

| DAILY CHECKS                                              | OPR.    | R.M.    |
|-----------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                          | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)          | Initial | Initial |
| (3) HSE Signs Posted (if required)                        | Initial | Initial |
| (4) Well License & Stock Diagram Posted                   | Initial | Initial |
| (5) Flame Lines Striked                                   | Initial | Initial |
| (6) BOP Delta Performed                                   | Initial | Initial |
| (7) Visually inspect BOP's - Flowlines & Degasser Lines   | Initial | Initial |
|                                                           |         |         |
| (1) Rig Site Health and Safety Meeting (once/month)       |         | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checked (once/month) |         | Initial |
| (3) Mast Inspection Before Raising or Lowering            |         | Initial |
| (4) Crown Saver Checked                                   |         | Initial |
| (5) Motor Kills checked                                   |         | Initial |

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |            |         |        | BIT RECORD               |                           |     |     | MUD RECORD |                     |     |               | METRES DRILLED  |                |  |  | TIME LOG |      |    |            | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |  |  |
|---------------------------------------|------------|---------|--------|--------------------------|---------------------------|-----|-----|------------|---------------------|-----|---------------|-----------------|----------------|--|--|----------|------|----|------------|----------------------------------------------|--|--|--|
| NO.                                   | BIT        | O.D. mm | LENGTH | BIT NO.                  | MUD TYPE                  |     |     |            | MUD MATERIALS ADDED |     |               |                 | SOLIDS CONTROL |  |  |          | FROM | TO | ELAP. TIME | CODE NO.                                     |  |  |  |
|                                       |            |         |        | SIZE (mm)                | TIME                      |     |     |            | PRODUCT             |     |               |                 | DESILTER       |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | IADC CODE                | DENSITY kg/m <sup>3</sup> |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | MFG.                     | FUNNEL VIS. - (S/L)       |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | TYPE                     | W.L. (cm <sup>3</sup> )   |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | SERIAL NO.               | pH                        |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | JETS (mm)                |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | DEPTH OUT (m)            |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | DEPTH IN (m)             |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | TOTAL METRES DRILLED (m) |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       |            |         |        | TOTAL HOURS RUN          |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       | D.P.       | STANDS  |        | CUTTING STRUCTURE        |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       | D.P.       | SINGLES |        | T <sub>1</sub>           | T <sub>2</sub>            | MDC | LOC | B          | Gage                | CDC | Reason Pulled | Total Run in/hr |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       | KELLY DOWN |         |        | HOLE CONDITION           |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
|                                       | TOTAL      |         |        | HOLE DRAG                |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
| WT. OF DC                             |            |         |        | TORQUE AT BOTTOM         |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |
| WT. OF STRING                         |            |         |        | FILL ON BOTTOM (m)       |                           |     |     |            |                     |     |               |                 |                |  |  |          |      |    |            |                                              |  |  |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |            |         |         | BIT RECORD |                          |                |                |     |     |   |      | MUD RECORD |                           |                                      |                                    | METRES DRILLED           |                         |                          |                   | TIME LOG              |                |    |            | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |                              |  |              |  |          |  |  |  |
|---------------------------------------|------------|---------|---------|------------|--------------------------|----------------|----------------|-----|-----|---|------|------------|---------------------------|--------------------------------------|------------------------------------|--------------------------|-------------------------|--------------------------|-------------------|-----------------------|----------------|----|------------|----------------------------------------------|------------------------------|--|--------------|--|----------|--|--|--|
| NO.                                   | BIT        |         | O.D. mm | LENGTH     | BIT NO.                  |                |                |     |     |   |      |            | MUD TYPE                  | <input type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED | FROM                     | TO                      | D.R. / R.M. / CORE-C     | ROTARY R.P.M.     | WT. ON BIT (1000 lbN) | FROM           | TO | ELAP. TIME | CODE NO.                                     |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | SIZE (mm)                |                |                |     |     |   |      |            | TIME                      |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | IADC CODE                |                |                |     |     |   |      |            | DENSITY kg/m <sup>3</sup> |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | MFG.                     |                |                |     |     |   |      |            | FUNNEL VIS. - (S/L)       |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | TYPE                     |                |                |     |     |   |      |            | W.L. (cm <sup>3</sup> )   |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | SERIAL NO.               |                |                |     |     |   |      |            | pH                        |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | JETS (mm)                |                |                |     |     |   |      |            |                           |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | DEPTH OUT (m)            |                |                |     |     |   |      |            | MUD MATERIALS ADDED       |                                      |                                    |                          | SOLIDS CONTROL          |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | DEPTH IN (m)             |                |                |     |     |   |      |            | PRODUCT                   | AMOUNT X UNIT                        | DESILTER                           |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | TOTAL METRES DRILLED (m) |                |                |     |     |   |      |            | HOURS RUN                 | INTAKE DENSITY (sgm.)                | OVERFLOW DENSITY (sgm.)            | UNDERFLOW DENSITY (sgm.) |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       |            |         |         | m          | TOTAL HOURS RUN          |                |                |     |     |   |      |            | CENTRIFUGE                |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       | D.P.       | STANDS  |         | m          | CUTTING STRUCTURE        | f <sub>r</sub> | f <sub>c</sub> | MDC | LOC | B | Gage | CDC        | Reason Pulled             | Total Run m/hr.                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       | D.P.       | SINGLES |         | m          | HOLE CONDITION           |                |                |     |     |   |      |            |                           |                                      | HOURS RUN                          | INTAKE DENSITY (sgm.)    | OVERFLOW DENSITY (sgm.) | UNDERFLOW DENSITY (sgm.) |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       | KELLY DOWN |         |         | m          |                          |                |                |     |     |   |      |            |                           |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
|                                       | TOTAL      |         |         | m          | HOLE DRAG                |                |                |     |     |   |      |            |                           |                                      |                                    |                          |                         |                          |                   |                       |                |    |            |                                              |                              |  |              |  |          |  |  |  |
| WT.OF DC                              |            |         |         | 1000 gals  | TORQUE AT BOTTOM         |                |                |     |     |   |      |            |                           |                                      | HOURS RUN                          | INTAKE DENSITY (sgm.)    | OVERFLOW DENSITY (sgm.) | UNDERFLOW DENSITY (sgm.) | DRILLER SIGNATURE |                       |                |    | BOILER     |                                              | MAXIMUM EXPERIENCED HOOKLOAD |  | SAFETY TOPIC |  | M.A.C.P. |  |  |  |
| WT.OF STRING                          |            |         |         | 1000 gal   | FILL ON BOTTOM (m)       |                |                |     |     |   |      |            |                           |                                      |                                    |                          |                         |                          | HRS. RUN          |                       | ph STACK TEMP. |    |            |                                              |                              |  |              |  |          |  |  |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |           |           | MUD RECORD               |                                                                                  |     |     |   |      |     |               |                 |  | METRES DRILLED |                |    |            | TIME LOG   |                                     |  |  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |                                       |  |  |  |                                        |  |  |  |
|---------------------------------------|------|-----------|-----------|--------------------------|----------------------------------------------------------------------------------|-----|-----|---|------|-----|---------------|-----------------|--|----------------|----------------|----|------------|------------|-------------------------------------|--|--|----------------------------------------------|---------------------------------------|--|--|--|----------------------------------------|--|--|--|
| NO.                                   | BIT  | O.D. (mm) | LENGTH    | BIT NO.                  | MUD TYPE <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |     |     |   |      |     |               |                 |  |                | FROM           | TO | ELAP. TIME | CODE NO.   |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | SIZE (mm)                | TIME                                                                             |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | ADDC CODE                | DENSITY kg/m <sup>3</sup>                                                        |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | MFG.                     | FUNNEL VIS. - (S/L)                                                              |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | TYPE                     | W.L. (cm <sup>3</sup> )                                                          |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | SERIAL NO.               | pH                                                                               |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | JETS (mm)                |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | DEPTH OUT (m)            | MUD MATERIALS ADDED                                                              |     |     |   |      |     |               |                 |  |                | SOLIDS CONTROL |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | DEPTH IN (m)             | PRODUCT                                                                          |     |     |   |      |     |               |                 |  |                | AMOUNT X UNIT  |    |            |            | DESILTER                            |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | TOTAL METRES DRILLED (m) |                                                                                  |     |     |   |      |     |               |                 |  |                | HOURS RUN      |    |            |            | INTAKE DENSITY (kg/m <sup>3</sup> ) |  |  |                                              | OVERFLOW DENSITY (kg/m <sup>3</sup> ) |  |  |  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |  |  |
|                                       |      |           | m         | TOTAL HOURS RUN          |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       | D.P. | STANDS    | m         | CUTTING STRUCTURE        |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            | CENTRIFUGE |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       | D.P. | SINGLES   | m         | T <sub>1</sub>           | T <sub>2</sub>                                                                   | MDC | LOC | B | Gage | CDC | Reason Pulled | Total Run m/hr. |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | HOLE CONDITION           |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
|                                       |      |           | m         | HOLE DRAG                |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
| WT. OF DC                             |      |           | 1000 gals | TORQUE AT BOTTOM         |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |
| WT. OF STRING                         |      |           | 1000 gals | FILL ON BOTTOM (m)       |                                                                                  |     |     |   |      |     |               |                 |  |                |                |    |            |            |                                     |  |  |                                              |                                       |  |  |  |                                        |  |  |  |

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|------------------------------------------------|--------------------------------------------------------------------------|
| LICENCE NO. 1887                               | WELL NAME AND NO. AEC (West) Reconn. Tote C-18                           |
| OPERATOR: AEC Oil and Gas                      | CONTRACTOR: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd. |
| SURFACE LOCATION: AEC (West) Reconn. Tote C-18 | UNIQUE NO. 217001104                                                     |
| SIGNATURE OF OPERATOR'S REPRESENTATIVE:        | SIGNATURE OF CONTRACTOR'S REPRESENTATIVE:                                |

|                                                                    |         |         |
|--------------------------------------------------------------------|---------|---------|
| DAILY CHECKS                                                       | OPR     | R.M.    |
| (1) Daily Walk Around Inspection                                   | Initial | Initial |
| (2) Detailed Inspection Weekly (using checklist)                   | Initial | Initial |
| (3) H/S Signs Posted (if required)                                 | Initial | Initial |
| (4) Well License & Back Diagram Posted                             | Initial | Initial |
| (5) Flare Line Staked                                              | Initial | Initial |
| (6) BOP Drills Performed                                           | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines           | Initial | Initial |
| (1) Rig Site Health and Safety Meeting (once/week/monthly)         | Initial | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (once/week/monthly) | Initial | Initial |
| (3) Mast Inspection Before Raising or Lowering                     | Initial | Initial |
| (4) Crown Saver Checked                                            | Initial | Initial |
| (5) Motor Kills checked                                            | Initial | Initial |

|                    |             |                |                             |                    |                |              |                   |             |               |                 |                     |                 |
|--------------------|-------------|----------------|-----------------------------|--------------------|----------------|--------------|-------------------|-------------|---------------|-----------------|---------------------|-----------------|
| YEAR               | MONTH       | DAY            | LAST CASING TUBING OR LINER | O.D. (mm)          | MIN. I.D. (mm) | kg/m         | MAKE              | GRADE       | NO. OF JOINTS | TOTAL(m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)      |
| RIG NO.            | FUEL @ 8:00 |                |                             |                    |                |              |                   |             |               |                 |                     |                 |
| RIG                | BOILER      | TEMPERATURE °C | DC/DP SIZE (mm)             | LINEAR MASS (kg/m) | GRADE          | MIN. ID (mm) | TOOL JT O.D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE       | PUMP MANUFACTURER   | STROKE LTH (mm) |
| CURRENT CONDITIONS |             |                |                             |                    |                |              |                   |             |               |                 |                     |                 |
| WIND DIRECTION     |             |                |                             |                    |                |              |                   |             |               |                 |                     |                 |
| ROAD               |             |                |                             |                    |                |              |                   |             |               |                 |                     |                 |

| TIME<br>-<br>HRS | CODE NO. | 1                  | 2            | 3       | 4      | 5                  | 6     | 7           | 8          | 9                  | 10          | 11             | 12                | 13             | 14               | 15          | 16              | 17        | 18             | 19      | 20        | 21          | 22 | 23 | 24 | 25 | 26 | TOTALS | SHALE SHAKER(S) |     | RENTALS/SERVICES                                                         |        |        |  |  |  |  |
|------------------|----------|--------------------|--------------|---------|--------|--------------------|-------|-------------|------------|--------------------|-------------|----------------|-------------------|----------------|------------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|----|----|----|----|----|--------|-----------------|-----|--------------------------------------------------------------------------|--------|--------|--|--|--|--|
|                  | OPER.    | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | CORING MUD & CIRC. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | RUN CASE & CEMENT | WAIT ON CEMENT | NIPPLE UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DRL. WORK | SAFETY MTG. |    |    |    |    |    |        |                 | NO. | TYPE                                                                     |        |        |  |  |  |  |
|                  | MORN.    |                    |              |         |        |                    |       |             |            |                    |             |                |                   |                |                  |             |                 |           |                |         |           |             |    |    |    |    |    |        |                 |     | SCREENS CHANGED <input type="checkbox"/> YES <input type="checkbox"/> NO |        |        |  |  |  |  |
|                  | DAY      |                    |              |         |        |                    |       |             |            |                    |             |                |                   |                |                  |             |                 |           |                |         |           |             |    |    |    |    |    |        |                 |     | 8                                                                        | TOP    | TOP    |  |  |  |  |
|                  | EVE.     |                    |              |         |        |                    |       |             |            |                    |             |                |                   |                |                  |             |                 |           |                |         |           |             |    |    |    |    |    |        |                 |     | 4                                                                        | MIDDLE | MIDDLE |  |  |  |  |
|                  | TOTAL    |                    |              |         |        |                    |       |             |            |                    |             |                |                   |                |                  |             |                 |           |                |         |           |             |    |    |    |    |    |        |                 |     | 12                                                                       | BOTTOM | BOTTOM |  |  |  |  |

| NO. | DRILLING ASSEMBLY (At End of Tour) | LENGTH    | BIT RECORD                                                                     | MUD RECORD                                                                       | METRES DRILLED | TIME LOG | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |
|-----|------------------------------------|-----------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------|----------|----------------------------------------------|
|     | BIT                                | O.D. (mm) | BIT NO.                                                                        | MUD TYPE <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED | FROM           | TO       |                                              |
|     |                                    |           | SIZE (mm)                                                                      | TIME                                                                             |                |          |                                              |
|     |                                    |           | IADC CODE                                                                      | DENSITY kg/m <sup>3</sup>                                                        |                |          |                                              |
|     |                                    |           | MFG.                                                                           | FUNNEL VIS. - (S/L)                                                              |                |          |                                              |
|     |                                    |           | TYPE                                                                           | W.L. (cm <sup>3</sup> )                                                          |                |          |                                              |
|     |                                    |           | SERIAL NO.                                                                     | pH                                                                               |                |          |                                              |
|     |                                    |           | JETS (mm)                                                                      |                                                                                  |                |          |                                              |
|     |                                    |           | DEPTH OUT (m)                                                                  |                                                                                  |                |          |                                              |
|     |                                    |           | DEPTH IN (m)                                                                   |                                                                                  |                |          |                                              |
|     |                                    |           | TOTAL METRES DRILLED (m)                                                       |                                                                                  |                |          |                                              |
|     |                                    |           | TOTAL HOURS RUN                                                                |                                                                                  |                |          |                                              |
|     | D.P.                               | STANDS    | CUTTING STRUCTURE                                                              |                                                                                  |                |          |                                              |
|     | D.P.                               | SINGLES   | T <sub>1</sub> T <sub>2</sub> MDC LOC B Gage ODC Reason Pulled Total Run m/hr. |                                                                                  |                |          |                                              |
|     | KELLY DOWN                         |           |                                                                                |                                                                                  |                |          |                                              |
|     | TOTAL                              |           |                                                                                |                                                                                  |                |          |                                              |
|     | WT. OF DC                          |           | 1000 daN                                                                       | TORQUE AT BOTTOM                                                                 |                |          |                                              |
|     | WT. OF STRING                      |           | 1000 daN                                                                       | FILL ON BOTTOM (m)                                                               |                |          |                                              |

| NO. | DRILLING ASSEMBLY (At End of Tour) | LENGTH    | BIT RECORD                                                                     | MUD RECORD                                                                       | METRES DRILLED | TIME LOG | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |
|-----|------------------------------------|-----------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------|----------|----------------------------------------------|
|     | BIT                                | O.D. (mm) | BIT NO.                                                                        | MUD TYPE <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED | FROM           | TO       |                                              |
|     |                                    |           | SIZE (mm)                                                                      | TIME                                                                             |                |          |                                              |
|     |                                    |           | IADC CODE                                                                      | DENSITY kg/m <sup>3</sup>                                                        |                |          |                                              |
|     |                                    |           | MFG.                                                                           | FUNNEL VIS. - (S/L)                                                              |                |          |                                              |
|     |                                    |           | TYPE                                                                           | W.L. (cm <sup>3</sup> )                                                          |                |          |                                              |
|     |                                    |           | SERIAL NO.                                                                     | pH                                                                               |                |          |                                              |
|     |                                    |           | JETS (mm)                                                                      |                                                                                  |                |          |                                              |
|     |                                    |           | DEPTH OUT (m)                                                                  |                                                                                  |                |          |                                              |
|     |                                    |           | DEPTH IN (m)                                                                   |                                                                                  |                |          |                                              |
|     |                                    |           | TOTAL METRES DRILLED (m)                                                       |                                                                                  |                |          |                                              |
|     |                                    |           | TOTAL HOURS RUN                                                                |                                                                                  |                |          |                                              |
|     | D.P.                               | STANDS    | CUTTING STRUCTURE                                                              |                                                                                  |                |          |                                              |
|     | D.P.                               | SINGLES   | T <sub>1</sub> T <sub>2</sub> MDC LOC B Gage ODC Reason Pulled Total Run m/hr. |                                                                                  |                |          |                                              |
|     | KELLY DOWN                         |           |                                                                                |                                                                                  |                |          |                                              |
|     | TOTAL                              |           |                                                                                |                                                                                  |                |          |                                              |
|     | WT. OF DC                          |           | 1000 daN                                                                       | TORQUE AT BOTTOM                                                                 |                |          |                                              |
|     | WT. OF STRING                      |           | 1000 daN                                                                       | FILL ON BOTTOM (m)                                                               |                |          |                                              |

| NO. | DRILLING ASSEMBLY (At End of Tour) | LENGTH    | BIT RECORD                                                                     | MUD RECORD                                                                       | METRES DRILLED | TIME LOG | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |
|-----|------------------------------------|-----------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------|----------|----------------------------------------------|
|     | BIT                                | O.D. (mm) | BIT NO.                                                                        | MUD TYPE <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED | FROM           | TO       |                                              |
|     |                                    |           | SIZE (mm)                                                                      | TIME                                                                             |                |          |                                              |
|     |                                    |           | IADC CODE                                                                      | DENSITY kg/m <sup>3</sup>                                                        |                |          |                                              |
|     |                                    |           | MFG.                                                                           | FUNNEL VIS. - (S/L)                                                              |                |          |                                              |
|     |                                    |           | TYPE                                                                           | W.L. (cm <sup>3</sup> )                                                          |                |          |                                              |
|     |                                    |           | SERIAL NO.                                                                     | pH                                                                               |                |          |                                              |
|     |                                    |           | JETS (mm)                                                                      |                                                                                  |                |          |                                              |
|     |                                    |           | DEPTH OUT (m)                                                                  |                                                                                  |                |          |                                              |
|     |                                    |           | DEPTH IN (m)                                                                   |                                                                                  |                |          |                                              |
|     |                                    |           | TOTAL METRES DRILLED (m)                                                       |                                                                                  |                |          |                                              |
|     |                                    |           | TOTAL HOURS RUN                                                                |                                                                                  |                |          |                                              |
|     | D.P.                               | STANDS    | CUTTING STRUCTURE                                                              |                                                                                  |                |          |                                              |
|     | D.P.                               | SINGLES   | T <sub>1</sub> T <sub>2</sub> MDC LOC B Gage ODC Reason Pulled Total Run m/hr. |                                                                                  |                |          |                                              |
|     | KELLY DOWN                         |           |                                                                                |                                                                                  |                |          |                                              |
|     | TOTAL                              |           |                                                                                |                                                                                  |                |          |                                              |
|     | WT. OF DC                          |           | 1000 daN                                                                       | TORQUE AT BOTTOM                                                                 |                |          |                                              |
|     | WT. OF STRING                      |           | 1000 daN                                                                       | FILL ON BOTTOM (m)                                                               |                |          |                                              |

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| TIME - HRS | CODE NO. | 1                        | 2            | 3       | 4      | 5                  | 6     | 7           | 8          | 9                  | 10          | 11             | 12                 | 13             | 14              | 15          | 16              | 17        | 18             | 19      | 20        | 21          | 22  | 23   | 24    | 25  | 26   | TOTALS | SHALE SHAKER(S) *                                                         |        | RENTALS/SERVICES |  |  |
|------------|----------|--------------------------|--------------|---------|--------|--------------------|-------|-------------|------------|--------------------|-------------|----------------|--------------------|----------------|-----------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|-----|------|-------|-----|------|--------|---------------------------------------------------------------------------|--------|------------------|--|--|
|            |          | OPER. RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | CONO. MUD & CEMENT | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | TURN CASE & CEMENT | WAIT ON CEMENT | MUDP. UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIL. WORK | SAFETY MTG. | NO. | TYPE |       |     |      |        |                                                                           |        |                  |  |  |
|            |          |                          |              |         |        |                    |       |             |            |                    |             |                |                    |                |                 |             |                 |           |                |         |           |             |     |      | MORN. | DAY | EVE. |        |                                                                           |        |                  |  |  |
| MORN.      |          |                          |              |         |        |                    |       |             |            |                    |             |                |                    |                |                 |             |                 |           |                |         |           |             |     |      |       |     |      |        | SCREENS CHANGED: <input type="checkbox"/> YES <input type="checkbox"/> NO |        |                  |  |  |
| DAY        |          |                          |              |         |        |                    |       |             |            |                    |             |                |                    |                |                 |             |                 |           |                |         |           |             |     |      |       |     |      |        | TOP                                                                       | TOP    |                  |  |  |
| EVE.       |          |                          |              |         |        |                    |       |             |            |                    |             |                |                    |                |                 |             |                 |           |                |         |           |             |     |      |       |     |      |        | MIDDLE                                                                    | MIDDLE |                  |  |  |
| TOTAL      |          |                          |              |         |        |                    |       |             |            |                    |             |                |                    |                |                 |             |                 |           |                |         |           |             |     |      |       |     |      |        | BOTTOM                                                                    | BOTTOM |                  |  |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |         |          | BIT RECORD               |                |     |     | MUD RECORD |                           |               |                                      | METRES DRILLED                        |                                        |                                        |           | TIME LOG                            |                                       |                                        |                       | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |    |              |          |          |  |  |  |
|---------------------------------------|------|---------|----------|--------------------------|----------------|-----|-----|------------|---------------------------|---------------|--------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|-----------|-------------------------------------|---------------------------------------|----------------------------------------|-----------------------|----------------------------------------------|----|--------------|----------|----------|--|--|--|
| NO.                                   | BIT  | O.D. mm | LENGTH   | BIT NO.                  |                |     |     |            | MUD TYPE                  |               | <input type="checkbox"/> WATER BASED |                                       | <input type="checkbox"/> OIL BASED     |                                        | FROM      | TO                                  | D.R. CORE-C                           | ROTARY R.P.M.                          | WT. ON BIT (1000 daN) | FROM                                         | TO | ELAP. TIME   | CODE NO. |          |  |  |  |
|                                       |      |         | m        | SIZE (mm)                |                |     |     |            | TIME                      |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | IADC CODE                |                |     |     |            | DENSITY kg/m <sup>3</sup> |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | MFG.                     |                |     |     |            | FUNNEL VIS. - (S/L)       |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | TYPE                     |                |     |     |            | W.L. (cm <sup>2</sup> )   |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | SERIAL NO.               |                |     |     |            | pH                        |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | JETS (mm)                |                |     |     |            |                           |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | DEPTH OUT (m)            |                |     |     |            | MUD MATERIALS ADDED       |               | SOLIDS CONTROL                       |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | DEPTH IN (m)             |                |     |     |            | PRODUCT                   | AMOUNT X UNIT | DESILTER                             |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | TOTAL METRES DRILLED (m) |                |     |     |            |                           |               | HOURS RUN                            | INTAKE DENSITY (kg/m <sup>3</sup> )   | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       |      |         | m        | TOTAL HOURS RUN          |                |     |     |            |                           |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       | D.P. | STANDS  | m        | CUTTING STRUCTURE        |                |     |     |            |                           | CENTRIFUGE    |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
|                                       | D.P. | SINGLES | m        | T <sub>1</sub>           | T <sub>2</sub> | MDC | LOC | B          | Gage                      | ODC           | Reason Pulled                        | Total Run m/br.                       |                                        |                                        | HOURS RUN | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                       |                                              |    |              |          |          |  |  |  |
| KELLYDOWN                             |      |         |          | HOLE CONDITION           |                |     |     |            |                           |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
| TOTAL                                 |      |         |          | HOLE DRAG                |                |     |     |            |                           |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       |                                              |    |              |          |          |  |  |  |
| WT. OF DC                             |      |         | 1000 gal | TORQUE AT BOTTOM         |                |     |     |            |                           | HOURS RUN     | INTAKE DENSITY (kg/m <sup>3</sup> )  | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) | DRILLER SIGNATURE                      |           |                                     |                                       | BOILER                                 |                       | MAXIMUM EXPERIENCED HOOKLOAD                 |    | SAFETY TOPIC |          | M.A.C.P. |  |  |  |
| WT. OF STRING                         |      |         | 1000 gal | FILL ON BOTTOM (m)       |                |     |     |            |                           |               |                                      |                                       |                                        |                                        |           |                                     |                                       |                                        |                       | HRS. RUN                                     | ph | STACK TEMP.  |          |          |  |  |  |

