         |                 |       | 0.75        |            |                       | 2.50       |               |                  |                |            |          |                |           |                |         |          | 0.75           |           |            |           |       | 24.00 | FAIR             | Wind Direction<br>E |

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

|   |  |   |  |   |
|---|--|---|--|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code: BAKER<br>Manufacturer: BHT705FX<br>Type: 7161176<br>Serial No: 7.9 7.9 7.9<br>JMS: 7.9 7.9 7.9<br>Depth Out (m): 1412.00<br>Depth In (m): 464.00<br>Total Drilled (m): 948.00<br>Hrs Run Today: 6.50<br>Cumulative Hrs Run: 15.00<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 78 S STG 167 1 8.71<br>1 NON WAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON WAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.72<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.2 | Mud Type: Water<br>Time: 05:15<br>Density: 1170<br>Funnel Viscosity: 30<br>Fluid Loss: 10<br>pH: 10<br>Location Of Sample: SHAKER<br>Depth: 1349.00<br>PVT: 57<br>Circulation: Pump # 1 Type PARALLEL Liner Size 127 SPM 78 Pressure 14600 Hrs Run 6.75<br>2 PARALLEL 127 78 14600 6.75 | Time Depth Deviation Direction Type<br>05:00 1320.55 0.70 210.5<br>05:45 1349.72 0.70 196<br>07:00 1378.86 0.50 198.3                                  | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>SOLIDS CONTROL</b>  | <b>MUD MATERIALS ADDED</b>  |
| MOC: 63.20<br>LDC: 63.20<br>BRS: 63.20  | Kelly Down: -11.15<br>Total: 1412.00<br>Weight of DC: 6.00<br>Weight of String: 67.00  | Pump # Pressure Strokes/min Depth<br>1 3720 @ 78 @ 1189.00<br>2 3850 @ 78 @ 1333.00   | Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 8.00 1170 1140 1745<br>Centrifuge #2 8.00 1170 1140 1745 | Product Amount Type   |
| <b>METRES DRILLED</b>   | <b>BOILER</b>  | <b>REMARKS</b>  | <b>SAFETY</b>  | <b>REVIEW RECENT INCIDENTS</b>                                      |
| From To D-R-C RPM WOB   | BoilerNo HoursRun pH StackTemp   | 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  | MEHL 3209 MACP   | 70  |

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

|   |  |  |  |   |
|---|--|--|--|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code: BAKER<br>Manufacturer: BHT705FX<br>Type: 7161176<br>Serial No: 7.9 7.9 7.9<br>JMS: 7.9 7.9 7.9<br>Depth Out (m): 464.00<br>Depth In (m): 1125.00<br>Total Drilled (m): 10.25<br>Hrs Run Today: 25.25<br>Cumulative Hrs Run: 25.25<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 78 S STG 167 1 8.71<br>1 NON WAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON WAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.72<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.2 | Mud Type: Water<br>Time: 18:45<br>Density: 1180<br>Funnel Viscosity: 11<br>Fluid Loss: 11<br>pH: 11<br>Location Of Sample: SHAKER<br>Depth: 1180<br>PVT: 1145<br>Circulation: Pump # 1 Type COBBED Liner Size 127 SPM 78 Pressure 15200 Hrs Run 11.00<br>2 COBBED 127 78 15200 11.00 | Time Depth Deviation Direction Type<br>18:45 1545.35 1.60 11.3   | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>  | <b>SOLIDS CONTROL</b>  | <b>MUD MATERIALS ADDED</b>  |
| MOC: 44.55<br>LDC: 44.55<br>BRS: 44.55  | Kelly Down: -9.35<br>Total: 1589.00<br>Weight of DC: 6.00<br>Weight of String: 69.00   | Pump # Pressure Strokes/min Depth<br>1 3750 @ 78 @ 1460.00<br>2 3750 @ 78 @ 1460.00  | Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 12.00 1180 1145 1800<br>Centrifuge #2 12.00 1180 1145 1750 | Product Amount Type   |
| <b>METRES DRILLED</b>   | <b>BOILER</b>  | <b>REMARKS</b>   | <b>SAFETY</b>  | <b>WEEKLY FOCUS</b>   |
| From To D-R-C RPM WOB   | BoilerNo HoursRun pH StackTemp   | 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   | MEHL 3209 MACP   | 75  |

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

|  |  |   |  |   |
|--|--|---|--|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 2<br>Size: 200<br>IADC Code: BAKER<br>Manufacturer: BHT705FX<br>Type: 7161176<br>Serial No: 7.9 7.9 7.9<br>JMS: 7.9 7.9 7.9<br>Depth Out (m): 1655.00<br>Depth In (m): 464.00<br>Total Drilled (m): 1191.00<br>Hrs Run Today: 3.25<br>Cumulative Hrs Run: 28.50<br>Entry Date: 22-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 78 S STG 167 1 8.71<br>1 NON WAG SLICK MONEL 166 71 9.34<br>1 6.5" GAP SUB 163 1 1.68<br>2 NON WAG SLICK MONEL 166 71 18.62<br>1 6.5" HYDMECH JARS 157 58 5.30<br>6 DRILL COLLAR 165 60 56.72<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 445.2 | Mud Type: Water<br>Time: 4:00<br>Density: 1160<br>Funnel Viscosity: 11<br>Fluid Loss: 11<br>pH: 11<br>Location Of Sample: SHAKER<br>Depth: 1160<br>PVT: 1140<br>Circulation: Pump # 1 Type PARALLEL Liner Size 127 SPM 78 Pressure 13800 Hrs Run 3.50<br>2 PARALLEL 127 78 13800 3.50 | Time Depth Deviation Direction Type<br>4:00 1160 1140 1750<br>4:00 1160 1140 1750  | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>SOLIDS CONTROL</b>  | <b>MUD MATERIALS ADDED</b>  |
| MOC: 41.79<br>LDC: 41.79<br>BRS: 41.79   | Kelly Down: -1.47<br>Total: 1655.00<br>Weight of DC: 6.00<br>Weight of String: 69.00   | Pump # Pressure Strokes/min Depth<br>1 3640 @ 78 @ 1628.00<br>2 3640 @ 78 @ 1628.00   | Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 4.00 1160 1140 1750<br>Centrifuge #2 4.00 1160 1140 1750 | Product Amount Type   |
| <b>METRES DRILLED</b>  | <b>BOILER</b>  | <b>REMARKS</b>  | <b>SAFETY</b>  | <b>FIRE DRILL</b>   |
| From To D-R-C RPM WOB  | BoilerNo HoursRun pH StackTemp   | 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  | MEHL 3209 MACP   | 75  |

|  |  |  |   |                           |  |  |                     |  |
|--|--|--|---|---------------------------|--|--|---------------------|--|
| <b>FRONT PAGE SUMMARY</b>                                    |  | Tour Sheet Serial Number<br><b>PREC465 20161224 1A</b> | Vendor Software Version<br><b>RMS 2016.6.14.37064</b> | Year<br><b>2016</b>       | Month<br><b>12</b>                         | Day<br><b>24</b>   | <b>DAILY CHECKS</b> | OP RM  |
| License No<br><b>32575</b>                                   | Well Name<br><b>ARCRES HZ SEPTIMUS H11-34-81-18W6</b>        | Surface Location<br><b>11-34-81-18 W6</b>              | Prov<br><b>BC</b>                                     | Loc Type<br><b>DLS</b>    | Unique Well Id<br><b>103/09-35-81-18W6</b> | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted If Required<br>(4) Well License & Block Diagram Posted<br>(5) Flare Lines Staked<br>(6) ROP Tests Performed<br>(7) Visually Inspected BOP-Flare Lines & Degasser Lines<br>(8) ROP Tests Performed<br>(9) Rig Site Health & Safety Meeting (once/week/month)<br>(10) CADCDC Rig Safety Inspection Checklist (once/monthly)<br>(11) Mast Inspection before Raising or Lowering<br>(12) Crown Saver Checked<br>(13) Major Risks Checked |                     | AL RT<br>AL RT<br>AL RT<br>AL RT<br>RT<br>RT |
| Company<br><b>ARC Resources Ltd.</b>                         | Contractor<br><b>Precision Drilling, div of PDC</b>          | Company Job No.<br><b>36</b>                           | Rig No<br><b>465</b>                                  | Well Type<br><b>HORIZ</b> | ReEntry<br><input type="checkbox"/>        |  |                     | RT   |
| Signature of Operator's Representative<br><b>ALLAN LUNGL</b> | Signature of Contractor's Rig Manager<br><b>ROD TOMPKINS</b> | Spoil Date Time<br><b>21-Dec-2016</b>                  | Rig Release Date Time<br><b>23:30</b>                 |                           |  |  |                     | 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 |      |   |   |   | 0.25 | 3.50 |      |   |   |      |    |    |    |    |    |    |    |    |    |    | 3.50 | 0.75 |    |    |    | 8.00  | 24999<br>4787   |
| Tour 2 | 6.75 |   |   |   | 0.25 | 2.25 | 0.25 |   |   | 2.25 |    |    |    |    |    |    |    |    |    |    |      |      |    |    |    | 12.00 | 06:00<br>-13  |
| Tour 3 | 3.00 |   |   |   |      | 0.25 |      |   |   | 0.75 |    |    |    |    |    |    |    |    |    |    |      |      |    |    |    | 4.00  | OVERCAST<br>Wind Direction<br>E<br>Wind Strength<br>UP TO 19 KM/H |
| TOTAL  | 9.75 |   |   |   | 0.50 | 5.75 | 0.50 |   |   | 3.00 |    |    |    |    |    |    |    |    |    |    | 3.50 | 1.00 |    |    |    | 24.00 | WEATHER<br>FAIR   |

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

|  |  |   |   |  |
|--|--|---|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 3<br>Size: 200<br>IADC Code: 12861981<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>JMS: 7.9, 7.9, 7.9, 7.9<br>Depth Out (m): 1655.00<br>Total Drilled (m): 0.00<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 0.00<br>Entry Date: 24-Dec-2016 | 1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 7/8 S STG 167 1 9.19<br>1 6.5" NON MAG PONY 162 72 1.55<br>1 6.5" NON MAG FLEX MONEL 163 72 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 6.5" UBHO SUB 156 65 0.92<br>1 6.5" NON MAG FLEX MONEL 163 72 27.31<br>1 6.5" HYDMECH JARS 157 58 5.30<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 46.23 | Mud Type: Water<br>Mud Weight: 11.45<br>pH: 10.5<br>Strokes/min: 69<br>Pressure: 127<br>Hs Run: 15000 | Time: 11:45, 12:45, 13:45, 14:30, 15:15, 16:00<br>Depth: 1654.37, 1663.95, 1673.67, 1683.19, 1692.76, 1702.28<br>Deviation: 1.00, 3.10, 6.10, 8.30, 9.40, 10.90<br>Direction: 57.4, 114.8, 123.7, 128.1, 129.9, 133.9 | From: 0:00 To: 0:15 Elapsed: 0:25 Code: 21<br>0:15 To: 0:30 Elapsed: 0:25 Code: 5<br>0:30 To: 3:00 Elapsed: 2:50 Code: 6B<br>3:00 To: 3:30 Elapsed: 0:50 Code: 6D<br>3:30 To: 3:45 Elapsed: 0:25 Code: 21<br>3:45 To: 7:15 Elapsed: 3:50 Code: 20D<br>7:15 To: 7:45 Elapsed: 0:50 Code: 6A<br>7:45 To: 8:00 Elapsed: 0:25 Code: 21 |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>  |
| TO: 3<br>CT: 3<br>LCL: 7<br>BRS: 15.26   | Hole Drag: 2<br>Up: 3<br>Down: 3<br>Torque At Bottom: 7400   | Pump # 1 Pressure 3700 Strokes/min 69 Depth 1755.00   | BoilerNo 1 HoursRun 8.00 pH 10.5 StackTemp 340  | TRIPPING MEHL 78 3209 MACP   |

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

|  |  |   |   |  |
|--|--|---|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 3<br>Size: 200<br>IADC Code: 12861981<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>JMS: 7.9, 7.9, 7.9, 7.9<br>Depth Out (m): 1655.00<br>Total Drilled (m): 103.00<br>Hrs Run Today: 6.75<br>Cumulative Hrs Run: 6.75<br>Entry Date: 24-Dec-2016 | 1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 7/8 S STG 167 1 9.19<br>1 6.5" NON MAG PONY 162 72 1.55<br>1 6.5" NON MAG FLEX MONEL 163 72 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 6.5" UBHO SUB 156 65 0.92<br>1 6.5" NON MAG FLEX MONEL 163 72 27.31<br>1 6.5" HYDMECH JARS 157 58 5.30<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 46.23 | Mud Type: Water<br>Mud Weight: 11.45<br>pH: 10.5<br>Strokes/min: 69<br>Pressure: 127<br>Hs Run: 15000 | Time: 11:45, 12:45, 13:45, 14:30, 15:15, 16:00<br>Depth: 1654.37, 1663.95, 1673.67, 1683.19, 1692.76, 1702.28<br>Deviation: 1.00, 3.10, 6.10, 8.30, 9.40, 10.90<br>Direction: 57.4, 114.8, 123.7, 128.1, 129.9, 133.9 | From: 8:00 To: 10:15 Elapsed: 2:25 Code: 6A<br>10:15 To: 10:30 Elapsed: 0:25 Code: 5<br>10:30 To: 17:15 Elapsed: 6:45 Code: 2<br>17:15 To: 19:30 Elapsed: 2:25 Code: 10<br>19:30 To: 19:45 Elapsed: 0:25 Code: 7<br>19:45 To: 20:00 Elapsed: 0:25 Code: 21 |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>  |
| TO: 3<br>CT: 3<br>LCL: 7<br>BRS: 15.26   | Hole Drag: 2<br>Up: 3<br>Down: 3<br>Torque At Bottom: 7400   | Pump # 1 Pressure 3700 Strokes/min 69 Depth 1755.00   | BoilerNo 1 HoursRun 12.00 pH 10.5 StackTemp 340   | TRIPPING MEHL 77 3118 MACP   |

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

|  |  |   |  |  |
|--|--|---|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 3<br>Size: 200<br>IADC Code: 12861981<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>JMS: 7.9, 7.9, 7.9, 7.9<br>Depth Out (m): 1655.00<br>Total Drilled (m): 141.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 9.75<br>Entry Date: 24-Dec-2016 | 1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR 7/8 S STG 167 1 9.19<br>1 6.5" NON MAG PONY 162 72 1.55<br>1 6.5" NON MAG FLEX MONEL 163 72 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 6.5" UBHO SUB 156 65 0.92<br>1 6.5" NON MAG FLEX MONEL 163 72 27.31<br>1 6.5" HYDMECH JARS 157 58 5.30<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 46.23 | Mud Type: Water<br>Mud Weight: 11.50<br>pH: 10<br>Strokes/min: 69<br>Pressure: 127<br>Hs Run: 13400 | Time: 20:15, 21:15, 22:00, 22:00, 23:30<br>Depth: 1750.26, 1759.78, 1769.34, 1778.20<br>Deviation: 22.90, 25.10, 27.60, 29.50<br>Direction: 130.3, 128.7, 129, 131.6 | From: 20:00 To: 23:00 Elapsed: 3:00 Code: 2<br>23:00 To: 23:45 Elapsed: 0:45 Code: 10<br>23:45 To: 24:00 Elapsed: 0:25 Code: 7 |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>  |
| TO: 3<br>CT: 3<br>LCL: 7<br>BRS: 14.46   | Hole Drag: 2<br>Up: 3<br>Down: 3<br>Torque At Bottom: 1796.00  | Pump # 1 Pressure 3830 Strokes/min 69 Depth 1755.00   | BoilerNo 1 HoursRun 4.00 pH 10.5 StackTemp 340   | WORKING THROUGH HOLIDAYS MEHL 80 3073 MACP   |



|  |  |  |  |                                     |  |           |                     |  |
|--|--|--|--|-------------------------------------|--|-----------|---------------------|--|
| <b>FRONT PAGE SUMMARY</b>                |  | Tour Sheet Serial Number<br>PREC465 20161224 1A      | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016                        | Month<br>12  | Day<br>24 | <b>DAILY CHECKS</b> | <b>OP RM</b>   |
| License No<br>32575                      | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6 | Surface Location<br>11-34-81-18 W6                   | Prov<br>DLS                                    | Unique Well Id<br>103/09-35-81-18W6 | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Staked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CAODC Rig Safety Inspection Checklist (once/monthly)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Major Valve Checked |           |                     | AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT   |
| Company<br>ARC Resources Ltd.            | Contractor<br>Precision Drilling, div of PDC   | Contractor's Job No<br>36                            | Rig No<br>465                                  | Well Type<br>HORIZ                  | (1) Rig Site Health & Safety Meeting (once/week/month)<br>(2) CAODC Rig Safety Inspection Checklist (once/monthly)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Major Valve Checked   |           |                     | AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT<br>AL<br>RT   |
| Operator's Representative<br>ALLAN LUNGL | Contractor's Representative<br>ROD TOMPKINS    | Signature of Contractor's Rig Manager<br>21-Dec-2016 | Rig Release Date Time<br>23:30                 |                                     |  |           |                     | (1) Rig Site Health & Safety Meeting (once/week/month)<br>(2) CAODC Rig Safety Inspection Checklist (once/monthly)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Major Valve Checked |



| Code   | TOUR 1 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> |              |         |         |                 |       |             |            |                       |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | TOTAL | FUEL @ 08:00 HRS | WEATHER |       |     |          |                     |                                |
|--------|--|--------------|---------|---------|-----------------|-------|-------------|------------|-----------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|------------------|---------|-------|-----|----------|---------------------|--------------------------------|
|        | Rig MP   | Drill Actual | Reaming | Coiling | Cond 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 |       |                  |         |       |     |          |                     |                                |
| Tour 1 |  |              |         |         | 0.25            | 3.50  |             |            |                       |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 8.00  | 24999            | 4787    | 06:00 | -13 | OVERCAST | Wind Direction<br>E | Wind Strength<br>UP TO 19 KM/H |
| Tour 2 |  | 6.75         |         |         | 0.25            | 2.25  | 0.25        |            |                       |            | 2.25          |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 12.00 |                  |         |       |     |          |                     |                                |
| Tour 3 |  | 3.00         |         |         |                 | 0.25  |             |            |                       |            | 0.75          |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 4.00  |                  |         |       |     |          |                     |                                |
| TOTAL  |  | 9.75         |         |         | 0.50            | 5.75  | 0.50        |            |                       |            | 3.00          |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 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   | TOUR 2 SIGNATURE OF DRILLER <b>BRENDEAN PREVOST</b> |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
|---|---|------------|-------------------|--|---|-----------------------|---|-----------|-----|---|------|---|----------------------|-----|---|------|---|-------------------|-----|----|------|---|-------------------------|-----|----|------|---|--------------|-----|---|------|---|---------------|-----|----|------|---|-------------------------|-----|----|-------|---|-------------------|-----|----|------|---|---------|-----|----|------|----|-----------|-----|----|-------|--|--|------|-------|-----------|-----------|------|-------|---------|-------|-------|--|-------|---------|-------|-------|--|-------|---------|-------|-------|--|-------|---------|-------|-------|--|-------|---------|-------|-------|--|---|------|----|---------|------|---|--|--|--|--|--|--|
|   |   |            |                   |  | START TIME <b>8:00</b>                              | END TIME <b>20:00</b> |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| Bit Number: 3<br>Size: 200<br>IADC Code: 1<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>Jct: 7.9, 7.9, 7.9, 7.9<br>Depth Out (m): 1655.00<br>Total Drilled (m): 0.00<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 0.00<br>Entry Date: 24-Dec-2016 | <table border="1"> <tr><th>No</th><th>Component</th><th>OD</th><th>ID</th><th>Length</th></tr> <tr><td>1</td><td>200MM BIT</td><td>200</td><td>1</td><td>0.27</td></tr> <tr><td>1</td><td>6.5" MOTOR TIB 5 STG</td><td>167</td><td>1</td><td>9.19</td></tr> <tr><td>1</td><td>6.5" NON MAG PONY</td><td>162</td><td>72</td><td>1.55</td></tr> <tr><td>1</td><td>6.5" NON MAG FLEX MODEL</td><td>163</td><td>72</td><td>9.24</td></tr> <tr><td>1</td><td>6.5" GAP SUB</td><td>163</td><td>1</td><td>1.68</td></tr> <tr><td>1</td><td>6.5" UBHO SUB</td><td>156</td><td>65</td><td>0.92</td></tr> <tr><td>3</td><td>6.5" NON MAG FLEX MODEL</td><td>163</td><td>72</td><td>27.31</td></tr> <tr><td>1</td><td>6.5" HYDMECH JARS</td><td>157</td><td>58</td><td>5.30</td></tr> <tr><td>1</td><td>X/O SUB</td><td>135</td><td>58</td><td>0.80</td></tr> <tr><td>48</td><td>4.5" HWDP</td><td>114</td><td>73</td><td>462.3</td></tr> </table> | No         | Component         | OD   | ID  | Length                | 1 | 200MM BIT | 200 | 1 | 0.27 | 1 | 6.5" MOTOR TIB 5 STG | 167 | 1 | 9.19 | 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 | 3 | 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 | 462.3 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 18:45<br>Density: 1160<br>Funnel Viscosity: 30<br>Fluid Loss: 10.5<br>pH: 10.5<br>Location Of Sample: SUCTION<br>Depth: 1740.00<br>PVT: 57<br>Circulation: Pump # 1 Type 127 Pressure 69 SPM 15000 Hs Run 9.00<br>Pump # 2 Type 127 Pressure 69 SPM 15000 Hs Run 9.00 | <table border="1"> <tr><th>Time</th><th>Depth</th><th>Deviation</th><th>Direction</th><th>Type</th></tr> <tr><td>16:45</td><td>1711.79</td><td>12.40</td><td>133.5</td><td></td></tr> <tr><td>17:00</td><td>1702.28</td><td>10.90</td><td>133.9</td><td></td></tr> <tr><td>18:00</td><td>1721.50</td><td>14.80</td><td>131.5</td><td></td></tr> <tr><td>18:45</td><td>1731.16</td><td>17.80</td><td>130.3</td><td></td></tr> <tr><td>19:45</td><td>1740.76</td><td>20.30</td><td>130.4</td><td></td></tr> </table> | Time | Depth | Deviation | Direction | Type | 16:45 | 1711.79 | 12.40 | 133.5 |  | 17:00 | 1702.28 | 10.90 | 133.9 |  | 18:00 | 1721.50 | 14.80 | 131.5 |  | 18:45 | 1731.16 | 17.80 | 130.3 |  | 19:45 | 1740.76 | 20.30 | 130.4 |  | <table border="1"> <tr><th>From</th><th>To</th><th>Elapsed</th><th>Code</th><th>Details Of Operations In Sequence &amp; Remarks</th></tr> <tr><td></td><td></td><td></td><td></td><td>FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS &amp; LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS &amp; LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES</td></tr> </table> | 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 | Remarks:<br>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 |
| No  | Component   | OD         | ID                | Length   |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 1   | 200MM BIT   | 200        | 1                 | 0.27   |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 1   | 6.5" MOTOR TIB 5 STG  | 167        | 1                 | 9.19   |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 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   |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 3   | 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                | 462.3  |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| Time  | Depth   | Deviation  | Direction         | Type   |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 16:45   | 1711.79   | 12.40      | 133.5             |  |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 17:00   | 1702.28   | 10.90      | 133.9             |  |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 18:00   | 1721.50   | 14.80      | 131.5             |  |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 18:45   | 1731.16   | 17.80      | 130.3             |  |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 19:45   | 1740.76   | 20.30      | 130.4             |  |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 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 |   |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |