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121188

LICENCE NO.: 1987  
WELL NAME AND NO.: AEC(WEST) RING TATE G-18  
OPERATOR: AEC OIL & GAS  
CONTRACTOR: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd.  
SURFACE LOCATION: AEC(WEST) RING TATE G-18  
SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature]  
SIGNATURE OF CONTRACTOR'S REPRESENTATIVE: [Signature]

DAILY CHECKS  
(1) Daily Walk Around Inspection  
(2) Detailed Inspection-Weekly (using checklist)  
(3) H/S Signs Posted (if required)  
(4) Well License & Block Diagram Posted  
(5) Flare Lines Striked  
(6) BOP Drills Performed  
(7) Visually inspect BOP's - Panniers & Casing Lines  
(8) Rig Site Health and Safety Meeting (once a month)  
(9) C.A.D.C. Rig Safety Inspection Checklist (once a month)  
(10) Mast Inspection Before Raising or Lowering  
(11) Crown Saver Checked  
(12) Motor Kils checked

OPR. Initials  
R.M. Initials

YEAR MONTH DAY  
RIG NO. 1  
FUEL @ 8:00  
RIG BOILER  
TEMPERATURE °C  
CURRENT CONDITIONS  
WIND DIRECTION  
ROAD

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

DC/DP SIZE (mm) LINEAR MASS (kg/m) GRADE MIN. ID (mm) TOOL JOINT (mm) TYPE THREAD NO. OF JOINTS PUMP TYPE PUMP MANUFACTURER STROKE LTH (mm)

| TIME - HRS | CODE NO. | 1                  | 2            | 3              | 4                 | 5     | 6           | 7          | 8                  | 9           | 10             | 11                | 12             | 13              | 14          | 15              | 16        | 17             | 18      | 19        | 20          | 21 | 22      | 23      | 24    | 25 | 26 | TOTALS | SHALE SHAKER(S) |     | RENTALS/SERVICES |  | MORR | DAY |  |  |
|------------|----------|--------------------|--------------|----------------|-------------------|-------|-------------|------------|--------------------|-------------|----------------|-------------------|----------------|-----------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|----|---------|---------|-------|----|----|--------|-----------------|-----|------------------|--|------|-----|--|--|
|            | OPER.    | RIG UP & TEST DOWN | DRILL ACTUAL | REAMING CORING | COND. MUD & CIRC. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | RUN CASE & CEMENT | WAIT ON CEMENT | NEPPE OF B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIR. WORK | SAFETY MTG. |    |         |         |       |    |    |        |                 | NO. | TYPE             |  |      |     |  |  |
|            | MORN     |                    |              |                |                   |       |             |            |                    |             |                |                   |                |                 |             |                 |           |                |         |           |             |    | Chg Rig | 11-2-21 |       |    |    |        |                 |     |                  |  |      |     |  |  |
|            | DAY      |                    |              |                |                   |       |             |            |                    |             |                |                   |                |                 |             |                 |           |                |         |           |             | 25 |         | 7-25    |       |    |    |        |                 |     |                  |  |      |     |  |  |
|            | EVE      |                    |              |                |                   |       |             |            |                    |             |                |                   |                |                 |             |                 |           |                |         |           |             |    |         |         |       |    |    |        |                 |     |                  |  |      |     |  |  |
|            | TOTAL    |                    |              |                |                   |       |             |            |                    |             |                |                   |                |                 |             |                 |           |                |         |           |             |    | 25      | 11      | 18-25 |    |    |        |                 |     |                  |  |      |     |  |  |
|            |          |                    |              |                |                   |       |             |            |                    |             |                |                   |                |                 |             |                 |           |                |         |           |             |    |         |         |       |    |    |        |                 |     |                  |  |      |     |  |  |

DRILLING ASSEMBLY (At End of Tour)  
NO. BIT O.D. (mm) LENGTH (m)  
BIT NO. SIZE (mm) IADC CODE MFG. TYPE SERIAL NO. JETS (mm) DEPTH OUT (m) DEPTH IN (m) TOTAL METRES DRILLED (m) TOTAL HOURS RUN (m)  
D.P. STANDS D.P. SINGLES KELLYDOWN TOTAL  
WT. OF DC 1000 dwt TORQUE AT BOTTOM 1000 dwt  
WT. OF STRING 1000 dwt FILL ON BOTTOM (m)

BIT RECORD  
MUD RECORD  
MUD TYPE ☐ WATER BASED ☐ OIL BASED  
TIME DENSITY kg/m<sup>3</sup> FUNNEL VIS. - (S/L) W.L. (cm<sup>3</sup>) pH  
MUD MATERIALS ADDED SOLIDS CONTROL  
PRODUCT AMOUNT X UNIT DESILTER  
CENTRIFUGE  
HOURS RUN INTAKE DENSITY (kg/m<sup>3</sup>) OVERFLOW DENSITY (kg/m<sup>3</sup>) UNDERFLOW DENSITY (kg/m<sup>3</sup>)  
HOLE CONDITION  
HOLE DRAG

METRES DRILLED  
FROM TO DR. D. RM-R CORE-C ROTARY R.P.M. WT. ON BIT (1000 dwt)  
CIRCULATION PRESSURE (kPa) PUMP NO. 1 LINER SIZE (mm) S.P.M. PUMP NO. 2 LINER SIZE (mm) S.P.M.  
REDUCED PUMP SPEED @ @  
DEVIATION SURVEY  
DEPTH (m) DEVIATION (°) DIRECTION  
NOTES  
DRILLER SIGNATURE HRS. RAN BOILER ph STACK TEMP. MAXIMUM EXPERIENCED HOOKLOAD SAFETY TOPIC M.A.C.P.

TIME LOG  
FROM TO ELAP. TIME CODE NO.  
0800 0815 4.21 0815 1600 14.73  
SAFETY mtg. move Rig

DETAILS OF OPERATION IN SEQUENCE AND REMARKS  
CHECK RIG. MOUNTING  
DRAIN + CLEAN BOILER.

DRILLING ASSEMBLY (At End of Tour)  
NO. BIT O.D. (mm) LENGTH (m)  
BIT NO. SIZE (mm) IADC CODE MFG. TYPE SERIAL NO. JETS (mm) DEPTH OUT (m) DEPTH IN (m) TOTAL METRES DRILLED (m) TOTAL HOURS RUN (m)  
D.P. STANDS D.P. SINGLES KELLYDOWN TOTAL  
WT. OF DC 1000 dwt TORQUE AT BOTTOM 1000 dwt  
WT. OF STRING 1000 dwt FILL ON BOTTOM (m)

BIT RECORD  
MUD RECORD  
MUD TYPE ☐ WATER BASED ☐ OIL BASED  
TIME DENSITY kg/m<sup>3</sup> FUNNEL VIS. - (S/L) W.L. (cm<sup>3</sup>) pH  
MUD MATERIALS ADDED SOLIDS CONTROL  
PRODUCT AMOUNT X UNIT DESILTER  
CENTRIFUGE  
HOURS RUN INTAKE DENSITY (kg/m<sup>3</sup>) OVERFLOW DENSITY (kg/m<sup>3</sup>) UNDERFLOW DENSITY (kg/m<sup>3</sup>)  
HOLE CONDITION  
HOLE DRAG

METRES DRILLED  
FROM TO DR. D. RM-R CORE-C ROTARY R.P.M. WT. ON BIT (1000 dwt)  
CIRCULATION PRESSURE (kPa) PUMP NO. 1 LINER SIZE (mm) S.P.M. PUMP NO. 2 LINER SIZE (mm) S.P.M.  
REDUCED PUMP SPEED @ @  
DEVIATION SURVEY  
DEPTH (m) DEVIATION (°) DIRECTION  
NOTES  
DRILLER SIGNATURE HRS. RAN BOILER ph STACK TEMP. MAXIMUM EXPERIENCED HOOKLOAD SAFETY TOPIC M.A.C.P.

TIME LOG  
FROM TO ELAP. TIME CODE NO.  
0800 0815 4.21 0815 1600 14.73  
SAFETY mtg. move Rig

DETAILS OF OPERATION IN SEQUENCE AND REMARKS  
SAFETY mtg. move Rig

DRILLING ASSEMBLY (At End of Tour)  
NO. BIT O.D. (mm) LENGTH (m)  
BIT NO. SIZE (mm) IADC CODE MFG. TYPE SERIAL NO. JETS (mm) DEPTH OUT (m) DEPTH IN (m) TOTAL METRES DRILLED (m) TOTAL HOURS RUN (m)  
D.P. STANDS D.P. SINGLES KELLYDOWN TOTAL  
WT. OF DC 1000 dwt TORQUE AT BOTTOM 1000 dwt  
WT. OF STRING 1000 dwt FILL ON BOTTOM (m)

BIT RECORD  
MUD RECORD  
MUD TYPE ☐ WATER BASED ☐ OIL BASED  
TIME DENSITY kg/m<sup>3</sup> FUNNEL VIS. - (S/L) W.L. (cm<sup>3</sup>) pH  
MUD MATERIALS ADDED SOLIDS CONTROL  
PRODUCT AMOUNT X UNIT DESILTER  
CENTRIFUGE  
HOURS RUN INTAKE DENSITY (kg/m<sup>3</sup>) OVERFLOW DENSITY (kg/m<sup>3</sup>) UNDERFLOW DENSITY (kg/m<sup>3</sup>)  
HOLE CONDITION  
HOLE DRAG

METRES DRILLED  
FROM TO DR. D. RM-R CORE-C ROTARY R.P.M. WT. ON BIT (1000 dwt)  
CIRCULATION PRESSURE (kPa) PUMP NO. 1 LINER SIZE (mm) S.P.M. PUMP NO. 2 LINER SIZE (mm) S.P.M.  
REDUCED PUMP SPEED @ @  
DEVIATION SURVEY  
DEPTH (m) DEVIATION (°) DIRECTION  
NOTES  
DRILLER SIGNATURE HRS. RAN BOILER ph STACK TEMP. MAXIMUM EXPERIENCED HOOKLOAD SAFETY TOPIC M.A.C.P.

TIME LOG  
FROM TO ELAP. TIME CODE NO.  
1600 2000 4.23  
move Rig

DETAILS OF OPERATION IN SEQUENCE AND REMARKS  
move Rig

| DAILY CHECKS                                                | OPR.    | R.M.    |
|-------------------------------------------------------------|---------|---------|
| (1) Daily Walk-Around Inspection                            | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)            | Initial | Initial |
| (3) HFS Signs Posted (if required)                          | Initial | Initial |
| (4) Well License & Stick Diagram Posted                     | Initial | Initial |
| (5) Flare Lines Striked                                     | Initial | Initial |
| (6) BOP Drills Performed                                    | Initial | Initial |
| (7) Visually Inspect BOP's - Flarelines & Degasser Lines    | Initial | Initial |
|                                                             |         |         |
| (1) Rig Site Health and Safety Meeting (once/every month)   |         | Initial |
| (2) G.A.O.C.C. Rig Safety Inspection Checklist (once/month) |         | Initial |
| (3) Mast Inspection Before Hoisting or Lowering             |         | Initial |
| (4) Crown Saver Checked                                     |         | Initial |
| (5) Motor Kicks checked                                     |         | Initial |

| YEAR        |  | MONTH | DAY | LAST   | O.D. (mm) | MIN. I.D. (mm) | kg/m | MAKE    | GRADE | NO. OF JOINTS | TOTAL (m) | KB TO CSG HEAD (m) | SET AT (m) |
|-------------|--|-------|-----|--------|-----------|----------------|------|---------|-------|---------------|-----------|--------------------|------------|
| FIG NO. 51  |  |       |     | CASING | 410       | 320            | 81   | Lorstar | LF    | 4             | 57.20     |                    | 51         |
| FUEL @ 8:00 |  |       |     | TUBING | 244.5     | 226            |      | STC     | D-55  | 44            | 587.11    | 515                | 586        |
| FIG         |  |       |     | OR     |           |                |      |         |       |               |           |                    |            |
| BOILER      |  |       |     | LINER  |           |                |      |         |       |               |           |                    |            |

  

| WEATHER | TEMPERATURE        | °C | D.O.P. SIZE (mm) | LINEAR MASS (kg/m) | GRADE | MIN. ID (mm) | TOOL JT O.D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE | PUMP MANUFACTURER | STROKE LTR. (mm) |
|---------|--------------------|----|------------------|--------------------|-------|--------------|-------------------|-------------|---------------|-----------|-------------------|------------------|
|         | CURRENT CONDITIONS |    | 21.58            | 135                |       | 58           | 158               | 4.5X11      | 20            | P-80      | National          | 210              |
|         | WIND DIRECTION     |    | 11.14            | 62.42              |       | 64           | 158               | 15X11       | 60            | P-80      | National          | 916              |
|         | ROAD               |    | 11.14            | 76.77              | 495   | 63           | 158               | 4.5X11      | 20            |           |                   |                  |

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| NO.           | DRILLING ASSEMBLY<br>(At End of Tour) |           |             | LENGTH | BIT RECORD                  |                |     | MUD RECORD                   |                                      |                                    | EVENING<br>TOUR                           | METRES DRILLED                              |                                              |                                  |                   | TIME LOG                      |                |    | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |                                      |              |  |          |  |
|---------------|---------------------------------------|-----------|-------------|--------|-----------------------------|----------------|-----|------------------------------|--------------------------------------|------------------------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------|----------------------------------|-------------------|-------------------------------|----------------|----|----------------------------------------------|--------------------------------------|--------------|--|----------|--|
|               | BIT                                   | O.D. (mm) |             |        | BIT NO.                     |                |     | MUD TYPE                     | <input type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED |                                           | FROM                                        | TO                                           | G.R.D.<br>(R.A.R.)<br>(G.P.R.C.) | ROTARY<br>R.P.M.  | WT. ON<br>BIT<br>(1000's lbs) | FROM           | TO | ELAP.<br>TIME                                | CODE<br>NO.                          |              |  |          |  |
|               |                                       |           |             | m      | SIZE (mm)                   |                |     | TIME                         |                                      |                                    |                                           |                                             |                                              |                                  | 16 <sup>00</sup>  | 24 <sup>00</sup>              | 8              |    | Team out Ring                                |                                      |              |  |          |  |
|               |                                       |           |             | m      | IADC CODE                   |                |     | DENSITY<br>kg/m <sup>3</sup> |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              | Derrick Down @ 18 <sup>00</sup> Hrs. |              |  |          |  |
|               |                                       |           |             | m      | MPQ                         |                |     | FUNNEL<br>VIS. - (S/L)       |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | TYPE                        |                |     | W.L. (cm <sup>3</sup> )      |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | SERIAL NO.                  |                |     | pH                           |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | JETS (mm)                   |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | DEPTH OUT (m)               |                |     | MUD MATERIALS ADDED          |                                      | SOLIDS CONTROL                     |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | DEPTH IN (m)                |                |     | PRODUCT                      | AMOUNT X UNIT                        | DESILTER                           |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | TOTAL METRES<br>DRILLED (m) |                |     |                              |                                      | HOURS RUN                          | INTAKE<br>DENSITY<br>(g/cm <sup>3</sup> ) | OVERFLOW<br>DENSITY<br>(g/cm <sup>3</sup> ) | UNDERFLOW<br>DENSITY<br>(g/cm <sup>3</sup> ) |                                  |                   |                               |                |    |                                              | WOL                                  |              |  |          |  |
|               |                                       |           |             | m      | TOTAL HOURS RUN             |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               | D.P.                                  | STANDS    |             | m      | CUTTING STRUCTURE           |                |     |                              |                                      | CENTRIFUGE                         |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             | m      | T <sub>1</sub>              | T <sub>2</sub> | MDC | LOC                          | B                                    | Gage                               | ODC                                       | Reason<br>Pulled                            | Total Run<br>m/hr.                           |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               | D.P.                                  | SINGLES   |             | m      |                             |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               | KELLYDOWN                             |           |             | m      | HOLE CONDITION              |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               | TOTAL                                 |           |             | m      | HOLE DRAG                   |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
| WT. OF DC     |                                       |           | 1000<br>duh | m      | TORQUE AT BOTTOM            |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
| WT. OF STRING |                                       |           | 1000<br>duh | m      | FILL ON BOTTOM (m)          |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               |                |    |                                              |                                      |              |  |          |  |
|               |                                       |           |             |        |                             |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  | DRILLER SIGNATURE |                               | BOILER         |    | MAXIMUM EXPERIENCED HOOKLOAD                 |                                      | SAFETY TOPIC |  | M.A.C.P. |  |
|               |                                       |           |             |        |                             |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               | HRS. RUN<br>ph |    | STACK TEMP.                                  |                                      |              |  |          |  |
|               |                                       |           |             |        |                             |                |     |                              |                                      |                                    |                                           |                                             |                                              |                                  |                   |                               | 8              |    |                                              |                                      |              |  |          |  |

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|             |                       |                  |                    |       |              |                   |             |                |
|-------------|-----------------------|------------------|--------------------|-------|--------------|-------------------|-------------|----------------|
| RIG NO.     |                       |                  |                    |       |              |                   |             |                |
| FUEL @ 8:00 | TUBING<br>OR<br>LINER |                  |                    |       |              |                   |             |                |
| RIG         | BOILER                |                  |                    |       |              |                   |             |                |
| WEATHER     | TEMPERATURE °C        | D.C./P SIZE (mm) | LINEAR MASS (kg/m) | GRADE | MIN. ID (mm) | TOOL IT O.D. (mm) | TYPE-THREAD | JOINTS         |
|             | CURRENT CONDITIONS    | 2x 158           | 135                |       | 58           | 158               | 4.5XH       | 20 8D80        |
|             | WIND DIRECTION        | H 119            | 62.45              |       | 69           | 158               | 4.5XH       | 60 8D80 Notion |
|             | ROAD                  | DP114            | 2977               | 68F   | 92           | 158               | 4.5XH       | 260            |

MORNING TOUR

| METRES DRILLED                                                                                                                          |                |                 |                |                      | TIME LOG                                                                                                                                                                                                                                                                                                                                    |      |                              |          | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|----------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------|----------|----------------------------------------------|--|----------|--|--|
| FROM                                                                                                                                    | TO             | GRD RM R COHE-C | ROTARY R.P.M.  | WT ON BIT (1000 daN) | FROM                                                                                                                                                                                                                                                                                                                                        | TO   | ELAP. TIME                   | CODE NO. |                                              |  |          |  |  |
|                                                                                                                                         |                |                 |                |                      | 0                                                                                                                                                                                                                                                                                                                                           | 0600 | 6                            | 13       | WOC                                          |  |          |  |  |
|                                                                                                                                         |                |                 |                |                      | 0600                                                                                                                                                                                                                                                                                                                                        | 0800 | 2                            | 6        | RIH to tag Plug #2. TAG @ 1412m.             |  |          |  |  |
| CIRCULATION PRESSURE (kPa)                                                                                                              | PUMP NO. 1     |                 | PUMP NO. 2     |                      | Run Plug 3: 1.60 m <sup>3</sup> H <sub>2</sub> O, followed by 6.3 m <sup>3</sup> (6.8 t) RFC w/<br>1200-1100 m. 1.1% B30, 0.2% D46 & 0.5% D65, followed by .3 m <sup>3</sup><br>H <sub>2</sub> O. DISPLACE w/ .37 m <sup>3</sup> H <sub>2</sub> O followed by 8.70 m <sup>3</sup><br>mud. FELT IN 8 HRS @ 7000 daN @ 1119m.                 |      |                              |          |                                              |  |          |  |  |
|                                                                                                                                         | LINE SIZE (mm) | S.P.M.          | LINE SIZE (mm) | S.P.M.               |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
|                                                                                                                                         | 152            |                 | 152            |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
| REDUCED PUMP SPEED                                                                                                                      |                |                 |                |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
|                                                                                                                                         | @              |                 | @              |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
| DEVIATION SURVEY                                                                                                                        |                |                 |                |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
| DEPTH (m)                                                                                                                               | DEVIATION (°)  | DIRECTION       |                |                      | Plug #4: 650-550 m. 1.60 m <sup>3</sup> H <sub>2</sub> O, followed by 8.8 m <sup>3</sup> (9.5 t)<br>RFC cement w/ 1.1% B30, 2% D46 & 1% CaCl <sub>2</sub> , followed by .3 m <sup>3</sup> H <sub>2</sub> O.<br>DISP w/ .35 m <sup>3</sup> H <sub>2</sub> O followed by 2.30 m <sup>3</sup> mud. FELT Plug IN 6.5 hrs<br>w/ 7000 daN @ 540m. |      |                              |          |                                              |  |          |  |  |
|                                                                                                                                         |                |                 |                |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
|                                                                                                                                         |                |                 |                |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
| NOTES<br>V-Crownsaws, Brakes & Linkages, Dead Line Anchors, Function Remote Choke<br>#2 Boiler 8 hrs. PH 12.5 ST 450 Blow down Boiler 5 |                |                 |                |                      |                                                                                                                                                                                                                                                                                                                                             |      |                              |          |                                              |  |          |  |  |
| DRILLER SIGNATURE                                                                                                                       |                |                 |                |                      | BOILER                                                                                                                                                                                                                                                                                                                                      |      | MAXIMUM EXPERIENCED HOOKLOAD |          | SAFETY TOPIC                                 |  | M.A.C.P. |  |  |
| [Signature]<br>8 hrs 450                                                                                                                |                |                 |                |                      | HRS. RAN                                                                                                                                                                                                                                                                                                                                    |      | STACK TEMP.                  |          |                                              |  |          |  |  |

DAY  
TOUR

| METRES DRILLED                                                                                                                                                |                    |                      |                    |                            | TIME LOG                          |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                                      |  |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------|--------------------|----------------------------|-----------------------------------|------------------|----------------------------------------------|-------------|--------------------------------------|--|----------|
| FROM                                                                                                                                                          | TO                 | DSD<br>RMR<br>CODE/C | ROTARY<br>R.P.M.   | WT ON<br>BIT<br>(1000 daN) | FROM                              | TO               | ELAP.<br>TIME                                | CODE<br>NO. |                                      |  |          |
|                                                                                                                                                               |                    |                      |                    |                            | 08 <sup>00</sup>                  | 08 <sup>30</sup> | 1/2                                          | 17          | Ramp Plug #3 Fd 1200 - 1100m w/ 6.8T |  |          |
| CIRCULATION<br>PRESSURE<br>(kPa)                                                                                                                              | PUMP NO. 1         |                      | PUMP NO. 2         |                            |                                   |                  |                                              |             |                                      |  |          |
|                                                                                                                                                               | LINER<br>SIZE (mm) | S.P.M.               | LINER<br>SIZE (mm) | S.P.M.                     |                                   |                  |                                              |             |                                      |  |          |
| 810                                                                                                                                                           |                    |                      | 152                | 100                        | 08 <sup>00</sup>                  | 09 <sup>00</sup> | .5                                           | 60          | Hvst 1/6 ST. mud & pick              |  |          |
|                                                                                                                                                               |                    |                      |                    |                            | 09 <sup>00</sup>                  | 11 <sup>00</sup> | 2                                            | 22          | Jay Daxen SB                         |  |          |
| REDUCED PUMP SPEED                                                                                                                                            |                    |                      |                    |                            | 11 <sup>00</sup>                  | 11 <sup>15</sup> | .25                                          | 7           | Rig Service c/o Blindram Bros        |  |          |
|                                                                                                                                                               | @                  |                      | @                  |                            | 11 <sup>15</sup>                  | 12 <sup>15</sup> | 1                                            | 8           | Runkin + Shaw W/O.P                  |  |          |
| DEVIATION SURVEY                                                                                                                                              |                    |                      |                    |                            | 12 <sup>15</sup>                  | 15 <sup>15</sup> | 3                                            | 13          | Gbit on Cement                       |  |          |
| DEPTH (m)                                                                                                                                                     | DEVIATION (%)      | DIRECTION            |                    |                            | 15 <sup>15</sup>                  | 16 <sup>00</sup> | .75                                          | 6           | R.H. + Tag Plug #3                   |  |          |
| NOTES<br>✓ Commence Borehole Anchors, Probes and linkages Functioned Remotely Check<br>#2 Drilling Rig 8 hrs Plus 5.5 Hrs Bludown Rig's 3x each = 12.0L Fluid |                    |                      |                    |                            |                                   |                  |                                              |             |                                      |  |          |
| DRILLER SIGNATURE                                                                                                                                             |                    |                      |                    |                            | BOILER<br>HRS. Ran ph STACK TEMP. |                  | MAXIMUM EXPERIENCED HOOKLOAD                 |             | SAFETY TOPIC:                        |  | M.A.C.P. |
|                                                                                                                                                               |                    |                      |                    |                            |                                   |                  |                                              |             |                                      |  |          |

EVENTING TOUR

| METRES DRILLED                                        |                    |                             |                    |                             | TIME LOG         |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                                           |          |  |
|-------------------------------------------------------|--------------------|-----------------------------|--------------------|-----------------------------|------------------|------------------|----------------------------------------------|-------------|-------------------------------------------|----------|--|
| FROM                                                  | TO                 | D.R.D.<br>R.M.R.<br>CORE C. | ROTARY<br>R.P.M.   | WT. ON<br>BIT<br>(1000-lbf) | FROM             | TO               | ELAP.<br>TIME                                | CODE<br>NO. |                                           |          |  |
|                                                       |                    |                             |                    |                             | 16 <sup>00</sup> | 16 <sup>30</sup> | 5                                            | 6           | Richard Teal Plug #3                      |          |  |
|                                                       |                    |                             |                    |                             | 16 <sup>30</sup> | 17 <sup>00</sup> | 5                                            | 6           | Point 24ft in Derrick and - Single Lubant |          |  |
| CIRCULATION<br>PRESSURE<br>(kPa)                      | PUMP NO. 1         | PUMP NO. 2                  |                    |                             | 17 <sup>00</sup> | 17 <sup>45</sup> | 25                                           | 7           | Big Severe                                |          |  |
|                                                       | LINER<br>SIZE (mm) | S.P.M.                      | LINER<br>SIZE (mm) | S.P.M.                      | 17 <sup>45</sup> | 18 <sup>00</sup> | 75                                           | 17          | Pump Plug #4                              |          |  |
| REDUCED PUMP SPEED                                    |                    |                             |                    |                             |                  |                  |                                              |             |                                           |          |  |
|                                                       | @                  |                             | @                  |                             | 18 <sup>00</sup> | 18 <sup>30</sup> | 5                                            | 6           | Point 10ft in Derrick                     |          |  |
| DEVIATION SURVEY                                      |                    |                             |                    |                             |                  |                  |                                              |             |                                           |          |  |
| DEPTH (m)                                             | DEVIATION (°)      | DIRECTION                   |                    |                             | 18 <sup>30</sup> | 21 <sup>00</sup> | 25                                           | 25          | Longshore DP                              |          |  |
|                                                       |                    |                             |                    |                             | 21 <sup>00</sup> | 24 <sup>00</sup> | 3                                            | 13          | WOC.                                      |          |  |
| NOTES                                                 |                    |                             |                    |                             |                  |                  |                                              |             |                                           |          |  |
| #0 Doler 8 hrs. 24/106 ST 450. 3 low 30 lbs 300-120L. |                    |                             |                    |                             |                  |                  |                                              |             |                                           |          |  |
| DRILLER SIGNATURE                                     |                    |                             |                    |                             | BOILER           |                  | MAXIMUM EXPERIENCED HOOKLOAD                 |             | SAFETY TOPIC                              |          |  |
| Lodo Black                                            |                    |                             |                    |                             | HRS. RUN         | ph               | STACK TEMP                                   |             |                                           | M.A.C.P. |  |
|                                                       |                    |                             |                    |                             | 8                | NE               | 450°                                         |             |                                           |          |  |

| DAILY CHECKS                                                    | OPR.    | R.M.    |
|-----------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                                | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)                | Initial | Initial |
| (3) HPS Signs Posted (if required)                              | Initial | Initial |
| (4) Well License & Slick Diagram Posted                         | Initial | Initial |
| (5) Flare Lines Staked                                          | Initial | Initial |
| (6) BOP Drills Performed                                        | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines        | Initial | Initial |
| (1) Rig Site Health and Safety Meeting (one/crow/month)         | Initial | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (one/high/month) | Initial | Initial |
| (3) Mast Inspection Before Raising or Lowering                  | Initial | Initial |
| (4) Crown Saver Checked                                         | Initial | Initial |
| (5) Motor Kicks checked                                         | Initial | Initial |

|             |                    |     |                                         |                    |                |              |                    |             |               |                  |                     |                  |     |
|-------------|--------------------|-----|-----------------------------------------|--------------------|----------------|--------------|--------------------|-------------|---------------|------------------|---------------------|------------------|-----|
| YEAR        | MONTH              | DAY | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)          | MIN. I.D. (mm) | kg/m         | MAKE               | GRADE       | NO. OF JOINTS | TOTAL (m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)       |     |
| RIG NO.     | 51                 |     |                                         | 340                | 320            | 81           | Lonestar           | LE          | 4             | 57.20            | 51                  |                  |     |
| FUEL @ 8:00 |                    |     |                                         | 344.5              | 326            | 83.5         | 5-16               | 5-55        | 40            | 502.11           | 515                 | 586              |     |
| RIG         | BOILER             |     |                                         |                    |                |              |                    |             |               |                  |                     |                  |     |
| WEATHER     | TEMPERATURE        | °C  | DC/DP SIZE (mm)                         | LINEAR MASS (kg/m) | GRADE          | MIN. ID (mm) | TOOL JO. T.D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE        | PUMP MANUFACTURER   | STROKE LTR. (mm) |     |
|             | CURRENT CONDITIONS |     | DC 158                                  | 135                |                | 58           | 158                | 4.5" X 4    | 22            | Hydraulic        | BP 80               | National         | 216 |
|             | WIND DIRECTION     |     | 4W 114                                  | 62.45              |                | 69           | 158                | 4.5" X 4    | 50            | National         | BP 80               |                  | 216 |
|             | ROAD               |     | 22014                                   | 24.7               | 48E            | 62           | 158                | 4.5" X 4    | 21            |                  |                     |                  |     |

| TIME - HRS | CODE NO.           |              |         |        |                 |       |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |              |    |    |    |    |    | TOTAL | SHALE SHAKER(S) |      | RENTALS/SERVICES                                                          |  | MORN | DAY | EVE | TOTAL   |     |  |  |
|------------|--------------------|--------------|---------|--------|-----------------|-------|-------------|------------|--------------------|-------------|----------------|--------------------|----------------|------------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|--------------|----|----|----|----|----|-------|-----------------|------|---------------------------------------------------------------------------|--|------|-----|-----|---------|-----|--|--|
|            |                    | 1            | 2       | 3      | 4               | 5     | 6           | 7          | 8                  | 9           | 10             | 11                 | 12             | 13               | 14          | 15              | 16        | 17             | 18      | 19        | 20          | 21           | 22 | 23 | 24 | 25 | 26 |       | NO.             | TYPE | SCREENS CHANGED: <input type="checkbox"/> YES <input type="checkbox"/> NO |  |      |     |     |         |     |  |  |
| OPER.      | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | COND. MUD & CIG | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | PLAN CASE & CEMENT | WAIL ON CEMENT | NIPPLE UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIR. WORK | SAFETY MTG. | B.O.P. Drill |    |    |    |    |    |       |                 |      |                                                                           |  |      |     | 8   | 22x 500 |     |  |  |
| MORN.      |                    |              |         |        |                 | 2.25  |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |              |    |    |    |    |    |       |                 |      |                                                                           |  |      | 8   | 180 | TOP     | 185 |  |  |
| DAY        |                    |              |         |        |                 | 2.25  |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |              |    |    |    |    |    |       |                 |      |                                                                           |  |      | 8   | 135 | MIDDLE  | 170 |  |  |
| EVE.       |                    |              |         |        |                 | 3.25  |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |              |    |    |    |    |    |       |                 |      |                                                                           |  |      | 8   | 180 | BOTTOM  | 185 |  |  |
| TOTAL      |                    |              |         |        |                 | 8.00  |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |              |    |    |    |    |    |       |                 |      |                                                                           |  |      | 24  |     |         |     |  |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |     |  |           | BIT RECORD |                          |  |                    |                |                |     |     |   |                           | MUD RECORD |                |                 |                                      |  |                                     |                                       |                                        |  |
|---------------------------------------|-----|--|-----------|------------|--------------------------|--|--------------------|----------------|----------------|-----|-----|---|---------------------------|------------|----------------|-----------------|--------------------------------------|--|-------------------------------------|---------------------------------------|----------------------------------------|--|
| NO.                                   | BIT |  | O.D. (mm) | LENGTH     |                          |  |                    |                |                |     |     |   |                           |            | MUD TYPE       |                 | <input type="checkbox"/> WATER BASED |  | <input type="checkbox"/> OIL BASED  |                                       |                                        |  |
|                                       |     |  |           | m          | BIT NO.                  |  |                    |                |                |     |     |   | TIME                      |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | SIZE (mm)                |  |                    |                |                |     |     |   | DENSITY kg/m <sup>3</sup> |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | IADC CODE                |  |                    |                |                |     |     |   | FUNNEL VIS. - (S/L)       |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | MFG.                     |  |                    |                |                |     |     |   | W.L. (cm <sup>3</sup> )   |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | TYPE                     |  |                    |                |                |     |     |   | pH                        |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | SERIAL NO.               |  |                    |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | JETS (mm)                |  |                    |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | DEPTH OUT (m)            |  |                    |                |                |     |     |   | MUD MATERIALS ADDED       |            | SOLIDS CONTROL |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | DEPTH IN (m)             |  |                    |                |                |     |     |   | PRODUCT                   |            | AMOUNT X UNIT  |                 | DESILTER                             |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | TOTAL METRES DRILLED (m) |  |                    |                |                |     |     |   |                           |            |                |                 | HOURS RUN                            |  | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |
|                                       |     |  |           | m          | TOTAL HOURS RUN          |  |                    |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | CUTTING STRUCTURE        |  | T <sub>1</sub>     | T <sub>2</sub> | T <sub>3</sub> | MDC | LOC | B | Gage                      | ODC        | Reason Pulled  | Total Run m/hr. | CENTRIFUGE                           |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          |                          |  |                    |                |                |     |     |   |                           |            |                |                 | HOURS RUN                            |  | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |
|                                       |     |  |           | m          |                          |  |                    |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | KELLY DOWN               |  | HOLE CONDITION     |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | TOTAL                    |  | HOLE DRAG          |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |
|                                       |     |  |           | m          | WT. OF DC                |  | TORQUE AT BOTTOM   |                |                |     |     |   |                           |            |                |                 | HOURS RUN                            |  | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |
|                                       |     |  |           | m          | WT. OF STRING            |  | FILL ON BOTTOM (m) |                |                |     |     |   |                           |            |                |                 |                                      |  |                                     |                                       |                                        |  |

| METRES DRILLED                                                    |                  |                            |                  |                              |  | TIME LOG |     |                              |                             | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |  |  |
|-------------------------------------------------------------------|------------------|----------------------------|------------------|------------------------------|--|----------|-----|------------------------------|-----------------------------|----------------------------------------------|--|----------|--|--|
| FROM                                                              | TO               | D.R.O.<br>R.M.B.<br>COPIES | ROTARY<br>R.P.M. | WT. DN<br>BIT<br>(1000 dals) |  | FROM     | TO  | ELAP<br>TIME                 | CODE<br>NO.                 |                                              |  |          |  |  |
| 2032                                                              |                  |                            |                  |                              |  | 0        | 145 | 1.756                        | L/D HNDP 9.D.C.             |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  | 145      | 630 | 4.756                        | R/U OPEN ENDED              |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  | 630      | 845 | .257                         | Rig service                 |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  | 845      | 800 | 1.255                        | Circulate and Condition Mud |                                              |  |          |  |  |
| CIRCULATION PRESSURE (kPa)                                        | PUMP NO. 1       | PUMP NO. 2                 |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
|                                                                   | LINEAR SIZE (mm) | S.P.M.                     | LINEAR SIZE (mm) | S.P.M.                       |  |          |     |                              |                             |                                              |  |          |  |  |
| 3200                                                              |                  |                            | 10               | 100                          |  |          |     |                              |                             |                                              |  |          |  |  |
| REDUCED PUMP SPEED                                                |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
|                                                                   | @                |                            | @                |                              |  |          |     |                              |                             |                                              |  |          |  |  |
| DEVIATION SURVEY                                                  |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
| DEPTH (m)                                                         | DEVIATION (°)    |                            | DIRECTION        |                              |  |          |     |                              |                             |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
| NOTES                                                             |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
| Crown sawer, Dred line anchoring, Brakes & clutches, Function Pin |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
| #2 Bailer Bars Pump 5 ST 450 R/W down Driller 2x3=120L            |                  |                            |                  |                              |  |          |     |                              |                             |                                              |  |          |  |  |
| DRILLER SIGNATURE                                                 |                  |                            |                  |                              |  | BOILER   |     | MAXIMUM EXPERIENCED HOOKLOAD |                             | SAFETY TOPIC                                 |  | M.A.C.P. |  |  |
| Zed Black                                                         |                  |                            |                  |                              |  | HRS. RUN | ph  | STACK TEMP.                  |                             |                                              |  |          |  |  |
|                                                                   |                  |                            |                  |                              |  | 8        |     | 105/410                      |                             |                                              |  |          |  |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |           |           | BIT RECORD           |                |     |     |   |                         |               |                                                 |                                     |                                       | MUD RECORD                             |                                        |  |  |
|---------------------------------------|------|-----------|-----------|----------------------|----------------|-----|-----|---|-------------------------|---------------|-------------------------------------------------|-------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|--|--|
| NO.                                   | BIT  | O.D. mm   | LENGTH    | BIT NO.              |                |     |     |   | MUD TYPE                |               | <input checked="" type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED  |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | SIZE                 | (mm)           |     |     |   | TIME                    | 0900          | 1200                                            | 1500                                |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | IADC CODE            |                |     |     |   | DENSITY                 | 1210          | 1165                                            | 1160                                |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | MFG.                 |                |     |     |   | FUNNEL                  | 65            | 61                                              | 60                                  |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | TYPE                 |                |     |     |   | W.L. (cm <sup>2</sup> ) |               |                                                 |                                     |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | SERIAL NO.           |                |     |     |   | pH                      | 8.0           | 8.0                                             | 8.0                                 |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | JETS                 | (mm)           |     |     |   | PRV <sup>3</sup>        | 29.8          | 29.3                                            | 29.3                                |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | DEPTH OUT            | (m)            |     |     |   | MUD MATERIALS ADDED     |               |                                                 | SOLIDS CONTROL                      |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | DEPTH IN             | (m)            |     |     |   | PRODUCT                 | AMOUNT X UNIT | DESILTER                                        |                                     |                                       |                                        |                                        |  |  |
|                                       |      |           | m         | TOTAL METRES DRILLED | (m)            |     |     |   | Gel                     | 10 sz         | HOURS RUN                                       | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |  |  |
|                                       |      |           | m         | TOTAL HOURS RUN      |                |     |     |   | Soda Ash                | 8 sz          |                                                 |                                     |                                       |                                        |                                        |  |  |
| 106                                   | D.P. | STANDS    | 2011.15   | CUTTING STRUCTURE    |                |     |     | B | Gage                    | ODC           | Reason Pulled                                   | Total Run m/hr                      | Alcoamer                              |                                        |                                        |  |  |
| x                                     | D.P. | SINGLES   | 9.64      | T <sub>1</sub>       | T <sub>2</sub> | MDC | LOC |   |                         |               |                                                 |                                     | CENTRIFUGE                            |                                        |                                        |  |  |
|                                       |      | KELLYDOWN | 9.21      | HOLE CONDITION       |                |     |     |   |                         |               |                                                 | HOURS RUN                           | INTAKE DENSITY (kg/m <sup>3</sup> )   | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |  |
|                                       |      | TOTAL     | 2030      | HOLE DRAG            |                |     |     |   |                         |               |                                                 |                                     |                                       |                                        |                                        |  |  |
| WT. OF DC                             |      |           | 1000 (kg) | TORQUE AT BOTTOM     |                |     |     |   |                         |               |                                                 | HOURS RUN                           | INTAKE DENSITY (kg/m <sup>3</sup> )   | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |  |
| WT. OF STRING                         |      | 54        | 1000 (kg) | FILL ON BOTTOM (m)   |                |     |     |   |                         |               |                                                 |                                     |                                       |                                        |                                        |  |  |

| METRES DRILLED             |               |                 |               |                       | TIME LOG                                                                                                        |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |            |                                         |          |
|----------------------------|---------------|-----------------|---------------|-----------------------|-----------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------|------------|-----------------------------------------|----------|
| FROM                       | TO            | D.R. CORE-C     | ROTARY R.P.M. | WT. ON BIT (1000 LBS) | FROM                                                                                                            | TO               | ELAP. TIME                                   | CODE NO.   |                                         |          |
| 2032                       |               |                 |               |                       | 08 <sup>00</sup>                                                                                                | 09 <sup>45</sup> | 15                                           | 5          | Cond mud + Circ (Whiting on Connectors) |          |
|                            |               |                 |               |                       | 09 <sup>45</sup>                                                                                                | 10 <sup>00</sup> | 25                                           | 22         | R.O.P. Drill                            |          |
|                            |               |                 |               |                       | 10 <sup>00</sup>                                                                                                | 16 <sup>00</sup> | 6                                            | 5          | Cond mud + Circ (Whiting on Connectors) |          |
| CIRCULATION PRESSURE (KPI) |               | PUMP NO. 1      |               | PUMP NO. 2            |                                                                                                                 |                  |                                              |            |                                         |          |
|                            |               | LINER SIZE (mm) | S.P.M.        | LINER SIZE (mm)       |                                                                                                                 |                  |                                              |            |                                         |          |
| 3200                       |               |                 |               | 152                   |                                                                                                                 |                  |                                              |            |                                         |          |
| REDUCED PUMP SPEED         |               |                 |               |                       | Pump #1 2030-1965m. Pump 1.6m <sup>3</sup> H <sub>2</sub> O Annular, followed by                                |                  |                                              |            |                                         |          |
| 2800                       |               | @               |               | @                     | 5L (4.60m <sup>3</sup> ) R.F.C.W/1.1 <sup>2</sup> B30, .37 <sup>2</sup> B46, .4 <sup>2</sup> D13 & 5L D6S. .30m |                  |                                              |            |                                         |          |
| DEVIATION SURVEY           |               |                 |               |                       | H <sub>2</sub> O Bearing, Diss w/ .37m <sup>3</sup> H <sub>2</sub> O d 12.30m D&G mud.                          |                  |                                              |            |                                         |          |
| DEPTH (m)                  | DEVIATION (°) | DIRECTION       |               |                       |                                                                                                                 |                  |                                              |            |                                         |          |
|                            |               |                 |               |                       |                                                                                                                 |                  |                                              |            |                                         |          |
|                            |               |                 |               |                       |                                                                                                                 |                  |                                              |            |                                         |          |
|                            |               |                 |               |                       | Furthest Remote Choke                                                                                           |                  |                                              |            |                                         |          |
| NOTES                      |               |                 |               |                       | ✓ Crownover, Deadline Anchors, Brakes and Linkage                                                               |                  |                                              |            |                                         |          |
|                            |               |                 |               |                       | #2200m 8m PHD'S ST40 Rhudown Boilers 3 each = 120L fluid                                                        |                  |                                              |            |                                         |          |
| DRILLER SIGNATURE          |               |                 |               |                       | BOILER                                                                                                          |                  | MAXIMUM EXPERIENCED HOOKLOAD                 |            | SAFETY TOPIC                            | M.A.C.P. |
|                            |               |                 |               |                       | HRS. RAN                                                                                                        | ph               | STACK TEMP.                                  |            |                                         |          |
|                            |               |                 |               |                       | 8                                                                                                               | 105              | 140°                                         | 55,000 LBS |                                         | 6400     |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |           |         | BIT RECORD               |                |     |     |   |                                                                                             |               | MUD RECORD     |                                     |                                       |                                        |                                       |                                        |
|---------------------------------------|------|-----------|---------|--------------------------|----------------|-----|-----|---|---------------------------------------------------------------------------------------------|---------------|----------------|-------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|
| NO.                                   | BIT  | O.D. mm   | LENGTH  | BIT NO.                  |                |     |     |   | MUD TYPE <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |               |                |                                     |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | SIZE (mm)                |                |     |     |   | TIME                                                                                        | 1800          |                | 2345                                |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | WDC CODE                 |                |     |     |   | DENSITY kg/m <sup>3</sup>                                                                   | 1175          |                | 1210                                |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | MFG.                     |                |     |     |   | FUNNEL VIS. - (S/L)                                                                         | 65            |                | 66                                  |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | TYPE                     |                |     |     |   | W.L. (cm <sup>3</sup> )                                                                     |               |                | 33                                  |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | SERIAL NO.               |                |     |     |   | pH                                                                                          | 8.0           |                | 10                                  |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | JETS (mm)                |                |     |     |   | PVT m <sup>3</sup>                                                                          | 29.0          |                | 30.4                                |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | DEPTH OUT (m)            |                |     |     |   | MUD MATERIALS ADDED                                                                         |               | SOLIDS CONTROL |                                     |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | DEPTH IN (m)             |                |     |     |   | PRODUCT                                                                                     | AMOUNT X UNIT | DESILTER       |                                     |                                       |                                        |                                       |                                        |
|                                       |      |           | m       | TOTAL METRES DRILLED (m) |                |     |     |   |                                                                                             |               | HOURS RUN      | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                       |                                        |
|                                       |      |           | m       | TOTAL HOURS RUN          |                |     |     |   |                                                                                             |               |                |                                     |                                       |                                        |                                       |                                        |
| 006                                   | D.P. | STANDS    | 2011.15 | CUTTING STRUCTURE        |                |     |     | B | Gage                                                                                        | ODC           | Reason Pulled  | Total Run m/hr.                     | CENTRIFUGE                            |                                        |                                       |                                        |
| x                                     | D.P. | SINGLES   | 9.04    | T <sub>1</sub>           | T <sub>0</sub> | MDC | LOC |   |                                                                                             |               |                |                                     | HOURS RUN                             | INTAKE DENSITY (kg/m <sup>3</sup> )    | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |
| KELLY DOWN                            |      |           |         | HOLE CONDITION           |                |     |     |   |                                                                                             |               |                |                                     |                                       |                                        |                                       |                                        |
| TOTAL                                 |      |           |         | HOLE DRAG                |                |     |     |   |                                                                                             |               |                |                                     |                                       |                                        |                                       |                                        |
| WT. OF DC                             |      | 1000 shft |         | TORQUE AT BOTTOM         |                |     |     |   |                                                                                             |               |                |                                     |                                       |                                        |                                       |                                        |
| WT. OF STRING                         |      | 1000 shft |         | FILL ON BOTTOM (m)       |                |     |     |   |                                                                                             |               |                |                                     |                                       |                                        |                                       |                                        |