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

| BITS  | DRILLING ASSEMBLY   | MUD RECORD | DEVIATION SURVEYS | TIME LOG   | TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
|---|---|------------|-------------------|--|--|-----------------------|---|-----------|-----|---|------|---|----------------------|-----|---|------|---|-------------------|-----|----|------|---|-------------------------|-----|----|------|---|--------------|-----|---|------|---|---------------|-----|----|------|---|-------------------------|-----|----|-------|---|-------------------|-----|----|------|---|---------|-----|----|------|----|-----------|-----|----|-------|--|--|------|-------|-----------|-----------|------|-------|---------|-------|-------|--|-------|---------|-------|-------|--|-------|---------|-------|-------|--|-------|---------|-------|-------|--|-------|---------|-------|-------|--|---|------|----|---------|------|---|--|--|--|--|--|--|
|   |   |            |                   |  | START TIME <b>20:00</b>                        | END TIME <b>24:00</b> |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| Bit Number: 3<br>Size: 200<br>IADC Code: 1<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>Jct: 7.9, 7.9, 7.9, 7.9<br>Depth Out (m): 1655.00<br>Total Drilled (m): 103.00<br>Hrs Run Today: 6.75<br>Cumulative Hrs Run: 6.75<br>Entry Date: 24-Dec-2016 | <table border="1"> <tr><th>No</th><th>Component</th><th>OD</th><th>ID</th><th>Length</th></tr> <tr><td>1</td><td>200MM BIT</td><td>200</td><td>1</td><td>0.27</td></tr> <tr><td>1</td><td>6.5" MOTOR TIB 5 STG</td><td>167</td><td>1</td><td>9.19</td></tr> <tr><td>1</td><td>6.5" NON MAG PONY</td><td>162</td><td>72</td><td>1.55</td></tr> <tr><td>1</td><td>6.5" NON MAG FLEX MODEL</td><td>163</td><td>72</td><td>9.24</td></tr> <tr><td>1</td><td>6.5" GAP SUB</td><td>163</td><td>1</td><td>1.68</td></tr> <tr><td>1</td><td>6.5" UBHO SUB</td><td>156</td><td>65</td><td>0.92</td></tr> <tr><td>3</td><td>6.5" NON MAG FLEX MODEL</td><td>163</td><td>72</td><td>27.31</td></tr> <tr><td>1</td><td>6.5" HYDMECH JARS</td><td>157</td><td>58</td><td>5.30</td></tr> <tr><td>1</td><td>X/O SUB</td><td>135</td><td>58</td><td>0.80</td></tr> <tr><td>48</td><td>4.5" HWDP</td><td>114</td><td>73</td><td>462.3</td></tr> </table> | No         | Component         | OD   | ID   | Length                | 1 | 200MM BIT | 200 | 1 | 0.27 | 1 | 6.5" MOTOR TIB 5 STG | 167 | 1 | 9.19 | 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 | 3 | 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 | 462.3 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 18:45<br>Density: 1160<br>Funnel Viscosity: 30<br>Fluid Loss: 10.5<br>pH: 10.5<br>Location Of Sample: SUCTION<br>Depth: 1740.00<br>PVT: 57<br>Circulation: Pump # 1 Type 127 Pressure 69 SPM 15000 Hs Run 9.00<br>Pump # 2 Type 127 Pressure 69 SPM 15000 Hs Run 9.00 | <table border="1"> <tr><th>Time</th><th>Depth</th><th>Deviation</th><th>Direction</th><th>Type</th></tr> <tr><td>16:45</td><td>1711.79</td><td>12.40</td><td>133.5</td><td></td></tr> <tr><td>17:00</td><td>1702.28</td><td>10.90</td><td>133.9</td><td></td></tr> <tr><td>18:00</td><td>1721.50</td><td>14.80</td><td>131.5</td><td></td></tr> <tr><td>18:45</td><td>1731.16</td><td>17.80</td><td>130.3</td><td></td></tr> <tr><td>19:45</td><td>1740.76</td><td>20.30</td><td>130.4</td><td></td></tr> </table> | Time | Depth | Deviation | Direction | Type | 16:45 | 1711.79 | 12.40 | 133.5 |  | 17:00 | 1702.28 | 10.90 | 133.9 |  | 18:00 | 1721.50 | 14.80 | 131.5 |  | 18:45 | 1731.16 | 17.80 | 130.3 |  | 19:45 | 1740.76 | 20.30 | 130.4 |  | <table border="1"> <tr><th>From</th><th>To</th><th>Elapsed</th><th>Code</th><th>Details Of Operations In Sequence &amp; Remarks</th></tr> <tr><td></td><td></td><td></td><td></td><td>FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS &amp; LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS &amp; LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES</td></tr> </table> | 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 | Remarks:<br>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 |
| No  | Component   | OD         | ID                | Length   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 1   | 200MM BIT   | 200        | 1                 | 0.27   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 1   | 6.5" MOTOR TIB 5 STG  | 167        | 1                 | 9.19   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 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   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 3   | 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                | 462.3  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| Time  | Depth   | Deviation  | Direction         | Type   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 16:45   | 1711.79   | 12.40      | 133.5             |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 17:00   | 1702.28   | 10.90      | 133.9             |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 18:00   | 1721.50   | 14.80      | 131.5             |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 18:45   | 1731.16   | 17.80      | 130.3             |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 19:45   | 1740.76   | 20.30      | 130.4             |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 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 |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |  |      |       |           |           |      |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |       |         |       |       |  |   |      |    |         |      |   |  |  |  |  |  |  |

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

| BITS  | DRILLING ASSEMBLY   | MUD RECORD | DEVIATION SURVEYS | TIME LOG   | TOUR 4 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
|---|---|------------|-------------------|--|--|-----------------------|---|-----------|-----|---|------|---|----------------------|-----|---|------|---|-------------------|-----|----|------|---|-------------------------|-----|----|------|---|--------------|-----|---|------|---|---------------|-----|----|------|---|-------------------------|-----|----|-------|---|-------------------|-----|----|------|---|---------|-----|----|------|----|-----------|-----|----|-------|--|---|------|-------|-----------|-----------|------|------|------|------|------|--|------|------|------|------|--|---|------|----|---------|------|---|--|--|--|--|--|--|
|   |   |            |                   |  | START TIME <b>08:00</b>                        | END TIME <b>13:00</b> |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| Bit Number: 3<br>Size: 200<br>IADC Code: 1<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>Jct: 7.9, 7.9, 7.9, 7.9<br>Depth Out (m): 1655.00<br>Total Drilled (m): 141.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 9.75<br>Entry Date: 24-Dec-2016 | <table border="1"> <tr><th>No</th><th>Component</th><th>OD</th><th>ID</th><th>Length</th></tr> <tr><td>1</td><td>200MM BIT</td><td>200</td><td>1</td><td>0.27</td></tr> <tr><td>1</td><td>6.5" MOTOR TIB 5 STG</td><td>167</td><td>1</td><td>9.19</td></tr> <tr><td>1</td><td>6.5" NON MAG PONY</td><td>162</td><td>72</td><td>1.55</td></tr> <tr><td>1</td><td>6.5" NON MAG FLEX MODEL</td><td>163</td><td>72</td><td>9.24</td></tr> <tr><td>1</td><td>6.5" GAP SUB</td><td>163</td><td>1</td><td>1.68</td></tr> <tr><td>1</td><td>6.5" UBHO SUB</td><td>156</td><td>65</td><td>0.92</td></tr> <tr><td>3</td><td>6.5" NON MAG FLEX MODEL</td><td>163</td><td>72</td><td>27.31</td></tr> <tr><td>1</td><td>6.5" HYDMECH JARS</td><td>157</td><td>58</td><td>5.30</td></tr> <tr><td>1</td><td>X/O SUB</td><td>135</td><td>58</td><td>0.80</td></tr> <tr><td>44</td><td>4.5" HWDP</td><td>114</td><td>73</td><td>462.3</td></tr> </table> | No         | Component         | OD   | ID   | Length                | 1 | 200MM BIT | 200 | 1 | 0.27 | 1 | 6.5" MOTOR TIB 5 STG | 167 | 1 | 9.19 | 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 | 3 | 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 | 44 | 4.5" HWDP | 114 | 73 | 462.3 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 18:45<br>Density: 1160<br>Funnel Viscosity: 30<br>Fluid Loss: 10.5<br>pH: 10.5<br>Location Of Sample: SUCTION<br>Depth: 1740.00<br>PVT: 57<br>Circulation: Pump # 1 Type 127 Pressure 69 SPM 13400 Hs Run 3.50<br>Pump # 2 Type 127 Pressure 69 SPM 13400 Hs Run 3.50 | <table border="1"> <tr><th>Time</th><th>Depth</th><th>Deviation</th><th>Direction</th><th>Type</th></tr> <tr><td>4:00</td><td>1150</td><td>1140</td><td>1745</td><td></td></tr> <tr><td>4:00</td><td>1150</td><td>1140</td><td>1745</td><td></td></tr> </table> | Time | Depth | Deviation | Direction | Type | 4:00 | 1150 | 1140 | 1745 |  | 4:00 | 1150 | 1140 | 1745 |  | <table border="1"> <tr><th>From</th><th>To</th><th>Elapsed</th><th>Code</th><th>Details Of Operations In Sequence &amp; Remarks</th></tr> <tr><td></td><td></td><td></td><td></td><td>FUNCTION CROWN SAVER UPPER/LOWER TRAVEL STOPS &amp; LIMITS, MCWS, DRILL LINE AND DRILL LINE ANCHOR, INSPECT TONGS &amp; LINES, IRON ROUGHNECK, SLIPS, ELEVATORS, DOG COLLARS, FUNCTION CHOKE, FLARE STACK IGNITOR, MANIFOLD VALVES AND LINES</td></tr> </table> | 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 | Remarks:<br>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 |
| No  | Component   | OD         | ID                | Length   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 1   | 200MM BIT   | 200        | 1                 | 0.27   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 1   | 6.5" MOTOR TIB 5 STG  | 167        | 1                 | 9.19   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 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   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 3   | 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   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 44  | 4.5" HWDP   | 114        | 73                | 462.3  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| Time  | Depth   | Deviation  | Direction         | Type   |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 4:00  | 1150  | 1140       | 1745              |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 4:00  | 1150  | 1140       | 1745              |  |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |
| 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 |  |                       |   |           |     |   |      |   |                      |     |   |      |   |                   |     |    |      |   |                         |     |    |      |   |              |     |   |      |   |               |     |    |      |   |                         |     |    |       |   |                   |     |    |      |   |         |     |    |      |    |           |     |    |       |  |   |      |       |           |           |      |      |      |      |      |  |      |      |      |      |  |   |      |    |         |      |   |  |  |  |  |  |  |

TOUR 4 SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME **08:00** END TIME **13:00**

|                               |  |  |  |   |  |  |             |           |                     |    |       |    |
|-------------------------------|--|--|--|---|--|--|-------------|-----------|---------------------|----|-------|----|
| <b>FRONT PAGE SUMMARY</b>     |  |  |  | Tour Sheet Number<br>PREC465 20161225 1A            | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016   | Month<br>12 | Day<br>25 | <b>DAILY CHECKS</b> |    | OP RM |    |
| License No<br>32575           | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6 | Contractor<br>Precision Drilling, div of PDC | Provision<br>11-34-81-18 W6                          | Pro<br>DLS  | Unique Well ID<br>10309-35-81-18W6             | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Posted if Required<br><input type="checkbox"/> (4) Well Licence & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Staked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (9) CADC Rig Safety Inspection Checklist (once/week/month)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Major Risks Checked |             | AL        | RT                  | AL | RT    |    |
| Company<br>ARC Resources Ltd. | Company Job No.<br>16DR10084                   | Contractor Job No.<br>36                     | Signature of Contractor's Rig Manager<br>ALLAN LUNGL | Signature of Operator's Rig Manager<br>ROD TOMPKINS | Spud Date Time<br>21-Dec-2016                  | 23:30  |             |           | 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 |
|--------|-------|---|---|---|---|------|------|---|---|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|------------------|---------|
| Rig Up |       |   |   |   |   |      |      |   |   |    |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 8.00  | 38651            | 4856    |
| Tour 1 | 6.50  |   |   |   |   |      | 0.25 |   |   |    | 1.00 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 12.00 | 06:00            | 121     |
| Tour 2 | 8.25  |   |   |   |   |      | 0.25 |   |   |    | 3.25 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4.00  | 06:00            | 121     |
| Tour 3 | 2.50  |   |   |   |   | 0.25 |      |   |   |    | 0.50 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 24.00 | 06:00            | 121     |
| TOTAL  | 17.25 |   |   |   |   | 0.25 |      |   |   |    | 4.75 |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 24.00 | 06:00            | 121     |

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<br>3           | Size<br>200                 | No<br>1           | Component<br>200MM BIT            | OD<br>200          | ID<br>1.027   | Mud Type<br>Water            | Water<br><input type="checkbox"/> | Oil<br><input type="checkbox"/> | From<br>0:00 | To<br>5:15 | Elapsed<br>5:15 | Code<br>10          | Details of Operations in Sequence & Remarks |   |  |
| IADC Code                 | Manufacturer<br>HALIBURTON  | No<br>1           | Component<br>6.5" MOTOR TIB 5 STG | OD<br>167          | ID<br>1.919   | Time<br>09:45                | Water<br>02:30                    |                                 | 0:00         | 5:15       | 5:15            | 10:00               | 2   | DRILL 200MM HOLE IN BUILD SECTION FROM 1796M - 1833M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE, LINE UP SLIDES AND CONNECTIONS. |  |
| Type<br>MMD64M            | Serial No<br>12861981       | No<br>1           | Component<br>6.5" NON MAG PONY    | OD<br>162          | ID<br>1.55    | Density<br>1150              | 1155                              |                                 | 0:00         | 5:15       | 5:15            | 10:00               | 7   | RIG SERVICE, FUNCTION ANNUAL, 22 SECONDS TO CLOSE.  |  |
| Jct<br>7.9 7.9 7.9        | Depth Out (m)<br>1850.00    | No<br>1           | Component<br>6.5" GAP SUB         | OD<br>163          | ID<br>1.68    | Funnel Viscosity<br>30       | 30                                |                                 | 0:00         | 5:15       | 5:15            | 10:00               | 2   | DRILL 200MM HOLE IN BUILD SECTION FROM 1833M - 1850M.   |  |
| Depth In (m)<br>1655.00   | Total Drilled (m)<br>195.00 | No<br>1           | Component<br>6.5" UBHO SUB        | OD<br>156          | ID<br>0.92    | Fluid Loss<br>10             | 10                                |                                 | 0:00         | 5:15       | 5:15            | 10:00               | 21  | HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP.   |  |
| Hrs Run Today<br>6.50     | Cumulative Hrs Run<br>16.25 | No<br>1           | Component<br>6.5" HYDMECH JARS    | OD<br>163          | ID<br>2.273   | Location Of Sample<br>SHAKER | SHAKER                            |                                 | 0:00         | 5:15       | 5:15            | 10:00               |   |   |  |
| Entry Date<br>24-Dec-2016 | Entry Date<br>24-Dec-2016   | No<br>0           | Component<br>4.5" HWDP            | OD<br>114          | ID<br>73.4623 | Depth<br>1802.00             | 1812.00                           |                                 | 0:00         | 5:15       | 5:15            | 10:00               |   |   |  |
| CUTTING STRUCTURE         |                             | HOLE CONDITION    |                                   | REDUCED PUMP SPEED |               | MUD MATERIALS ADDED          |                                   | BOILER                          |              | SAFETY     |                 | DERRICK CONNECTIONS |   | START TIME 8:00 END TIME 20:00  |  |

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

| BITS                      |                             | DRILLING ASSEMBLY |                                   | MUD RECORD         |               | DEVIATION SURVEYS            |                                   | TIME LOG                        |              |             |                 |                 |   |                                 |  |
|---------------------------|-----------------------------|-------------------|-----------------------------------|--------------------|---------------|------------------------------|-----------------------------------|---------------------------------|--------------|-------------|-----------------|-----------------|---|---------------------------------|--|
| Bit Number<br>3           | Size<br>200                 | No<br>1           | Component<br>200MM BIT            | OD<br>200          | ID<br>1.027   | Mud Type<br>Water            | Water<br><input type="checkbox"/> | Oil<br><input type="checkbox"/> | From<br>8:00 | To<br>16:15 | Elapsed<br>8:15 | Code<br>2       | Details of Operations in Sequence & Remarks                           |                                 |  |
| IADC Code                 | Manufacturer<br>HALIBURTON  | No<br>1           | Component<br>6.5" MOTOR TIB 5 STG | OD<br>167          | ID<br>1.919   | Time<br>10:00                | 16:00                             |                                 | 8:00         | 16:15       | 8:15            | 2               | DRILL 200MM HOLE FROM 1850M - 1951M.                                  |                                 |  |
| Type<br>MMD64M            | Serial No<br>12861981       | No<br>1           | Component<br>6.5" NON MAG PONY    | OD<br>162          | ID<br>1.55    | Density<br>1150              | 1150                              |                                 | 8:00         | 16:15       | 8:15            | 2               | RIG SERVICE, FUNCTION UPPER PIPE RAMS, 5 SECONDS TO CLOSE.            |                                 |  |
| Jct<br>7.9 7.9 7.9        | Depth Out (m)<br>1655.00    | No<br>1           | Component<br>6.5" GAP SUB         | OD<br>163          | ID<br>1.68    | Funnel Viscosity<br>30       | 30                                |                                 | 8:00         | 16:15       | 8:15            | 2               | ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.             |                                 |  |
| Depth In (m)<br>296.00    | Total Drilled (m)<br>296.00 | No<br>1           | Component<br>6.5" UBHO SUB        | OD<br>156          | ID<br>0.92    | Fluid Loss<br>10             | 10                                |                                 | 8:00         | 16:15       | 8:15            | 2               | HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP. |                                 |  |
| Hrs Run Today<br>8.25     | Cumulative Hrs Run<br>24.50 | No<br>1           | Component<br>6.5" HYDMECH JARS    | OD<br>163          | ID<br>2.273   | Location Of Sample<br>SHAKER | SHAKER                            |                                 | 8:00         | 16:15       | 8:15            | 2               |   |                                 |  |
| Entry Date<br>24-Dec-2016 | Entry Date<br>24-Dec-2016   | No<br>0           | Component<br>4.5" HWDP            | OD<br>114          | ID<br>73.4623 | Depth<br>1870.00             | 1925.00                           |                                 | 8:00         | 16:15       | 8:15            | 2               |   |                                 |  |
| CUTTING STRUCTURE         |                             | HOLE CONDITION    |                                   | REDUCED PUMP SPEED |               | MUD MATERIALS ADDED          |                                   | BOILER                          |              | SAFETY      |                 | SLIPS AND TRIPS |   | START TIME 20:00 END TIME 24:00 |  |

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<br>3           | Size<br>200                 | No<br>1           | Component<br>200MM BIT            | OD<br>200          | ID<br>1.027   | Mud Type<br>Water            | Water<br><input type="checkbox"/> | Oil<br><input checked="" type="checkbox"/> | From<br>20:00 | To<br>21:30 | Elapsed<br>21:30 | Code<br>2           | Details of Operations in Sequence & Remarks                      |                                 |  |
| IADC Code                 | Manufacturer<br>HALIBURTON  | No<br>1           | Component<br>6.5" MOTOR TIB 5 STG | OD<br>167          | ID<br>1.919   | Time<br>22:15                |                                   |  | 20:00         | 21:30       | 21:30            | 20A                 | DRILL 200MM HOLE FROM 1957M - 1957M.                             |                                 |  |
| Type<br>MMD64M            | Serial No<br>12861981       | No<br>1           | Component<br>6.5" NON MAG PONY    | OD<br>162          | ID<br>1.55    | Density<br>1150              |                                   |  | 20:00         | 21:30       | 21:30            | 20A                 | DIRECTIONAL SURVEYS, RE-SHOOT SURVEYS, TROUBLESHOOT SIGNAL LOSS. |                                 |  |
| Jct<br>7.9 7.9 7.9        | Depth Out (m)<br>1655.00    | No<br>1           | Component<br>6.5" GAP SUB         | OD<br>163          | ID<br>1.68    | Funnel Viscosity<br>30       |                                   |  | 20:00         | 21:30       | 21:30            | 20A                 | DISPLACE TO OIL BASE @ 1957M.                                    |                                 |  |
| Depth In (m)<br>307.00    | Total Drilled (m)<br>307.00 | No<br>1           | Component<br>6.5" UBHO SUB        | OD<br>156          | ID<br>0.92    | Fluid Loss<br>10             |                                   |  | 20:00         | 21:30       | 21:30            | 20A                 | DRILL 200MM HOLE FROM 1957M - 1962M.                             |                                 |  |
| Hrs Run Today<br>2.50     | Cumulative Hrs Run<br>27.00 | No<br>1           | Component<br>6.5" HYDMECH JARS    | OD<br>163          | ID<br>2.273   | Location Of Sample<br>SHAKER |                                   |  | 20:00         | 21:30       | 21:30            | 20A                 | RIG SERVICE, FUNCTION LOWER PIPE RAMS, 5 SECONDS TO CLOSE.       |                                 |  |
| Entry Date<br>24-Dec-2016 | Entry Date<br>24-Dec-2016   | No<br>1           | Component<br>4.5" HWDP            | OD<br>114          | ID<br>73.4623 | Depth<br>1958.00             |                                   |  | 20:00         | 21:30       | 21:30            | 20A                 | ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.        |                                 |  |
| CUTTING STRUCTURE         |                             | HOLE CONDITION    |                                   | REDUCED PUMP SPEED |               | MUD MATERIALS ADDED          |                                   | BOILER                                     |               | SAFETY      |                  | DERRICK CONNECTIONS |  | START TIME 24:00 END TIME 32:00 |  |



|   |   |   |  |                    |                                     |                                     |  |              |
|---|---|---|--|--------------------|-------------------------------------|-------------------------------------|--|--------------|
| <b>FRONT PAGE SUMMARY</b>                               |   | Tour Sheet Serial Number<br>PREC465 20161226 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>26                           | <b>DAILY CHECKS</b>  | <b>OP RM</b> |
| License No<br>32575                                     | Well Name<br>ARCRS HZ SEPTIMUS H11-34-81-18W6         | Surface Location<br>11-34-81-18 W6              | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well ID<br>103/09-35-81-18W6 | ReEntry<br><input type="checkbox"/> | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines | AL<br>RT     |
| Company<br>ARC Resources Ltd.                           | Contractor<br>Precision Drilling, div of PDC          | Company Job No.<br>36                           | Rig No<br>465                                  | Well Type<br>HORIZ | Spoil Date Time<br>21-Dec-2016      | Rig Release Date Time<br>23:30      | (1) Rig Site Health & Safety Meeting (one/one/month)<br>(2) CAODC Rig Safety Inspection Checklist (one/one/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Crown Saver Checked<br>(5) Motor Vibs Checked   | AL<br>RT     |
| Signature of Operator's Representative<br>ALLAN LUNGLAL | Signature of Contractor's Rig Manager<br>ROD TOMPKINS |   |  |                    |                                     |                                     |  | AL<br>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             |                                |
|--------|------|---|---|---|---|---|------|------|---|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|------------------|---------------------|--------------------------------|
| Rig Up |      |   |   |   |   |   |      |      |   |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 8.00  | 33509            | 4619                |                                |
| Tour 1 | 5.25 |   |   |   |   |   |      | 0.25 |   |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 12.00 | 06:00            | -8                  |                                |
| Tour 2 |      |   |   |   |   |   | 6.50 | 0.25 |   | 0.75 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4.00  | OVERCAST         | Wind Direction<br>N | Wind Strength<br>UP TO 19 KM/H |
| Tour 3 | 1.75 |   |   |   |   |   | 0.75 | 0.25 |   | 1.25 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 24.00 | FAIR             |                     |                                |
| TOTAL  | 7.00 |   |   |   |   |   | 1.00 | 0.75 |   | 0.75 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |                     |                                |