| METRES DRILLED             |                 |                            |                  |                             |                                                                              |                  | TIME LOG                     |             | DETAILS OF OPERATION IN SEQUENCE AND REMARKS      |     |          |
|----------------------------|-----------------|----------------------------|------------------|-----------------------------|------------------------------------------------------------------------------|------------------|------------------------------|-------------|---------------------------------------------------|-----|----------|
| FROM                       | TO              | D.R.D.<br>R.M.R.<br>CORE C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 daN) | FROM                                                                         | TO               | ELAP.<br>TIME                | CODE<br>NO. |                                                   |     |          |
| 12032                      |                 |                            |                  |                             | 16 <sup>00</sup>                                                             | 19 <sup>28</sup> | 3 1/2                        | 5           | Cond mixt + Circ water on cement trays.           |     |          |
|                            |                 |                            |                  |                             | 19 <sup>28</sup>                                                             | 19 <sup>30</sup> | 4 1/2                        | 21          | F-7 SASTY mix.                                    |     |          |
| CIRCULATION PRESSURE (kPa) | PUMP NO. 1      |                            | PUMP NO. 2       |                             | 19 <sup>30</sup>                                                             | 20 <sup>00</sup> | 1/2                          | 17          | Recess Plug #1 2030-1945 w/ 5 Tons (4.60 m³)      |     |          |
|                            | LINER SIZE (mm) | S.P.M.                     | LINER SIZE (mm)  | S.P.M.                      |                                                                              |                  |                              |             | RFCW/                                             |     |          |
| 1380                       | 152             |                            | 152              | 10                          | 20 <sup>00</sup>                                                             | 21 <sup>00</sup> | 1 1/2                        | 6           | Perk 20 Stands (in Derrick)                       |     |          |
| REDUCED PUMP SPEED         |                 |                            |                  |                             | 21 <sup>00</sup>                                                             | 22 <sup>00</sup> | 1/2                          | 12          | Hump Plug #2 F.R. SID - 1/10 w/ 46 Tons (5.60 m³) |     |          |
| 1750                       | @               |                            | @                | 30                          | RFCW / 1.1 * 830 . 2.6 D 46 . 1 * D 2 q . 5 . 665 . 1.6 m³ H₂O @ 1000 PSI W/ |                  |                              |             |                                                   |     |          |
| DEVIATION SURVEY           |                 |                            |                  |                             | .37 w/c & 8.7 m³ mud,                                                        |                  |                              |             |                                                   |     |          |
| DEPTH (m)                  | DEVIATION (°)   | DIRECTION                  |                  |                             | 22 <sup>00</sup>                                                             | 23 <sup>00</sup> | 1                            | 6           | Perk 15 Stands (in Derrick)                       |     |          |
|                            |                 |                            |                  |                             | 23 <sup>00</sup>                                                             | 24 <sup>00</sup> | 1                            | 13          | woc                                               |     |          |
|                            |                 |                            |                  |                             | NOTES                                                                        |                  |                              |             |                                                   |     |          |
|                            |                 |                            |                  |                             | K. L. S. Silver Boreholes & Linkages Deadline Anchors.                       |                  |                              |             |                                                   |     |          |
|                            |                 |                            |                  |                             | A 2200 ft. Blis. PHOS STUCK? Below 2000 ft. Boilers 2-3-1201 Choke           |                  |                              |             |                                                   |     |          |
| DRILLER SIGNATURE          |                 |                            |                  |                             | BOILER                                                                       |                  | MAXIMUM EXPERIENCED HOOKLOAD |             | SAFETY TOPIC                                      |     | M.A.C.P. |
| Evelyn Black               |                 |                            |                  |                             | HRS. RAN                                                                     | ph               | STACK TEMP.                  |             |                                                   |     |          |
|                            |                 |                            |                  |                             | 8                                                                            | 105              | 450°                         |             |                                                   | 171 |          |

121184

|                                                                                                                              |                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| LICENCE NO.:<br>1887                                                                                                         | WELL NAME AND NO.:<br>AEC (WEST) RENAISSANCE TATE 618                                                                       |
| OPERATOR:<br>AEC OIL + GAS                                                                                                   | CONTRACTOR:<br>AKITA/SAHTU DRILLING,                                                                                        |
| SURFACE LOCATION:<br>AEC (WEST) REN TATE 618                                                                                 | UNIQUE ID:<br>Joint venture of AKITA Drilling Ltd.<br>and SAHTU OIL Incorporated                                            |
| SIGNATURE OF OPERATOR'S REPRESENTATIVE:<br> | SIGNATURE OF CONTRACTOR'S RIG MANAGER:<br> |

| DAILY CHECKS                                                  | OPR.    | R.M.    |
|---------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                              | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)              | Initial | Initial |
| (3) HPS Signs Posted (if required)                            | Initial | Initial |
| (4) Wet License & Stick Diagram Posted                        | Initial | Initial |
| (5) Flame Lines Staked                                        | Initial | Initial |
| (6) BOP Drills Performed                                      | Initial | Initial |
| (7) Visually inspect BOP's, Flarelines & Degasser Lines       | Initial | Initial |
|                                                               |         |         |
| (1) Rig Site Health and Safety Meeting (once/mo/week)         | Initial | Initial |
| (2) C.A.G.D.C. Rig Safety Inspection Checklist (once/mo/week) | Initial | Initial |
| (3) Mast Inspection Before Raising or Lowering                | Initial | Initial |
| (4) Crown Seats Checked                                       | Initial | Initial |
| (5) Motor Killy checked                                       | Initial | Initial |

|             |                    |     |                                         |                    |                |              |                     |             |               |                  |                     |                 |
|-------------|--------------------|-----|-----------------------------------------|--------------------|----------------|--------------|---------------------|-------------|---------------|------------------|---------------------|-----------------|
| YEAR        | MONTH              | DAY | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)          | MIN. I.D. (mm) | kg/m         | MAKE                | GRADE       | NO. OF JOINTS | TOTAL (m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)      |
| 00          | 03                 | 06  |                                         | 340                | 320            | 81           | CON-SER             | LE          | 4             | 57.20            |                     | 51              |
| RIG NO.     | 51                 |     |                                         | 244.5              | 226            | 5351         | ST+C                | JCS         | 44            | 587.11           | 51.5                | 586             |
| FUEL @ 8:00 |                    |     |                                         |                    |                |              |                     |             |               |                  |                     |                 |
| RIG         | BOILER             |     |                                         |                    |                |              |                     |             |               |                  |                     |                 |
| WEATHER     | TEMPERATURE        | °C  | CO/DP SIZE (mm)                         | LINEAR MASS (kg/m) | GRADE          | MIN. ID (mm) | TUB JOINT O.D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE        | PUMP MANUFACTURER   | STROKE LTR (mm) |
|             | CURRENT CONDITIONS |     | DC                                      | 125                |                | 58           | 158                 | 114XH       | 20            | 8P80             | NATIONAL            | 216             |
|             | WIND DIRECTION     |     | HW                                      | 62.45              |                | 69           | 158                 | 114XH       | 51            | 8P80             | NATIONAL            | 216             |
|             | ROAD               |     | DP                                      | 39.22              | 6.4E           | 92           | 158                 | 114XH       | 210           |                  |                     |                 |

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |           |         |             | BIT RECORD              |      |  |  |  |   |      |     |                  |                    | MUD RECORD                   |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|---------------------------------------|-----------|---------|-------------|-------------------------|------|--|--|--|---|------|-----|------------------|--------------------|------------------------------|-------------------------|--|--------------------------------------|--|------------------------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------|
| NO.                                   | BIT       | O.D. mm | LENGTH      | BIT NO.                 |      |  |  |  |   |      |     |                  |                    |                              | MUD TYPE                |  | <input type="checkbox"/> WATER BASED |  | <input type="checkbox"/> OIL BASED |                                           |                                             |                                              |
|                                       |           |         | m           | SIZE                    | (mm) |  |  |  |   |      |     |                  |                    |                              | TIME                    |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | (ADC CODE)              |      |  |  |  |   |      |     |                  |                    | DENSITY<br>kg/m <sup>3</sup> |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | MFG.                    |      |  |  |  |   |      |     |                  |                    |                              | FUNNEL<br>VIS. - (S.L.) |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | TYPE                    |      |  |  |  |   |      |     |                  |                    |                              | W.L. (cm <sup>3</sup> ) |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | SERIAL NO.              |      |  |  |  |   |      |     |                  |                    |                              | pH                      |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | JETS                    | (mm) |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | DEPTH OUT               | (m)  |  |  |  |   |      |     |                  |                    |                              | MUD MATERIALS ADDED     |  | SOLIDS CONTROL                       |  |                                    |                                           |                                             |                                              |
|                                       |           |         | m           | DEPTH IN                | (m)  |  |  |  |   |      |     |                  |                    |                              | PRODUCT                 |  | AMOUNT X UNIT                        |  | DESILTER                           |                                           |                                             |                                              |
|                                       |           |         | m           | TOTAL METRES<br>DRILLED | (m)  |  |  |  |   |      |     |                  |                    |                              | GAL                     |  | 24                                   |  | HOURS RUN                          | INTAKE<br>DENSITY<br>(kgm <sup>-3</sup> ) | OVERFLOW<br>DENSITY<br>(kgm <sup>-3</sup> ) | UNDERFLOW<br>DENSITY<br>(kgm <sup>-3</sup> ) |
|                                       |           |         | m           | TOTAL HOURS RUN         |      |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       | D.P.      | STANDS  |             | CUTTING STRUCTURE       |      |  |  |  | B | Gage | ODC | Reason<br>Pulled | Total Run<br>m/hr. |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       | D.P.      | SINGLES |             |                         |      |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       | KELLYDOWN |         | m           | HOLE CONDITION          |      |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
|                                       | TOTAL     |         | m           | HOLE DRAG               |      |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
| WT. OF DC                             |           |         | 1000<br>SAH | TORQUE AT BOTTOM        |      |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |
| WT. OF STRING                         |           |         | 1000<br>SAH | FILL ON BOTTOM (m)      |      |  |  |  |   |      |     |                  |                    |                              |                         |  |                                      |  |                                    |                                           |                                             |                                              |

| METRES DRILLED                                          |                                      |                                      |               |                        | TIME LOG                          |      |                              |         | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |
|---------------------------------------------------------|--------------------------------------|--------------------------------------|---------------|------------------------|-----------------------------------|------|------------------------------|---------|----------------------------------------------|--|----------|
| FROM                                                    | TO                                   | DRLD P.M.R. CODE-C                   | ROTARY R.P.M. | WT ON BIT - (1000 gms) | FROM                              | TO   | ELAP TIME                    | CODE NO |                                              |  |          |
|                                                         |                                      |                                      |               |                        | 0                                 | 100  | 1                            | 19      | WAIT ON FISHING TOOLS HEAD SAFE, MTG         |  |          |
|                                                         |                                      |                                      |               |                        | 100                               | 1100 | 3                            | 19      | HANG SHIVE, MAKE UP TOOLS                    |  |          |
| CIRCULATION PRESSURE (kPa)                              | PUMP NO. 1<br>LINER SIZE (mm) S.P.M. | PUMP NO. 2<br>LINER SIZE (mm) S.P.M. |               |                        | 400                               | 800  | 4                            | 19      | ROWING w/ SEEDBOAT O/S.                      |  |          |
| REDUCED PUMP SPEED                                      |                                      |                                      |               |                        |                                   |      |                              |         |                                              |  |          |
| @ 8 @                                                   |                                      |                                      |               |                        |                                   |      |                              |         |                                              |  |          |
| DEVIATION SURVEY                                        |                                      |                                      |               |                        |                                   |      |                              |         |                                              |  |          |
| DEPTH (m)                                               | DEVIATION (°)                        |                                      | DIRECTION     |                        |                                   |      |                              |         |                                              |  |          |
| NOTES #2 BOLLER PLKS PH UNITS ST 450<br>PACDOWN BOLTERS |                                      |                                      |               |                        |                                   |      |                              |         |                                              |  |          |
| DRILLER SIGNATURE                                       |                                      |                                      |               |                        | BOILER<br>HRS. RAN ph STACK TEMP. |      | MAXIMUM EXPERIENCED HOOKLOAD |         | SAFETY TOPIC                                 |  | M.A.C.P. |
| <i>[Signature]</i>                                      |                                      |                                      |               |                        | 8 10.5 450                        |      |                              |         |                                              |  |          |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |         |          | BIT RECORD               |  |                |  |     |  |     |  |                           |  | MUD RECORD     |  |             |  |                                     |  |                                       |  |                                        |  |
|---------------------------------------|------|---------|----------|--------------------------|--|----------------|--|-----|--|-----|--|---------------------------|--|----------------|--|-------------|--|-------------------------------------|--|---------------------------------------|--|----------------------------------------|--|
| NO.                                   | BIT  | Q.D. mm | LENGTH   | BIT RECORD               |  |                |  |     |  |     |  |                           |  | MUD TYPE       |  | WATER BASED |  | OIL BASED                           |  |                                       |  |                                        |  |
|                                       |      |         | m        | BIT NO.                  |  |                |  |     |  |     |  | TIME                      |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | SIZE (mm)                |  |                |  |     |  |     |  | DENSITY kg/m <sup>3</sup> |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | IADC CODE                |  |                |  |     |  |     |  | FUNNEL VIS. - (S/L)       |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | MFG.                     |  |                |  |     |  |     |  | W.L. (cm <sup>3</sup> )   |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | TYPE                     |  |                |  |     |  |     |  | pH                        |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | SERIAL NO.               |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | JETS (mm)                |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | DEPTH OUT (m)            |  |                |  |     |  |     |  | MUD MATERIALS ADDED       |  | SOLIDS CONTROL |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | DEPTH IN (m)             |  |                |  |     |  |     |  | PRODUCT                   |  | AMOUNT X UNIT  |  | DESILTER    |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | TOTAL METRES DRILLED (m) |  |                |  |     |  |     |  |                           |  |                |  | HOURS RUN   |  | INTAKE DENSITY (kg/m <sup>3</sup> ) |  | OVERFLOW DENSITY (kg/m <sup>3</sup> ) |  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |
|                                       |      |         | m        | TOTAL HOURS RUN          |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       | D.P. | STANDS  |          | CUTTING STRUCTURE        |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
|                                       |      |         | m        | T <sub>1</sub>           |  | T <sub>2</sub> |  | MDC |  | LOC |  | 8                         |  | Gage           |  | ODC         |  | Reason Pulled                       |  | Total Run m/hr.                       |  |                                        |  |
|                                       | D.P. | SINGLES |          |                          |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
| KELLY DOWN                            |      |         | m        | HOLE CONDITION           |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
| TOTAL                                 |      |         | m        | HOLE DRAG                |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
| WT. OF D.C.                           |      |         | 1900 g/m | TORQUE AT BOTTOM         |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |
| WT. OF STRING                         |      |         | 1200 g/m | FILL ON BOTTOM (m)       |  |                |  |     |  |     |  |                           |  |                |  |             |  |                                     |  |                                       |  |                                        |  |

| METRES DRILLED             |               |                    |               |                        | TIME LOG                                                   |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |          |                        |  |
|----------------------------|---------------|--------------------|---------------|------------------------|------------------------------------------------------------|------------------|----------------------------------------------|----------|------------------------|--|
| FROM                       | TO            | D.P. R.M.B. CORE-G | ROTARY R.P.M. | W.L. ON BIT (1000 psi) | FROM                                                       | TO               | ELAP. TIME                                   | CODE NO. |                        |  |
| 032                        |               |                    |               |                        | 08 <sup>00</sup>                                           | 10 <sup>45</sup> | 24/19                                        |          | Run in w/ side door 45 |  |
|                            |               |                    |               |                        | 10 <sup>45</sup>                                           | 11 <sup>00</sup> | 25/21                                        |          | Safety HTG             |  |
|                            |               |                    |               |                        | 1100                                                       | 1200             | 5 11                                         |          | P.O.O. H.C. LOG        |  |
| CIRCULATION PRESSURE (kPa) |               | PUMP NO. 1         |               | PUMP NO. 2             |                                                            |                  |                                              |          |                        |  |
|                            |               | LINE SIZE (mm)     | S.P.M.        | LINE SIZE (mm)         | S.P.M.                                                     |                  |                                              |          |                        |  |
|                            |               |                    |               |                        |                                                            |                  |                                              |          |                        |  |
| REDUCED PUMP SPEED         |               |                    |               |                        |                                                            |                  |                                              |          |                        |  |
|                            |               | @                  |               | @                      |                                                            |                  |                                              |          |                        |  |
| DEVIATION SURVEY           |               |                    |               |                        |                                                            |                  |                                              |          |                        |  |
| DEPTH (m)                  | DEVIATION (°) | DIRECTION          |               |                        |                                                            |                  |                                              |          |                        |  |
|                            |               |                    |               |                        |                                                            |                  |                                              |          |                        |  |
|                            |               |                    |               |                        |                                                            |                  |                                              |          |                        |  |
|                            |               |                    |               |                        | NOTES                                                      |                  |                                              |          |                        |  |
|                            |               |                    |               |                        | H.C. Boiler 8 hrs. D.W.O. ST 480 Blowdown 3, 1st 2x3 = 120 |                  |                                              |          |                        |  |
| DRILLER SIGNATURE          |               |                    |               |                        | BOILER                                                     |                  | MAXIMUM EXPERIENCED HOOKLOAD                 |          | SAFETY TOPIC           |  |
| 2000/3/20/2                |               |                    |               |                        | HRS. RAN                                                   | ph. STACK TEMP.  |                                              |          | M.A.C.P.               |  |
|                            |               |                    |               |                        | 8                                                          | 450              |                                              |          |                        |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |            |         |         | BIT RECORD |                      |                |     |     |  |   |                         |         |               | MUD RECORD      |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|---------------------------------------|------------|---------|---------|------------|----------------------|----------------|-----|-----|--|---|-------------------------|---------|---------------|-----------------|--|-------------------------------------------------|--|------------------------------------|--|-------------------------------------|--|---------------------------------------|--|----------------------------------------|--|----------------------------------------|--|
| NO                                    | BIT        |         | O.D. mm | LENGTH     | BIT NO.              |                |     |     |  |   | MUD TYPE                |         |               |                 |  | <input checked="" type="checkbox"/> WATER BASED |  | <input type="checkbox"/> OIL BASED |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | SIZE                 | (mm)           |     |     |  |   | TIME                    |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | IADC CODE            |                |     |     |  |   |                         | DENSITY |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | MFG.                 |                |     |     |  |   | FUNNEL                  |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | TYPE                 |                |     |     |  |   | VIS. - (S/L)            |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | SERIAL NO.           |                |     |     |  |   | W.L. (cm <sup>3</sup> ) |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | JETS                 | (mm)           |     |     |  |   | pH                      |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | DEPTH OUT            | (m)            |     |     |  |   | MUD MATERIALS ADDED     |         |               |                 |  | SOLIDS CONTROL                                  |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | DEPTH IN             | (m)            |     |     |  |   | PRODUCT                 |         | AMOUNT X UNIT |                 |  | DESILTER                                        |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       |            |         |         | m          | TOTAL METRES DRILLED | (m)            |     |     |  |   |                         |         |               |                 |  |                                                 |  | HOURS RUN                          |  | INTAKE DENSITY (g/cm <sup>3</sup> ) |  | OVERFLOW DENSITY (g/cm <sup>3</sup> ) |  | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |  |                                        |  |
|                                       |            |         |         | m          | TOTAL HOURS RUN      |                |     |     |  |   |                         |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       | D.P.       | STANDS  |         | m          | CUTTING STRUCTURE    |                |     |     |  | B | Gage                    | ODC     | Reason Pulled | Total Run m/hr. |  |                                                 |  |                                    |  | CENTRIFUGE                          |  |                                       |  |                                        |  |                                        |  |
|                                       | D.P.       | SINGLES |         | m          | T <sub>1</sub>       | T <sub>2</sub> | MDC | LOC |  |   |                         |         |               |                 |  |                                                 |  | HOURS RUN                          |  | INTAKE DENSITY (g/cm <sup>3</sup> ) |  | OVERFLOW DENSITY (g/cm <sup>3</sup> ) |  | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |  |                                        |  |
|                                       | KELLY DOWN |         |         | m          | HOLE CONDITION       |                |     |     |  |   |                         |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
|                                       | TOTAL      |         |         | m          | HOLE DRAG            |                |     |     |  |   |                         |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |
| WT. OF DC                             |            |         |         | 1000 m/si  | TORQUE AT BOTTOM     |                |     |     |  |   |                         |         |               |                 |  |                                                 |  |                                    |  | HOURS RUN                           |  | INTAKE DENSITY (g/cm <sup>3</sup> )   |  | OVERFLOW DENSITY (g/cm <sup>3</sup> )  |  | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |  |
| WT. OF STRING                         |            |         |         | 1000 m/si  | FILL ON BOTTOM (m)   |                |     |     |  |   |                         |         |               |                 |  |                                                 |  |                                    |  |                                     |  |                                       |  |                                        |  |                                        |  |

| METRES DRILLED             |                |                      |                  |                             |                                                                   | TIME LOG         |                              |             |                                                                                                        | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |          |  |
|----------------------------|----------------|----------------------|------------------|-----------------------------|-------------------------------------------------------------------|------------------|------------------------------|-------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------|----------|--|
| FROM                       | TO             | DRD<br>RMR<br>CORREC | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000-SHA) | FROM                                                              | TO               | ELAP<br>TIME                 | CODE<br>NO. |                                                                                                        |                                              |          |  |
| 2032                       |                |                      |                  |                             | 11 <sup>00</sup>                                                  | 20 <sup>00</sup> | 4                            | 11          | 2034 and Loghole                                                                                       |                                              |          |  |
|                            |                |                      |                  |                             | 20 <sup>00</sup>                                                  | 22 <sup>00</sup> | 2                            | 22          | Take line out of Siderider, Breakdown and Layout logging Tools and Breakdown and Layout Fishing Tools. |                                              |          |  |
| CIRCULATION PRESSURE (kPa) | PUMP NO. 1     |                      | PUMP NO. 2       |                             |                                                                   |                  |                              |             |                                                                                                        |                                              |          |  |
|                            | LINE SIZE (mm) | S.P.M.               | LINE SIZE (mm)   | S.P.M.                      |                                                                   |                  |                              |             |                                                                                                        |                                              |          |  |
|                            | 152            |                      | 152              |                             | 22 <sup>00</sup>                                                  | 22 <sup>15</sup> | 25                           | 7           | 2 1/2 Service on Blindman Free                                                                         |                                              |          |  |
| REDUCED PUMP SPEED         |                |                      |                  |                             | 22 <sup>15</sup>                                                  | 24 <sup>00</sup> | 175                          | 6           | R.L.H. W/D.P. and H.W.D.P. and Layout the same                                                         |                                              |          |  |
|                            | @              |                      | @                |                             |                                                                   |                  |                              |             |                                                                                                        |                                              |          |  |
| DEVIATION SURVEY           |                |                      |                  |                             |                                                                   |                  |                              |             |                                                                                                        |                                              |          |  |
| DEPTH (m)                  | DEVIATION (°)  |                      | DIRECTION        |                             |                                                                   |                  |                              |             |                                                                                                        |                                              |          |  |
|                            |                |                      |                  |                             |                                                                   |                  |                              |             | T.M. 8.14                                                                                              |                                              |          |  |
|                            |                |                      |                  |                             |                                                                   |                  |                              |             | T.V. 5.04                                                                                              |                                              |          |  |
|                            |                |                      |                  |                             | NOTES                                                             |                  |                              |             |                                                                                                        |                                              |          |  |
|                            |                |                      |                  |                             | ✓ Crowover, Deadline Anchors, Breakyard Linkage, Frontal Restock  |                  |                              |             |                                                                                                        |                                              |          |  |
|                            |                |                      |                  |                             | #2 Breaker 8hrs PH105 5TH50° Breakdown Barrels 3 each = 120 PH105 |                  |                              |             |                                                                                                        |                                              |          |  |
| DRILLER SIGNATURE          |                |                      |                  |                             | BOILER                                                            |                  | MAXIMUM EXPERIENCED HOOKLOAD |             | SAFETY TOPIC                                                                                           |                                              | M.A.C.P. |  |
|                            |                |                      |                  |                             | HRS. RAN<br>ph                                                    |                  | STACK TEMP.                  |             |                                                                                                        |                                              |          |  |
|                            |                |                      |                  |                             | 8 105 450°                                                        |                  |                              |             |                                                                                                        |                                              |          |  |

| DAILY CHECKS                                                    | OPR.    | R.M.    |
|-----------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                                | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)                | Initial | Initial |
| (3) H/S Signs Posted (if required)                              | Initial | Initial |
| (4) Well License & Stock Diagram Posted                         | Initial | Initial |
| (5) Flare Lines Staked                                          | Initial | Initial |
| (6) BOP Drills Performed                                        | Initial | Initial |
| (7) Visually Inspect BOP's - Flarelines & Degassers Lines       | Initial | Initial |
|                                                                 |         |         |
| (1) Rig Site Health and Safety Meeting (one/brew/month)         |         | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (one/high/month) |         | Initial |
| (3) Most Inspection Before Raising or Lowering                  |         | Initial |
| (4) Crown Saver Checked                                         |         | Initial |
| (5) Motor Kills checked                                         |         | Initial |

|         |                       |     |                                         |                       |                   |                 |                      |                |                  |                    |                        |                     |     |
|---------|-----------------------|-----|-----------------------------------------|-----------------------|-------------------|-----------------|----------------------|----------------|------------------|--------------------|------------------------|---------------------|-----|
| YEAR    | MONTH                 | DAY | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)             | MIN. I.D.<br>(mm) | kg/m            | MAKE                 | GRADE          | NO. OF<br>JOINTS | TOTAL(m)<br>LENGTH | KB. TO CSG<br>HEAD (m) | SET AT (m)          |     |
| RIG NO  | 51                    |     |                                         | FUEL @ 8:00           | 340               | 320             | 81                   | 10NESTAR       | LE               | 4                  | 57.20                  |                     | 51  |
|         |                       |     |                                         |                       | 244.5             | 226             | 53.51                | ST+C           | 10.5             | 44                 | 57.11                  | 51.5                | 586 |
| RIG     | BOILER                |     |                                         |                       |                   |                 |                      |                |                  |                    |                        |                     |     |
| WEATHER | TEMPERATURE           | °C  | DC/DP SIZE<br>(mm)                      | LINEAR MASS<br>(kg/m) | GRADE             | MIN. ID<br>(mm) | TOOL JT O.D.<br>(mm) | TYPE<br>THREAD | NO. OF<br>JOINTS | PUMP TYPE          | PUMP MANUFACTURER      | STROKE<br>LTH. (mm) |     |
|         | CURRENT<br>CONDITIONS |     | PC                                      | 135                   |                   | 58              | 158                  | 114XH          | 20               | 8P80               | NATIONAL               | 216                 |     |
|         | WIND DIRECTION        |     | HW                                      | 62.45                 |                   | 69              | 158                  | 114XH          | 51               | 8P80               | NATIONAL               | 216                 |     |
|         | ROAD                  |     | DR                                      | 20.77                 | 6.4E              | 97              | 154                  | 114XH          | 210              |                    |                        |                     |     |

| TIME - HRS | CODE NO.                 | 1            | 2       | 3      | 4                  | 5     | 6           | 7          | 8                  | 9           | 10        | 11                | 12             | 13               | 14          | 15              | 16        | 17             | 18      | 19        | 20          | 21 | 22 | 23   | 24 | 25 | 26 | TOTALS | SHALE SHAKER(S) |      | RENTALS/SERVICES |          | MORN | DAY |        |    |       |             |
|------------|--------------------------|--------------|---------|--------|--------------------|-------|-------------|------------|--------------------|-------------|-----------|-------------------|----------------|------------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|----|----|------|----|----|----|--------|-----------------|------|------------------|----------|------|-----|--------|----|-------|-------------|
|            | OPER. RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | COND. MILD & CIRC. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LOGS | FLY CASE & CEMENT | WAIT ON CEMENT | NIPPLE UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIR. WORK | SAFETY MTG. |    |    |      |    |    |    |        | NO.             | TYPE |                  |          |      |     |        |    |       |             |
|            | MORN                     |              |         |        |                    |       |             |            |                    |             |           | 25                |                |                  |             |                 |           |                |         |           |             |    | 40 | 100% |    |    |    |        |                 | 8    | 2                | 32x 5003 |      |     | YES    | NO | MS    | 4/4 4-1     |
|            | DAY                      |              |         |        |                    |       |             |            |                    |             |           | 8                 |                |                  |             |                 |           |                |         |           |             |    |    |      |    |    |    |        |                 | 8    | TOP              | 170      |      |     | TOP    |    | AMT   | 205866      |
|            | EVE                      |              |         |        |                    |       |             |            |                    |             |           | 3                 |                |                  |             |                 |           |                |         |           | 5           |    |    |      |    |    |    |        |                 | 8    | MIDDLE           | 135      |      |     | MIDDLE |    | 2.388 | FISHING NET |
| TOTAL      |                          |              |         |        |                    |       |             |            |                    |             | 35        |                   |                |                  |             |                 |           |                |         | 5         |             |    |    |      |    |    |    | 24     | BOTTOM          |      | BOTTOM           |          |      |     |        |    |       |             |

| METRES DRILLED             |                 |                         |                  |                             |                                                                 | TIME LOG |               |                              |                                                   | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |  |
|----------------------------|-----------------|-------------------------|------------------|-----------------------------|-----------------------------------------------------------------|----------|---------------|------------------------------|---------------------------------------------------|----------------------------------------------|--|----------|--|
| FROM                       | TO              | D/D<br>R/M/R<br>COR-E-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 daN) | FROM                                                            | TO       | ELAP.<br>TIME | CODE<br>NO.                  |                                                   |                                              |  |          |  |
| 3030                       |                 |                         |                  |                             | 0                                                               | 30       | .522          | L/D                          | DIR TOOLS                                         |                                              |  |          |  |
|                            |                 |                         |                  |                             | 30                                                              | 800      | 7.511         | RIG TO + RUN LOGS            |                                                   |                                              |  |          |  |
| CIRCULATION PRESSURE (kPa) | PUMP NO. 1      | PUMP NO. 2              |                  |                             |                                                                 |          |               |                              | TOOLS (1) DLL - MGFL - LOT - CWL - DAC - GR - TEL |                                              |  |          |  |
|                            | LINER SIZE (mm) | S.P.M.                  | LINER SIZE (mm)  | S.P.M.                      |                                                                 |          |               |                              | (2) EXHC - DAC - GR - TEL                         |                                              |  |          |  |
|                            |                 |                         |                  |                             |                                                                 |          |               |                              | LOG DOWN @ 2:05                                   |                                              |  |          |  |
| REDUCED PUMP SPEED         |                 |                         |                  |                             |                                                                 |          |               |                              |                                                   |                                              |  |          |  |
|                            | @               |                         | @                |                             |                                                                 |          |               |                              |                                                   |                                              |  |          |  |
| DEVIATION SURVEY           |                 |                         |                  |                             |                                                                 |          |               |                              |                                                   |                                              |  |          |  |
| DEPTH (m)                  | DEVIATION (°)   | DIRECTION               |                  |                             |                                                                 |          |               |                              |                                                   |                                              |  |          |  |
|                            |                 |                         |                  |                             |                                                                 |          |               |                              |                                                   |                                              |  |          |  |
|                            |                 |                         |                  |                             |                                                                 |          |               |                              |                                                   |                                              |  |          |  |
|                            |                 |                         |                  | NOTES                       | #2 BOILER BARS PH125 STRESS<br>BURN DOWN BOILERS 2A3=120L FLUID |          |               |                              |                                                   |                                              |  |          |  |
| DRILLER SIGNATURE          |                 |                         |                  | BOILER                      | HRS. RAN                                                        | ph       | STACK TEMP.   | MAXIMUM EXPERIENCED HOOKLOAD |                                                   | SAFETY TOPIC                                 |  | M.A.C.P. |  |
| <i>[Signature]</i>         |                 |                         |                  |                             | 8                                                               | 125      | 450           |                              |                                                   |                                              |  |          |  |

| METRES DRILLED                                            |               |                            |                  |                               | TIME LOG         |                  |                              |             | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |  |
|-----------------------------------------------------------|---------------|----------------------------|------------------|-------------------------------|------------------|------------------|------------------------------|-------------|----------------------------------------------|--|----------|--|
| FROM                                                      | TO            | D.R.D.<br>P.M.-B<br>CORE-C | ROTARY<br>R.P.M. | W.T.O.N.<br>BIT<br>(1500 daN) | FROM             | TO               | ELAP.<br>TIME                | CODE<br>NO. |                                              |  |          |  |
| 2032                                                      |               |                            |                  |                               | 08 <sup>00</sup> | 16 <sup>00</sup> | B                            | H           | Run Logs Log #2 Down at 9:15                 |  |          |  |
| CIRCULATION PRESSURE (kPa)                                |               | PUMP NO. 1                 |                  | PUMP NO. 2                    |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               | LINER SIZE (mm)            | S.P.M.           | LINER SIZE (mm)               | S.P.M.           |                  |                              |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
| REDUCED PUMP SPEED                                        |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               | @                          |                  | @                             |                  |                  |                              |             |                                              |  |          |  |
| DEVIATION SURVEY                                          |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
| DEPTH (m)                                                 | DEVIATION (°) |                            | DIRECTION        |                               |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
| NOTES                                                     |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
| H2 Boiler 8hrs. D4 M.S ST 450 Blowdown Boilers 2x3 = 120L |               |                            |                  |                               |                  |                  |                              |             |                                              |  |          |  |
| DRILLER SIGNATURE                                         |               |                            |                  |                               | BOILER           |                  | MAXIMUM EXPERIENCED HOOKLOAD |             | SAFETY TOPIC                                 |  | M.A.C.P. |  |
| Jalid Block                                               |               |                            |                  |                               | HRS. RAN         | ph               | STACK TEMP.                  |             |                                              |  |          |  |
|                                                           |               |                            |                  |                               | 8                | 25               | 450                          |             |                                              |  |          |  |

DAY TOUR

| METRES DRILLED                   |                    |                            |                    |                             |                                       |      | TIME LOG      |             |                                      |  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |              |  |  |          |  |  |  |
|----------------------------------|--------------------|----------------------------|--------------------|-----------------------------|---------------------------------------|------|---------------|-------------|--------------------------------------|--|----------------------------------------------|--------------|--|--|----------|--|--|--|
| FROM                             | TO                 | D.R.D.<br>P.M.A.<br>CORE-C | ROTARY<br>R.P.M.   | WT. ON<br>BIT<br>(1000 daN) | FROM                                  | TO   | ELAP.<br>TIME | CODE<br>NO. |                                      |  |                                              |              |  |  |          |  |  |  |
| 2032                             |                    |                            |                    |                             | 1600                                  | 1900 | 3             | 11          | Log Hole WORK LINE 19:00 WAITING FOR |  |                                              |              |  |  |          |  |  |  |
|                                  |                    |                            |                    |                             | 1900                                  | 2400 | 5             | 19          | FISH WAITON FISHING TOOLS            |  |                                              |              |  |  |          |  |  |  |
| CIRCULATION<br>PRESSURE<br>(kPa) | PUMP NO. 1         | PUMP NO. 2                 |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  | LINER<br>SIZE (mm) | S.P.M.                     | LINER<br>SIZE (mm) | S.P.M.                      |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
| REDUCED PUMP SPEED               |                    |                            |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  | @                  |                            | @                  |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
| DEVIATION SURVEY                 |                    |                            |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
| DEPTH (m)                        | DEVIATION (°)      |                            | DIRECTION          |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  |                    |                            |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  |                    |                            |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  |                    |                            |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  |                    |                            |                    |                             |                                       |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
| NOTES                            |                    |                            |                    |                             | #2 BOILER & LRS RIL 10.5 ST 1100      |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
|                                  |                    |                            |                    |                             | CIRCULATING BOILERS 21.3 - 120L FLUID |      |               |             |                                      |  |                                              |              |  |  |          |  |  |  |
| DRILLER SIGNATURE                |                    |                            |                    |                             | HRS.                                  | RAN  | BOILER<br>ph  | STACK TEMP. | MAXIMUM EXPERIENCED HOOKLOAD         |  |                                              | SAFETY TOPIC |  |  | M.A.C.P. |  |  |  |
| <i>Brian Carter</i>              |                    |                            |                    |                             | 9                                     | 11   | 40            |             |                                      |  |                                              |              |  |  |          |  |  |  |

121182

| DAILY CHECKS                                                  | OPR.    | R.M.    |
|---------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                              | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)              | Initial | Initial |
| (3) HGS Signs Posted (if required)                            | Initial | Initial |
| (4) Wall Locks & Stick Diagram Posted                         | Initial | Initial |
| (5) Floor Line Staked                                         | Initial | Initial |
| (6) BOP Drills Performed                                      | Initial | Initial |
| (7) Visually inspect BOP's - Flowlines & Disengager (LWR)     | Initial | Initial |
|                                                               |         |         |
| (1) Rig Site Health and Safety Meeting (line/crow/moraine)    |         | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (once/monthly) |         | Initial |
| (3) Mast Inspection Before Raising or Lowering                |         | Initial |
| (4) Crown Saver Checked                                       |         | Initial |
| (5) Motor Kills checked                                       |         | Initial |

|             |                    |     |                    |                    |                |              |                    |             |               |                  |                     |                 |
|-------------|--------------------|-----|--------------------|--------------------|----------------|--------------|--------------------|-------------|---------------|------------------|---------------------|-----------------|
| YEAR        | MONTH              | DAY | LAST               | O.D. (mm)          | MIN. I.D. (mm) | kg/m         | MAKE               | GRADE       | NO. OF JOINTS | TOTAL (m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)      |
| 80          | 03                 | 04  | CASING             | 340                | 320            | 81           | 100% ST-02         | LE          | 41            | 57.20            |                     | 51              |
| RIG NO.     | 51                 |     | TUBING             | 244.5              | 226            | 53.51        | ST+C               | J55         | 44            | 597.11           | 515                 | 586             |
| FUEL @ 8:00 |                    |     | OR                 |                    |                |              |                    |             |               |                  |                     |                 |
| RIG         | BOILER             |     | LINER              |                    |                |              |                    |             |               |                  |                     |                 |
| WEATHER     | TEMPERATURE        | +C  | D/C/D.P. SIZE (mm) | LINEAR MASS (kg/m) | GRADE          | MIN. ID (mm) | TOOL JOINT D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE        | PUMP MANUFACTURER   | STROKE LTH (mm) |
|             | CURRENT CONDITIONS |     | DC                 | 135                |                | 58           | 158                | 114XH 20    | 8P80          | NATIONAL         |                     | 216             |
|             | WIND DIRECTION     |     | HW                 | 62.45              |                | 69           | 158                | 114XH 51    | 8P80          | NATIONAL         |                     | 216             |
|             | ROAD               |     | DP                 | 24.77              | 6+E            | 92           | 156                | 114XH 260   |               |                  |                     |                 |

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |            |         |         | BIT RECORD               |                |     |     | MUD RECORD |                     |               |                                                                                    | METRES DRILLED  |                        |                          |                           | TIME LOG                  |                              |                  |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                     |                                        |
|---------------------------------------|------------|---------|---------|--------------------------|----------------|-----|-----|------------|---------------------|---------------|------------------------------------------------------------------------------------|-----------------|------------------------|--------------------------|---------------------------|---------------------------|------------------------------|------------------|------------------|----------------------------------------------|-------------|---------------------|----------------------------------------|
| NO.                                   | BIT        |         | LENGTH  | BIT NO.                  |                |     |     |            | MUD TYPE            |               | <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |                 | FROM                   | TO                       | W.D.<br>CORE C            | ROTARY<br>R.P.M.          | WT. ON<br>BIT<br>(1000 gms.) | FROM             | TO               | ELAP.<br>TIME                                | CODE<br>NO. |                     |                                        |
|                                       | Motor      | 171     | 7.06    | SIZE (mm)                | 222            |     |     |            | TIME                | 9.00          |                                                                                    | 15.00           |                        | 2028                     | 2030                      | 2                         | 15                           | 18               | 08 <sup>00</sup> | 09 <sup>00</sup>                             | 1 2         | Drill F/2028 - 2030 |                                        |
|                                       | F/S        | 157     | .59     | ADC CODE                 | 5 4 7 4        |     |     |            | DENSITY kg/m³       | 1180          |                                                                                    | 1180            |                        |                          |                           |                           |                              | 09 <sup>00</sup> | 10 <sup>30</sup> | 1.5 5                                        |             |                     | Circulate                              |
|                                       | L.B.H.D    | 175     | .66     | MFG.                     | Smith          |     |     |            | FUNNEL VIS. - (S/L) | 45            |                                                                                    | 47              |                        |                          |                           |                           |                              | 10 <sup>30</sup> | 12 <sup>45</sup> | 3.2 6                                        |             |                     | Wiper + 30 stands FCD-2030, 1024, 1464 |
|                                       | N/MDC      | 164     | 4.21    | TYPE                     | E32P           |     |     |            | W.L. (cm³)          | I             |                                                                                    |                 |                        |                          |                           |                           |                              | 13 <sup>45</sup> | 14 <sup>00</sup> | 1.2 7                                        |             |                     | Ryservice c/o Annular                  |
|                                       | X/O        | 173     | .62     | SERIAL NO.               | EX666B         |     |     |            | pH                  | 8.0           |                                                                                    | 8.0             |                        |                          |                           |                           |                              | 14 <sup>00</sup> | 16 <sup>00</sup> | 2.5                                          |             |                     | Circulate and Condition Mud            |
|                                       | S/S        | 157     | 3.51    | JETS (mm)                | 3x14.3         |     |     |            | PUT                 | 31.3          |                                                                                    | 34.2            |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
| 6                                     | DC         | 158     | 55.71   | DEPTH OUT (m)            |                |     |     |            | MUD MATERIALS ADDED |               | SOLIDS CONTROL                                                                     |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
|                                       | Jars       | 160     | 4.70    | DEPTH IN (m)             | 1768           |     |     |            | PRODUCT             | AMOUNT X UNIT |                                                                                    | DESILTER        |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
| 10                                    | DC         | 158     | 41.81   | TOTAL METRES DRILLED (m) | 42.5262        |     |     |            | Borite              | 50 SX         |                                                                                    | HOURS RUN       | INTAKE DENSITY (kg/m³) | OVERFLOW DENSITY (kg/m³) | UNDERFLOW DENSITY (kg/m³) |                           |                              |                  |                  |                                              |             |                     |                                        |
| 6                                     | MWD P      | 114     | 55.54   | TOTAL HOURS RUN          | 42.5           |     |     |            | Cellulose           | 3 SX          |                                                                                    |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
| 4                                     | D.P.       | STANDS  | 1782.36 | CUTTINGS STRUCTURE       |                |     |     | CENTRIFUGE |                     |               |                                                                                    |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
| X                                     | D.P.       | SINGLES | 1782.36 | f <sub>i</sub>           | f <sub>o</sub> | MOC | LOC | B          | Gage                | ODC           | Reason Pulled                                                                      | Total Run m/hr. | HOURS RUN              | INTAKE DENSITY (kg/m³)   | OVERFLOW DENSITY (kg/m³)  | UNDERFLOW DENSITY (kg/m³) |                              |                  |                  |                                              |             |                     |                                        |
|                                       | KELLY DOWN |         | 9.03    | HOLE CONDITION           |                |     |     | Sand       | 7 SX                |               | 6.2                                                                                | Bright          | 6 2X                   |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
|                                       |            |         |         |                          |                |     |     | GEL        | 15 SX               |               |                                                                                    |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
|                                       | TOTAL      |         | 2030.61 | HOLE DRAG                |                |     |     |            |                     |               |                                                                                    |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
| WT.OF DC                              |            | 27      | 1000    | TORQUE AT BOTTOM         |                |     |     |            |                     |               |                                                                                    |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |
| WT.OF STRING                          |            | 69      | 1000    | FILL ON BOTTOM (m)       |                |     |     |            |                     |               |                                                                                    |                 |                        |                          |                           |                           |                              |                  |                  |                                              |             |                     |                                        |