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

|   |   |  |   |   |
|---|---|--|---|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 3<br>Size: 200<br>IADC Code: 1<br>Manufacturer: HALIBURTON<br>Type: MMD64M<br>Serial No: 12861981<br>Jars: 7.9 7.9 7.9<br>Depth Out (m): 2032.00<br>Depth In (m): 1655.00<br>Total Drilled (m): 377.00<br>Hrs Run Today: 5.25<br>Cumulative Hrs Run: 32.25<br>Entry Date: 24-Dec-2016 | No. Component OD ID Length<br>1 200MM BIT 200 1 0.27<br>1 6.5" MOTOR TB 5 STG 167 1 8.19<br>1 6.5" NON MAG PONY 162 72 1.55<br>1 6.5" NON MAG FLEX MONEL 163 72 9.24<br>1 6.5" GAP SUB 163 1 1.68<br>1 6.5" UBHO SUB 156 65 0.92<br>3 6.5" NON MAG FLEX MONEL 163 72 27.31<br>1 6.5" HYDMECH JARS 157 58 5.30<br>1 X/O SUB 135 58 0.80<br>48 4.5" HWDP 114 73 48.25 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 04:30 - 06:30<br>Density: 1170 - 1160<br>Funnel Viscosity: 67 - 68<br>Fluid Loss:<br>pH:<br>Location Of Sample: SHAKER SHAKER<br>Depth: 2005.00 - 2030.00<br>PVT: 74 - 72<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 PARALLEL 127 78 23500 7.50<br>2 PARALLEL 127 78 23500 7.50 | Time Depth Deviation Direction Type<br>05:15 2001.00 77.00 126.6<br>05:30 2000.91 77.00 126.6<br>06:15 2010.49 80.00 126.8<br>07:15 2017.00 82.20 127.9 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: 1<br>MDC: 3<br>LOC: WT<br>BSG: S<br>K: 11.69  | Kelly Down: -3.24<br>Total: 2032.00<br>Weight of DC: 11.69<br>Weight of String: 75.00   | Hole Drag Up 7 Down 9<br>Torque At Bottom 8000<br>Fill On Bottom   | BoilerNo HoursRun pH StackTemp  | MEHL 3027<br>MACP   |
| TOUR 2 SIGNATURE OF DRILLER <b>BRENDEAN PREVOST</b> START TIME 8:00 END TIME 20:00  |   |  |   |   |

|   |   |  |                                     |   |
|---|---|--|-------------------------------------|---|
| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>            | <b>TIME LOG</b>   |
| Bit Number: 4<br>Size: 159<br>IADC Code: 1<br>Manufacturer: REED<br>Type: SK413M-A1G-2<br>Serial No: E227643<br>Jars: 9.5 9.5<br>Depth Out (m): 9.5 9.5<br>Depth In (m): 2032.00<br>Total Drilled (m): 0.00<br>Hrs Run Today: 0.00<br>Cumulative Hrs Run: 0.00<br>Entry Date: 26-Dec-2016 | No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run | Time Depth Deviation Direction Type | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>                       | <b>SAFETY</b>   |
| TO: 1<br>MDC: 3<br>LOC: WT<br>BSG: S<br>K: 11.69  | Kelly Down: -5.87<br>Total: 2032.00<br>Weight of DC:<br>Weight of String:<br>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  | Hole Drag Up Down<br>Torque At Bottom<br>Fill On Bottom  | BoilerNo HoursRun pH StackTemp      | MEHL 3027<br>MACP   |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME 20:00 END TIME 24:00  |   |  |                                     |   |

|  |   |  |   |   |
|--|---|--|---|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 4<br>Size: 159<br>IADC Code: 1<br>Manufacturer: REED<br>Type: SK413M-A1G-2<br>Serial No: E227643<br>Jars: 9.5 9.5<br>Depth Out (m): 9.5 9.5<br>Depth In (m): 2032.00<br>Total Drilled (m): 96.00<br>Hrs Run Today: 1.75<br>Cumulative Hrs Run: 1.75<br>Entry Date: 26-Dec-2016 | No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run | Time Depth Deviation Direction Type<br>23:30 2095.81 91.00 120.4<br>2110.38 91.90 117 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>   | <b>SAFETY</b>   |
| TO: 1<br>MDC: 3<br>LOC: WT<br>BSG: S<br>K: 54.86   | Kelly Down: -7.15<br>Total: 2128.00<br>Weight of DC:<br>Weight of String: 67.00   | Hole Drag Up 3 Down 6<br>Torque At Bottom 9100<br>Fill On Bottom   | BoilerNo HoursRun pH StackTemp  | MEHL 3073<br>MACP   |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME 20:00 END TIME 24:00   |   |  |   |   |



|   |   |   |  |                                     |   |           |                     |  |
|---|---|---|--|-------------------------------------|---|-----------|---------------------|--|
| <b>FRONT PAGE SUMMARY</b>                               |   | Tour Sheet Serial Number<br>PREC465 20161227 1A | Vendor Software Version<br>RMS 2016.14.37064 | Year<br>2016                        | Month<br>12   | Day<br>27 | <b>DAILY CHECKS</b> | OP RM  |
| License No<br>32575                                     | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6            | Surface Location<br>11-34-81-18 W6              | Prov<br>DLS                                  | Unique Well ID<br>103/09-35-81-18W6 | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weedy (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Postcard If Required<br><input type="checkbox"/> (4) Well License & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Staked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (9) CAODC Rig Safety Inspection Checklist (once/week/month)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Saver Checked<br><input type="checkbox"/> (12) Motor Vibs Checked |           |                     | AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>CT<br>CT |
| Company<br>ARC Resources Ltd.                           | Contractor<br>Precision Drilling, div of PDC              | Contractor Job No<br>36                         | Rig No<br>465                                | Well Type<br>HORIZ                  | <input type="checkbox"/> Re-Entry<br><input type="checkbox"/> Spud Date Time<br>21-Dec-2016<br>23:30<br>Rig Release Date Time   |           |                     |  |
| Signature of Operator's Representative<br>ALLAN LUNGLAL | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE |   |  |                                     |   |           |                     |  |



| 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  | 29254<br>4619    |
| Tour 1 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 12.00 | 06:00<br>-1      |
| Tour 2 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4.00  | OVERCAST         |
| TOTAL  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 24.00 | WEATHER<br>FAIR  |

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

|   |   |   |  |  |   |  |   |  |  |   |   |  |
|---|---|---|--|--|---|--|---|--|--|---|---|--|
| <b>BITS</b><br>Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2563.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 531.00<br>Hrs Run Today: 5.00<br>Cumulative Hrs Run: 6.75<br>Entry Date: 26-Dec-2016 | <b>DRILLING ASSEMBLY</b><br>No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | <b>MUD RECORD</b><br>Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 00:00 - 06:30<br>Density: 1180<br>Funnel Viscosity: 68<br>Fluid Loss: 57<br>pH: 9.8<br>Location Of Sample: SHAKER SHAKER<br>Depth: 2134.00<br>PVT: 89.99<br>98 | <b>DEVIATION SURVEYS</b><br>Time Depth Deviation Direction Type<br>00:15 2124.96 90.40 112.7<br>00:45 2139.55 90.30 108.3<br>01:00 2154.15 89.90 103.9<br>01:30 2168.79 89.60 99.8<br>01:45 2183.43 90.20 95.3<br>02:00 2198.02 89.90 90.9 | <b>TIME LOG</b><br>From To Elapsed Code<br>0:00 4:00 4:00 2<br>4:00 6:00 2:00 10<br>6:00 6:15 0:25 7<br>6:15 7:15 1:00 2<br>7:15 7:45 0:50 10<br>7:45 8:00 0:25 21 | <b>DETAILS OF OPERATIONS IN SEQUENCE &amp; REMARKS</b><br>DRILL 159MM TURN SECTION FROM 21 28M - 2474M<br>ACCUMULATED DEVIATION SURVEYS, WORK PIPE, LINE UP SLIDES AND CONNECTIONS.<br>RIG SERVICE, FUNCTION ANNULAR, 22 SECONDS TO CLOSE.<br>DRILL 159MM LATERAL SECTION FROM 2474M - 2563M.<br>ACCUMULATED DEVIATION SURVEYS, WORK PIPE, LINE UP SLIDES AND CONNECTIONS.<br>HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP. |  |   |  |  |   |   |  |
|   |   |   |  |  |   | <b>CUTTING STRUCTURE</b><br>Kelly Down: 0.94<br>Total: 2563.00<br>Weight of DC: 78.67<br>Weight of String: 67.00 | <b>HOLE CONDITION</b><br>Hole Drag Up: 4 Down: 7<br>Torque At Bottom: 9900<br>Fill On Bottom: | <b>REDUCED PUMP SPEED</b><br>Pump # Pressure Strokes/min Depth<br>2 6410 @ 56 @ 2320.00<br>2 6440 @ 56 @ 2418.00 | <b>SOLIDS CONTROL</b><br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 8.00 1180 1090 1745 | <b>MUD MATERIALS ADDED</b><br>Product Amount Type<br>BARITE 84 sxs<br>LIME 45 sxs<br>CES WETTER 1 bbl<br>ENERTONE-D 2 bbl | <b>BOILER</b><br>BoilerNo HoursRun pH StackTemp<br>1 8.00 10.5 340<br>2 8.00 10.5 340 |  |
|   |   |   |  |  |   |  |   |  |  |   |   | <b>SAFETY</b><br>Safety Topic MEHL 3073 MACP<br>DERRICK CONNECTIONS 75 |

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

|   |   |  |   |  |   |   |   |   |  |   |   |  |
|---|---|--|---|--|---|---|---|---|--|---|---|--|
| <b>BITS</b><br>Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1179.00<br>Total Drilled (m): 1179.00<br>Hrs Run Today: 6.50<br>Cumulative Hrs Run: 13.25<br>Entry Date: 26-Dec-2016 | <b>DRILLING ASSEMBLY</b><br>No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>1 5" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78 | <b>MUD RECORD</b><br>Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 08:15 - 15:00<br>Density: 1170<br>Funnel Viscosity: 62<br>Fluid Loss: 63<br>pH: 9.8<br>Location Of Sample: SHAKER SHAKER<br>Depth: 2584.00<br>PVT: 95<br>87 | <b>DEVIATION SURVEYS</b><br>Time Depth Deviation Direction Type<br>08:15 3196.66 90.40 87.6<br>08:30 3225.90 89.10 88.3<br>09:00 3254.86 91.50 90.4<br>09:30 3283.85 90.50 90.6<br>09:50 3342.31 90.50 89.5<br>10:00 3371.49 92.60 89.6 | <b>TIME LOG</b><br>From To Elapsed Code<br>8:00 14:15 6:25 2<br>14:15 14:30 0:25 7<br>14:30 19:45 5:25 10<br>19:45 20:00 0:25 21 | <b>DETAILS OF OPERATIONS IN SEQUENCE &amp; REMARKS</b><br>DRILL 159MM HOLE FROM 3211M - 3211M<br>RIG SERVICE, FUNCTION UPPER PIPE RAMS, 5 SECONDS TO CLOSE.<br>ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.<br>HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP. |   |   |   |  |   |   |  |
|   |   |  |   |  |   | <b>CUTTING STRUCTURE</b><br>Kelly Down: -0.66<br>Total: 3211.00<br>Weight of DC: 88.98<br>Weight of String: 68.00 | <b>HOLE CONDITION</b><br>Hole Drag Up: 6 Down: 15<br>Torque At Bottom: 10500<br>Fill On Bottom: | <b>REDUCED PUMP SPEED</b><br>Pump # Pressure Strokes/min Depth<br>2 6780 @ 56 @ 2620.00<br>2 6850 @ 56 @ 2780.00<br>2 7300 @ 56 @ 3200.00 | <b>SOLIDS CONTROL</b><br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 12.00 1170 1160 1960<br>Centrifuge #2 4.00 1180 1090 1750 | <b>MUD MATERIALS ADDED</b><br>Product Amount Type<br>LIME 20 SXS<br>CES WETTER 1 BBL<br>ENERTONE-D 2 SXS<br>CES SECONDARY 1 BBL | <b>BOILER</b><br>BoilerNo HoursRun pH StackTemp<br>1 12.00 10.5 340<br>2 12.00 10.5 340 |  |
|   |   |  |   |  |   |   |   |   |  |   |   | <b>SAFETY</b><br>Safety Topic MEHL 3073 MACP<br>HAND INJURIES 83 |

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

|   |   |   |   |  |   |   |   |  |   |   |   |  |
|---|---|---|---|--|---|---|---|--|---|---|---|--|
| <b>BITS</b><br>Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1418.00<br>Total Drilled (m): 1418.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 16.25<br>Entry Date: 26-Dec-2016 | <b>DRILLING ASSEMBLY</b><br>No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>1 5" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78 | <b>MUD RECORD</b><br>Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 20:15 - 24:00<br>Density: 1180<br>Funnel Viscosity: 66<br>Fluid Loss: 66<br>pH: 9.8<br>Location Of Sample: SHAKER<br>Depth: 3217.00<br>PVT: 89 | <b>DEVIATION SURVEYS</b><br>Time Depth Deviation Direction Type<br>20:00 3196.66 90.40 87.6<br>20:30 3225.90 89.10 88.3<br>21:00 3254.86 91.50 90.4<br>21:30 3283.85 90.50 90.6<br>22:15 3342.31 90.50 89.5<br>22:45 3371.49 92.60 89.6 | <b>TIME LOG</b><br>From To Elapsed Code<br>20:00 23:00 3:00 2<br>23:00 23:45 0:45 10<br>23:45 24:00 0:25 7 | <b>DETAILS OF OPERATIONS IN SEQUENCE &amp; REMARKS</b><br>DRILL 159MM HOLE FROM 3211M - 3450M.<br>ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.<br>RIG SERVICE, FUNCTION LOWER PIPE RAMS, 7 SECONDS TO CLOSE. |   |   |  |   |   |   |  |
|   |   |   |   |  |   | <b>CUTTING STRUCTURE</b><br>Kelly Down: -4.71<br>Total: 3450.00<br>Weight of DC: 87.26<br>Weight of String: 68.00 | <b>HOLE CONDITION</b><br>Hole Drag Up: 8 Down: 17<br>Torque At Bottom: 11600<br>Fill On Bottom: | <b>REDUCED PUMP SPEED</b><br>Pump # Pressure Strokes/min Depth<br>2 7100 @ 56 @ 3182.00<br>2 7240 @ 56 @ 3327.00 | <b>SOLIDS CONTROL</b><br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 2.00 1180 1090 1750<br>Centrifuge #2 4.00 1180 1090 1750 | <b>MUD MATERIALS ADDED</b><br>Product Amount Type | <b>BOILER</b><br>BoilerNo HoursRun pH StackTemp<br>1 4.00 10.5 340<br>2 4.00 10.5 340 |  |
|   |   |   |   |  |   |   |   |  |   |   |   | <b>SAFETY</b><br>Safety Topic MEHL 3073 MACP<br>DERRICK CONNECTIONS 90 |



|                               |   |   |  |                               |                                |   |  |  |
|-------------------------------|---|---|--|-------------------------------|--------------------------------|---|--|--|
| <b>FRONT PAGE SUMMARY</b>     |   | Tour Sheet Serial Number<br>PREC465 20161227 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016                  | Month<br>12                    | Day<br>27   | <b>DAILY CHECKS</b>  | <b>OP RM</b>   |
| License No<br>32575           | Well Name<br>ARCRS HZ SEPTIMUS H11-34-81-18W6 | Surface Location<br>11-34-81-18 W6              | Prov<br>DLS                                    | Loc Type<br>103/09-35-81-18W6 | Unique Well ID                 | Well Type<br>HORIZ                                    | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (one/week/month)<br>(9) CADC Rig Safety Inspection Checklist (one/week/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Major Vibs Checked | AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>CT<br>CT<br>CT |
| Company<br>ARC Resources Ltd. | Contractor<br>Precision Drilling, div of PDC  | Contractor Job No<br>36                         | Spool Date Time<br>21-Dec-2016                 | Rig No<br>465                 | Rig Release Date Time<br>23:30 | Signature of Operator's Representative<br>ALLAN LUNGA | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE  | CAADC<br>NOV   |

| 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 | Cond Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drill 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 | 29254 | 4619             | 06:00   | -1 | OVERCAST | W | UP TO 19 KM/H |  |
| Tour 1 |        | 5.00         |         |        |                 |       | 0.25        |            |                    | 2.50       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 8.00  |                  |         |    |          |   |               |  |
| Tour 2 |        | 6.25         |         |        |                 |       | 0.25        |            |                    | 5.25       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 12.00 |                  |         |    |          |   |               |  |
| Tour 3 |        | 3.00         |         |        |                 |       | 0.25        |            |                    | 0.75       |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 4.00  |                  |         |    |          |   |               |  |
| TOTAL  |        | 14.25        |         |        |                 |       | 0.75        |            |                    | 8.50       |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       | 24.00 |                  |         |    |          |   |               |  |

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

|  |   |  |  |  |
|--|---|--|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JHS: 9.5 9.5<br>Depth Out (m): 2563.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 531.00<br>Hrs Run Today: 5.00<br>Cumulative Hrs Run: 6.75<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 02:15 2212.61 90.00 89.2<br>02:30 2227.20 90.90 88.6<br>02:45 2241.80 90.70 88.7<br>03:15 2256.27 90.30 89.3<br>03:15 2270.74 91.10 89.8<br>03:30 2285.33 91.80 88.6<br>SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density<br>Centrifuge #1: 8.00 1180 1090 1745<br>MUD MATERIALS ADDED<br>Product: Amount: Type | Time: 02:15 2212.61 90.00 89.2<br>02:30 2227.20 90.90 88.6<br>02:45 2241.80 90.70 88.7<br>03:15 2256.27 90.30 89.3<br>03:15 2270.74 91.10 89.8<br>03:30 2285.33 91.80 88.6<br>SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density<br>Centrifuge #1: 8.00 1180 1090 1745<br>MUD MATERIALS ADDED<br>Product: Amount: Type | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: 0.94<br>Total: 2563.00<br>Weight of DC: 78.67<br>Weight of String: 67.00   | Hole Drag Up: 4 Down: 7<br>Torque At Bottom: 9900<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 6410 @ 56 @ 2322.00<br>2 6440 @ 56 @ 2418.00  | BoilerNo HoursRun pH StackTemp   | MEHL MACP  |

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

|  |   |  |  |  |
|--|---|--|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JHS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1179.00<br>Total Drilled (m): 1179.00<br>Hrs Run Today: 6.50<br>Cumulative Hrs Run: 13.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>4 Drill Pipe Stands: 116.80<br>0 Drill Pipe Singles: 0.00 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 17:00<br>Density: 1180<br>Funnel Viscosity: 63<br>Fluid Loss<br>pH<br>Location of Sample: SHAKER<br>Depth: 3065.00<br>PVT: 77<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>2 SINGLE 127 112 32000 10.00<br>1 SINGLE 127 112 32000 2.00 | Time: 17:00<br>Density: 1180<br>Funnel Viscosity: 63<br>Fluid Loss<br>pH<br>Location of Sample: SHAKER<br>Depth: 3065.00<br>PVT: 77<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>2 SINGLE 127 112 32000 10.00<br>1 SINGLE 127 112 32000 2.00 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: -0.66<br>Total: 3211.00<br>Weight of DC: 88.98<br>Weight of String: 68.00  | Hole Drag Up: 6 Down: 15<br>Torque At Bottom: 10500<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 6780 @ 56 @ 2622.00<br>2 6850 @ 56 @ 2720.00<br>2 7300 @ 56 @ 2720.00   | BoilerNo HoursRun pH StackTemp   | MEHL MACP  |

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

|  |  |   |   |  |
|--|--|---|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JHS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1418.00<br>Total Drilled (m): 1418.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 16.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>12 Drill Pipe Stands: 350.13<br>1 Drill Pipe Singles: 9.72 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Time: 23:15 3400.69 91.50 90<br>23:45 3429.99 90.60 90.1<br>Density: 1180<br>Funnel Viscosity: 63<br>Fluid Loss<br>pH<br>Location of Sample: SHAKER<br>Depth: 3065.00<br>PVT: 77<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>2 SINGLE 127 112 31800 3.25 | Time: 23:15 3400.69 91.50 90<br>23:45 3429.99 90.60 90.1<br>Density: 1180<br>Funnel Viscosity: 63<br>Fluid Loss<br>pH<br>Location of Sample: SHAKER<br>Depth: 3065.00<br>PVT: 77<br>Circulation<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>2 SINGLE 127 112 31800 3.25 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>   | <b>SAFETY</b>  |
| Kelly Down: -4.71<br>Total: 3450.00<br>Weight of DC: 87.26<br>Weight of String: 68.00  | Hole Drag Up: 8 Down: 17<br>Torque At Bottom: 11600<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth<br>2 7100 @ 56 @ 3182.00<br>2 7240 @ 56 @ 3327.00   | BoilerNo HoursRun pH StackTemp  | MEHL MACP  |

|                               |  |   |  |                               |   |                    |  |   |
|-------------------------------|--|---|--|-------------------------------|---|--------------------|--|---|
| <b>FRONT PAGE SUMMARY</b>     |  | Tour Sheet Serial Number<br>PREC465 20161227 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016                  | Month<br>12   | Day<br>27          | <b>DAILY CHECKS</b>  | <b>OP RM</b>  |
| License No<br>32575           | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6 | Surface Location<br>11-34-81-18 W6              | Prov<br>DLS                                    | Loc Type<br>103/09-35-81-18W6 | Unique Well ID  | Well Type<br>HORIZ | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CADCOC Rig Safety Inspection Checklist (once/monthly)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Major Valve Checked | AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>CT<br>CT<br>CT        |
| Company<br>ARC Resources Ltd. | Contractor<br>Precision Drilling, div of PDC   | Contractor Job No<br>36                         | Spud Date Time<br>21-Dec-2016                  | 23:30                         | Signature of Operator's Representative<br>ALLAN LUNGA |                    |  | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE |



| 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             |                                |
|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|------------------|---------------------|--------------------------------|
| Rig Up |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 8.00  | 29254            | 4619                |                                |
| Tour 1 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 12.00 | 06:00            | -1                  |                                |
| Tour 2 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4.00  | OVERCAST         | Wind Direction<br>W | Wind Strength<br>UP TO 19 KM/H |
| TOTAL  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 24.00 | FAIR             |                     |                                |