DAY TOUR

| FROM | TO   | W.D.<br>CORE C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 gms.) | FROM             | TO               | ELAP.<br>TIME | CODE<br>NO.                            |
|------|------|----------------|------------------|------------------------------|------------------|------------------|---------------|----------------------------------------|
| 2028 | 2030 | 2              | 15               | 18                           | 08 <sup>00</sup> | 09 <sup>00</sup> | 1 2           | Drill F/2028 - 2030                    |
|      |      |                |                  |                              | 09 <sup>00</sup> | 10 <sup>30</sup> | 1.5 5         | Circulate                              |
|      |      |                |                  |                              | 10 <sup>30</sup> | 12 <sup>45</sup> | 3.2 6         | Wiper + 30 stands FCD-2030, 1024, 1464 |
|      |      |                |                  |                              | 13 <sup>45</sup> | 14 <sup>00</sup> | 1.2 7         | Ryservice c/o Annular                  |
|      |      |                |                  |                              | 14 <sup>00</sup> | 16 <sup>00</sup> | 2.5           | Circulate and Condition Mud            |

| REDUCED PUMP SPEED         |                                      |                                      |
|----------------------------|--------------------------------------|--------------------------------------|
| CIRCULATION PRESSURE (KPa) | PUMP NO. 1<br>LINER SIZE (mm) S.P.M. | PUMP NO. 2<br>LINER SIZE (mm) S.P.M. |
| 1400                       | 152 100                              |                                      |

| DEVIATION SURVEY |               |           |
|------------------|---------------|-----------|
| DEPTH (m)        | DEVIATION (°) | DIRECTION |
| 2011             | .9            | 155.9     |

NOTES  
✓ Crown sawer, Brakes & Linkages, Drillline Anchors, Function Remote Choke  
#2 Boiler Bhrs. DND5 - 450 Blowdown Boilers 2X3 - 1204

| DRILLER SIGNATURE |     | BOILER |             | MAXIMUM EXPERIENCED HOOKLOAD |  | SAFETY TOPIC |  | M.A.C.P. |  |
|-------------------|-----|--------|-------------|------------------------------|--|--------------|--|----------|--|
| HRS.              | RAN | ph     | STACK TEMP. |                              |  |              |  |          |  |
| 2028              | 15  | 8      | 125 150     |                              |  |              |  | 6343     |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |     |         |        | BIT RECORD                             |                                                                                    |     |     | MUD RECORD |                        |      |                  | METRES DRILLED     |                  |                                        |                                          | TIME LOG                                  |               |             |                                                | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |  |  |
|---------------------------------------|-----|---------|--------|----------------------------------------|------------------------------------------------------------------------------------|-----|-----|------------|------------------------|------|------------------|--------------------|------------------|----------------------------------------|------------------------------------------|-------------------------------------------|---------------|-------------|------------------------------------------------|----------------------------------------------|--|--|--|
| NO.                                   | BIT | O.D. mm | LENGTH | BIT NO.                                | MUD TYPE                                                                           |     |     |            | TIME                   | FROM | TO               | D.R.D.<br>RPM      | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 LBS)            | FROM                                     | TO                                        | ELAP.<br>TIME | CODE<br>NO. |                                                |                                              |  |  |  |
|                                       |     |         |        | SIZE (mm)                              | <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
| 16                                    | DC  | 158     | 147.52 | 22                                     |                                                                                    |     |     |            | 17 <sup>00</sup>       |      |                  |                    |                  |                                        | 16 <sup>00</sup>                         | 17 <sup>00</sup>                          | 1             | 5           | Circulate @ Condition 17 <sup>00</sup>         |                                              |  |  |  |
| 6                                     | HWD | 114     | 55.5   | 5474                                   |                                                                                    |     |     |            | 12 <sup>10</sup>       |      |                  |                    |                  |                                        | 17 <sup>00</sup>                         | 23 <sup>00</sup>                          | 6             | 6           | Holt 40 Log FC, 2039, 1975, 1262, 560 ON DRILL |                                              |  |  |  |
|                                       |     |         |        | MFG.                                   |                                                                                    |     |     |            | FUNNEL<br>VIS. - (S/L) | 55   |                  |                    |                  |                                        | 23 <sup>00</sup>                         | 24 <sup>00</sup>                          | 1             | 22          | 210 DIR TOOLS                                  |                                              |  |  |  |
|                                       |     |         |        | TYPE                                   |                                                                                    |     |     |            | W.L. (cm)              | 38   |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | SERIAL NO.                             |                                                                                    |     |     |            | pH                     | 8.0  |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | JETS (mm)                              |                                                                                    |     |     |            | DRILL 35.6             |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | DEPTH OUT (m)                          |                                                                                    |     |     |            | MUD MATERIALS ADDED    |      | SOLIDS CONTROL   |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | DEPTH IN (m)                           |                                                                                    |     |     |            | PRODUCT                |      | AMOUNT X UNIT    |                    | DESILTER         |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | TOTAL METRES DRILLED (m)               |                                                                                    |     |     |            |                        |      |                  |                    | HOURS RUN        | INTAKE<br>DENSITY (g/cm <sup>3</sup> ) | OVERFLOW<br>DENSITY (g/cm <sup>3</sup> ) | UNDERFLOW<br>DENSITY (g/cm <sup>3</sup> ) |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | TOTAL HOURS RUN                        |                                                                                    |     |     |            |                        |      |                  |                    | CENTRIFUGE       |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | CUTTING STRUCTURE                      |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | T <sub>1</sub>                         | T <sub>2</sub>                                                                     | MDC | LOC | B          | Gage                   | OOC  | Reason<br>Pulled | Total Run<br>m/hr. |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE CONDITION                         |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE DRAG                              |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | TORQUE AT BOTTOM                       |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | FILL ON BOTTOM (m)                     |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | TOTAL                                  |                                                                                    |     |     | 1985.42    |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | DRILLER SIGNATURE                      |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE DEPTH                             |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE DIAMETER                          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE TEMPERATURE                       |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE PRESSURE                          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE LOCATION                          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE STATUS                            |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE COMMENTS                          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE LOG                               |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RECORD                            |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE DATA                              |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE ANALYSIS                          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE SUMMARY                           |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE CONCLUSION                        |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RECOMMENDATIONS                   |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE ACTION PLAN                       |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE FOLLOW-UP                         |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE REVIEW                            |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE CLOSURE                           |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY                          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY PLAN                     |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RESULTS                  |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY COMMENTS                 |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY SUMMARY                  |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY CONCLUSION               |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RECOMMENDATIONS          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY ACTION PLAN              |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY FOLLOW-UP                |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY REVIEW                   |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY CLOSURE                  |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY                 |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY PLAN            |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY RESULTS         |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY COMMENTS        |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY SUMMARY         |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY CONCLUSION      |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY RECOMMENDATIONS |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY ACTION PLAN     |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY FOLLOW-UP       |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY REVIEW          |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        | HOLE RE-ENTRY RE-ENTRY CLOSURE         |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |
|                                       |     |         |        |                                        |                                                                                    |     |     |            |                        |      |                  |                    |                  |                                        |                                          |                                           |               |             |                                                |                                              |  |  |  |



121180

| DAILY CHECKS                                                  | OPR.    | R.M.    |
|---------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                              | initial | initial |
| (2) Detailed Inspection-Weekly (using checklist)              | initial | initial |
| (3) HPS Signage Posted (if required)                          | initial | initial |
| (4) Wall License & Stock Diagram Posted                       | initial | initial |
| (5) Flame Lines Stained                                       | initial | initial |
| (6) SOP Drills Performed                                      | initial | initial |
| (7) Visually inspect BOP's - Flammable & Degezmo Lines        | initial | initial |
|                                                               |         |         |
| (1) Rig Site Health and Safety Meeting (once/monthly)         | initial | initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (once/monthly) | initial | initial |
| (3) Meet Inspection Before Raising or Lowering                | initial | initial |
| (4) Drawn Sayer Checked                                       | initial | initial |
| (5) Motor Kills checked                                       | initial | initial |

|             |                    |       |    |                    |                    |                                         |              |                    |             |               |           |                   |                 |                    |            |
|-------------|--------------------|-------|----|--------------------|--------------------|-----------------------------------------|--------------|--------------------|-------------|---------------|-----------|-------------------|-----------------|--------------------|------------|
| YEAR        | 00                 | MONTH | 03 | DAY                | 02                 | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)    | MIN. I.D. (mm)     | kg/m        | MAKE          | GRADE     | NO. OF JOINTS     | TOTAL(m) LENGTH | KB TO CSG HEAD (m) | SET AT (m) |
| FIG NO      | 51                 |       |    |                    |                    |                                         | 340          | 320                | 81          | LOWESTAR      | LE        | 4                 | 51.20           |                    | 51         |
| FUEL @ 8:00 |                    |       |    |                    |                    |                                         | 244.5        | 226                | 53.51       | STAL          | T65       | 44                | 519.11          | 515                | 536        |
| FIG         | BOILER             |       |    |                    |                    |                                         |              |                    |             |               |           |                   |                 |                    |            |
| WEATHER     | TEMPERATURE        | °C    |    | D.C. TOP SIZE (mm) | LINEAR MASS (kg/m) | GRADE                                   | MIN. ID (mm) | TOOL JO. O.D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE | PUMP MANUFACTURER |                 | STROKE LTH. (mm)   |            |
|             | CURRENT CONDITIONS |       |    | DL                 | 135                |                                         | 41           | 150                | 114X11      | 20            | SP 80     | NATIONAL          |                 | 216                |            |
|             | WIND DIRECTION     |       |    | RWD                | 62.05              |                                         | 69           | 150                | 114X11      | 51            | SP 80     | NATIONAL          |                 | 216                |            |
|             | ROAD               |       |    | DP                 | 24.77              | 6HE                                     | 42           | 150                | 114X11      | 200           |           |                   |                 |                    |            |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |         |             | BIT RECORD         |                           |  |  | MUD RECORD |                                     |  |      | METRES DRILLED                      |                                       |          |  | TIME LOG                              |                                        |  |  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |                                        |  |  |  |
|---------------------------------------|------|---------|-------------|--------------------|---------------------------|--|--|------------|-------------------------------------|--|------|-------------------------------------|---------------------------------------|----------|--|---------------------------------------|----------------------------------------|--|--|----------------------------------------------|----------------------------------------|--|--|--|
| NO.                                   | BIT  | O.D. mm | LENGTH<br>m | BIT NO.            | MUD TYPE                  |  |  | MUD TYPE   |                                     |  | FROM | TO                                  | ELAP. TIME                            | CODE NO. |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       |      |         |             | SIZE (mm)          | WATER BASED               |  |  | OIL BASED  |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | 121  | 121     | 7.06        | 4                  | TIME                      |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | 117  | 117     | 5.59        | 5474               | DENSITY kg/m <sup>3</sup> |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | 175  | 175     | 6.6         | SMITH              | FUNNEL VIS. - (S/L)       |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | 164  | 164     | 9.31        | F37 P              | W.L. (cm <sup>3</sup> )   |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | 173  | 173     | 6.2         | 18668              | pH                        |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | 157  | 157     | 3.51        | 3X14.3             |                           |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
| 6                                     | DC   | 158     | 55.71       | 1768               | MUD MATERIALS ADDED       |  |  |            | SOLIDS CONTROL                      |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
|                                       | TAR  | 160     | 4.70        |                    | PRODUCT                   |  |  |            | AMOUNT X UNIT                       |  |      |                                     | DESILTER                              |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |
| 10                                    | DC   | 158     | 91.91       |                    | HOURS RUN                 |  |  |            | INTAKE DENSITY (kgm <sup>-3</sup> ) |  |      |                                     | OVERFLOW DENSITY (kgm <sup>-3</sup> ) |          |  |                                       | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |  |  |                                              |                                        |  |  |  |
| 6                                     | MWD  | 114     | 59.51       |                    | CENTRIFUGE                |  |  |            | HOURS RUN                           |  |      |                                     | INTAKE DENSITY (kgm <sup>-3</sup> )   |          |  |                                       | OVERFLOW DENSITY (kgm <sup>-3</sup> )  |  |  |                                              | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |  |  |  |
| 80                                    | D.P. | STANDS  | 1317.32     | CUTTING STRUCTURE  |                           |  |  | HOURS RUN  |                                     |  |      | INTAKE DENSITY (kgm <sup>-3</sup> ) |                                       |          |  | OVERFLOW DENSITY (kgm <sup>-3</sup> ) |                                        |  |  | UNDERFLOW DENSITY (kgm <sup>-3</sup> )       |                                        |  |  |  |
|                                       | D.P. | SINGLES | 9.54        | HOLE CONDITION     |                           |  |  | HOURS RUN  |                                     |  |      | INTAKE DENSITY (kgm <sup>-3</sup> ) |                                       |          |  | OVERFLOW DENSITY (kgm <sup>-3</sup> ) |                                        |  |  | UNDERFLOW DENSITY (kgm <sup>-3</sup> )       |                                        |  |  |  |
| KELLYDOWN                             |      |         | 13.26       | HOLE DRAG          |                           |  |  | HOURS RUN  |                                     |  |      | INTAKE DENSITY (kgm <sup>-3</sup> ) |                                       |          |  | OVERFLOW DENSITY (kgm <sup>-3</sup> ) |                                        |  |  | UNDERFLOW DENSITY (kgm <sup>-3</sup> )       |                                        |  |  |  |
| TOTAL                                 |      |         | 1766.82     | TORQUE AT BOTTOM   |                           |  |  | HOURS RUN  |                                     |  |      | INTAKE DENSITY (kgm <sup>-3</sup> ) |                                       |          |  | OVERFLOW DENSITY (kgm <sup>-3</sup> ) |                                        |  |  | UNDERFLOW DENSITY (kgm <sup>-3</sup> )       |                                        |  |  |  |
| WT. OF DC                             |      |         | 27          | FILL ON BOTTOM (m) |                           |  |  | HOURS RUN  |                                     |  |      | INTAKE DENSITY (kgm <sup>-3</sup> ) |                                       |          |  | OVERFLOW DENSITY (kgm <sup>-3</sup> ) |                                        |  |  | UNDERFLOW DENSITY (kgm <sup>-3</sup> )       |                                        |  |  |  |
| WT. OF STRING                         |      |         | 64          |                    |                           |  |  |            |                                     |  |      |                                     |                                       |          |  |                                       |                                        |  |  |                                              |                                        |  |  |  |

MORNING TOUR

| METRES DRILLED                                                 |    | TIME LOG             |               | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |          |     |                              |          |                              |  |          |  |
|----------------------------------------------------------------|----|----------------------|---------------|----------------------------------------------|----------|-----|------------------------------|----------|------------------------------|--|----------|--|
| FROM                                                           | TO | D.R.D. R.M.P. CODE-C | ROTARY R.P.M. | WT. ON BIT (1000 daN)                        | FROM     | TO  | ELAP. TIME                   | CODE NO. |                              |  |          |  |
| 1768                                                           |    |                      |               |                                              | 0        | 100 | 1                            | 6        | R.I.H                        |  |          |  |
|                                                                |    |                      |               |                                              | 100      | 330 | 2.5                          | 8        | REPAIR AIR LINES ON CLUTCHES |  |          |  |
|                                                                |    |                      |               |                                              | 330      | 430 | 1                            | 6        | R.I.H                        |  |          |  |
|                                                                |    |                      |               |                                              | 430      | 515 | 7.5                          | 9        | SKIP CUT                     |  |          |  |
|                                                                |    |                      |               |                                              | 515      | 505 | 5                            | 22       | TEST MWD                     |  |          |  |
|                                                                |    |                      |               |                                              | 505      | 800 | 225                          | 6        | R.I.H                        |  |          |  |
| REDUCED PUMP SPEED                                             |    |                      |               |                                              |          |     |                              |          |                              |  |          |  |
|                                                                |    |                      |               |                                              | @        |     | @                            |          |                              |  |          |  |
| DEVIATION SURVEY                                               |    |                      |               |                                              |          |     |                              |          |                              |  |          |  |
| DEPTH (m)                                                      |    | DEVIATION (°)        |               | DIRECTION                                    |          |     |                              |          |                              |  |          |  |
| NOTES                                                          |    |                      |               |                                              |          |     |                              |          |                              |  |          |  |
| KELLYDOWN SAVED, BRAKES ON LINES, DEAD LINE ANCHORS            |    |                      |               |                                              |          |     |                              |          |                              |  |          |  |
| #2 BOILER 8 LRS. PUMPS, 5750 RICHMOND BEARS 2 X 3 = 170 L FANS |    |                      |               |                                              |          |     |                              |          |                              |  |          |  |
| DRILLER SIGNATURE                                              |    |                      |               |                                              | BOILER   |     | MAXIMUM EXPERIENCED HOOKLOAD |          | SAFETY TOPIC                 |  | M.A.C.P. |  |
| R. P. S.                                                       |    |                      |               |                                              | HRS. RUN |     | STACK TEMP.                  |          |                              |  |          |  |
|                                                                |    |                      |               |                                              | 8        |     | 15                           |          |                              |  |          |  |

[illegible][illegible]

| DAILY CHECKS                                                    |  | Other      |
|-----------------------------------------------------------------|--|------------|
| (1) Daily Walk Around Inspection                                |  | Inspection |
| (2) Detailed Inspection-Weekly (using checklist)                |  | Inspection |
| (3) HFS Signs Posted (if required)                              |  | Inspection |
| (4) Well Location & Block Diagram Posted                        |  | Inspection |
| (5) Flare Lines Staked                                          |  | Inspection |
| (6) BOP Drills Performed                                        |  | Inspection |
| (7) Visually inspect BOP's - Flarelines & Dargasser Lines       |  | Inspection |
|                                                                 |  |            |
| (1) Rig Site Health and Safety Meeting (new/crew/memo)          |  | Inspection |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (once per month) |  | Inspection |
| (3) Mast Inspection Before Raising or Lowering                  |  | Inspection |
| (4) Crown Javel Checked                                         |  | Inspection |
| (5) Motor Kils checked                                          |  | Inspection |

| PR. | R.M. | YEAR          | MONTH              | DAY | LAST CASING TUBING OR LINER | O.D. (mm)          | MIN. I.D. (mm) | kg/m        | MAKE            | GRADE       | NO. OF JOINTS | TOTAL(m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)       |
|-----|------|---------------|--------------------|-----|-----------------------------|--------------------|----------------|-------------|-----------------|-------------|---------------|-----------------|---------------------|------------------|
|     |      | 00            | 03                 | 01  |                             |                    |                |             |                 |             |               |                 |                     |                  |
|     |      | RIG NO.       | 51                 |     |                             | 340                | 320            | 81          | ALCAN           | LE          | 4             | 51.20           |                     | 51               |
|     |      | FUEL @ 8:00   |                    |     |                             | 244.5              | 226            | 5351        | ST+C            | J55         | 41            | 597.11          | 515                 | 586              |
|     |      | RIG           | BOILER             |     |                             |                    |                |             |                 |             |               |                 |                     |                  |
|     |      | W E A T H E R | TEMPERATURE °C     |     | DC/DP SIZE (mm)             | LINEAR MASS (kg/m) | GRADE          | MIN ID (mm) | TOOL JOINT (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE       | PUMP MANUFACTURER   | STROKE LTH. (mm) |
|     |      |               | CURRENT CONDITIONS |     | DL                          | 135                |                | 58          | 158             | 114 XH      | 20            | 8P 80           | NATIONAL            | 216              |
|     |      |               | WIND DIRECTION     |     | HW                          | 62.45              |                | 69          | 152             | 114 XH      | 57            | 8P 80           | NATIONAL            | 216              |
|     |      |               | ROAD               |     | DP                          | 29.77              | 6.3E           | 92          | 158             | 114 XH      | 210           |                 |                     |                  |

| DRILLING ASSEMBLY<br>(At End of Tour) |            |           |               | BIT RECORD                  |                |                              |                                      | MUD RECORD                         |      |                                  |                  | METRES DRILLED                            |                                             |                                              |      | TIME LOG |               |                              |                                               | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |                 |  |          |  |
|---------------------------------------|------------|-----------|---------------|-----------------------------|----------------|------------------------------|--------------------------------------|------------------------------------|------|----------------------------------|------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------|------|----------|---------------|------------------------------|-----------------------------------------------|----------------------------------------------|--|-----------------|--|----------|--|
| NO.                                   | BIT        | O.D. (mm) | LENGTH<br>(m) | BIT NO.                     | 3              | MUD TYPE                     | <input type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED | TIME | FROM                             | TO               | DRD<br>RPM                                | ROTARY<br>R.P.M.                            | WT. ON<br>BIT<br>(1000-lbs)                  | FROM | TO       | ELAP.<br>TIME | CODE<br>NO.                  |                                               |                                              |  |                 |  |          |  |
|                                       | MOTOR      | 121       | 6.04          | SIZE (mm)                   | 222            | DENSITY<br>kg/m <sup>3</sup> |                                      |                                    |      | 1767                             | 1768             | 1                                         | 15                                          | 18                                           | 1600 | 1645     | 75            | 2                            | Drill F/1767-1768                             |                                              |  |                 |  |          |  |
|                                       | F15        | 157       | .59           | IADC CODE                   | 5494           | FUNNEL<br>VIS. - (SL)        |                                      |                                    |      | 1645                             | 1700             |                                           |                                             |                                              | 1645 | 1700     | 25            | 10                           | Survey                                        |                                              |  |                 |  |          |  |
|                                       | UPH        | 175       | .46           | MFG.                        | Smith          | W.L. (cm <sup>2</sup> )      |                                      |                                    |      | CIRCULATION<br>PRESSURE<br>(kPa) |                  | PUMP NO. 1                                |                                             | PUMP NO. 2                                   | 1700 | 1705     | .25           | 7                            | Rig service. s/o UPPER PIPE ROOMS             |                                              |  |                 |  |          |  |
|                                       | NMDC       | 144       | 9.21          | TYPE                        | F37P           | pH                           |                                      |                                    |      |                                  |                  | LINEAR<br>SIZE (mm)                       | S.P.M.                                      | LINEAR<br>SIZE (mm)                          | 1705 | 2245     | 5.5           | 6                            | POOH For bit. FC 1768, 1650, 996, 498, 000ANK |                                              |  |                 |  |          |  |
|                                       | X10        | 173       | .52           | SERIAL NO.                  | LX6420         |                              |                                      |                                    |      | 7100                             | 152              | 100                                       | 152                                         |                                              | 2245 | 2400     | 125           | 22                           | NO MOTOR + PICKUP MOTOR, MAKE UPS IT          |                                              |  |                 |  |          |  |
|                                       | S15        | 157       | 3.51          | JETS (mm)                   | 3X4.3          | MUD MATERIALS ADDED          |                                      |                                    |      | SOLIDS CONTROL                   |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
| 6                                     | DC         | 158       | 55.71         | DEPTH OUT (m)               | 1768           | PRODUCT                      | AMOUNT X UNIT                        |                                    |      | DESILTER                         |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
|                                       | 3AK        | 160       | 4.70          | DEPTH IN (m)                | 1491           | HOURS RUN                    |                                      |                                    |      |                                  |                  | INTAKE<br>DENSITY<br>(kg/m <sup>3</sup> ) | OVERFLOW<br>DENSITY<br>(kg/m <sup>3</sup> ) | UNDERFLOW<br>DENSITY<br>(kg/m <sup>3</sup> ) |      |          |               |                              |                                               | THU 9.59                                     |  |                 |  |          |  |
| 10                                    | DC         | 158       | 91.81         | TOTAL METRES<br>DRILLED (m) | 277            |                              |                                      |                                    |      | CENTRIFUGE                       |                  |                                           |                                             |                                              |      |          |               |                              |                                               | FRI 9.17                                     |  |                 |  |          |  |
| 6                                     | HIWDP      | 114       | 55.54         | TOTAL HOURS RUN             | 55.5           |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               | PIRE .71                                     |  |                 |  |          |  |
| 50                                    | D.P.       | STANDS    | 1517.32       | CUTTING STRUCTURE           |                |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
|                                       | D.P.       | SINGLES   | 9.58          | T <sub>1</sub>              | T <sub>2</sub> | MDC                          | LOC.                                 | B                                  | Gage | ODC                              | Reason<br>Pulled | Total Run<br>m/hr.                        |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
|                                       |            |           |               | 55 WTAEZ                    |                |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
|                                       | KELLY DOWN |           | 13.76         | HOLE CONDITION              |                |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
|                                       | TOTAL      |           | 1768.00       | HOLE DRAG                   |                |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
| WT. OF DC                             | 27         |           | 1000<br>psi   | TORQUE AT BOTTOM            |                |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
| WT. OF STRING                         | 24         |           | 1000<br>psi   | FILL ON BOTTOM (m)          |                |                              |                                      |                                    |      |                                  |                  |                                           |                                             |                                              |      |          |               |                              |                                               |                                              |  |                 |  |          |  |
|                                       |            |           |               |                             |                |                              |                                      |                                    |      | DRILLER SIGNATURE                |                  |                                           |                                             | BOILER                                       |      |          |               | MAXIMUM EXPERIENCED HOOKLOAD |                                               |                                              |  | SAFETY TOPIC    |  | M.A.C.P. |  |
|                                       |            |           |               |                             |                |                              |                                      |                                    |      | HRS. RUN                         |                  |                                           |                                             | ph. STACK TEMP.                              |      |          |               | HRS. RUN                     |                                               |                                              |  | ph. STACK TEMP. |  |          |  |
|                                       |            |           |               |                             |                |                              |                                      |                                    |      | 8 10.5 457                       |                  |                                           |                                             | 8 10.5 457                                   |      |          |               |                              |                                               |                                              |  |                 |  |          |  |