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

|  |   |  |  |   |
|--|---|--|--|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>   |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2563.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 531.00<br>Hrs Run Today: 5.00<br>Cumulative Hrs Run: 6.75<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 03:45 2299.94 88.90 88.9<br>04:00 2314.53 89.20 87.3<br>04:15 2329.13 90.00 87.7<br>04:30 2343.53 91.40 87.4<br>04:45 2357.93 91.10 89.2<br>05:00 2372.45 91.00 87.9<br>Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 112 Pressure 28400 Hrs Run 4.50<br>2 SINGLE 127 112 28400 2.00 | Time Depth Deviation Direction Type<br>03:45 2299.94 88.90 88.9<br>04:00 2314.53 89.20 87.3<br>04:15 2329.13 90.00 87.7<br>04:30 2343.53 91.40 87.4<br>04:45 2357.93 91.10 89.2<br>05:00 2372.45 91.00 87.9<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 8.00 1180 1090 1745 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>MUD MATERIALS ADDED</b>   | <b>BOILER</b>   |
| Kelly Down: 0.94<br>Total: 2563.00<br>Weight of DC: 78.67<br>Weight of String: 67.00   | Hole Drag Up: 4 Down: 7<br>Torque At Bottom: 9900<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 6410 @ 56 @ 2520.00<br>2 6440 @ 56 @ 2415.00  | Product Amount Type  | BoilerNo HoursRun pH StackTemp                                      |
| <b>METRES DRILLED</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>MUD MATERIALS ADDED</b>   | <b>BOILER</b>   |
| From To D-R-C RPM WOB  | Hole Drag Up: 4 Down: 7<br>Torque At Bottom: 9900<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 6410 @ 56 @ 2520.00<br>2 6440 @ 56 @ 2415.00  | Product Amount Type  | BoilerNo HoursRun pH StackTemp                                      |

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

|  |   |   |   |   |
|--|---|---|---|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1179.00<br>Total Drilled (m): 1179.00<br>Hrs Run Today: 6.50<br>Cumulative Hrs Run: 13.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 60 0.78<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>4 Drill Pipe Stands 116.80<br>0 Drill Pipe Singles 0.00 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 03:45 2299.94 88.90 88.9<br>04:00 2314.53 89.20 87.3<br>04:15 2329.13 90.00 87.7<br>04:30 2343.53 91.40 87.4<br>04:45 2357.93 91.10 89.2<br>05:00 2372.45 91.00 87.9<br>Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 112 Pressure 32000 Hrs Run 10.00<br>2 SINGLE 127 112 32000 2.00 | Time Depth Deviation Direction Type<br>03:45 2299.94 88.90 88.9<br>04:00 2314.53 89.20 87.3<br>04:15 2329.13 90.00 87.7<br>04:30 2343.53 91.40 87.4<br>04:45 2357.93 91.10 89.2<br>05:00 2372.45 91.00 87.9<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 12.00 1170 1160 1960 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>MUD MATERIALS ADDED</b>  | <b>BOILER</b>   |
| Kelly Down: -0.66<br>Total: 3211.00<br>Weight of DC: 88.98<br>Weight of String: 68.00  | Hole Drag Up: 6 Down: 15<br>Torque At Bottom: 10500<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 6780 @ 56 @ 2620.00<br>2 6850 @ 56 @ 2780.00<br>2 7300 @ 56 @ 3200.00  | Product Amount Type   | BoilerNo HoursRun pH StackTemp                                      |
| <b>METRES DRILLED</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>MUD MATERIALS ADDED</b>  | <b>BOILER</b>   |
| From To D-R-C RPM WOB  | Hole Drag Up: 6 Down: 15<br>Torque At Bottom: 10500<br>Fill On Bottom   | Pump # Pressure Strokes/min Depth<br>2 6780 @ 56 @ 2620.00<br>2 6850 @ 56 @ 2780.00<br>2 7300 @ 56 @ 3200.00  | Product Amount Type   | BoilerNo HoursRun pH StackTemp                                      |

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

|  |  |   |   |   |
|--|--|---|---|---|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>   |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1418.00<br>Total Drilled (m): 1418.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 16.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 60 0.78<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>12 Drill Pipe Stands 350.13<br>1 Drill Pipe Singles 9.72 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 03:45 2299.94 88.90 88.9<br>04:00 2314.53 89.20 87.3<br>04:15 2329.13 90.00 87.7<br>04:30 2343.53 91.40 87.4<br>04:45 2357.93 91.10 89.2<br>05:00 2372.45 91.00 87.9<br>Circulation: Pump # 2 Type SINGLE Liner Size 127 SPM 112 Pressure 31800 Hrs Run 3.25 | Time Depth Deviation Direction Type<br>03:45 2299.94 88.90 88.9<br>04:00 2314.53 89.20 87.3<br>04:15 2329.13 90.00 87.7<br>04:30 2343.53 91.40 87.4<br>04:45 2357.93 91.10 89.2<br>05:00 2372.45 91.00 87.9<br>SOLIDS CONTROL<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density<br>Centrifuge #1 2.00 1180 1090 1750<br>Centrifuge #2 4.00 1180 1090 1750 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>MUD MATERIALS ADDED</b>  | <b>BOILER</b>   |
| Kelly Down: -4.71<br>Total: 3450.00<br>Weight of DC: 87.26<br>Weight of String: 68.00  | Hole Drag Up: 8 Down: 17<br>Torque At Bottom: 11600<br>Fill On Bottom  | Pump # Pressure Strokes/min Depth<br>2 7100 @ 56 @ 3182.00<br>2 7240 @ 56 @ 3327.00   | Product Amount Type   | BoilerNo HoursRun pH StackTemp                                      |
| <b>METRES DRILLED</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>MUD MATERIALS ADDED</b>  | <b>BOILER</b>   |
| From To D-R-C RPM WOB  | Hole Drag Up: 8 Down: 17<br>Torque At Bottom: 11600<br>Fill On Bottom  | Pump # Pressure Strokes/min Depth<br>2 7100 @ 56 @ 3182.00<br>2 7240 @ 56 @ 3327.00   | Product Amount Type   | BoilerNo HoursRun pH StackTemp                                      |

|                               |   |   |  |                    |                                     |                                     |  |  |
|-------------------------------|---|---|--|--------------------|-------------------------------------|-------------------------------------|--|--|
| <b>FRONT PAGE SUMMARY</b>     |   | Tour Sheet Serial Number<br>PREC465 20161227 1A           | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>27                           | <b>DAILY CHECKS</b>  | OP RM  |
| License No<br>32575           | Well Name<br>ARCRS HZ SEPTIMUS H11-34-81-18W6         | Surface Location<br>11-34-81-18 W6                        | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well ID<br>103/09-35-81-18W6 | ReEntry<br><input type="checkbox"/> | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CADCOC Rig Safety Inspection Checklist (once/monthly)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Major Risks Checked | AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>CT<br>CT<br>CT |
| Company<br>ARC Resources Ltd. | Contractor<br>Precision Drilling, div of PDC          | Contractor Job No<br>36                                   | Rig No<br>465                                  | Well Type<br>HORIZ | Squad Date Time<br>21-Dec-2016      | 23:30                               |  |  |
| Operator<br>16DR0084          | Signature of Operator's Representative<br>ALLAN LUNGL | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE |  |                    |                                     |                                     |  |  |



| 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 | Cond Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drilling 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 |       | 29254            | 4619    | 06:00 | -1 | OVERCAST | W | UP TO 19 KM/H |
| Tour 1 |        | 5.00         |         |        |                 |       | 0.25        |            |                       | 2.50       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 8.00  |                  |         |       |    |          |   |               |
| Tour 2 |        | 6.25         |         |        |                 |       | 0.25        |            |                       | 5.25       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 12.00 |                  |         |       |    |          |   |               |
| Tour 3 |        | 3.00         |         |        |                 |       | 0.25        |            |                       | 0.75       |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 4.00  |                  |         |       |    |          |   |               |
| TOTAL  |        | 14.25        |         |        |                 |       | 0.75        |            |                       | 8.50       |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       | 24.00 |                  |         |       |    |          |   |               |

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

|  |   |   |  |  |
|--|---|---|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-2<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2563.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 531.00<br>Hrs Run Today: 5.00<br>Cumulative Hrs Run: 6.75<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 05:00 2386.96 89.20 89.8<br>05:15 2401.54 88.90 87.8<br>05:45 2416.11 89.00 87.9<br>06:00 2430.75 89.50 88.5<br>06:30 2459.94 89.30 89.2<br>06:45 2488.87 90.40 89.9<br>SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density<br>Centrifuge #1: 8.00 1180 1090 1745<br>MUD MATERIALS ADDED<br>Product: Amount: Type<br>1 SINGLE 127 112 28400 4.50<br>2 SINGLE 127 112 28400 2.00 | Time: 05:00 2386.96 89.20 89.8<br>05:15 2401.54 88.90 87.8<br>05:45 2416.11 89.00 87.9<br>06:00 2430.75 89.50 88.5<br>06:30 2459.94 89.30 89.2<br>06:45 2488.87 90.40 89.9 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: 0.94<br>Total: 2563.00<br>Weight of DC: 78.67<br>Weight of String: 67.00   | Hole Drag Up: 4 Down: 7<br>Torque At Bottom: 9900<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 6410 @ 56 @ 2522.00<br>2 6440 @ 56 @ 2418.00   | BoilerNo HoursRun pH StackTemp   | MEHL 3073 MACP   |

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

|  |   |   |  |  |
|--|---|---|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-2<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1179.00<br>Total Drilled (m): 1179.00<br>Hrs Run Today: 6.50<br>Cumulative Hrs Run: 13.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>4 Drill Pipe Stands: 116.80<br>0 Drill Pipe Singles: 0.00 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 08:00 2386.96 89.20 89.8<br>08:15 2401.54 88.90 87.8<br>08:45 2416.11 89.00 87.9<br>09:00 2430.75 89.50 88.5<br>09:30 2459.94 89.30 89.2<br>09:45 2488.87 90.40 89.9<br>SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density<br>Centrifuge #1: 12.00 1170 1160 1960<br>MUD MATERIALS ADDED<br>Product: Amount: Type<br>1 SINGLE 127 112 32000 10.00<br>2 SINGLE 127 112 32000 2.00 | Time: 08:00 2386.96 89.20 89.8<br>08:15 2401.54 88.90 87.8<br>08:45 2416.11 89.00 87.9<br>09:00 2430.75 89.50 88.5<br>09:30 2459.94 89.30 89.2<br>09:45 2488.87 90.40 89.9 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: -0.66<br>Total: 3211.00<br>Weight of DC: 88.98<br>Weight of String: 68.00  | Hole Drag Up: 6 Down: 15<br>Torque At Bottom: 10500<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 6780 @ 56 @ 2622.00<br>2 6850 @ 56 @ 2720.00<br>2 7300 @ 56 @ 3220.00  | BoilerNo HoursRun pH StackTemp   | MEHL 3073 MACP   |

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

|  |  |  |  |  |
|--|--|--|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-2<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1418.00<br>Total Drilled (m): 1418.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 16.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>12 Drill Pipe Stands: 350.13<br>1 Drill Pipe Singles: 9.72 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 20:00 2386.96 89.20 89.8<br>20:15 2401.54 88.90 87.8<br>20:45 2416.11 89.00 87.9<br>21:00 2430.75 89.50 88.5<br>21:30 2459.94 89.30 89.2<br>21:45 2488.87 90.40 89.9<br>SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density<br>Centrifuge #1: 2.00 1180 1090 1750<br>Centrifuge #2: 4.00 1180 1090 1750<br>MUD MATERIALS ADDED<br>Product: Amount: Type<br>2 SINGLE 127 112 31800 3.25 | Time: 20:00 2386.96 89.20 89.8<br>20:15 2401.54 88.90 87.8<br>20:45 2416.11 89.00 87.9<br>21:00 2430.75 89.50 88.5<br>21:30 2459.94 89.30 89.2<br>21:45 2488.87 90.40 89.9 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: -4.71<br>Total: 3450.00<br>Weight of DC: 87.26<br>Weight of String: 68.00  | Hole Drag Up: 8 Down: 17<br>Torque At Bottom: 11600<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth<br>2 7100 @ 56 @ 3182.00<br>2 7240 @ 56 @ 3327.00  | BoilerNo HoursRun pH StackTemp   | MEHL 3073 MACP   |

|                               |   |   |  |                    |                                     |                                     |   |  |
|-------------------------------|---|---|--|--------------------|-------------------------------------|-------------------------------------|---|--|
| <b>FRONT PAGE SUMMARY</b>     |   | Tour Sheet Serial Number<br>PREC465 20161227 1A           | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016       | Month<br>12                         | Day<br>27                           | <b>DAILY CHECKS</b>   | <b>OP RM</b>                                 |
| License No<br>32575           | Well Name<br>ARCRRES HZ SEPTIMUS H11-34-81-18W6       | Surface Location<br>11-34-81-18 W6                        | Prov<br>BC                                     | Loc Type<br>DLS    | Unique Well ID<br>103/09-35-81-18W6 | ReEntry<br><input type="checkbox"/> | (1) Daily Walk Around Inspection<br>(2) Disabled Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CAODC Rig Safety Inspection Checklist (once/monthly)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Major Valve Checked | AL<br>CT<br>AL<br>CT<br>AL<br>CT<br>CT<br>CT |
| Company<br>ARC Resources Ltd. | Contractor<br>Precision Drilling, div of PDC          | Company Job No.<br>36                                     | Rig No.<br>465                                 | Well Type<br>HORIZ | Squad Date Time<br>21-Dec-2016      | 23:30                               |   |  |
| Operator<br>16DR0084          | Signature of Operator's Representative<br>ALLAN LUNGL | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE |  |                    |                                     |                                     |   |  |



| 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             |                                |
|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|------------------|---------------------|--------------------------------|
| Rig Up |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 8.00  | 29254            | 4619                |                                |
| Tour 1 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 12.00 | 06:00            | -1                  |                                |
| Tour 2 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4.00  | OVERCAST         | Wind Direction<br>W | Wind Strength<br>UP TO 19 KM/H |
| TOTAL  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 24.00 | FAIR             |                     |                                |

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

|  |   |  |  |  |
|--|---|--|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2563.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 531.00<br>Hrs Run Today: 5.00<br>Cumulative Hrs Run: 6.75<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>2 CROSSOVER SUB 130 60 1.72<br>1 5" JARS 130 58 5.20<br>2 CROSSOVER SUB 130 60 1.56<br>1 AGITATOR 124 68 7.14<br>1 CROSSOVER SUB 130 60 0.78 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 07:15 2518.10 91.50 90.2<br>08:00 2547.06 92.00 92.1<br>Density: 1.166<br>Funnel Viscosity: 118<br>Fluid Loss: 1.66<br>pH: 11.8<br>Location of Sample: 121<br>Depth: 130<br>PVT: 130<br>Circulation: 130<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 SINGLE 127 112 28400 4.50<br>2 SINGLE 127 112 28400 2.00 | Time: 07:15 2518.10 91.50 90.2<br>08:00 2547.06 92.00 92.1<br>Deviation: 91.50 90.2<br>Direction: 90.2<br>Type: 90.2 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>  | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: 0.94<br>Total: 2563.00<br>Weight of DC: 78.67<br>Weight of String: 67.00   | Hole Drag Up: 4 Down: 7<br>Torque At Bottom: 9900<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 6410 @ 56 @ 2322.00<br>2 6440 @ 56 @ 2418.00  | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP   |
| <b>METRES DRILLED</b>  | <b>REMARKS</b>  |  |  |  |
| 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  |  |  |  |

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

|  |   |   |  |  |
|--|---|---|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1179.00<br>Total Drilled (m): 1199.00<br>Hrs Run Today: 6.50<br>Cumulative Hrs Run: 13.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 60 0.78<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>4 Drill Pipe Stands 116.80<br>0 Drill Pipe Singles 0.00 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 07:15 2518.10 91.50 90.2<br>08:00 2547.06 92.00 92.1<br>Density: 1.166<br>Funnel Viscosity: 118<br>Fluid Loss: 1.66<br>pH: 11.8<br>Location of Sample: 121<br>Depth: 130<br>PVT: 130<br>Circulation: 130<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>1 SINGLE 127 112 32000 10.00<br>2 SINGLE 127 112 32000 2.00 | Time: 07:15 2518.10 91.50 90.2<br>08:00 2547.06 92.00 92.1<br>Deviation: 91.50 90.2<br>Direction: 90.2<br>Type: 90.2 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: -0.66<br>Total: 3211.00<br>Weight of DC: 88.98<br>Weight of String: 68.00  | Hole Drag Up: 6 Down: 15<br>Torque At Bottom: 10500<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 6780 @ 56 @ 2622.00<br>2 6850 @ 56 @ 2728.00<br>2 7300 @ 56 @ 2728.00  | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP   |
| <b>METRES DRILLED</b>  | <b>REMARKS</b>  |   |  |  |
| 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  |   |  |  |

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

|  |  |   |  |  |
|--|--|---|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>   | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 1418.00<br>Total Drilled (m): 1418.00<br>Hrs Run Today: 3.00<br>Cumulative Hrs Run: 16.25<br>Entry Date: 26-Dec-2016 | 1 159MM BIT 159 1 0.21<br>1 8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 5" JARS 130 60 0.78<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>12 Drill Pipe Stands 350.13<br>1 Drill Pipe Singles 9.72 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 07:15 2518.10 91.50 90.2<br>08:00 2547.06 92.00 92.1<br>Density: 1.166<br>Funnel Viscosity: 118<br>Fluid Loss: 1.66<br>pH: 11.8<br>Location of Sample: 121<br>Depth: 130<br>PVT: 130<br>Circulation: 130<br>Pump # Type Liner Size SPM Pressure Hrs Run<br>2 SINGLE 127 112 31800 3.25 | Time: 07:15 2518.10 91.50 90.2<br>08:00 2547.06 92.00 92.1<br>Deviation: 91.50 90.2<br>Direction: 90.2<br>Type: 90.2 | From: To: Elapsed: Code: Details Of Operations In Sequence & Remarks |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>  | <b>SAFETY</b>  |
| Kelly Down: -4.71<br>Total: 3450.00<br>Weight of DC: 87.26<br>Weight of String: 68.00  | Hole Drag Up: 8 Down: 17<br>Torque At Bottom: 11600<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth<br>2 7100 @ 56 @ 3182.00<br>2 7240 @ 56 @ 3327.00   | BoilerNo HoursRun pH StackTemp   | Safety Topic MEHL MACP   |
| <b>METRES DRILLED</b>  | <b>REMARKS</b>   |   |  |  |
| 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<br>OBSERVATION: WORKER CAME TO HELP WITH MUD PUMP REPAIRS AND WAS GOING TO STAR WORK WITHOUT ADDING HIS LOCK TO THE GANG LOCK, STOPPED  |   |  |  |



|   |   |   |  |                 |                                      |  |                     |  |       |
|---|---|---|--|-----------------|--------------------------------------|--|---------------------|--|-------|
| <b>FRONT PAGE SUMMARY</b>                                 |   | Tour Sheet Serial Number<br>PREC465 20161228 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016    | Month<br>12                          | Day<br>28  | <b>DAILY CHECKS</b> |  | OP RM |
| License No<br>32575                                       | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6            | Surface Location<br>11-34-81-18 W6              | Prov<br>BC                                     | Loc Type<br>DLS | Unique Well ID<br>103/09-35-81-18W6  | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weighy (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Postcard If Required<br><input type="checkbox"/> (4) Well Licence & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Staked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs-Flare Lines & Degasser Lines |                     | <input type="checkbox"/> PA<br><input type="checkbox"/> CB<br><input type="checkbox"/> CT<br><input type="checkbox"/> CS |       |
| Company<br>ARC Resources Ltd.                             | Contractor<br>Precision Drilling, div of PDC              | Company Job No<br>36                            | Well Type<br>465                               | Horiz<br>HORIZ  | Re-entry<br><input type="checkbox"/> | <input type="checkbox"/> (1) Rig Site Health & Safety Meeting (once/week/month)<br><input type="checkbox"/> (2) CADCDC Rig Safety Inspection Checklist (once/monthly)<br><input type="checkbox"/> (3) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (4) Crown Saver Checked<br><input type="checkbox"/> (5) Major Risks Checked   |                     | <input type="checkbox"/> CT<br><input type="checkbox"/> CS   |       |
| Signature of Operator's Representative<br>PAUL BOUTILLIER | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE | Squad Date Time<br>21-Dec-2016                  | Rig Release Date Time<br>23:30                 |                 |                                      |  |                     |  |       |



| 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 Dring Line | Dev Survey | Wireline Logs | Ran Csg & 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 | 5.50   |              |         |        |                 |       | 0.25        |            |                    | 2.00       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 8.00  | 24822            | 4197 |
| Tour 2 | 8.75   |              |         |        |                 |       | 0.25        |            |                    | 2.50       |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       | 12.00 | 05:30            | -3   |
| Tour 3 | 3.00   |              |         |        | 0.50            |       | 0.25        |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 4.00  |                  |      |
| TOTAL  | 17.25  |              |         |        | 0.50            |       | 0.75        |            |                    | 4.50       |               |                  |                |            |          |                |           |                |         |          | 1.00           |           |            |           |       | 24.00 |                  |      |

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

|                              |                           |                           |                        |                           |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
|------------------------------|---------------------------|---------------------------|------------------------|---------------------------|------------------|--------------------------|------------------|----------------------|--------------------|--------------|------------------|--------------|-----------------|-----------|---|--|--|--|--|
| <b>BITS</b>                  |                           | <b>DRILLING ASSEMBLY</b>  |                        | <b>MUD RECORD</b>         |                  | <b>DEVIATION SURVEYS</b> |                  | <b>TIME LOG</b>      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Bit Number<br>4              | Size<br>159               | No<br>1                   | Component<br>159MM BIT | OD<br>159                 | ID<br>121        | Time<br>02:00            | Depth<br>00:15   | Deviation<br>3459.16 | Direction<br>91.10 | Type<br>90.4 | From<br>0:00     | To<br>3:45   | Elapsed<br>3:75 | Code<br>2 | Details of Operations In Sequence & Remarks   |  |  |  |  |
| IADC Code<br>REED            | Manufacturer<br>REED      | 1                         | 8 STAGE MOTOR          | 127                       | 1                | 10:45                    | 09:00            | 3864.48              | 90.90              | 89.5         | 8:00             | 13:00        | 5:00            | 2         | DRILL 159MM LATERAL SECTION FROM 3459M - 3734M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS, RIG SERVICE, FUNCTION ANNUAL, 22 SECONDS TO CLOSE.                    |  |  |  |  |
| Type<br>SK413M-A1G-Z         | Serial No<br>E227643      | 1                         | NON MAG FLEX MONEL     | 118                       | 70               | 11:75                    | 09:30            | 3922.89              | 91.40              | 89.5         | 5:00             | 5:15         | 0:15            | 2         | DRILL 159MM LATERAL SECTION FROM 3734M - 3875M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS, HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP. |  |  |  |  |
| Jts<br>9.5 9.5               | 1                         | GAP SUB GSS09             | 128                    | 1                         | 1                | 11:00                    | 10:30            | 3951.99              | 90.60              | 89.9         | 5:15             | 7:00         | 1:45            | 2         | DRILL 159MM LATERAL SECTION FROM 3875M - 4090M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS, RIG SERVICE, FUNCTION ANNUAL, 22 SECONDS TO CLOSE.                    |  |  |  |  |
| Depth Out (m)<br>3875.00     | 1                         | CROSSOVER SUB             | 130                    | 60                        | 0.78             | 11:15                    | 11:15            | 3981.24              | 88.80              | 87.1         | 7:00             | 7:45         | 0:45            | 10        | DRILL 159MM LATERAL SECTION FROM 4090M - 4187M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS, HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP. |  |  |  |  |
| Depth In (m)<br>2032.00      | 1                         | 5" JARS                   | 130                    | 58                        | 5.20             | 11:20                    | 12:15            | 4010.44              | 89.90              | 88.5         | 7:45             | 8:00         | 0:15            | 21        | HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP.   |  |  |  |  |
| Total Drilled (m)<br>1843.00 | 57                        | 4.5" DP                   | 135                    | 80                        | 55.42            |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Hrs Run Today<br>5.50        | 1                         | CROSSOVER SUB             | 130                    | 60                        | 0.78             |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Cumulative Hrs Run<br>21.75  | 27                        | Drill Pipe                | Stand                  | 784.62                    |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Entry Date<br>26-Dec-2016    | 0                         | Drill Pipe                | Singles                | 0.00                      |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| <b>CUTTING STRUCTURE</b>     |                           | <b>HOLE CONDITION</b>     |                        | <b>REDUCED PUMP SPEED</b> |                  | <b>BOILER</b>            |                  | <b>SAFETY</b>        |                    |              |                  |              |                 |           |   |  |  |  |  |
| Kelly Down<br>-4.48          | Total<br>3875.00          | Hole Drag<br>12           | Up<br>20               | Pump #<br>1               | Pressure<br>7520 | Strokes/min<br>56        | Depth<br>3860.00 | BoilerNo<br>1        | HoursRun<br>8.00   | pH<br>10.5   | StackTemp<br>340 | Safety Topic |                 |           | MEHL 3073 MACP  |  |  |  |  |
| Weight of DC<br>84.74        | Weight of String<br>68.00 | Torque At Bottom<br>11900 | Fill On Bottom         | 2                         | 7900             | 56                       | 3734.00          | 2                    | 8.00               | 10.5         | 340              | LOCK OUTS    |                 |           |   |  |  |  |  |

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

|                              |                           |                           |                        |                           |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
|------------------------------|---------------------------|---------------------------|------------------------|---------------------------|------------------|--------------------------|------------------|----------------------|--------------------|--------------|------------------|--------------|-----------------|-----------|---|--|--|--|--|
| <b>BITS</b>                  |                           | <b>DRILLING ASSEMBLY</b>  |                        | <b>MUD RECORD</b>         |                  | <b>DEVIATION SURVEYS</b> |                  | <b>TIME LOG</b>      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Bit Number<br>4              | Size<br>159               | No<br>1                   | Component<br>159MM BIT | OD<br>159                 | ID<br>121        | Time<br>14:00            | Depth<br>08:15   | Deviation<br>3864.48 | Direction<br>90.90 | Type<br>89.5 | From<br>8:00     | To<br>13:00  | Elapsed<br>5:00 | Code<br>2 | Details of Operations In Sequence & Remarks   |  |  |  |  |
| IADC Code<br>REED            | Manufacturer<br>REED      | 1                         | 8 STAGE MOTOR          | 127                       | 1                | 10:45                    | 09:00            | 3864.48              | 91.50              | 91.6         | 13:00            | 15:00        | 2:00            | 10        | DRILL 159MM HOLE FROM 3875M - 4090M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS, RIG SERVICE, FUNCTION ANNUAL, 22 SECONDS TO CLOSE. |  |  |  |  |
| Type<br>SK413M-A1G-Z         | Serial No<br>E227643      | 1                         | NON MAG FLEX MONEL     | 118                       | 70               | 11:75                    | 09:30            | 3922.89              | 91.40              | 89.5         | 15:00            | 15:15        | 0:15            | 21A       | DRIVE HOME AND HANDOVER SAFETY MEETING WITH BOTH CREWS, RIG MANAGER AND COMPANY REP.  |  |  |  |  |
| Jts<br>9.5 9.5               | 1                         | GAP SUB GSS09             | 128                    | 1                         | 1                | 11:00                    | 10:30            | 3951.99              | 90.60              | 89.9         | 15:15            | 15:30        | 0:15            | 21A       | SOUR BOP/ MAN DOWN DRILL, OPEN HCR - 2 SECONDS, CLOSE ANNUAL - 22 SECONDS, WELL SECURE IN 65 SECONDS, MEN PACKED UP AND SEARCH COMPLETED IN 3:45  |  |  |  |  |
| Depth Out (m)<br>3875.00     | 1                         | CROSSOVER SUB             | 130                    | 60                        | 0.78             | 11:15                    | 11:15            | 3981.24              | 88.80              | 87.1         | 15:30            | 15:45        | 0:15            | 7         | RIG SERVICE, FUNCTION UPPER PIPE RAMS, 6 SECONDS TO CLOSE.  |  |  |  |  |
| Depth In (m)<br>2032.00      | 1                         | 5" JARS                   | 130                    | 58                        | 5.20             | 11:20                    | 12:15            | 4010.44              | 89.90              | 88.5         | 15:45            | 19:30        | 3:75            | 2         | DRILL 159MM HOLE FROM 4090M - 4187M. ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.  |  |  |  |  |
| Total Drilled (m)<br>2155.00 | 57                        | 4.5" DP                   | 135                    | 80                        | 55.42            |                          |                  |                      |                    |              | 19:30            | 20:00        | 0:30            | 10        |   |  |  |  |  |
| Hrs Run Today<br>8.75        | 1                         | CROSSOVER SUB             | 130                    | 60                        | 0.78             |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Cumulative Hrs Run<br>30.50  | 37                        | Drill Pipe                | Stand                  | 1076.45                   |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Entry Date<br>26-Dec-2016    | 2                         | Drill Pipe                | Singles                | 19.49                     |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| <b>CUTTING STRUCTURE</b>     |                           | <b>HOLE CONDITION</b>     |                        | <b>REDUCED PUMP SPEED</b> |                  | <b>BOILER</b>            |                  | <b>SAFETY</b>        |                    |              |                  |              |                 |           |   |  |  |  |  |
| Kelly Down<br>-3.80          | Total<br>4187.00          | Hole Drag<br>12           | Up<br>22               | Pump #<br>2               | Pressure<br>7900 | Strokes/min<br>56        | Depth<br>3960.00 | BoilerNo<br>1        | HoursRun<br>12.00  | pH<br>10.5   | StackTemp<br>340 | Safety Topic |                 |           | MEHL 3073 MACP  |  |  |  |  |
| Weight of DC<br>78.66        | Weight of String<br>68.00 | Torque At Bottom<br>12000 | Fill On Bottom         | 2                         | 7900             | 56                       | 3960.00          | 2                    | 12.00              | 10.5         | 340              | DRIVE HOME   |                 |           |   |  |  |  |  |

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

|                              |                           |                           |                        |                           |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
|------------------------------|---------------------------|---------------------------|------------------------|---------------------------|------------------|--------------------------|------------------|----------------------|--------------------|--------------|------------------|--------------|-----------------|-----------|---|--|--|--|--|
| <b>BITS</b>                  |                           | <b>DRILLING ASSEMBLY</b>  |                        | <b>MUD RECORD</b>         |                  | <b>DEVIATION SURVEYS</b> |                  | <b>TIME LOG</b>      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Bit Number<br>4              | Size<br>159               | No<br>1                   | Component<br>159MM BIT | OD<br>159                 | ID<br>121        | Time<br>22:00            | Depth<br>20:30   | Deviation<br>4185.52 | Direction<br>90.10 | Type<br>89.6 | From<br>20:00    | To<br>23:00  | Elapsed<br>3:00 | Code<br>2 | Details of Operations In Sequence & Remarks   |  |  |  |  |
| IADC Code<br>REED            | Manufacturer<br>REED      | 1                         | 8 STAGE MOTOR          | 127                       | 1                | 10:45                    | 09:00            | 3864.48              | 91.50              | 89.6         | 23:00            | 23:30        | 0:30            | 5         | ACCUMULATED DEVIATION SURVEYS, WORK PIPE AND CONNECTIONS.   |  |  |  |  |
| Type<br>SK413M-A1G-Z         | Serial No<br>E227643      | 1                         | NON MAG FLEX MONEL     | 118                       | 70               | 11:75                    | 09:30            | 3922.89              | 91.40              | 89.5         | 23:30            | 23:45        | 0:15            | 21A       | SOUR BOP DRILL HELD WITH RIG CREW COMING IN FROM LONG CHANGE, MEN PACKED UP AND WELL SECURE IN 2MIN 33SECS. DURATION OF DRILL 4MIN. FT LOWER PIPERAMS (6SECS TO CLOSE). |  |  |  |  |
| Jts<br>9.5 9.5               | 1                         | GAP SUB GSS09             | 128                    | 1                         | 1                | 11:00                    | 10:30            | 3951.99              | 90.60              | 89.9         | 23:45            | 24:00        | 0:15            | 7         | RIG SERVICE, GREASE AND SERVICE TOP DRIVE.  |  |  |  |  |
| Depth Out (m)<br>3875.00     | 1                         | CROSSOVER SUB             | 130                    | 60                        | 0.78             | 11:15                    | 11:15            | 3981.24              | 88.80              | 87.1         |                  |              |                 |           |   |  |  |  |  |
| Depth In (m)<br>2032.00      | 1                         | 5" JARS                   | 130                    | 58                        | 5.20             | 11:20                    | 12:15            | 4010.44              | 89.90              | 88.5         |                  |              |                 |           |   |  |  |  |  |
| Total Drilled (m)<br>2231.00 | 57                        | 4.5" DP                   | 135                    | 80                        | 55.42            |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Hrs Run Today<br>3.00        | 1                         | CROSSOVER SUB             | 130                    | 60                        | 0.78             |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Cumulative Hrs Run<br>33.50  | 40                        | Drill Pipe                | Stand                  | 1164.10                   |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| Entry Date<br>26-Dec-2016    | 0                         | Drill Pipe                | Singles                | 0.00                      |                  |                          |                  |                      |                    |              |                  |              |                 |           |   |  |  |  |  |
| <b>CUTTING STRUCTURE</b>     |                           | <b>HOLE CONDITION</b>     |                        | <b>REDUCED PUMP SPEED</b> |                  | <b>BOILER</b>            |                  | <b>SAFETY</b>        |                    |              |                  |              |                 |           |   |  |  |  |  |
| Kelly Down<br>4.04           | Total<br>4263.00          | Hole Drag<br>12           | Up<br>23               | Pump #<br>2               | Pressure<br>7790 | Strokes/min<br>56        | Depth<br>4170.00 | BoilerNo<br>1        | HoursRun<br>4.00   | pH<br>10.5   | StackTemp<br>340 | Safety Topic |                 |           | MEHL 3073 MACP  |  |  |  |  |
| Weight of DC<br>66.60        | Weight of String<br>68.00 | Torque At Bottom<br>14200 | Fill On Bottom         | 2                         | 7790             | 56                       | 4170.00          | 2                    | 4.00               | 10.5         | 340              | BOP DRILL    |                 |           |   |  |  |  |  |



|                               |  |   |  |                                     |   |           |                     |  |
|-------------------------------|--|---|--|-------------------------------------|---|-----------|---------------------|--|
| <b>FRONT PAGE SUMMARY</b>     |  | Tour Sheet Serial Number<br>PREC465 20161228 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016                        | Month<br>12   | Day<br>28 | <b>DAILY CHECKS</b> | OP RM  |
| License No<br>32575           | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6           | Surface Location<br>11-34-81-18 W6              | Prov<br>DLS                                    | Unique Well ID<br>103/09-35-81-18W6 | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Postcard if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Staked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CAODC Rig Safety Inspection Checklist (once/week/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Cover Sliver Checked<br>(12) Major Vibs Checked |           |                     | PA CB<br>PB CB<br>PC CB<br>PD CB<br>PE CB<br>PF CB<br>PG CB<br>PH CB<br>PI CB<br>PJ CB<br>PK CB<br>PL CB<br>PM CB<br>PN CB<br>PO CB<br>PP CB<br>PQ CB<br>PR CB<br>PS CB<br>PT CB<br>PU CB<br>PV CB<br>PW CB<br>PX CB<br>PY CB<br>PZ CB |
| Company<br>ARC Resources Ltd. | Contractor<br>Precision Drilling, div of PDC             | Company Job No<br>36                            | Rig No<br>465                                  | Well Type<br>HORIZ                  | (1) Rig Site Health & Safety Meeting (once/week/month)<br>(2) CAODC Rig Safety Inspection Checklist (once/week/month)<br>(3) Mast Inspection before Raising or Lowering<br>(4) Cover Sliver Checked<br>(5) Major Vibs Checked   |           |                     | CA<br>CB<br>CC<br>CD<br>CE<br>CF<br>CG<br>CH<br>CI<br>CJ<br>CK<br>CL<br>CM<br>CN<br>CO<br>CP<br>CQ<br>CR<br>CS<br>CT<br>CU<br>CV<br>CW<br>CX<br>CY<br>CZ   |
| Contractor's Rep<br>16DR0084  | Signature of Contractor's Rep Manager<br>PAUL BOUTILLIER | Signature of Operator's Rep<br>CECIL TROWBRIDGE | Squad Date Time<br>21-Dec-2016                 | Rig Release Time<br>23:30           |   |           |                     |  |



| 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 Dring 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 |       | 24822            |
| Tour 1 |        | 5.50         |         |        |                 |       | 0.25        |            |                    | 2.00       |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 8.00  | 4197             |
| Tour 2 |        | 8.75         |         |        |                 |       | 0.25        |            |                    | 2.50       |               |                  |                |            |          |                |           |                |         |          | 0.50           |           |            |           |       | 12.00 | 3                |
| Tour 3 |        | 3.00         |         |        | 0.50            |       | 0.25        |            |                    |            |               |                  |                |            |          |                |           |                |         |          | 0.25           |           |            |           |       | 4.00  |                  |
| TOTAL  |        | 17.25        |         |        | 0.50            |       | 0.75        |            |                    | 4.50       |               |                  |                |            |          |                |           |                |         |          | 1.00           |           |            |           |       | 24.00 |                  |

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



|  |  |   |   |  |
|--|--|---|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>Jts: 9.5 9.5<br>Depth Out (m): 3875.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 1843.00<br>Hrs Run Today: 5.50<br>Cumulative Hrs Run: 21.75<br>Entry Date: 26-Dec-2016 | No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>15" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>27 Drill Pipe Stands 784.62<br>0 Drill Pipe Singles 0.00 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 03:00 3632.76 88.20 91.6<br>03:45 3661.61 92.10 92<br>04:15 3690.47 91.80 91.3<br>04:30 3313.07 90.10 90.7<br>05:00 3719.41 91.80 89.8<br>05:45 3748.19 90.30 90<br>Circulation: Pump # 1 Type SINGLE Liner Size 127 SPM 112 Pressure 32700 Hrs Run 6.75 | Time Depth Deviation Direction Type<br>03:00 3632.76 88.20 91.6<br>03:45 3661.61 92.10 92<br>04:15 3690.47 91.80 91.3<br>04:30 3313.07 90.10 90.7<br>05:00 3719.41 91.80 89.8<br>05:45 3748.19 90.30 90 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks<br>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<br>HAZARD: TUGGER LINE WAS NOT SPOOLED CORRECTLY CAUSING IT TO BUNCH UP ON WINCH SPOOL, RESPOOLED IT PROPERLY WHEN IT WAS SAFE TO DO SO<br>SAFETY<br>MEHL 3073 MACP |

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

|  |  |  |   |  |
|--|--|--|---|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>  | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>Jts: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 2155.00<br>Total Drilled (m): 8.75<br>Hrs Run Today: 30.50<br>Cumulative Hrs Run: 30.50<br>Entry Date: 26-Dec-2016 | No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>15" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>37 Drill Pipe Stands 1076.45<br>2 Drill Pipe Singles 19.49 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 13:30 4039.62 91.00 88.1<br>14:30 4068.77 91.30 90<br>15:30 4097.90 91.80 90.3<br>17:45 4127.04 90.80 90.8<br>19:00 4156.31 90.40 89.8<br>Circulation: Pump # 2 Type SINGLE Liner Size 127 SPM 112 Pressure 33000 Hrs Run 10.50 | Time Depth Deviation Direction Type<br>13:30 4039.62 91.00 88.1<br>14:30 4068.77 91.30 90<br>15:30 4097.90 91.80 90.3<br>17:45 4127.04 90.80 90.8<br>19:00 4156.31 90.40 89.8 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks<br>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<br>SAFETY<br>MEHL 3073 MACP |

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

|  |   |  |  |  |
|--|---|--|--|--|
| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>                                     | <b>TIME LOG</b>  |
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>Jts: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 2231.00<br>Total Drilled (m): 3.00<br>Hrs Run Today: 33.50<br>Cumulative Hrs Run: 33.50<br>Entry Date: 26-Dec-2016 | No. Component OD ID Length<br>1 159MM BIT 159 1 0.21<br>8 STAGE MOTOR 127 1 8.94<br>1 NON MAG FLEX MONEL 118 70 9.49<br>1 GAP SUB GSS09 128 1 1.66<br>2 NON MAG FLEX MONEL 118 70 19.91<br>1 SLIDE REAMER 121 58 1.43<br>1 CROSSOVER SUB 130 60 0.94<br>4 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>15" JARS 130 58 5.20<br>1 CROSSOVER SUB 130 60 0.78<br>57 4.5" DP 135 80 38.90<br>1 CROSSOVER SUB 130 60 0.78<br>40 Drill Pipe Stands 1164.10<br>0 Drill Pipe Singles 0.00 | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/><br>Other: <input type="checkbox"/><br>Time: 2:00 7790 56 41720.00<br>Circulation: Pump # 2 Type SINGLE Liner Size 127 SPM 112 Pressure 30300 Hrs Run 2.00 | Time Depth Deviation Direction Type<br>2:00 7790 56 41720.00 | From To Elapsed Code<br>Details Of Operations In Sequence & Remarks<br>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<br>HAZARD: GUARD ON BENCH GRINDER WAS LOOSE CAUSING IT TO RATTLE AND POSSIBLY CONTACT BUFFING WHEEL, TIGHTENED IT UP AND ENSURED IT WAS<br>SAFETY<br>MEHL 3073 MACP |

|  |  |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--|--|---|--|-----------------|-------------------------------------|--------------------------------------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| <b>FRONT PAGE SUMMARY</b>  |  | Tour Sheet Serial Number<br>PREC465 20161228 1A           | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016    | Month<br>12                         | Day<br>28                            | <b>DAILY CHECKS</b>   | <b>OP RM</b>  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| License No<br>32575  | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6 | Surface Location<br>11-34-81-18 W6                        | Prov<br>BC                                     | Loc Type<br>DLS | Unique Well Id<br>103/09-35-81-18W6 | Re-Entry<br><input type="checkbox"/> | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Postcard if Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Baked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CAODC Rig Safety Inspection Checklist (once/week/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Motor Vibs Checked | <table border="1"> <tr><td>PA</td><td>CT</td></tr> <tr><td>PE</td><td>CT</td></tr> <tr><td>PF</td><td>CT</td></tr> <tr><td>PG</td><td>CT</td></tr> <tr><td>PH</td><td>CT</td></tr> <tr><td>PI</td><td>CT</td></tr> <tr><td>PJ</td><td>CT</td></tr> <tr><td>PK</td><td>CT</td></tr> <tr><td>PL</td><td>CT</td></tr> <tr><td>PM</td><td>CT</td></tr> <tr><td>PN</td><td>CT</td></tr> <tr><td>PO</td><td>CT</td></tr> <tr><td>PP</td><td>CT</td></tr> <tr><td>PQ</td><td>CT</td></tr> <tr><td>PR</td><td>CT</td></tr> <tr><td>PS</td><td>CT</td></tr> <tr><td>PT</td><td>CT</td></tr> <tr><td>PV</td><td>CT</td></tr> <tr><td>PW</td><td>CT</td></tr> <tr><td>PX</td><td>CT</td></tr> <tr><td>PY</td><td>CT</td></tr> <tr><td>PZ</td><td>CT</td></tr> </table> | PA | CT | PE | CT | PF | CT | PG | CT | PH | CT | PI | CT | PJ | CT | PK | CT | PL | CT | PM | CT | PN | CT | PO | CT | PP | CT | PQ | CT | PR | CT | PS | CT | PT | CT | PV | CT | PW | CT | PX | CT | PY | CT | PZ | CT |
| PA   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PE   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PF   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PG   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PH   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PI   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PJ   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PK   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PL   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PM   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PN   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PO   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PP   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PQ   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PR   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PS   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PT   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PV   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PW   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PX   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PY   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| PZ   | CT   |   |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Contractor<br>ARC Resources Ltd.<br>Precision Drilling, div of PDC                       |  | Contractor Job No<br>465                                  | Spool Date Time<br>21-Dec-2016                 |                 | 23:30                               |                                      |     |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Contractor's Representative<br>Signature of Operator's Representative<br>PAUL BOUTILLIER |  | Signature of Contractor's Rig Manager<br>CECIL TROWBRIDGE |  |                 |                                     |                                      |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

| Code   | Rig Up |   |   |   |      |   |      |   |   |    |      |    |    |    |    |    |    | TOTAL | FUEL @ 08:00 HRS | WEATHER |  |  |  |       |       |      |       |    |
|--------|--------|---|---|---|------|---|------|---|---|----|------|----|----|----|----|----|----|-------|------------------|---------|--|--|--|-------|-------|------|-------|----|
|        | 1      | 2 | 3 | 4 | 5    | 6 | 7    | 8 | 9 | 10 | 11   | 12 | 13 | 14 | 15 | 16 | 17 |       |                  |         |  |  |  |       |       |      |       |    |
| Tour 1 | 5.50   |   |   |   |      |   | 0.25 |   |   |    | 2.00 |    |    |    |    |    |    | 0.25  |                  |         |  |  |  | 8.00  | 24822 | 4197 | 05:30 | -3 |
| Tour 2 | 8.75   |   |   |   |      |   | 0.25 |   |   |    | 2.50 |    |    |    |    |    |    | 0.50  |                  |         |  |  |  | 12.00 | 05:30 | -3   |       |    |
| Tour 3 | 3.00   |   |   |   | 0.50 |   | 0.25 |   |   |    |      |    |    |    |    |    |    | 0.25  |                  |         |  |  |  | 4.00  |       |      |       |    |
| TOTAL  | 17.25  |   |   |   | 0.50 |   | 0.75 |   |   |    | 4.50 |    |    |    |    |    |    | 1.00  |                  |         |  |  |  | 24.00 |       |      |       |    |