121178

| DAILY CHECKS                                              | OPR.    | R.M.    |
|-----------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                          | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)          | Initial | Initial |
| (3) HFS Signs Posted (if required)                        | Initial | Initial |
| (4) Wall License & Stick Diagram Posted                   | Initial | Initial |
| (5) Floor Lines Staked                                    | Initial | Initial |
| (6) BOP OSHA Performed                                    | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines  | Initial | Initial |
|                                                           |         |         |
| (1) Rig Site Health and Safety Meeting (once/month)       |         | Initial |
| (2) C.A.D.D.C. Rig Safety Inspection Checklist (one/week) |         | Initial |
| (3) Mast Inspection Before Raising or Lowering            |         | Initial |
| (4) Crown Saver Checked                                   |         | Initial |
| (5) Motor Kills checked                                   |         | Initial |

|               |                       |           |                     |                       |                   |                 |                      |                |                  |                    |                        |                    |
|---------------|-----------------------|-----------|---------------------|-----------------------|-------------------|-----------------|----------------------|----------------|------------------|--------------------|------------------------|--------------------|
| YEAR<br>88    | MONTH<br>02           | DAY<br>29 | LAST<br>CASING      | O.D. (mm)             | MIN. I.D.<br>(mm) | kg/m            | MAKE                 | GRADE          | NO. OF<br>JOINTS | TOTAL(m)<br>LENGTH | KB. TO CSG<br>HEAD (m) | SET AT (m)         |
| RIG NO.<br>51 | FUEL @ 8:00           |           | TUBING              | 340                   | 320               | 81              | 100LSTAR             | LE             | 4                | 51.20              |                        | 51                 |
|               |                       |           | OR                  | 244.5                 | 226               | 54.51           | ST+C                 | JAC            | 44               | 54.71              | 515                    | 54.6               |
| PROG          | BOILER                |           | LINER               |                       |                   |                 |                      |                |                  |                    |                        |                    |
| WEATHER       | TEMPERATURE           | °C        | D/D.P. SIZE<br>(mm) | LINEAR MASS<br>(kg/m) | GRADE             | MIN. ID<br>(mm) | TOOL JO.T.D.<br>(mm) | TYPE<br>THREAD | NO. OF<br>JOINTS | PUMP TYPE          | PUMP MANUFACTURER      | STROKE<br>LTH (mm) |
|               | CURRENT<br>CONDITIONS |           | DC                  | 135                   |                   | 58              | 158                  | 1 1/4 X 11     | 20               | 8P-80              | NATIONAL               | 216                |
|               | WIND DIRECTION        |           | HW                  | 62.45                 |                   | 69              | 158                  | 1 1/4 X 11     | 57               | 8P-80              | NATIONAL               | 216                |
|               | ROAD                  |           | DR                  | 25.22                 | 135               | 62              | 158                  | 1 1/4 X 11     | 210              |                    |                        |                    |

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |       |         |         | BIT RECORD               |                |     |     | MUD RECORD                          |                                                                                    |                                        |                                     |                |
|---------------------------------------|-------|---------|---------|--------------------------|----------------|-----|-----|-------------------------------------|------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|----------------|
| NO.                                   | BIT   |         | LENGTH  | BIT NO.                  |                |     |     | MUD TYPE                            | <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |                                        |                                     |                |
|                                       | WATER | 171     | 6.04    | SIZE (mm)                | 222            |     |     | TIME                                | 02:00                                                                              | 04:00                                  | 06:00                               |                |
|                                       | 1/3   | 157     | 5.9     | ADC CODE                 | 5478           |     |     | DENSITY kg/m <sup>3</sup>           | 1070                                                                               | 1070                                   | 1070                                |                |
|                                       | UBND  | 170     | 6.6     | MFG                      | SMITH          |     |     | FUNNEL VIS. - (S/L)                 | 53                                                                                 | 54                                     | 54                                  |                |
|                                       | WHDC  | 164     | 9.21    | TYPE                     | 137P           |     |     | W.L. (cm)                           | 8.0                                                                                | 8.0                                    | 8.8                                 |                |
|                                       | X10   | 173     | 6.2     | SERIAL NO.               | LX 6420        |     |     | pH                                  | 8.5                                                                                | 9.0                                    | 9.5                                 |                |
|                                       | SIS   | 167     | 3.51    | JETS (mm)                | 2x14.3         |     |     | P.V.T                               | 35.1                                                                               | 35.6                                   | 36.2                                |                |
| 6                                     | DC    | 152     | 55.71   | DEPTH OUT (m)            |                |     |     | MUD MATERIALS ADDED                 |                                                                                    | SOLIDS CONTROL                         |                                     |                |
|                                       | JAR   | 120     | 4.7     | DEPTH IN (m)             | 1491           |     |     | PRODUCT                             | AMOUNT X UNIT                                                                      |                                        | DESILTER                            |                |
| 10                                    | DC    | 154     | 91.51   | TOTAL METRES DRILLED (m) | 144            |     |     | CAUSTIC                             | 1                                                                                  | SK                                     | HOURS RUN                           |                |
| 6                                     | WDP   | 114     | 55.54   | TOTAL HOURS RUN          | 26.85          |     |     | GEL                                 | 16                                                                                 | 5x                                     | INTAKE DENSITY (g/cm <sup>3</sup> ) |                |
| 73                                    | D.P.  | STANDS  | 1364.25 | CUTTING STRUCTURE        |                |     |     | CENTRIFUGE                          |                                                                                    |                                        |                                     |                |
|                                       | D.P.  | SINGLES | 9.57    | T                        | T <sub>0</sub> | MOC | LOC | B                                   | Gage                                                                               | OC                                     | Reason Pulled                       | Total Run m/hr |
| KELLY DOWN                            |       |         | 13.26   | HOLE CONDITION           |                |     |     |                                     |                                                                                    |                                        |                                     |                |
| TOTAL                                 |       |         | 1635.72 | HOLE DRAG                |                |     |     | 3-5000                              |                                                                                    |                                        |                                     |                |
| WT. OF DC                             |       |         | 27      | TORQUE AT BOTTOM         |                |     |     | 2000                                |                                                                                    |                                        |                                     |                |
| WT. OF STRING                         |       |         | 60      | FILL ON BOTTOM (m)       |                |     |     |                                     |                                                                                    |                                        |                                     |                |
|                                       |       |         |         | HOURS RUN                |                |     |     | INTAKE DENSITY (g/cm <sup>3</sup> ) | OVERFLOW DENSITY (g/cm <sup>3</sup> )                                              | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |                                     |                |
|                                       |       |         |         | 8                        |                |     |     | 1070                                | 1055                                                                               | 1430                                   |                                     |                |

MORNING TOUR

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

| FROM | TO   | 1/2" B.P. CORE-G | ROTARY R.P.M. | WT. ON BIT (1000 daN) | FROM | TO | ELAP. TIME | CODE NO. |
|------|------|------------------|---------------|-----------------------|------|----|------------|----------|
| 1594 | 1635 | 41               | 15            | 18                    | 0    | 15 | 25         | 22       |

| CIRCULATION PRESSURE (kPa) | PUMP NO. 1     |        | PUMP NO. 2     |        |
|----------------------------|----------------|--------|----------------|--------|
|                            | LINE SIZE (mm) | S.P.M. | LINE SIZE (mm) | S.P.M. |
| 166.5                      | 152            | 100    | 152            |        |

REDUCED PUMP SPEED

|      |   |    |   |  |
|------|---|----|---|--|
| 4160 | @ | 50 | @ |  |
|------|---|----|---|--|

DEVIATION SURVEY

| DEPTH (m) | DEVIATION (°) | DIRECTION |
|-----------|---------------|-----------|
| 1585      | 1.2           | 45.5      |
| 1594      | 1.3           | 51.1      |
| 1604      | 1.4           | 59.6      |

NOTES

VERIFIED SAVER, BRANKS & LINKALIE, DEADLINE ANCHORS, ALL VCL CREWS  
#3 BOLLER, 8.25 PSI 10.5, 55 HPS BLOWDOWN BOLLER, 943=130L FLUID

DRILLER SIGNATURE

| BOILER |      | STACK TEMP. |
|--------|------|-------------|
| HRS.   | ph   |             |
| 8      | 11.5 |             |

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

6.5  
15000 LBS. HOOK  
6475

| DRILLING ASSEMBLY<br>(At End of Tour) |           |           |                | BIT RECORD               |                |     |     | MUD RECORD |                           |                                                 |                                    |                 |                                     |                                       |                                        |                                     |                                       |                                        |
|---------------------------------------|-----------|-----------|----------------|--------------------------|----------------|-----|-----|------------|---------------------------|-------------------------------------------------|------------------------------------|-----------------|-------------------------------------|---------------------------------------|----------------------------------------|-------------------------------------|---------------------------------------|----------------------------------------|
| NO.                                   | BIT       | O.D. (mm) | LENGTH         | BIT NO.                  |                |     |     |            | MUD TYPE                  | <input checked="" type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED |                 |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | Motor     | 171       | 2.25 m         | SIZE (mm)                | 3              |     |     |            | TIME                      | 0900                                            | 1200                               | 1530            |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | F/S       | 157       | 6.04 m         | ADD CODE                 | 222            |     |     |            | DENSITY kg/m <sup>3</sup> | 1065                                            | 1065                               | 1065            |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | LBH       | 175       | 1.66 m         | MFG                      | S-474          |     |     |            | FUNNEL VIS. - (S/L)       | 52                                              | 50                                 | 48              |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | NHDC      | 164       | 9.21 m         | TYPE                     | F 37 P         |     |     |            | W.L. (cm)                 | 9.0                                             | 9.25                               |                 |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | X/O       | 173       | 1.62 m         | SERIAL NO.               | L x 1420       |     |     |            | pH                        | 10.0                                            | 9.5                                | 9.0             |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | S/S       | 157       | 3.51 m         | JETS (mm)                | 3x 14.3        |     |     |            | P.V.T                     | 36.0                                            | 35.9                               | 30.4            |                                     |                                       |                                        |                                     |                                       |                                        |
| 6                                     | DC        | 158       | 55.71 m        | DEPTH OUT (m)            | 1.0            |     |     |            | MUD MATERIALS ADDED       |                                                 | SOLIDS CONTROL                     |                 |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | JAR       | 160       | 4.70 m         | DEPTH IN (m)             | 1491           |     |     |            | PRODUCT                   | AMOUNT X UNIT                                   |                                    | DESILTER        |                                     |                                       |                                        |                                     |                                       |                                        |
| 10                                    | DC        | 158       | 71.81 m        | TOTAL METRES DRILLED (m) | 141            |     |     |            | GEL                       | 10                                              | SK                                 | HOURS RUN       | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                     |                                       |                                        |
| 6                                     | HWDP      | 114       | 55.54 m        | TOTAL HOURS RUN          | 32.5           |     |     |            | Cellophane                | 5                                               | SK                                 | CENTRIFUGE      |                                     |                                       |                                        |                                     |                                       |                                        |
| 76                                    | D.P.      | STANDS    | 154.71 m       | CUTTING STRUCTURE        |                |     |     |            |                           |                                                 |                                    |                 |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | D.P.      | SINGLES   |                | T <sub>1</sub>           | T <sub>2</sub> | MOD | LOC | B          | Gage                      | ODC                                             | Reason Pulled                      | Total Run m/hr. |                                     |                                       |                                        |                                     |                                       |                                        |
|                                       | KELLYDOWN | 11.65 m   | HOLE CONDITION |                          |                |     |     |            |                           |                                                 | 59                                 | Carstic         | 1                                   | SK                                    | HOURS RUN                              | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |
| TOTAL                                 |           |           | 1682.00 m      | HOLE DRAG                |                |     |     | 4-5000     |                           |                                                 |                                    | 8               |                                     |                                       |                                        | 1065                                | 1055                                  | 1930                                   |
| WT. OF DC                             |           | 27        | 1000 g/m       | TORQUE AT BOTTOM         |                |     |     | 2500       |                           |                                                 |                                    | HOURS RUN       |                                     |                                       |                                        | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |
| WT. OF STRING                         |           | 14        | 1000 g/m       | FILL ON BOTTOM (m)       |                |     |     |            |                           |                                                 |                                    |                 |                                     |                                       |                                        |                                     |                                       |                                        |

| METRES DRILLED                   |                     |                            |                     |                             | TIME LOG                                                                 |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                                     |  |
|----------------------------------|---------------------|----------------------------|---------------------|-----------------------------|--------------------------------------------------------------------------|------------------|----------------------------------------------|-------------|-------------------------------------|--|
| FROM                             | TO                  | D.P.D.<br>R.M.R.<br>CORE-G | ROTARY<br>R.P.M.    | WT. ON<br>BIT<br>(1000 lbs) | FROM                                                                     | TO               | ELAP.<br>TIME                                | CODE<br>NO. |                                     |  |
| 1135                             | 1682                | 47                         | 15                  | 18                          | 08 <sup>00</sup>                                                         | 08 <sup>15</sup> | .25                                          | 7           | Rig Service c/o UPPER 2000 Runs     |  |
|                                  |                     |                            |                     |                             | 08 <sup>15</sup>                                                         | 1430             | .25                                          | 2           | Drill F/1635-1673                   |  |
| CIRCULATION<br>PRESSURE<br>(KPS) | PUMP NO. 1          | PUMP NO. 2                 |                     |                             | 1430                                                                     | 1445             | .25                                          | 23          | Flow Check well took 5 min at 1670m |  |
|                                  | LINEAR<br>SIZE (mm) | S.P.M.                     | LINEAR<br>SIZE (mm) | S.P.M.                      | 1445                                                                     | 1515             | .5                                           | 5           | Circ up sample                      |  |
| 6800                             | 183                 | 100                        | 15                  | 2                           | 1515                                                                     | 1530             | .25                                          | 2           | Drill F/1673-1682                   |  |
| REDUCED PUMP SPEED               |                     |                            |                     |                             | 1530                                                                     | 1600             | .5                                           | 10          | Total Surveys                       |  |
| 4200                             | @                   | 80                         | @                   |                             |                                                                          |                  |                                              |             |                                     |  |
| DEVIATION SURVEY                 |                     |                            |                     |                             |                                                                          |                  |                                              |             |                                     |  |
| DEPTH (m)                        | DEVIATION (°)       |                            | DIRECTION           |                             |                                                                          |                  |                                              |             |                                     |  |
| 1623                             | 1.1                 |                            | 86.2                |                             |                                                                          |                  |                                              |             |                                     |  |
| 1632                             | .8                  |                            | 88.4                |                             |                                                                          |                  |                                              |             |                                     |  |
| 1652                             | 1.0                 |                            | 89.1                |                             |                                                                          |                  |                                              |             |                                     |  |
| 1661                             | 1.3                 |                            | 77.1                |                             |                                                                          |                  |                                              |             |                                     |  |
|                                  |                     |                            |                     |                             | NOTES                                                                    |                  |                                              |             |                                     |  |
|                                  |                     |                            |                     |                             | ✓ Crown Saver, Bites 92 linkages, Dead Line Anchors, Function Reamed Out |                  |                                              |             |                                     |  |
|                                  |                     |                            |                     |                             | 873 brktr Bites 24 125 ST 450 BUEYBORN POWERPS 24 2 = 1706 FLUID         |                  |                                              |             |                                     |  |
| DRILLER SIGNATURE                |                     |                            |                     |                             | BOLLER<br>HRS. RAN<br>ph. STACK TEMP.                                    |                  | MAXIMUM EXPERIENCED HOOKLOAD                 |             | SAFETY TOPIC                        |  |
| 1 x 112 Hook                     |                     |                            |                     |                             | 8 105 450                                                                |                  |                                              |             | 6975                                |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |            |         |         | LENGTH  |     | BIT RECORD               |                |     |     |   |      |     |               |                           |                                                 | MUD RECORD                         |                                     |                                       |                                        |
|---------------------------------------|------------|---------|---------|---------|-----|--------------------------|----------------|-----|-----|---|------|-----|---------------|---------------------------|-------------------------------------------------|------------------------------------|-------------------------------------|---------------------------------------|----------------------------------------|
| NO.                                   | BIT        | O.D. mm |         |         |     | BIT NO.                  |                |     |     |   |      |     |               | MUD TYPE                  | <input checked="" type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED |                                     |                                       |                                        |
|                                       |            |         |         | 25      | m   |                          | 3              |     |     |   |      |     |               | TIME                      | 1800                                            | 2100                               | 2400                                |                                       |                                        |
|                                       | MOTOR      | 171     | 6.04    | m       |     | SIZE (mm)                | 222            |     |     |   |      |     |               | DENSITY kg/m <sup>3</sup> | 1065                                            | 1070                               | 1070                                |                                       |                                        |
|                                       | F/S        | 157     | 5.59    | m       |     | ADC CODE                 | 5474           |     |     |   |      |     |               | FUNNEL VIS. (S/L)         | 50                                              | 54                                 | 52                                  |                                       |                                        |
|                                       | WBHO       | 175     | 6.6     | m       |     | MFG                      | SAULT          |     |     |   |      |     |               | W.L. (cm <sup>3</sup> )   | 9.5                                             | 9.0                                | 10.0                                |                                       |                                        |
|                                       | NHOC       | 114     | 9.21    | m       |     | TYPE                     | F 37P          |     |     |   |      |     |               | pH                        | 9.0                                             | 10.0                               | 10.5                                |                                       |                                        |
|                                       | X 10       | 173     | 6.2     | m       |     | SERIAL NO.               | 1X6420         |     |     |   |      |     |               | PVT m <sup>3</sup>        | 32.6                                            | 31.50                              | 34.7                                |                                       |                                        |
|                                       | SIS        | 157     | 3.51    | m       |     | JETS (mm)                | 3X14.3         |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |
| 6                                     | DC         | 158     | 5.57    | m       |     | DEPTH OUT (m)            | 11             |     |     |   |      |     |               | MUD MATERIALS ADDED       | SOLIDS CONTROL                                  |                                    |                                     |                                       |                                        |
|                                       | JAR        | 110     | 4.70    | m       |     | DEPTH IN (m)             | 1461           |     |     |   |      |     |               | PRODUCT                   | AMOUNT X UNIT                                   | DESILER                            |                                     |                                       |                                        |
| 10                                    | DC         | 158     | 91.51   | m       |     | TOTAL METRES DRILLED (m) | 221            |     |     |   |      |     |               |                           |                                                 | HOURS RUN                          | INTAKE DENSITY (g/cm <sup>3</sup> ) | OVERFLOW DENSITY (g/cm <sup>3</sup> ) | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |
| 6                                     | HWDP       | 114     | 55.34   | m       |     | TOTAL HOURS RUN          | 39.25          |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |
| 77                                    | D.P.       | STANDS  | 1910.83 | m       |     | CUTTING STRUCTURE        |                |     |     |   |      |     | CENTRIFUGE    |                           |                                                 |                                    |                                     |                                       |                                        |
|                                       | D.P.       | SINGLES | 9.57    | m       |     | T <sub>1</sub>           | T <sub>2</sub> | MDC | LOC | 8 | Gage | ODC | Reason Pulled | Total Run m/hr            |                                                 |                                    |                                     |                                       |                                        |
|                                       |            |         |         |         |     |                          |                |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |
|                                       | KELLY DOWN |         |         | 13.26   | m   | HOLE CONDITION           |                |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |
|                                       | TOTAL      |         |         | 1712.30 | m   | HOLE DRAG                |                |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |
| WT. OF DC                             | 27         |         |         | 1000    | psi | TORQUE AT BOTTOM         |                |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |
| WT. OF STRING                         | 64         |         |         | 1000    | psi | FILL ON BOTTOM (m)       |                |     |     |   |      |     |               |                           |                                                 |                                    |                                     |                                       |                                        |

| METRES DRILLED                                                                 |      |                       |               |                       | TIME LOG       |           | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |         |                         |                              |  |  |  |  |
|--------------------------------------------------------------------------------|------|-----------------------|---------------|-----------------------|----------------|-----------|----------------------------------------------|---------|-------------------------|------------------------------|--|--|--|--|
| FROM                                                                           | TO   | D.R. / W.P. (2000 ft) | ROTARY R.P.M. | WT. ON BIT (1000 lbs) | FROM           | TO        | ELAP. TIME                                   | LOG NO. |                         |                              |  |  |  |  |
| 1682                                                                           | 1712 | 30                    | 15            | 18                    | 1600           | 1630      | 30                                           | 2       | Drill F/1682-1683       |                              |  |  |  |  |
|                                                                                |      |                       |               |                       | 1630           | 1645      | 15                                           | 7       | Rig service C/O Annular |                              |  |  |  |  |
|                                                                                |      |                       |               |                       | 1645           | 2330      | 6.75                                         | 2       | Drill F/1683-1712       |                              |  |  |  |  |
|                                                                                |      |                       |               |                       | 2330           | 2400      | 1.5                                          | 10      | TOTAL SURVEYS           |                              |  |  |  |  |
| CIRCULATION PRESSURE (kPa)                                                     |      |                       |               |                       | PUMP NO. 1     |           |                                              |         |                         | PUMP NO. 2                   |  |  |  |  |
|                                                                                |      |                       |               |                       | LINE SIZE (mm) |           |                                              |         |                         | SPM                          |  |  |  |  |
|                                                                                |      |                       |               |                       | LINE SIZE (mm) |           |                                              |         |                         | SPM                          |  |  |  |  |
| 7200                                                                           |      |                       |               |                       | 152            |           |                                              |         |                         | 100                          |  |  |  |  |
| REDUCED PUMP SPEED                                                             |      |                       |               |                       |                |           |                                              |         |                         |                              |  |  |  |  |
| 4250                                                                           |      |                       |               |                       |                |           |                                              |         |                         | @ 30 @                       |  |  |  |  |
| DEVIATION SURVEY                                                               |      |                       |               |                       |                |           |                                              |         |                         |                              |  |  |  |  |
| DEPTH (m)                                                                      |      |                       | DEVIATION (°) |                       |                | DIRECTION |                                              |         |                         |                              |  |  |  |  |
| 1671                                                                           |      |                       | 1.5           |                       |                | 88.4      |                                              |         |                         |                              |  |  |  |  |
| 1690                                                                           |      |                       | 1             |                       |                | 30.0      |                                              |         |                         |                              |  |  |  |  |
| 1699                                                                           |      |                       | 1.1           |                       |                | 8.9       |                                              |         |                         |                              |  |  |  |  |
| NOTES                                                                          |      |                       |               |                       |                |           |                                              |         |                         |                              |  |  |  |  |
| V.C. down saver, Brakes 8 linkages, Dead line anchors, Function Release Choke. |      |                       |               |                       |                |           |                                              |         |                         |                              |  |  |  |  |
| 4230 ft. B.H.S. P.H. 10.5 57 mm P.H. 10.5 mm B.H.S. 24 3/4" 1306 1.14 m        |      |                       |               |                       |                |           |                                              |         |                         |                              |  |  |  |  |
| DRILLER SIGNATURE                                                              |      |                       |               |                       | BOILER         |           |                                              |         |                         | MAXIMUM EXPERIENCED HOOKLOAD |  |  |  |  |
|                                                                                |      |                       |               |                       | HRS. RAN       |           |                                              |         |                         | SAFETY TOPIC                 |  |  |  |  |
|                                                                                |      |                       |               |                       | ph             |           |                                              |         |                         | M.A.C.P.                     |  |  |  |  |
|                                                                                |      |                       |               |                       | 105            |           |                                              |         |                         | 6975                         |  |  |  |  |
|                                                                                |      |                       |               |                       | 450            |           |                                              |         |                         |                              |  |  |  |  |