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

| <b>BITS</b>  | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>   | <b>DEVIATION SURVEYS</b>       | <b>TIME LOG</b>    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|--|---|---|--------------------------------|--------------------|---------|--------|---|-----------|-----|---|------|---|---------------|-----|---|------|---|--------------------|-----|----|------|---|---------------|-----|---|------|---|--------------------|-----|----|-------|---|--------------|-----|----|------|---|---------------|-----|----|------|---|---------|-----|----|-------|---|---------------|-----|----|------|---|----------|-----|----|------|---|---------------|-----|----|------|----|---------|-----|----|-------|---|---------------|-----|----|------|----|------------|-----------|--|--------|---|------------|---------|--|------|---|----------|-------|-----|-------|--|-------------------------------------|--------------------------|--------------------------|------|-------|-----------|-----------|------|-------|---------|-------|------|--|-------|---------|-------|------|--|-------|---------|-------|------|--|----------------|-----------|----------------|-------------------|--------------------|---------------|------|---|---|---|---------------|------|------|------|------|--------|------|------------|-----|----------|---------|---|--------|-----|-----|-------|------|--|---------|--------|------|--|--|--|--|------|----|---------|------|--|--|--|--|
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 3875.00<br>Depth In (m): 2032.00<br>Total Drilled (m): 1843.00<br>Hrs Run Today: 5.50<br>Cumulative Hrs Run: 21.75<br>Entry Date: 26-Dec-2016 | <table border="1"> <tr><th>No</th><th>Component</th><th>OD</th><th>ID</th><th>Length</th></tr> <tr><td>1</td><td>159MM BIT</td><td>159</td><td>1</td><td>0.21</td></tr> <tr><td>1</td><td>8 STAGE MOTOR</td><td>127</td><td>1</td><td>8.94</td></tr> <tr><td>1</td><td>NON MAG FLEX MONEL</td><td>118</td><td>70</td><td>9.49</td></tr> <tr><td>1</td><td>GAP SUB GSS09</td><td>128</td><td>1</td><td>1.66</td></tr> <tr><td>2</td><td>NON MAG FLEX MONEL</td><td>118</td><td>70</td><td>19.91</td></tr> <tr><td>1</td><td>SLIDE REAMER</td><td>121</td><td>58</td><td>1.43</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.94</td></tr> <tr><td>4</td><td>4.5" DP</td><td>135</td><td>80</td><td>38.90</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>1</td><td>15" JARS</td><td>130</td><td>58</td><td>5.20</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>57</td><td>4.5" DP</td><td>135</td><td>80</td><td>38.90</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>27</td><td>Drill Pipe</td><td>Standards</td><td></td><td>784.62</td></tr> <tr><td>0</td><td>Drill Pipe</td><td>Singles</td><td></td><td>0.00</td></tr> </table> | No  | Component                      | OD                 | ID      | Length | 1 | 159MM BIT | 159 | 1 | 0.21 | 1 | 8 STAGE MOTOR | 127 | 1 | 8.94 | 1 | NON MAG FLEX MONEL | 118 | 70 | 9.49 | 1 | GAP SUB GSS09 | 128 | 1 | 1.66 | 2 | NON MAG FLEX MONEL | 118 | 70 | 19.91 | 1 | SLIDE REAMER | 121 | 58 | 1.43 | 1 | CROSSOVER SUB | 130 | 60 | 0.94 | 4 | 4.5" DP | 135 | 80 | 38.90 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 1 | 15" JARS | 130 | 58 | 5.20 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 57 | 4.5" DP | 135 | 80 | 38.90 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 27 | Drill Pipe | Standards |  | 784.62 | 0 | Drill Pipe | Singles |  | 0.00 | <table border="1"> <tr><th>Mud Type</th><th>Water</th><th>Oil</th><th>Other</th></tr> <tr><td></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table> <table border="1"> <tr><th>Time</th><th>Depth</th><th>Deviation</th><th>Direction</th><th>Type</th></tr> <tr><td>06:15</td><td>3777.10</td><td>90.00</td><td>88.7</td><td></td></tr> <tr><td>07:00</td><td>3806.32</td><td>89.30</td><td>88.9</td><td></td></tr> <tr><td>07:30</td><td>3835.22</td><td>90.20</td><td>88.6</td><td></td></tr> </table> <table border="1"> <tr><th>Equipment Name</th><th>Hours Run</th><th>Intake Density</th><th>Over Flow Density</th><th>Under Flow Density</th></tr> <tr><td>Centrifuge #1</td><td>0.00</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Centrifuge #2</td><td>8.00</td><td>1180</td><td>1090</td><td>1750</td></tr> </table> <table border="1"> <tr><th>Pump #</th><th>Type</th><th>Liner Size</th><th>SPM</th><th>Pressure</th><th>Hrs Run</th></tr> <tr><td>1</td><td>SINGLE</td><td>127</td><td>112</td><td>32700</td><td>6.75</td></tr> </table> | Mud Type | Water | Oil | Other |  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Time | Depth | Deviation | Direction | Type | 06:15 | 3777.10 | 90.00 | 88.7 |  | 07:00 | 3806.32 | 89.30 | 88.9 |  | 07:30 | 3835.22 | 90.20 | 88.6 |  | Equipment Name | Hours Run | Intake Density | Over Flow Density | Under Flow Density | Centrifuge #1 | 0.00 | 0 | 0 | 0 | Centrifuge #2 | 8.00 | 1180 | 1090 | 1750 | Pump # | Type | Liner Size | SPM | Pressure | Hrs Run | 1 | SINGLE | 127 | 112 | 32700 | 6.75 | <table border="1"> <tr><th>Product</th><th>Amount</th><th>Type</th></tr> <tr><td></td><td></td><td></td></tr> </table> | Product | Amount | Type |  |  |  | <table border="1"> <tr><th>From</th><th>To</th><th>Elapsed</th><th>Code</th></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> | From | To | Elapsed | Code |  |  |  |  |
| No   | Component   | OD  | ID                             | Length             |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | 159MM BIT   | 159   | 1                              | 0.21               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | 8 STAGE MOTOR   | 127   | 1                              | 8.94               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | NON MAG FLEX MONEL  | 118   | 70                             | 9.49               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | GAP SUB GSS09   | 128   | 1                              | 1.66               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 2  | NON MAG FLEX MONEL  | 118   | 70                             | 19.91              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | SLIDE REAMER  | 121   | 58                             | 1.43               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | CROSSOVER SUB   | 130   | 60                             | 0.94               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 4  | 4.5" DP   | 135   | 80                             | 38.90              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | CROSSOVER SUB   | 130   | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | 15" JARS  | 130   | 58                             | 5.20               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | CROSSOVER SUB   | 130   | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 57   | 4.5" DP   | 135   | 80                             | 38.90              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | CROSSOVER SUB   | 130   | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 27   | Drill Pipe  | Standards   |                                | 784.62             |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 0  | Drill Pipe  | Singles   |                                | 0.00               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Mud Type   | Water   | Oil   | Other                          |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>       |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Time   | Depth   | Deviation   | Direction                      | Type               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 06:15  | 3777.10   | 90.00   | 88.7                           |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 07:00  | 3806.32   | 89.30   | 88.9                           |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 07:30  | 3835.22   | 90.20   | 88.6                           |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Equipment Name   | Hours Run   | Intake Density  | Over Flow Density              | Under Flow Density |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Centrifuge #1  | 0.00  | 0   | 0                              | 0                  |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Centrifuge #2  | 8.00  | 1180  | 1090                           | 1750               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Pump #   | Type  | Liner Size  | SPM                            | Pressure           | Hrs Run |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1  | SINGLE  | 127   | 112                            | 32700              | 6.75    |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Product  | Amount  | Type  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|  |   |   |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| From   | To  | Elapsed   | Code                           |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|  |   |   |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| <b>CUTTING STRUCTURE</b>   | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>   | <b>BOILER</b>                  | <b>SAFETY</b>      |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Kelly Down: -4.48<br>Total: 3875.00<br>Weight of DC: 84.74<br>Weight of String: 68.00  | Hole Drag Up: 12 Down: 20<br>Torque At Bottom: 11900<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth<br>1 7520 @ 56 @ 3860.00<br>1 7690 @ 56 @ 3734.00 | BoilerNo HoursRun pH StackTemp | MEHL 3073 MACP     |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| TOUR 2 SIGNATURE OF DRILLER <b>BRENDEAN PREVOST</b> START TIME 8:00 END TIME 20:00   |   |   |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |        |   |            |         |  |      |   |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |       |         |       |      |  |       |         |       |      |  |       |         |       |      |  |                |           |                |                   |                    |               |      |   |   |   |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |      |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |

| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>  | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>       | <b>TIME LOG</b>    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|---|---|--|--------------------------------|--------------------|---------|--------|---|-----------|-----|---|------|---|---------------|-----|---|------|---|--------------------|-----|----|------|---|---------------|-----|---|------|---|--------------------|-----|----|-------|---|--------------|-----|----|------|---|---------------|-----|----|------|---|---------|-----|----|-------|---|---------------|-----|----|------|---|----------|-----|----|------|---|---------------|-----|----|------|----|---------|-----|----|-------|---|---------------|-----|----|------|----|------------|-----------|--|---------|---|------------|---------|--|-------|--|----------|-------|-----|-------|--|-------------------------------------|--------------------------|--------------------------|------|-------|-----------|-----------|------|--|--|--|--|--|----------------|-----------|----------------|-------------------|--------------------|---------------|------|------|------|------|--------|------|------------|-----|----------|---------|---|--------|-----|-----|-------|-------|--|---------|--------|------|--|--|--|--|------|----|---------|------|--|--|--|--|
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 2155.00<br>Total Drilled (m): 8.75<br>Hrs Run Today: 30.50<br>Cumulative Hrs Run: 26-Dec-2016 | <table border="1"> <tr><th>No</th><th>Component</th><th>OD</th><th>ID</th><th>Length</th></tr> <tr><td>1</td><td>159MM BIT</td><td>159</td><td>1</td><td>0.21</td></tr> <tr><td>1</td><td>8 STAGE MOTOR</td><td>127</td><td>1</td><td>8.94</td></tr> <tr><td>1</td><td>NON MAG FLEX MONEL</td><td>118</td><td>70</td><td>9.49</td></tr> <tr><td>1</td><td>GAP SUB GSS09</td><td>128</td><td>1</td><td>1.66</td></tr> <tr><td>2</td><td>NON MAG FLEX MONEL</td><td>118</td><td>70</td><td>19.91</td></tr> <tr><td>1</td><td>SLIDE REAMER</td><td>121</td><td>58</td><td>1.43</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.94</td></tr> <tr><td>4</td><td>4.5" DP</td><td>135</td><td>80</td><td>38.90</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>1</td><td>15" JARS</td><td>130</td><td>58</td><td>5.20</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>57</td><td>4.5" DP</td><td>135</td><td>80</td><td>38.90</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>37</td><td>Drill Pipe</td><td>Standards</td><td></td><td>1076.45</td></tr> <tr><td>2</td><td>Drill Pipe</td><td>Singles</td><td></td><td>19.49</td></tr> </table> | No   | Component                      | OD                 | ID      | Length | 1 | 159MM BIT | 159 | 1 | 0.21 | 1 | 8 STAGE MOTOR | 127 | 1 | 8.94 | 1 | NON MAG FLEX MONEL | 118 | 70 | 9.49 | 1 | GAP SUB GSS09 | 128 | 1 | 1.66 | 2 | NON MAG FLEX MONEL | 118 | 70 | 19.91 | 1 | SLIDE REAMER | 121 | 58 | 1.43 | 1 | CROSSOVER SUB | 130 | 60 | 0.94 | 4 | 4.5" DP | 135 | 80 | 38.90 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 1 | 15" JARS | 130 | 58 | 5.20 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 57 | 4.5" DP | 135 | 80 | 38.90 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 37 | Drill Pipe | Standards |  | 1076.45 | 2 | Drill Pipe | Singles |  | 19.49 | <table border="1"> <tr><th>Mud Type</th><th>Water</th><th>Oil</th><th>Other</th></tr> <tr><td></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table> <table border="1"> <tr><th>Time</th><th>Depth</th><th>Deviation</th><th>Direction</th><th>Type</th></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table> <table border="1"> <tr><th>Equipment Name</th><th>Hours Run</th><th>Intake Density</th><th>Over Flow Density</th><th>Under Flow Density</th></tr> <tr><td>Centrifuge #2</td><td>8.00</td><td>1175</td><td>1080</td><td>1740</td></tr> </table> <table border="1"> <tr><th>Pump #</th><th>Type</th><th>Liner Size</th><th>SPM</th><th>Pressure</th><th>Hrs Run</th></tr> <tr><td>2</td><td>SINGLE</td><td>127</td><td>112</td><td>33000</td><td>10.50</td></tr> </table> | Mud Type | Water | Oil | Other |  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Time | Depth | Deviation | Direction | Type |  |  |  |  |  | Equipment Name | Hours Run | Intake Density | Over Flow Density | Under Flow Density | Centrifuge #2 | 8.00 | 1175 | 1080 | 1740 | Pump # | Type | Liner Size | SPM | Pressure | Hrs Run | 2 | SINGLE | 127 | 112 | 33000 | 10.50 | <table border="1"> <tr><th>Product</th><th>Amount</th><th>Type</th></tr> <tr><td></td><td></td><td></td></tr> </table> | Product | Amount | Type |  |  |  | <table border="1"> <tr><th>From</th><th>To</th><th>Elapsed</th><th>Code</th></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> | From | To | Elapsed | Code |  |  |  |  |
| No  | Component   | OD   | ID                             | Length             |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | 159MM BIT   | 159  | 1                              | 0.21               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | 8 STAGE MOTOR   | 127  | 1                              | 8.94               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | NON MAG FLEX MONEL  | 118  | 70                             | 9.49               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | GAP SUB GSS09   | 128  | 1                              | 1.66               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 2   | NON MAG FLEX MONEL  | 118  | 70                             | 19.91              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | SLIDE REAMER  | 121  | 58                             | 1.43               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB   | 130  | 60                             | 0.94               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 4   | 4.5" DP   | 135  | 80                             | 38.90              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB   | 130  | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | 15" JARS  | 130  | 58                             | 5.20               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB   | 130  | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 57  | 4.5" DP   | 135  | 80                             | 38.90              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB   | 130  | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 37  | Drill Pipe  | Standards  |                                | 1076.45            |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 2   | Drill Pipe  | Singles  |                                | 19.49              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Mud Type  | Water   | Oil  | Other                          |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                                   | <input type="checkbox"/>       |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Time  | Depth   | Deviation  | Direction                      | Type               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |   |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Equipment Name  | Hours Run   | Intake Density   | Over Flow Density              | Under Flow Density |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Centrifuge #2   | 8.00  | 1175   | 1080                           | 1740               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Pump #  | Type  | Liner Size   | SPM                            | Pressure           | Hrs Run |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 2   | SINGLE  | 127  | 112                            | 33000              | 10.50   |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Product   | Amount  | Type   |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |   |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| From  | To  | Elapsed  | Code                           |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |   |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>   | <b>REDUCED PUMP SPEED</b>                                  | <b>BOILER</b>                  | <b>SAFETY</b>      |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Kelly Down: -3.80<br>Total: 4187.00<br>Weight of DC: 78.66<br>Weight of String: 68.00   | Hole Drag Up: 12 Down: 22<br>Torque At Bottom: 12000<br>Fill On Bottom:   | Pump # Pressure Strokes/min Depth<br>2 7900 @ 56 @ 3960.00 | BoilerNo HoursRun pH StackTemp | MEHL 3073 MACP     |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME 20:00 END TIME 24:00  |   |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |       |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |               |      |      |      |      |        |      |            |     |          |         |   |        |     |     |       |       |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |

| <b>BITS</b>   | <b>DRILLING ASSEMBLY</b>   | <b>MUD RECORD</b>  | <b>DEVIATION SURVEYS</b>       | <b>TIME LOG</b>    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|---|--|--|--------------------------------|--------------------|---------|--------|---|-----------|-----|---|------|---|---------------|-----|---|------|---|--------------------|-----|----|------|---|---------------|-----|---|------|---|--------------------|-----|----|-------|---|--------------|-----|----|------|---|---------------|-----|----|------|---|---------|-----|----|-------|---|---------------|-----|----|------|---|----------|-----|----|------|---|---------------|-----|----|------|----|---------|-----|----|-------|---|---------------|-----|----|------|----|------------|-----------|--|---------|---|------------|---------|--|------|--|----------|-------|-----|-------|--|-------------------------------------|--------------------------|--------------------------|------|-------|-----------|-----------|------|--|--|--|--|--|----------------|-----------|----------------|-------------------|--------------------|--|--|--|--|--|--------|------|------------|-----|----------|---------|---|--------|-----|-----|-------|--|--|---------|--------|------|--|--|--|--|------|----|---------|------|--|--|--|--|
| Bit Number: 4<br>Size: 159<br>IADC Code: REED<br>Manufacturer: SK413M-A1G-Z<br>Type: E227643<br>Serial No: 9.5 9.5<br>JMS: 9.5 9.5<br>Depth Out (m): 2032.00<br>Depth In (m): 2231.00<br>Total Drilled (m): 3.00<br>Hrs Run Today: 33.50<br>Cumulative Hrs Run: 26-Dec-2016 | <table border="1"> <tr><th>No</th><th>Component</th><th>OD</th><th>ID</th><th>Length</th></tr> <tr><td>1</td><td>159MM BIT</td><td>159</td><td>1</td><td>0.21</td></tr> <tr><td>1</td><td>8 STAGE MOTOR</td><td>127</td><td>1</td><td>8.94</td></tr> <tr><td>1</td><td>NON MAG FLEX MONEL</td><td>118</td><td>70</td><td>9.49</td></tr> <tr><td>1</td><td>GAP SUB GSS09</td><td>128</td><td>1</td><td>1.66</td></tr> <tr><td>2</td><td>NON MAG FLEX MONEL</td><td>118</td><td>70</td><td>19.91</td></tr> <tr><td>1</td><td>SLIDE REAMER</td><td>121</td><td>58</td><td>1.43</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.94</td></tr> <tr><td>4</td><td>4.5" DP</td><td>135</td><td>80</td><td>38.90</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>1</td><td>15" JARS</td><td>130</td><td>58</td><td>5.20</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>57</td><td>4.5" DP</td><td>135</td><td>80</td><td>38.90</td></tr> <tr><td>1</td><td>CROSSOVER SUB</td><td>130</td><td>60</td><td>0.78</td></tr> <tr><td>40</td><td>Drill Pipe</td><td>Standards</td><td></td><td>1164.10</td></tr> <tr><td>0</td><td>Drill Pipe</td><td>Singles</td><td></td><td>0.00</td></tr> </table> | No   | Component                      | OD                 | ID      | Length | 1 | 159MM BIT | 159 | 1 | 0.21 | 1 | 8 STAGE MOTOR | 127 | 1 | 8.94 | 1 | NON MAG FLEX MONEL | 118 | 70 | 9.49 | 1 | GAP SUB GSS09 | 128 | 1 | 1.66 | 2 | NON MAG FLEX MONEL | 118 | 70 | 19.91 | 1 | SLIDE REAMER | 121 | 58 | 1.43 | 1 | CROSSOVER SUB | 130 | 60 | 0.94 | 4 | 4.5" DP | 135 | 80 | 38.90 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 1 | 15" JARS | 130 | 58 | 5.20 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 57 | 4.5" DP | 135 | 80 | 38.90 | 1 | CROSSOVER SUB | 130 | 60 | 0.78 | 40 | Drill Pipe | Standards |  | 1164.10 | 0 | Drill Pipe | Singles |  | 0.00 | <table border="1"> <tr><th>Mud Type</th><th>Water</th><th>Oil</th><th>Other</th></tr> <tr><td></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table> <table border="1"> <tr><th>Time</th><th>Depth</th><th>Deviation</th><th>Direction</th><th>Type</th></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table> <table border="1"> <tr><th>Equipment Name</th><th>Hours Run</th><th>Intake Density</th><th>Over Flow Density</th><th>Under Flow Density</th></tr> <tr><td></td><td></td><td></td><td></td><td></td></tr> </table> <table border="1"> <tr><th>Pump #</th><th>Type</th><th>Liner Size</th><th>SPM</th><th>Pressure</th><th>Hrs Run</th></tr> <tr><td>2</td><td>SINGLE</td><td>127</td><td>112</td><td>30300</td><td></td></tr> </table> | Mud Type | Water | Oil | Other |  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Time | Depth | Deviation | Direction | Type |  |  |  |  |  | Equipment Name | Hours Run | Intake Density | Over Flow Density | Under Flow Density |  |  |  |  |  | Pump # | Type | Liner Size | SPM | Pressure | Hrs Run | 2 | SINGLE | 127 | 112 | 30300 |  | <table border="1"> <tr><th>Product</th><th>Amount</th><th>Type</th></tr> <tr><td></td><td></td><td></td></tr> </table> | Product | Amount | Type |  |  |  | <table border="1"> <tr><th>From</th><th>To</th><th>Elapsed</th><th>Code</th></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> | From | To | Elapsed | Code |  |  |  |  |
| No  | Component  | OD   | ID                             | Length             |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | 159MM BIT  | 159  | 1                              | 0.21               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | 8 STAGE MOTOR  | 127  | 1                              | 8.94               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | NON MAG FLEX MONEL   | 118  | 70                             | 9.49               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | GAP SUB GSS09  | 128  | 1                              | 1.66               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 2   | NON MAG FLEX MONEL   | 118  | 70                             | 19.91              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | SLIDE REAMER   | 121  | 58                             | 1.43               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB  | 130  | 60                             | 0.94               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 4   | 4.5" DP  | 135  | 80                             | 38.90              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB  | 130  | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | 15" JARS   | 130  | 58                             | 5.20               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB  | 130  | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 57  | 4.5" DP  | 135  | 80                             | 38.90              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 1   | CROSSOVER SUB  | 130  | 60                             | 0.78               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 40  | Drill Pipe   | Standards  |                                | 1164.10            |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 0   | Drill Pipe   | Singles  |                                | 0.00               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Mud Type  | Water  | Oil  | Other                          |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   | <input checked="" type="checkbox"/>  | <input type="checkbox"/>                                   | <input type="checkbox"/>       |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Time  | Depth  | Deviation  | Direction                      | Type               |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |  |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Equipment Name  | Hours Run  | Intake Density   | Over Flow Density              | Under Flow Density |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |  |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Pump #  | Type   | Liner Size   | SPM                            | Pressure           | Hrs Run |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| 2   | SINGLE   | 127  | 112                            | 30300              |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Product   | Amount   | Type   |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |  |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| From  | To   | Elapsed  | Code                           |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
|   |  |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| <b>CUTTING STRUCTURE</b>  | <b>HOLE CONDITION</b>  | <b>REDUCED PUMP SPEED</b>                                  | <b>BOILER</b>                  | <b>SAFETY</b>      |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| Kelly Down: 4.04<br>Total: 4263.00<br>Weight of DC: 66.60<br>Weight of String: 68.00  | Hole Drag Up: 12 Down: 23<br>Torque At Bottom: 14200<br>Fill On Bottom:  | Pump # Pressure Strokes/min Depth<br>2 7790 @ 56 @ 4170.00 | BoilerNo HoursRun pH StackTemp | MEHL 3073 MACP     |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |
| TOUR 3 SIGNATURE OF DRILLER <b>ERIC OBRIEN</b> START TIME 20:00 END TIME 24:00  |  |  |                                |                    |         |        |   |           |     |   |      |   |               |     |   |      |   |                    |     |    |      |   |               |     |   |      |   |                    |     |    |       |   |              |     |    |      |   |               |     |    |      |   |         |     |    |       |   |               |     |    |      |   |          |     |    |      |   |               |     |    |      |    |         |     |    |       |   |               |     |    |      |    |            |           |  |         |   |            |         |  |      |  |          |       |     |       |  |                                     |                          |                          |      |       |           |           |      |  |  |  |  |  |                |           |                |                   |                    |  |  |  |  |  |        |      |            |     |          |         |   |        |     |     |       |  |  |         |        |      |  |  |  |  |      |    |         |      |  |  |  |  |

| FRONT PAGE SUMMARY                     |                                       |                                   | Tour Sheet Serial Number | Vendor Software Version | Year           | Month             | Day | DAILY CHECKS  |    | OP | RM |
|--|---------------------------------------|-----------------------------------|--------------------------|-------------------------|----------------|-------------------|-----|---|----|----|----|
| License No                             | Well Name                             | ARCRES HZ SEPTIMUS H11-34-81-18W6 | PREC465 20161229 1A      | RMS 2016.6.14.37064     | 2016           | 12                | 29  | (1) Daily Walk Around Inspection                    | PA | CT |    |
| Contractor                             | Surface Location                      | 11-34-81-18 W6                    | Pro                      | Loc Type                | Unique Well Id | 103/09-35-81-18W6 |     | (2) Detailed Inspection - Weekly (Using Check List) | PS | CT |    |
| Company #                              | Contractor                            | Precision Drilling, div of PDC    | 465                      | DLS                     | Well Type      | HORIZ             |     | (3) H2S Signs Posted if Required                    | PE | CT |    |
| 16DR10084                              | Contractor's Job No                   | 36                                | Spoil Date Time          | 21-Dec-2016             |                | 23:30             |     | (4) Well Licence & Block Diagram Posted             | PC | CT |    |
| Signature of Operator's Representative | Signature of Contractor's Rig Manager | PAUL BOUTILLIER                   | Rig Release Date Time    | 21-Dec-2016             |                | 23:30             |     | (5) Flare Lines Baked                               | PT | CT |    |
| Signature of Operator's Representative | Signature of Contractor's Rig Manager | CECIL TROWBRIDGE                  |                          |                         |                |                   |     |   |    |    |    |



| 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 |
|--------|------|---|---|---|---|------|-------|------|------|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|-------|------------------|
| Hour 1 | 0.25 |   |   |   |   | 3.25 | 4.00  | 0.25 |      |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    | 8.00  | 19503            |
| Hour 2 |      |   |   |   |   | 9.75 | 0.25  |      | 0.50 |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    | 12.00 | 05:15            |
| Hour 3 |      |   |   |   |   |      | 0.25  |      |      |    |    |    |    | 3.00 |    |    |    |    |    |    |    |    |    |    |    | 4.00  | Temp             |
| TOTAL  | 0.25 |   |   |   |   | 3.25 | 13.75 | 0.75 | 0.50 |    |    |    |    | 3.00 |    |    |    |    |    |    |    |    |    |    |    | 24.00 | Wind Direction   |
|        |      |   |   |   |   |      |       |      |      |    |    |    |    |      |    |    |    |    |    |    |    |    |    |    |    | 0.25  | Wind Strength    |

|      |   |                      |             |            |      |          |      |
|------|---|----------------------|-------------|------------|------|----------|------|
| 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            | No                | 1         | Mud Type   | Water                               | Time               | Depth     | From     | To    |
| Size               | 159          | Component         | 159MM BIT | Other      | <input checked="" type="checkbox"/> | Density            | Deviation | 0:00     | 0:15  |
| IADC Code          |              | OD                | 159       |            |                                     | Funnel Viscosity   | Direction | 0:15     | 0:30  |
| Manufacturer       | REED         | ID                | 1         |            |                                     | Fluid Loss         | Type      | 0:30     | 0:45  |
| Type               | SK413M-A1G-Z | Length            | 1.894     |            |                                     | pH                 |           | 0:45     | 1:00  |
| Serial No          | E227643      | 127               | 1         |            |                                     | Location of Sample |           | 1:00     | 1:15  |
| Jct                | 9.5          | 128               | 1         |            |                                     | Depth              |           | 1:15     | 1:30  |
| Depth Out (m)      | 9.5          | 129               | 1         |            |                                     | PVT                |           | 1:30     | 1:45  |
| Depth In (m)       | 9.5          | 130               | 1         |            |                                     | Circulation        |           | 1:45     | 2:00  |
| Total Drilled (m)  | 2032.00      | 131               | 1         |            |                                     | Pump #             |           | 2:00     | 2:15  |
| Hrs Run Today      | 0.25         | 132               | 1         |            |                                     | Type               |           | 2:15     | 2:30  |
| Cumulative Hrs Run | 33.75        | 133               | 1         |            |                                     | Line Size          |           | 2:30     | 2:45  |
| Entry Date         | 26-Dec-2016  | 134               | 1         |            |                                     | SPM                |           | 2:45     | 3:00  |
|                    |              | 135               | 1         |            |                                     | Pressure           |           | 3:00     | 3:15  |
|                    |              | 136               | 1         |            |                                     | Hs Run             |           | 3:15     | 3:30  |
|                    |              | 137               | 1         |            |                                     |                    |           | 3:30     | 3:45  |
|                    |              | 138               | 1         |            |                                     |                    |           | 3:45     | 4:00  |
|                    |              | 139               | 1         |            |                                     |                    |           | 4:00     | 4:15  |
|                    |              | 140               | 1         |            |                                     |                    |           | 4:15     | 4:30  |
|                    |              | 141               | 1         |            |                                     |                    |           | 4:30     | 4:45  |
|                    |              | 142               | 1         |            |                                     |                    |           | 4:45     | 5:00  |
|                    |              | 143               | 1         |            |                                     |                    |           | 5:00     | 5:15  |
|                    |              | 144               | 1         |            |                                     |                    |           | 5:15     | 5:30  |
|                    |              | 145               | 1         |            |                                     |                    |           | 5:30     | 5:45  |
|                    |              | 146               | 1         |            |                                     |                    |           | 5:45     | 6:00  |
|                    |              | 147               | 1         |            |                                     |                    |           | 6:00     | 6:15  |
|                    |              | 148               | 1         |            |                                     |                    |           | 6:15     | 6:30  |
|                    |              | 149               | 1         |            |                                     |                    |           | 6:30     | 6:45  |
|                    |              | 150               | 1         |            |                                     |                    |           | 6:45     | 7:00  |
|                    |              | 151               | 1         |            |                                     |                    |           | 7:00     | 7:15  |
|                    |              | 152               | 1         |            |                                     |                    |           | 7:15     | 7:30  |
|                    |              | 153               | 1         |            |                                     |                    |           | 7:30     | 7:45  |
|                    |              | 154               | 1         |            |                                     |                    |           | 7:45     | 8:00  |
|                    |              | 155               | 1         |            |                                     |                    |           | 8:00     | 8:15  |
|                    |              | 156               | 1         |            |                                     |                    |           | 8:15     | 8:30  |
|                    |              | 157               | 1         |            |                                     |                    |           | 8:30     | 8:45  |
|                    |              | 158               | 1         |            |                                     |                    |           | 8:45     | 9:00  |
|                    |              | 159               | 1         |            |                                     |                    |           | 9:00     | 9:15  |
|                    |              | 160               | 1         |            |                                     |                    |           | 9:15     | 9:30  |
|                    |              | 161               | 1         |            |                                     |                    |           | 9:30     | 9:45  |
|                    |              | 162               | 1         |            |                                     |                    |           | 9:45     | 10:00 |
|                    |              | 163               | 1         |            |                                     |                    |           | 10:00    | 10:15 |
|                    |              | 164               | 1         |            |                                     |                    |           | 10:15    | 10:30 |
|                    |              | 165               | 1         |            |                                     |                    |           | 10:30    | 10:45 |
|                    |              | 166               | 1         |            |                                     |                    |           | 10:45    | 11:00 |
|                    |              | 167               | 1         |            |                                     |                    |           | 11:00    | 11:15 |
|                    |              | 168               | 1         |            |                                     |                    |           | 11:15    | 11:30 |
|                    |              | 169               | 1         |            |                                     |                    |           | 11:30    | 11:45 |
|                    |              | 170               | 1         |            |                                     |                    |           | 11:45    | 12:00 |
|                    |              | 171               | 1         |            |                                     |                    |           | 12:00    | 12:15 |
|                    |              | 172               | 1         |            |                                     |                    |           | 12:15    | 12:30 |
|                    |              | 173               | 1         |            |                                     |                    |           | 12:30    | 12:45 |
|                    |              | 174               | 1         |            |                                     |                    |           | 12:45    | 13:00 |
|                    |              | 175               | 1         |            |                                     |                    |           | 13:00    | 13:15 |
|                    |              | 176               | 1         |            |                                     |                    |           | 13:15    | 13:30 |
|                    |              | 177               | 1         |            |                                     |                    |           | 13:30    | 13:45 |
|                    |              | 178               | 1         |            |                                     |                    |           | 13:45    | 14:00 |
|                    |              | 179               | 1         |            |                                     |                    |           | 14:00    | 14:15 |
|                    |              | 180               | 1         |            |                                     |                    |           | 14:15    | 14:30 |
|                    |              | 181               | 1         |            |                                     |                    |           | 14:30    | 14:45 |
|                    |              | 182               | 1         |            |                                     |                    |           | 14:45    | 15:00 |
|                    |              | 183               | 1         |            |                                     |                    |           | 15:00    | 15:15 |
|                    |              | 184               | 1         |            |                                     |                    |           | 15:15    | 15:30 |
|                    |              | 185               | 1         |            |                                     |                    |           | 15:30    | 15:45 |
|                    |              | 186               | 1         |            |                                     |                    |           | 15:45    | 16:00 |
|                    |              | 187               | 1         |            |                                     |                    |           | 16:00    | 16:15 |
|                    |              | 188               | 1         |            |                                     |                    |           | 16:15    | 16:30 |
|                    |              | 189               | 1         |            |                                     |                    |           | 16:30    | 16:45 |
|                    |              | 190               | 1         |            |                                     |                    |           | 16:45    | 17:00 |
|                    |              | 191               | 1         |            |                                     |                    |           | 17:00    | 17:15 |
|                    |              | 192               | 1         |            |                                     |                    |           | 17:15    | 17:30 |
|                    |              | 193               | 1         |            |                                     |                    |           | 17:30    | 17:45 |
|                    |              | 194               | 1         |            |                                     |                    |           | 17:45    | 18:00 |
|                    |              | 195               | 1         |            |                                     |                    |           | 18:00    | 18:15 |
|                    |              | 196               | 1         |            |                                     |                    |           | 18:15    | 18:30 |
|                    |              | 197               | 1         |            |                                     |                    |           | 18:30    | 18:45 |
|                    |              | 198               | 1         |            |                                     |                    |           | 18:45    | 19:00 |
|                    |              | 199               | 1         |            |                                     |                    |           | 19:00    | 19:15 |
|                    |              | 200               | 1         |            |                                     |                    |           | 19:15    | 19:30 |
|                    |              | 201               | 1         |            |                                     |                    |           | 19:30    | 19:45 |
|                    |              | 202               | 1         |            |                                     |                    |           | 19:45    | 20:00 |
|                    |              | 203               | 1         |            |                                     |                    |           | 20:00    | 20:15 |
|                    |              | 204               | 1         |            |                                     |                    |           | 20:15    | 20:30 |
|                    |              | 205               | 1         |            |                                     |                    |           | 20:30    | 20:45 |
|                    |              | 206               | 1         |            |                                     |                    |           | 20:45    | 21:00 |
|                    |              | 207               | 1         |            |                                     |                    |           | 21:00    | 21:15 |
|                    |              | 208               | 1         |            |                                     |                    |           | 21:15    | 21:30 |
|                    |              | 209               | 1         |            |                                     |                    |           | 21:30    | 21:45 |
|                    |              | 210               | 1         |            |                                     |                    |           | 21:45    | 22:00 |
|                    |              | 211               | 1         |            |                                     |                    |           | 22:00    | 22:15 |
|                    |              | 212               | 1         |            |                                     |                    |           | 22:15    | 22:30 |
|                    |              | 213               | 1         |            |                                     |                    |           | 22:30    | 22:45 |
|                    |              | 214               | 1         |            |                                     |                    |           | 22:45    | 23:00 |
|                    |              | 215               | 1         |            |                                     |                    |           | 23:00    | 23:15 |
|                    |              | 216               | 1         |            |                                     |                    |           | 23:15    | 23:30 |
|                    |              | 217               | 1         |            |                                     |                    |           | 23:30    | 23:45 |
|                    |              | 218               | 1         |            |                                     |                    |           | 23:45    | 24:00 |
|                    |              | 219               | 1         |            |                                     |                    |           | 24:00    | 24:15 |
|                    |              | 220               | 1         |            |                                     |                    |           | 24:15    | 24:30 |
|                    |              | 221               | 1         |            |                                     |                    |           | 24:30    | 24:45 |
|                    |              | 222               | 1         |            |                                     |                    |           | 24:45    | 25:00 |
|                    |              | 223               | 1         |            |                                     |                    |           | 25:00    | 25:15 |
|                    |              | 224               | 1         |            |                                     |                    |           | 25:15    | 25:30 |
|                    |              | 225               | 1         |            |                                     |                    |           | 25:30    | 25:45 |
|                    |              | 226               | 1         |            |                                     |                    |           | 25:45    | 26:00 |
|                    |              | 227               | 1         |            |                                     |                    |           | 26:00    | 26:15 |
|                    |              | 228               | 1         |            |                                     |                    |           | 26:15    | 26:30 |
|                    |              | 229               | 1         |            |                                     |                    |           | 26:30    | 26:45 |
|                    |              | 230               | 1         |            |                                     |                    |           | 26:45    | 27:00 |
|                    |              | 231               | 1         |            |                                     |                    |           | 27:00    | 27:15 |
|                    |              | 232               | 1         |            |                                     |                    |           | 27:15    | 27:30 |
|                    |              | 233               | 1         |            |                                     |                    |           | 27:30    | 27:45 |
|                    |              | 234               | 1         |            |                                     |                    |           | 27:45    | 28:00 |
|                    |              | 235               | 1         |            |                                     |                    |           | 28:00    | 28:15 |
|                    |              | 236               | 1         |            |                                     |                    |           | 28:15    | 28:30 |
|                    |              | 237               | 1         |            |                                     |                    |           | 28:30    | 28:45 |
|                    |              | 238               | 1         |            |                                     |                    |           | 28:45    | 29:00 |
|                    |              | 239               | 1         |            |                                     |                    |           | 29:00    | 29:15 |
|                    |              | 240               | 1         |            |                                     |                    |           | 29:15    | 29:30 |
|                    |              | 241               | 1         |            |                                     |                    |           | 29:30    | 29:45 |
|                    |              | 242               | 1         |            |                                     |                    |           | 29:45    | 30:00 |
|                    |              | 243               | 1         |            |                                     |                    |           | 30:00    | 30:15 |
|                    |              | 244               | 1         |            |                                     |                    |           | 30:15    | 30:30 |
|                    |              | 245               | 1         |            |                                     |                    |           | 30:30    | 30:45 |
|                    |              | 246               | 1         |            |                                     |                    |           | 30:45    | 31:00 |
|                    |              | 247               | 1         |            |                                     |                    |           | 31:00    | 31:15 |
|                    |              | 248               | 1         |            |                                     |                    |           | 31:15    | 31:30 |
|                    |              | 249               | 1         |            |                                     |                    |           | 31:30    | 31:45 |
|                    |              | 250               | 1         |            |                                     |                    |           | 31:45    | 32:00 |
|                    |              | 251               | 1         |            |                                     |                    |           | 32:00    | 32:15 |
|                    |              | 252               | 1         |            |                                     |                    |           | 32:15    | 32:30 |
|                    |              | 253               | 1         |            |                                     |                    |           | 32:30    | 32:45 |
|                    |              | 254               | 1         |            |                                     |                    |           | 32:45    | 33:00 |
|                    |              | 255               | 1         |            |                                     |                    |           | 33:00    | 33:15 |
|                    |              | 256               | 1         |            |                                     |                    |           |          |       |

| FRONT PAGE SUMMARY   |  |  |  |  |  |  |  |  |  | Tour Sheet Serial Number                                |  | Vendor Software Version      |  | Year          |  | Month                             |  | Day         |  | DAILY CHECKS   |  |                                    |  |  | OP RM  |  |  |  |                                    |  |
|--|--|--|--|--|--|--|--|--|--|---|--|------------------------------|--|---------------|--|-----------------------------------|--|-------------|--|--|--|------------------------------------|--|--|--|--|--|--|------------------------------------|--|
| License No: 32575<br>Well Name: ARCREZ HZ SEPTIMUS H11-34-81-18W6                  |  |  |  |  |  |  |  |  |  | PREC465 20161230 1B                                     |  | RMS 2016.6.14.37064          |  | 2016          |  | 12                                |  | 30          |  | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weeily (Using Check List)<br>(3) H2S Signs Posted If Required<br>(4) Well Licence & Stick Diagram Posted<br>(5) Flare Lines Staked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/monthly)<br>(9) CAODC Rig Safety Inspection Checklist (once/monthly)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Saver Checked<br>(12) Motor Vibs Checked |  |                                    |  |  | PB CT<br>PB CT<br>PB CT<br>PB CT<br>CT<br>CT |  |  |  |                                    |  |
| Contractor: Precision Drilling, div of PDC<br>Company Job No: 36                   |  |  |  |  |  |  |  |  |  | Surface Location: 11-34-81-18 W6                        |  | Prov: BC                     |  | Lic Type: DLS |  | Unique Well ID: 103/09-35-81-18W6 |  | Rig No: 465 |  | Well Type: HORIZ   |  | Re-Entry: <input type="checkbox"/> |  |  |  |  |  |  | Kelly Blocking<br>Top Pair<br>2305 |  |
| Company's PSE: 16DR0084<br>Signature of Operator's Representative: PAUL BOUTILLIER |  |  |  |  |  |  |  |  |  | Signature of Contractor's Rig Manager: CECIL TROWBRIDGE |  | Squad Date Time: 21-Dec-2016 |  | 23:30         |  |                                   |  |             |  |  |  |                                    |  |  |  |  | FUEL @ 08:00 HRS<br>17198<br>1584<br>05:45<br>-7<br>05:45<br>-7<br>Wind Direction<br>Wind Strength<br>Road Condition |  |                                    |  |



| Code   | Rig Log |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          | TOTAL | WEATHER |                |           |            |           |       |       |    |
|--------|---------|--------------|---------|--------|-----------------|-------|-------------|------------|--------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|-------|---------|----------------|-----------|------------|-----------|-------|-------|----|
|        | Rig MP  | Drill Actual | Reaming | Coring | Cond Mud & Circ | Trips | Rig Service | Repair Rig | Cut Off Drill Line | Dev Survey | Wireline Logs | Run Csg & Cement | Wait On Cement | Nipple BOP | Test BOP | Drillstem Test | Plug Back | Squeeze Cement | Fishing | Dir Work |       |         | Safety Meeting | Tear Down | Walking On | Rig Watch | Other |       |    |
| Tour 1 |         |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |       |         |                |           |            | 8.00      | 17198 | 1584  |    |
| Tour 2 |         |              |         |        | 7.75            |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |       |         |                |           |            | 3.75      | 12.00 | 05:45 | -7 |
| Tour 3 |         |              |         |        | 7.75            |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |       |         |                |           |            | 3.75      | 4.00  |       |    |
| TOTAL  |         |              |         |        | 15.50           |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |       |         |                |           |            | 11.75     | 24.00 |       |    |

|        |                                   |                  |                |
|--------|-----------------------------------|------------------|----------------|
| 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   | Size         | No                | Component | OD   | ID            | Length       | Mud Type          | Water         | Oil                | Other             | Time | Depth | Deviation | Direction | Type | From | To   | Elapsed | Code |
| 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 | 8:00 | 8:00    | 12B  |
| Details Of Operations In Sequence & Remarks<br>RUN 175 JOINTS OF 114.3mm, 20.09kg/m, P-110, LT&C CASING. 28 JOINTS OF 139.7mm, 29.76kg/m, P-110 VA ROUGHNECK, 113 JOINTS OF 139.7mm, 29.76kg/m P-110 LT&C FLOW CHECK @ 2306M. ELEVATOR CERT # DCE-504  |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |
| SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density:  |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |
| MUD MATERIALS ADDED<br>Product: Amount: Type:  |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |
| Remarks:<br>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<br>HAZARD: WORKER WENT TO OPEN LATCH ON POWER TONGS BEFORE TONG HAD HAD STOPPED POWER TONG. INFORMED WORKER TO WAIT UNTIL TONGS WERE SAFE |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |

|        |                                   |                  |                 |
|--------|-----------------------------------|------------------|-----------------|
| TOUR 2 | SIGNATURE OF DRILLER: ERIC OBRIEN | 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 |
| 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 | 8:15 | 0:25    | 21   |
| Details Of Operations In Sequence & Remarks<br>8:15 8:45 0:50 12 CONTINUE RUNNING CASING TO SET DEPTH 4271.2M<br>8:45 16:30 7:75 5 CIRCULATE CASING ON BOTTOM. WAIT ON CEMENTERS<br>16:30 16:45 0:25 21 SAFETY MEETING WITH CEMENTERS<br>16:45 20:00 3:25 12 Cementing Details: Pump 5.0m <sup>3</sup> Optiflush with S-4W & M-S7 @ 1400kg/m <sup>3</sup> . Pump 1.65 Tonne 2.50m <sup>3</sup> Scavenger TAC 1600 @ 1400kg/m <sup>3</sup> , Pump 31.33m <sup>3</sup> Tonne, 31.33m <sup>3</sup> TAC 1600 0.35%TDH-2, 0.2% CFR-12, 1600 Kg/m <sup>3</sup> Cement. Followed by 44.0 Tonne (44.0m <sup>3</sup> ) TAC 1600, 0.2% AFA-6, 0.2% CFR-12, 0.25% TDH-2, 0.3% TWR-4, @ 1600kg/m <sup>3</sup> Tail Cement. Clean out lines. Launch wiper plug and displace with 5m <sup>3</sup> of inhibited retarded water, 5L/m <sup>3</sup> Tricorr 134, 2L/m <sup>3</sup> DF-2W, 5kg/m <sup>3</sup> THR-100 & 35.59m <sup>3</sup> of inhibited water, 5L/m <sup>3</sup> Tricorr 134, 2L/m <sup>3</sup> DF-2W, 40% excess used for cementing calculations. 11m <sup>3</sup> of good cement returns to surface. Bump plug 3500 Kpa over FCP. Floats held, Monitored for 10mins no fall-back in annulus. Plug down at 19:17hrs December 30 / 2016 |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |
| SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density:  |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |
| MUD MATERIALS ADDED<br>Product: Amount: Type:  |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |      |      |         |      |
| Remarks:<br>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 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  | Size         | No                | Component | OD   | ID            | Length       | Mud Type          | Water         | Oil                | Other             | Time | Depth | Deviation | Direction | Type | From  | To    | Elapsed | Code |
| 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 | 20:15 | 0:25    | 21   |
| Details Of Operations In Sequence & Remarks<br>20:15 24:00 3:75 14B NIPPLE DOWN BOPs. SET CASING SLIPS @ 70daN, Rig Release 12/30/16 @ 23:59  |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |       |       |         |      |
| SOLIDS CONTROL<br>Equipment Name: Hours Run: Intake Density: Over Flow Density: Under Flow Density:   |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |       |       |         |      |
| MUD MATERIALS ADDED<br>Product: Amount: Type:   |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |       |       |         |      |
| Remarks:<br>HAZARD/OBSERVATION- WHEN 3rd PARTY WORKER WENT TO CUT CASING AFTER SETTING SLIPS HE WASNT USING A FACE SHIELD WHEN USING AN ANGLE GRINDER. STOPPED WORKER AND GOT HIM A FACE SHIELD |              |                   |           |      |               |              |                   |               |                    |                   |      |       |           |           |      |       |       |         |      |

|                               |  |  |  |  |                                |   |  |                 |                                     |               |                     |  |  |  |  |       |   |
|-------------------------------|--|--|--|--|--------------------------------|---|--|-----------------|-------------------------------------|---------------|---------------------|--|--|--|--|-------|---|
| <b>FRONT PAGE SUMMARY</b>     |  |  |  |  |                                | Tour Sheet Serial Number<br>PREC465 20161231 1A | Vendor Software Version<br>RMS 2016.6.14.37064 | Year<br>2016    | Month<br>12                         | Day<br>31     | <b>DAILY CHECKS</b> |  |  |  |  | OP RM |   |
| License No<br>32575           | Well Name<br>ARCRES HZ SEPTIMUS H11-34-81-18W6 | Contractor<br>Precision Drilling, div of PDC |  |  |                                | Surface Location<br>11-34-81-18 W6              | Prov<br>BC                                     | Loc Type<br>DLS | Unique Well ID<br>103/09-35-81-18W6 | Rig No<br>465 | Well Type<br>HORIZ  | <input type="checkbox"/> (1) Daily Walk Around Inspection<br><input type="checkbox"/> (2) Detailed Inspection - Weekly (Using Check List)<br><input type="checkbox"/> (3) H2S Signs Posted If Required<br><input type="checkbox"/> (4) Well License & Stick Diagram Posted<br><input type="checkbox"/> (5) Flare Lines Baked<br><input type="checkbox"/> (6) BOP Tests Performed<br><input type="checkbox"/> (7) Visually Inspected BOPs Flare Lines & Degasser Lines<br><input type="checkbox"/> (8) Rig Site Health & Safety Meeting (one/crew/month)<br><input type="checkbox"/> (9) CAADC Rig Safety Inspection Checklist (one/week/month)<br><input type="checkbox"/> (10) Mast Inspection before Raising or Lowering<br><input type="checkbox"/> (11) Crown Block Checked<br><input type="checkbox"/> (12) Major Risks Checked |  |  |  |       | FB <input type="checkbox"/> CT <input type="checkbox"/><br>PB <input type="checkbox"/> CT <input type="checkbox"/><br>CB <input type="checkbox"/> CT <input type="checkbox"/> |
| Company<br>ARC Resources Ltd. | Contractor's Ref<br>16DR10084                  | Contractor's Job No<br>36                    | Signature of Contractor's Rig Manager<br>PAUL BOUTILLIER | Signature of Operator's Representative<br>CECIL TROWBRIDGE | Spoil Date Time<br>21-Dec-2016 | Rig Release Date Time<br>30-Dec-2016            |  |                 |                                     |               |                     | (1) Safety Meeting<br>(2) Year Down<br>(3) Walking On<br>(4) Rig Watch<br>(5) Other  |  |  |  |       | FUEL @ 08:00 HRS<br>Rig 10638<br>Meter 2191<br>Time 05:00<br>Temp -7<br>Wind Direction<br>Wind Strength<br>Road Condition   |



| 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 | WEATHER |
|--------|--------|--------------|---------|--------|-----------------|-------|-------------|------------|--------------------|------------|---------------|------------------|----------------|------------|----------|----------------|-----------|----------------|---------|----------|----------------|-----------|------------|-----------|-------|-------|---------|
|        | Rig MP | Drill Actual | Reaming | Coring | 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 | Year Down | Walking On | Rig Watch | Other |       |         |
| Tour 1 |        |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 8.00  | 8.00    |
| Tour 2 |        |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 0.50  | 11.50   |
| Tour 3 |        |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 0.25  | 3.75    |
| TOTAL  |        |              |         |        |                 |       |             |            |                    |            |               |                  |                |            |          |                |           |                |         |          |                |           |            |           |       | 0.75  | 23.25   |

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

|  |   |  |  |  |  |  |   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|---|--|--|-------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| <b>BITS</b><br>Bit Number<br>Size<br>IADC Code<br>Manufacturer<br>Type<br>Serial No<br>Jets<br>Depth Out (m)<br>Depth In (m)<br>Total Drilled (m)<br>Hrs Run Today<br>Cumulative Hrs Run<br>Entry Date | <b>DRILLING ASSEMBLY</b>                    |  |  | <b>MUD RECORD</b>  |  |  | <b>DEVIATION SURVEYS</b>  |  |  | <b>TIME LOG</b>                     |  |  | <b>Details of Operations In Sequence &amp; Remarks</b> |  |  |   |  |  |  |  |  |  |  |  |  |
|  | No Component OD ID Length                   |  |  | Mud Type Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other <input type="checkbox"/> |  |  | Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT |  |  | Time Depth Deviation Direction Type |  |  | From To Elapsed Code                                   |  |  | TEAR OUT BACK END OF RIG, SUBSTRUCTURE, STANDPIPE, CLEAN MUD TANKS, RIG OUT FLOOR |  |  |  |  |  |  |  |  |  |
|  | Circulation                                 |  |  | Circulation  |  |  | SOLIDS CONTROL  |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Pump # Type Liner Size SPM Pressure Hrs Run |  |  | Pump # Pressure Strokes/min Depth  |  |  | Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density                  |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | MUD MATERIALS ADDED                         |  |  | MUD MATERIALS ADDED  |  |  | MUD MATERIALS ADDED   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Product Amount Type                         |  |  | Product Amount Type  |  |  | Product Amount Type   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Remarks                                     |  |  | Remarks  |  |  | Remarks   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Cutting Structure                           |  |  | HOLE CONDITION   |  |  | REDUCED PUMP SPEED  |  |  | BOILER                              |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | From To D-R-C RPM WOB                       |  |  | Hole Drag Up Down  |  |  | Pump # Pressure Strokes/min Depth   |  |  | BoilerNo HoursRun pH StackTemp      |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |   |  |  | 1 8.00 10 340                       |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |

TOUR **2** SIGNATURE OF DRILLER **ERIC OBRIEN** START TIME **8:00** END TIME **20:00**

|  |   |  |  |  |  |  |   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|---|--|--|-------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| <b>BITS</b><br>Bit Number<br>Size<br>IADC Code<br>Manufacturer<br>Type<br>Serial No<br>Jets<br>Depth Out (m)<br>Depth In (m)<br>Total Drilled (m)<br>Hrs Run Today<br>Cumulative Hrs Run<br>Entry Date | <b>DRILLING ASSEMBLY</b>                    |  |  | <b>MUD RECORD</b>  |  |  | <b>DEVIATION SURVEYS</b>  |  |  | <b>TIME LOG</b>                     |  |  | <b>Details of Operations In Sequence &amp; Remarks</b> |  |  |   |  |  |  |  |  |  |  |  |  |
|  | No Component OD ID Length                   |  |  | Mud Type Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other <input type="checkbox"/> |  |  | Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT |  |  | Time Depth Deviation Direction Type |  |  | From To Elapsed Code                                   |  |  | CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER, ARC REPRESENTATIVES & RIG CREWS |  |  |  |  |  |  |  |  |  |
|  | Circulation                                 |  |  | Circulation  |  |  | SOLIDS CONTROL  |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Pump # Type Liner Size SPM Pressure Hrs Run |  |  | Pump # Pressure Strokes/min Depth  |  |  | Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density                  |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | MUD MATERIALS ADDED                         |  |  | MUD MATERIALS ADDED  |  |  | MUD MATERIALS ADDED   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Product Amount Type                         |  |  | Product Amount Type  |  |  | Product Amount Type   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Remarks                                     |  |  | Remarks  |  |  | Remarks   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Cutting Structure                           |  |  | HOLE CONDITION   |  |  | REDUCED PUMP SPEED  |  |  | BOILER                              |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | From To D-R-C RPM WOB                       |  |  | Hole Drag Up Down  |  |  | Pump # Pressure Strokes/min Depth   |  |  | BoilerNo HoursRun pH StackTemp      |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |   |  |  | 1 12.00 10 340                      |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |

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

|  |   |  |  |  |  |  |   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|---|--|--|-------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| <b>BITS</b><br>Bit Number<br>Size<br>IADC Code<br>Manufacturer<br>Type<br>Serial No<br>Jets<br>Depth Out (m)<br>Depth In (m)<br>Total Drilled (m)<br>Hrs Run Today<br>Cumulative Hrs Run<br>Entry Date | <b>DRILLING ASSEMBLY</b>                    |  |  | <b>MUD RECORD</b>  |  |  | <b>DEVIATION SURVEYS</b>  |  |  | <b>TIME LOG</b>                     |  |  | <b>Details of Operations In Sequence &amp; Remarks</b> |  |  |   |  |  |  |  |  |  |  |  |  |
|  | No Component OD ID Length                   |  |  | Mud Type Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other <input type="checkbox"/> |  |  | Time<br>Density<br>Funnel Viscosity<br>Fluid Loss<br>pH<br>Location Of Sample<br>Depth<br>PVT |  |  | Time Depth Deviation Direction Type |  |  | From To Elapsed Code                                   |  |  | CREW CHANGE HANDOVER SAFETY MEETING WITH RIG MANAGER, ARC REPRESENTATIVES & RIG CREWS |  |  |  |  |  |  |  |  |  |
|  | Circulation                                 |  |  | Circulation  |  |  | SOLIDS CONTROL  |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Pump # Type Liner Size SPM Pressure Hrs Run |  |  | Pump # Pressure Strokes/min Depth  |  |  | Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density                  |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | MUD MATERIALS ADDED                         |  |  | MUD MATERIALS ADDED  |  |  | MUD MATERIALS ADDED   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Product Amount Type                         |  |  | Product Amount Type  |  |  | Product Amount Type   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Remarks                                     |  |  | Remarks  |  |  | Remarks   |  |  |                                     |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | Cutting Structure                           |  |  | HOLE CONDITION   |  |  | REDUCED PUMP SPEED  |  |  | BOILER                              |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  | From To D-R-C RPM WOB                       |  |  | Hole Drag Up Down  |  |  | Pump # Pressure Strokes/min Depth   |  |  | BoilerNo HoursRun pH StackTemp      |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |   |  |  | 1 4.00 10 340                       |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |



| FRONT PAGE SUMMARY   |   |   |   |   |   |   |   |   |   | Tour Sheet Serial Number                                |    | Vendor Software Version     |    | Year                         |    | Month                             |    | Day         |    | DAILY CHECKS   |    |                                    |       |      | OP RM  |       |                  |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
|--|---|---|---|---|---|---|---|---|---|---|----|-----------------------------|----|------------------------------|----|-----------------------------------|----|-------------|----|--|----|------------------------------------|-------|------|--|-------|------------------|-----|--|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|------------------|--|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|-----|-------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|------|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|--|--|--|-------|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|--|--|--|------|--|--|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|-------|------|--|--|-------|--|--|
| License No: 32575<br>Well Name: ARCREZ HZ SEPTIMUS H11-34-81-18W6  |   |   |   |   |   |   |   |   |   | PREC465 20170101 1C                                     |    | RMS 2016.6.14.37064         |    | 2017                         |    | 01                                |    | 01          |    | (1) Daily Walk Around Inspection<br>(2) Detailed Inspection - Weekly (Using Check List)<br>(3) H2S Signs Posted If Required<br>(4) Well License & Stick Diagram Posted<br>(5) Flare Lines Staked<br>(6) BOP Tests Performed<br>(7) Visually Inspected BOPs-Flare Lines & Degasser Lines<br>(8) Rig Site Health & Safety Meeting (once/week/month)<br>(9) CAADC Rig Safety Inspection Checklist (once/week/month)<br>(10) Mast Inspection before Raising or Lowering<br>(11) Crown Block Checked<br>(12) Motor Vibs Checked |    |                                    |       |      | FB CT<br>PB CT<br>CT   |       |                  |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| Contractor: Precision Drilling, div of PDC<br>Company Job No: 36   |   |   |   |   |   |   |   |   |   | Surface Location: 11-34-81-18 W6                        |    | Prov: BC                    |    | Loc Type: DLS                |    | Unique Well ID: 103/09-35-81-18W6 |    | Rig No: 465 |    | Well Type: HORIZ   |    | Re-Entry: <input type="checkbox"/> |       |      |  |       |                  |     | Kelly Blocking: 2738<br>Top Fuel: 2200 |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| Company's REP: 16DR0084<br>Signature of Operator's Representative: PAUL BOUTILLIER   |   |   |   |   |   |   |   |   |   | Signature of Contractor's Rig Manager: CECIL TROWBRIDGE |    | Spud Date Time: 21-Dec-2016 |    | Rig Release Date Time: 23:30 |    | 30-Dec-2016                       |    | 23:59       |    |  |    |                                    |       |      | FUEL @ 08:00 HRS<br>Rig: 7900<br>Meter: 2200<br>Time: 05:45<br>Temp: -12<br>Wind Direction:<br>Wind Strength:<br>Road Condition:<br>WEATHER: |       |                  |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Code</th> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th> <th>TOTAL</th> <th colspan="2">FUEL @ 08:00 HRS</th> </tr> <tr> <td>Hours</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>8.00</td> <td>Rig</td><td>Meter</td> </tr> <tr> <td>Tour 1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.25</td><td>7.75</td><td></td><td></td><td></td> <td></td> <td></td><td></td> </tr> <tr> <td>Tour 2</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>12.00</td><td></td><td></td><td></td> <td>12.00</td> <td></td><td></td> </tr> <tr> <td>Tour 3</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4.00</td><td></td><td></td><td></td> <td>4.00</td> <td></td><td></td> </tr> <tr> <td>TOTAL</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.25</td><td>19.75</td><td>4.00</td><td></td><td></td> <td>24.00</td> <td></td><td></td> </tr> </table> |   |   |   |   |   |   |   |   |   |   |    |                             |    |                              |    |                                   |    |             |    |  |    |                                    |       |      | 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 | Rig | Meter | Tour 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.25 | 7.75 |  |  |  |  |  |  | Tour 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 12.00 |  |  |  | 12.00 |  |  | Tour 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.00 |  |  |  | 4.00 |  |  | TOTAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.25 | 19.75 | 4.00 |  |  | 24.00 |  |  |
| 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  |   |   |   |   |   |   |   |   |   |   |    |                             |    |                              |    |                                   |    |             |    |  |    |                                    |       |      |  |       | 8.00             | Rig | Meter                                  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| Tour 1   |   |   |   |   |   |   |   |   |   |   |    |                             |    |                              |    |                                   |    |             |    |  |    | 0.25                               | 7.75  |      |  |       |                  |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| Tour 2   |   |   |   |   |   |   |   |   |   |   |    |                             |    |                              |    |                                   |    |             |    |  |    |                                    | 12.00 |      |  |       | 12.00            |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| Tour 3   |   |   |   |   |   |   |   |   |   |   |    |                             |    |                              |    |                                   |    |             |    |  |    |                                    | 4.00  |      |  |       | 4.00             |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |
| TOTAL  |   |   |   |   |   |   |   |   |   |   |    |                             |    |                              |    |                                   |    |             |    |  |    | 0.25                               | 19.75 | 4.00 |  |       | 24.00            |     |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |       |                  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |     |       |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |      |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |       |  |  |  |       |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |  |  |  |      |  |  |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |       |      |  |  |       |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                  |  |                |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------------------|--|----------------|--|
| 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:<br>Size:<br>IADC Code:<br>Manufacturer:<br>Type:<br>Serial No:<br>Jts:<br>Depth Out (m):<br>Depth In (m):<br>Total Drilled (m):<br>Hrs Run Today:<br>Cumulative Hrs Run:<br>Entry Date: |  |  |  |  |  |  |  |  |  | No. Component OD ID Length<br>Kelly Down:<br>Tensar:<br>Weight of DC:<br>Weight of String: |  |  |  |  |  |  |  |  |  | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run |  |  |  |  |                  |  |                 |  |  | Time:<br>Depth:<br>Deviation:<br>Direction:<br>Type:<br>SOLIDS CONTROL:<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density |  |  |  |  |  |  |  |  |  | From To Elapsed Code<br>0:00 7:45 7:75 22<br>7:45 8:00 0:25 21<br>Details of Operations In Sequence & Remarks<br>CONTINUE TO RIG OUT SUIT CASES, RIG OUT MUDTANKS AND LOWER ROOFS<br>CREW CHANGE SAFETY MEETING |  |  |  |  |  |  |  |  |  |
| CUTTING STRUCTURE   |  |  |  |  |  |  |  |  |  | HOLE CONDITION   |  |  |  |  |  |  |  |  |  | REDUCED PUMP SPEED  |  |  |  |  |                  |  |                 |  |  | BOILER  |  |  |  |  |  |  |  |  |  | SAFETY  |  |  |  |  |  |  |  |  |  |
| TO:<br>MDC:<br>LDC:<br>BRG:   |  |  |  |  |  |  |  |  |  | Hole Drag Up Down<br>Torque At Bottom:<br>Fill On Bottom:                                  |  |  |  |  |  |  |  |  |  | Pump # Pressure Strokes/min Depth:<br>@ @ @ @ @ @   |  |  |  |  |                  |  |                 |  |  | BoilerNo HoursRun pH StackTemp<br>1 0.00 1 0<br>2 8.00 10 340   |  |  |  |  |  |  |  |  |  | Safety Topic: MEHL MACP   |  |  |  |  |  |  |  |  |  |
| TOUR 2 SIGNATURE OF DRILLER: ERIC OBRIEN  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  | START TIME: 8:00 |  | END TIME: 20:00 |  |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |

| BITS  |  |  |  |  |  |  |  |  |  | DRILLING ASSEMBLY  |  |  |  |  |  |  |  |  |  | MUD RECORD  |  |  |  |  |                   |  |                 |  |  | DEVIATION SURVEYS   |  |  |  |  |  |  |  |  |  | TIME LOG   |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|-------------------|--|-----------------|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bit Number:<br>Size:<br>IADC Code:<br>Manufacturer:<br>Type:<br>Serial No:<br>Jts:<br>Depth Out (m):<br>Depth In (m):<br>Total Drilled (m):<br>Hrs Run Today:<br>Cumulative Hrs Run:<br>Entry Date: |  |  |  |  |  |  |  |  |  | No. Component OD ID Length<br>Kelly Down:<br>Tensar:<br>Weight of DC:<br>Weight of String: |  |  |  |  |  |  |  |  |  | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run |  |  |  |  |                   |  |                 |  |  | Time:<br>Depth:<br>Deviation:<br>Direction:<br>Type:<br>SOLIDS CONTROL:<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density |  |  |  |  |  |  |  |  |  | From To Elapsed Code<br>8:00 20:00 12:00 22<br>Details of Operations In Sequence & Remarks<br>RIG OUT COMPLEX, SHUT DOWN POWER TO LER AND FINISH RIGGING OUT SUIT CASES, RIG OUT ALL POWER CORDS |  |  |  |  |  |  |  |  |  |
| CUTTING STRUCTURE   |  |  |  |  |  |  |  |  |  | HOLE CONDITION   |  |  |  |  |  |  |  |  |  | REDUCED PUMP SPEED  |  |  |  |  |                   |  |                 |  |  | BOILER  |  |  |  |  |  |  |  |  |  | SAFETY   |  |  |  |  |  |  |  |  |  |
| TO:<br>MDC:<br>LDC:<br>BRG:   |  |  |  |  |  |  |  |  |  | Hole Drag Up Down<br>Torque At Bottom:<br>Fill On Bottom:                                  |  |  |  |  |  |  |  |  |  | Pump # Pressure Strokes/min Depth:<br>@ @ @ @ @ @   |  |  |  |  |                   |  |                 |  |  | BoilerNo HoursRun pH StackTemp  |  |  |  |  |  |  |  |  |  | Safety Topic: MEHL MACP  |  |  |  |  |  |  |  |  |  |
| TOUR 3 SIGNATURE OF DRILLER: CECIL TROWBRIDGE   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  | START TIME: 20:00 |  | END TIME: 24:00 |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| BITS  |  |  |  |  |  |  |  |  |  | DRILLING ASSEMBLY  |  |  |  |  |  |  |  |  |  | MUD RECORD  |  |  |  |  |  |  |  |  |  | DEVIATION SURVEYS   |  |  |  |  |  |  |  |  |  | TIME LOG   |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bit Number:<br>Size:<br>IADC Code:<br>Manufacturer:<br>Type:<br>Serial No:<br>Jts:<br>Depth Out (m):<br>Depth In (m):<br>Total Drilled (m):<br>Hrs Run Today:<br>Cumulative Hrs Run:<br>Entry Date: |  |  |  |  |  |  |  |  |  | No. Component OD ID Length<br>Kelly Down:<br>Tensar:<br>Weight of DC:<br>Weight of String: |  |  |  |  |  |  |  |  |  | Mud Type: Water <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Other <input type="checkbox"/><br>Time:<br>Density:<br>Funnel Viscosity:<br>Fluid Loss:<br>pH:<br>Location Of Sample:<br>Depth:<br>PVT:<br>Circulation:<br>Pump # Type Liner Size SPM Pressure Hrs Run |  |  |  |  |  |  |  |  |  | Time:<br>Depth:<br>Deviation:<br>Direction:<br>Type:<br>SOLIDS CONTROL:<br>Equipment Name Hours Run Intake Density Over Flow Density Under Flow Density |  |  |  |  |  |  |  |  |  | From To Elapsed Code<br>20:00 24:00 4:00 23B<br>Details of Operations In Sequence & Remarks<br>W/O DAYLIGHT TO MOVE RIG WITH NORTHWELL TRUCKING, WELL ENDED JAN 01, 2017 @ 23:59 |  |  |  |  |  |  |  |  |  |
| CUTTING STRUCTURE   |  |  |  |  |  |  |  |  |  | HOLE CONDITION   |  |  |  |  |  |  |  |  |  | REDUCED PUMP SPEED  |  |  |  |  |  |  |  |  |  | BOILER  |  |  |  |  |  |  |  |  |  | SAFETY   |  |  |  |  |  |  |  |  |  |
| TO:<br>MDC:<br>LDC:<br>BRG:   |  |  |  |  |  |  |  |  |  | Hole Drag Up Down<br>Torque At Bottom:<br>Fill On Bottom:                                  |  |  |  |  |  |  |  |  |  | Pump # Pressure Strokes/min Depth:<br>@ @ @ @ @ @   |  |  |  |  |  |  |  |  |  | BoilerNo HoursRun pH StackTemp  |  |  |  |  |  |  |  |  |  | Safety Topic: MEHL MACP  |  |  |  |  |  |  |  |  |  |