121177

| DAILY CHECKS                                                 | OPR.              | R.M.              |
|--------------------------------------------------------------|-------------------|-------------------|
| (1) Daily Walk Around Inspection                             | Initial _____     | Initial _____     |
| (2) Detailed Inspection-Weekly (using checklist)             | Initial <u>CE</u> | Initial <u>CE</u> |
| (3) H'S Signs Posted (if required)                           | Initial _____     | Initial _____     |
| (4) Well Location & Stick Diagram Posted                     | Initial _____     | Initial _____     |
| (5) Flare Lines Staked                                       | Initial <u>CE</u> | Initial _____     |
| (6) BOP Drills Performed                                     | Initial _____     | Initial _____     |
| (7) Visually Inspect BOP's - Flarelines & Degasser Lines     | Initial _____     | Initial _____     |
|                                                              |                   |                   |
| (1) Rig Site Health and Safety Meeting (one/week/month)      | Initial _____     | Initial _____     |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (one/10 days) | Initial _____     | Initial _____     |
| (3) Mast Inspection Before Raising or Lowering               | Initial _____     | Initial _____     |
| (4) Crown Saver Checked                                      | Initial _____     | Initial <u>RV</u> |
| (5) Motor Kills checked                                      | Initial _____     | Initial _____     |

| YEAR MONTH DAY |                    |  | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)          | MIN. I.D. (mm) | kg/m         | MAKE              | GRADE       | NO. OF JOINTS | TOTAL(m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)       |
|----------------|--------------------|--|-----------------------------------------|--------------------|----------------|--------------|-------------------|-------------|---------------|-----------------|---------------------|------------------|
| RIG NO.        | 51                 |  |                                         |                    | 340            | 320          | 81                | Loarste     | LE            | 4               | 51.20               |                  |
| FUEL @ 8:00    |                    |  |                                         | 241.5              | 226            | 53.57        | ST+C              | J-95        | 44            | 507.11          | 5.15                | 506              |
| RIG            | BOILER             |  |                                         |                    |                |              |                   |             |               |                 |                     |                  |
| WEATHER        | TEMPERATURE °C     |  | D/O.P. SIZE (mm)                        | LINEAR MASS (kg/m) | GRADE          | MIN. ID (mm) | TOOL JT O.D. (mm) | TYPE THREAD | NO. OF JOINTS | PUMP TYPE       | PUMP MANUFACTURER   | STROKE LTH. (mm) |
|                | CURRENT CONDITIONS |  | DE 158                                  | 135                |                | 58           | 158               | 11/4 X H    | 20            | 8-P-80          | National            | 216              |
|                | WIND DIRECTION     |  | Hw 141                                  | 62.45              |                | 69           | 158               | 11/4 X H    | 57            | 8-P-80          | National            | 216              |
|                | ROAD               |  | DP 141                                  | 29.77              | G+E            | 92           | 158               | 11/4 X H    | 26            |                 |                     |                  |

| DRILLING ASSEMBLY<br>(At End of Tour) |         |         |         | BIT RECORD               |                    |          |  | MUD RECORD                                      |                                     |                                       |                                        | METRES DRILLED                        |                                        |                |                  | TIME LOG                    |       |       |               | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |                                           |  |  |
|---------------------------------------|---------|---------|---------|--------------------------|--------------------|----------|--|-------------------------------------------------|-------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|----------------|------------------|-----------------------------|-------|-------|---------------|----------------------------------------------|-------------------------------------------|--|--|
| NO.                                   | BIT     |         | LENGTH  | BIT NO.                  |                    | MUD TYPE |  | <input checked="" type="checkbox"/> WATER BASED |                                     | <input type="checkbox"/> OIL BASED    |                                        | FROM                                  | TO                                     | JOBS<br>R.P.M. | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 LBS) | FROM  | TO    | ELAP.<br>TIME | CODE<br>NO.                                  |                                           |  |  |
|                                       | Metor   | 171     | 6.4     | SIZE (mm)                | 222                |          |  | TIME                                            | 0200                                | 0400                                  | 0600                                   | 1491                                  | 1522                                   | 31             | 15               | 16-17                       |       | 00'15 | .25           | 6                                            | Finish R.L.H                              |  |  |
|                                       | FIS     | 157     | .59     | IADC CODE                | 5474               |          |  | DENSITY kg/m <sup>3</sup>                       | 1065                                | 1065                                  | 1065                                   |                                       |                                        |                |                  |                             | 00'15 | 00'45 | 5             | 5                                            | Break Circ and Clean to Rtm 3m            |  |  |
|                                       | UBHO    | 175     | .66     | MFG                      | Smith              |          |  | FUNNEL VIS. - (S/L)                             | 60                                  | 53                                    | 53                                     |                                       |                                        |                |                  |                             | 00'45 | 03'15 | 2.5           | 2                                            | Drill F/1491-1503                         |  |  |
|                                       | N.M.R.C | 164     | 9.21    | TYPE                     | F37P               |          |  | W.L. (cm <sup>3</sup> )                         | 8.5                                 | 8.5                                   | 9.5                                    |                                       |                                        |                |                  |                             | 03'15 | 03'30 | .25           | 7                                            | Rig Service to Lower Pipestrings 3m / RSP |  |  |
|                                       | X10     | 173     | .62     | SERIAL NO.               | LX6420             |          |  | pH                                              | 9.5                                 | 9.5                                   | 9.5                                    |                                       |                                        |                |                  |                             | 03'30 | 07'15 | 3.75          | 2                                            | Drill F/1503-1522                         |  |  |
|                                       | SIS     | 157     | 3.51    | JETS (mm)                | 3x14.3             |          |  | PVT-?                                           | 36.4                                | 36.1                                  | 35.6                                   |                                       |                                        |                |                  |                             | 07'15 | 08'00 | .75           | 10                                           | Total Surveys                             |  |  |
| 6                                     | D.C     | 158     | 55.71   | DEPTH OUT (m)            |                    |          |  | MUD MATERIALS ADDED                             |                                     |                                       |                                        | SOLIDS CONTROL                        |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
|                                       | Jas     | 160     | 4.70    | DEPTH IN (m)             | 1491               |          |  | PRODUCT                                         | AMOUNT X UNIT                       | DESILTER                              |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| 10                                    | D.C     | 158     | 91.81   | TOTAL METRES DRILLED (m) | 31                 |          |  | Sols A-h                                        | 4 sx                                | HOURS RUN                             | INTAKE DENSITY (kg/m <sup>3</sup> )    | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                |                  |                             |       |       |               |                                              |                                           |  |  |
| 6                                     | H.W.O.P | 114     | 55.54   | TOTAL HOURS RUN          | 6.25               |          |  | CENTRIFUGE                                      |                                     |                                       |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| 67                                    | D.P.    | STANDS  | 1270.90 | CUTTING STRUCTURE        |                    |          |  | HOURS RUN                                       | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| X                                     | D.P.    | SINGLES | 9.55    |                          |                    |          |  |                                                 |                                     |                                       |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| KELLY DOWN                            |         |         |         | 13.26                    | HOLE CONDITION     |          |  |                                                 |                                     |                                       |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| TOTAL                                 |         |         |         | 1522.35                  | HOLE DRAG          |          |  |                                                 | 2-3000                              |                                       |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| WT.OF DC                              |         |         |         | 27                       | TORQUE AT BOTTOM   |          |  |                                                 | 1500                                |                                       |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |
| WT.OF STRING                          |         |         |         | 58                       | FILL ON BOTTOM (m) |          |  |                                                 | 3m                                  |                                       |                                        |                                       |                                        |                |                  |                             |       |       |               |                                              |                                           |  |  |

MORNING TOUR

| FROM | TO   | JOBS<br>R.P.M. | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 LBS) |
|------|------|----------------|------------------|-----------------------------|
| 1491 | 1522 | 31             | 15               | 16-17                       |

| CIRCULATION PRESSURE (kPa) | PUMP NO. 1     | PUMP NO. 2 |
|----------------------------|----------------|------------|
|                            | LINE SIZE (mm) | S.P.M.     |
| 6700                       | 152            | 100        |
|                            | 152            |            |

| REDUCED PUMP SPEED |   |    |   |
|--------------------|---|----|---|
| 3700               | @ | 80 | @ |
|                    |   |    |   |

| DEVIATION SURVEY |               |           |
|------------------|---------------|-----------|
| DEPTH (m)        | DEVIATION (°) | DIRECTION |
| 1477             | 1.2           | 141.1     |
| 1490             | 1.1           | 155.2     |
| 1500             | 1.3           | 142.5     |

| DRILLER SIGNATURE                       |  |  |  |
|-----------------------------------------|--|--|--|
| <div style="text-align: center;"></div> |  |  |  |

| BOILER   |      |             |  | MAXIMUM EXPERIENCED HOOKLOAD |  | SAFETY TOPIC |  | M.A.C.P. |      |
|----------|------|-------------|--|------------------------------|--|--------------|--|----------|------|
| HRS. RUN | ph   | STACK TEMP. |  |                              |  |              |  |          |      |
| 8        | 10.5 | 450°        |  | 62.000                       |  |              |  |          | 2004 |

NOTES  
✓ Cross-over Javeline Anchors, Brakes and Linkage Functioned Remote Choke  
#2 Boiler ran 8 hrs PH 10.5 57450° Bleeddown Pailers 3x each = 120L Fluid

| DRILLING ASSEMBLY<br>(At End of Tour) |            |          |                    | BIT RECORD        |                          |        |           | MUD RECORD |          |                           |                                     | METRES DRILLED                        |                                        |                                     |                                       | TIME LOG                               |                                       |                                        |                                        | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |            |     |    |                                         |  |  |
|---------------------------------------|------------|----------|--------------------|-------------------|--------------------------|--------|-----------|------------|----------|---------------------------|-------------------------------------|---------------------------------------|----------------------------------------|-------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------------|------------|-----|----|-----------------------------------------|--|--|
| NO.                                   | BIT        | O.D. mm  | LENGTH             | BIT NO.           | MUD TYPE                 |        |           |            | MUD TYPE |                           |                                     |                                       | FROM                                   | TO                                  | C.D.R.<br>R.M.P.<br>CORE - C          | ROTARY<br>R.P.M.                       | WT. ON<br>BIT<br>(1000 gms)           | FROM                                   | TO                                     | ELAP.<br>TIME                                | CODE<br>NO |     |    |                                         |  |  |
|                                       | METAR      | 171      | 6.04               | 3                 | SIZE (mm)                | 222    |           |            |          | TIME                      | 09:00 12:00 15:00                   |                                       |                                        |                                     | 1522                                  | 1562                                   | 40                                    | 15                                     | 18                                     | 800                                          | 915        | 125 | 2  | DRILL F/ 1522 - 1531                    |  |  |
|                                       | M/S        | 157      | .59                | 5474              | ADG CODE                 | 5474   |           |            |          | DENSITY kg/m <sup>3</sup> | 1060 1060 1060                      |                                       |                                        |                                     |                                       |                                        |                                       |                                        |                                        | 915                                          | 930        | 25  | 7  | RIG SERVICE C/O UPASA KUTTY CODE ✓ RSPD |  |  |
|                                       | UBING      | 175      | .46                | SMITH             | MFG.                     | SMITH  |           |            |          | FUNNEL VIS. - (SL)        | 52 49 49                            |                                       |                                        |                                     |                                       |                                        |                                       |                                        |                                        | 930                                          | 1530       | 6   | 2  | DRILL F/ 1531 - 1542                    |  |  |
|                                       | NMDC       | 164      | 9.21               | F37P              | TYPE                     | F37P   |           |            |          | W.L. (cm <sup>3</sup> )   | 8.5 8.8 9.0                         |                                       |                                        |                                     |                                       |                                        |                                       |                                        |                                        | 1531                                         | 1542       | 5   | 10 | TOTAL SURVEY                            |  |  |
|                                       | X10        | 172      | .62                | 4X6420            | SERIAL NO.               | 4X6420 |           |            |          | pH                        | 9.5 9.5 9.5                         |                                       |                                        |                                     |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
|                                       | S18        | 157      | 3.51               | 3X14.3            | JETS (mm)                | 3X14.3 |           |            |          | P.V.T                     | 36.4 36.7 37.5                      |                                       |                                        |                                     |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
|                                       | O.C.       | 158      | 55.78              | 1N                | DEPTH OUT (m)            | 1N     |           |            |          | MUD MATERIALS ADDED       |                                     |                                       |                                        | SOLIDS CONTROL                      |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
|                                       | JAR        | 160      | 4.78               | 1491              | DEPTH IN (m)             | 1491   |           |            |          | PRODUCT                   | AMOUNT X UNIT                       |                                       |                                        |                                     | DESILTER                              |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
|                                       | OC         | 159      | 91.81              | 71                | TOTAL METRES DRILLED (m) | 71     |           |            |          | HOURS RUN                 |                                     |                                       |                                        | INTAKE DENSITY (kgm <sup>-3</sup> ) | OVERFLOW DENSITY (kgm <sup>-3</sup> ) | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
|                                       | HWDP       | 114      | 55.54              | 13.5              | TOTAL HOURS RUN          | 13.5   |           |            |          | CENTRIFUGE                |                                     |                                       |                                        | HOURS RUN                           |                                       |                                        |                                       | INTAKE DENSITY (kgm <sup>-3</sup> )    | OVERFLOW DENSITY (kgm <sup>-3</sup> )  | UNDERFLOW DENSITY (kgm <sup>-3</sup> )       |            |     |    |                                         |  |  |
| 70                                    | D.P.       | STANDS   | 1327.95            | CUTTING STRUCTURE |                          |        |           | CENTRIFUGE |          |                           |                                     | HOURS RUN                             |                                        |                                     |                                       | INTAKE DENSITY (kgm <sup>-3</sup> )    | OVERFLOW DENSITY (kgm <sup>-3</sup> ) | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                        |                                              |            |     |    |                                         |  |  |
|                                       | D.P.       | SINGLES  |                    | T <sub>1</sub>    | T <sub>2</sub>           | MDC    | LOC       | B          | Gage     | ODG                       | Reason Pulled                       | Total Run m/hr.                       | HOURS RUN                              |                                     |                                       |                                        | INTAKE DENSITY (kgm <sup>-3</sup> )   | OVERFLOW DENSITY (kgm <sup>-3</sup> )  | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                              |            |     |    |                                         |  |  |
|                                       | KELLY DOWN | 5.51     | HOLE CONDITION     |                   |                          |        | HOURS RUN |            |          |                           | INTAKE DENSITY (kgm <sup>-3</sup> ) | OVERFLOW DENSITY (kgm <sup>-3</sup> ) | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                     |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
|                                       | TOTAL      | 1562.10  | HOLE DRAG          |                   |                          |        | HOURS RUN |            |          |                           | INTAKE DENSITY (kgm <sup>-3</sup> ) | OVERFLOW DENSITY (kgm <sup>-3</sup> ) | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                     |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
| WT. OF DC                             | 27         | 1000 gms | TORQUE AT BOTTOM   |                   |                          |        | HOURS RUN |            |          |                           | INTAKE DENSITY (kgm <sup>-3</sup> ) | OVERFLOW DENSITY (kgm <sup>-3</sup> ) | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                     |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |
| WT. OF STRING                         | 59         | 1000 gms | FILL ON BOTTOM (m) |                   |                          |        | HOURS RUN |            |          |                           | INTAKE DENSITY (kgm <sup>-3</sup> ) | OVERFLOW DENSITY (kgm <sup>-3</sup> ) | UNDERFLOW DENSITY (kgm <sup>-3</sup> ) |                                     |                                       |                                        |                                       |                                        |                                        |                                              |            |     |    |                                         |  |  |

|             |                    |  |               |             |                                                                   |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------|--------------------|--|---------------|-------------|-------------------------------------------------------------------|-------------|------------------------------|--|-------------------------------------------------------------------|------|----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| DAY<br>TOUR | REDUCED PUMP SPEED |  |               |             |                                                                   |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | 3800               |  |               |             | @                                                                 | 80          | @                            |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | DEVIATION SURVEY   |  |               |             |                                                                   |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | DEPTH (m)          |  | DEVIATION (°) |             | DIRECTION                                                         |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | 1509               |  | 1.1           |             | 138.3                                                             |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | 1524               |  | 1.2           |             | 136.9                                                             |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | 1538               |  | 1.1           |             | 106.6                                                             |             |                              |  |                                                                   |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             |                    |  |               |             | NOTES                                                             |             |                              |  | L. RELEASED CROWN, BRACKS + SHILVER                               |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             |                    |  |               |             | CROWN SAVER, BRACKS + SHILVER, DEADLINE ANCHORS, TOWERS ARE NOTED |             |                              |  | ESTIMATED 8 LPS RIG USE 2000 PLY DOWN RIGGERS 2 X 3 = 12 LPS A.D. |      |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|             | DRILLER SIGNATURE  |  |               |             | BOILER                                                            |             | MAXIMUM EXPERIENCED HOOKLOAD |  | SAFETY TOPIC                                                      |      | M.A.C.P. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13-1-26     |                    |  |               | HRS. RAN ph |                                                                   | STACK TEMP. |                              |  |                                                                   | 7033 |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| DAILY CHECKS                                               | OPR.    | R.M.    |
|------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                           | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)           | Initial | Initial |
| (3) H/S Sign Posted (if required)                          | Initial | Initial |
| (4) Wall Linings & Stick Diagram Posted                    | Initial | Initial |
| (5) Flare Lines Staked                                     | Initial | Initial |
| (6) BOP Drills Performed                                   | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines   | Initial | Initial |
| (8) Rig Site Health and Safety Meeting (one/more/month)    |         | Initial |
| (9) C.A.O.D.C. Rig Safety Inspection Checklist (one/month) |         | Initial |
| (10) Mast Inspection Before Raising or Lowering            |         | Initial |
| (11) Green Saver Checked                                   |         | Initial |
| (12) Moby Kills checked                                    |         | Initial |

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| 23 | 24 | 25 | 26 | TOTAL | SHALE SHAKER(S) |                                                                                     | RENTALS/SERVICES |     | MORIN | DAY | EVE |
|----|----|----|----|-------|-----------------|-------------------------------------------------------------------------------------|------------------|-----|-------|-----|-----|
|    |    |    |    |       | NO              | TYPE                                                                                |                  |     |       |     |     |
|    |    |    |    | 0     | 0               | EX 5003                                                                             | MT 2602          |     |       |     |     |
|    |    |    |    | 8     |                 | SCREENS CHANGED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | AMJ 195832       |     |       |     |     |
|    |    |    |    | 8     | TOP             | 150                                                                                 | TOP              | 180 |       |     |     |
|    |    |    |    | 8     | MIDDLE          | 135                                                                                 | MIDDLE           | 170 |       |     |     |
|    |    |    |    | 24    | BOTTOM          | 125                                                                                 | BOTTOM           | 170 |       |     |     |

MORNING TOUR

| METRES DRILLED                                                             |      |                            |                  |                               |                   | TIME LOG |                              | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |                                  |  |          |
|----------------------------------------------------------------------------|------|----------------------------|------------------|-------------------------------|-------------------|----------|------------------------------|----------------------------------------------|----------------------------------|--|----------|
| FROM                                                                       | TO   | D.R.D.<br>R.M.R.<br>CORE-C | ROTARY<br>R.P.M. | W.T. ON<br>BIT<br>(1000/drag) | FROM              | TO       | ELAP.<br>TIME                | CODE<br>NO.                                  |                                  |  |          |
| 1462                                                                       | 1465 | 3                          | 20               | 17                            | —                 | 0700     | 7                            | 5                                            | Condensed + Circ and Work String |  |          |
|                                                                            |      |                            |                  |                               | 0700              | 0715     | 25                           | 10                                           | Surge                            |  |          |
|                                                                            |      |                            |                  |                               | 0715              | 0730     | 25                           | 2                                            | Drill F/1462-1465                |  |          |
|                                                                            |      |                            |                  |                               | 0730              | 0800     | 5                            | 5                                            | Circ Sample                      |  |          |
| CIRCULATION PRESSURE (kPa)                                                 |      | PUMP NO. 1                 |                  | PUMP NO. 2                    |                   |          |                              |                                              |                                  |  |          |
|                                                                            |      | LINE SIZE (mm)             | S.P.M.           | LINE SIZE (mm)                | S.P.M.            |          |                              |                                              |                                  |  |          |
| 6600                                                                       |      | 152 100                    |                  |                               |                   |          |                              |                                              |                                  |  |          |
| REDUCED PUMP SPEED                                                         |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
| 3500                                                                       |      | @                          | 80               | @                             |                   |          |                              |                                              |                                  |  |          |
| DEVIATION SURVEY                                                           |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
| DEPTH (m)                                                                  |      | DEVIATION (°)              |                  | DIRECTION                     |                   |          |                              |                                              |                                  |  |          |
|                                                                            |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
|                                                                            |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
|                                                                            |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
|                                                                            |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
|                                                                            |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
| NOTES                                                                      |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
| ✓ Crowbar, Deadline Anchor, Breaker and Linkage. Functional Remote Choke   |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
| #2 Boilers run 8 hrs. THIO: 5 ST450. Blowdown Boilers 3x each = 120L Fluid |      |                            |                  |                               |                   |          |                              |                                              |                                  |  |          |
| DRILLER SIGNATURE                                                          |      |                            |                  |                               | BOILER            |          | MAXIMUM EXPERIENCED HOOKLOAD |                                              | SAFETY TOPIC                     |  | M.A.C.P. |
| [Signature]                                                                |      |                            |                  |                               | HRS. RAN<br>8 105 |          | STACK TEMP.<br>450°          |                                              | 60,000                           |  | 6830     |

| METRES DRILLED                                                        |      |                       |                  |                             | TIME LOG        |      | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |            |                                     |  |  |
|-----------------------------------------------------------------------|------|-----------------------|------------------|-----------------------------|-----------------|------|----------------------------------------------|------------|-------------------------------------|--|--|
| FROM                                                                  | TO   | DR-D<br>RPM<br>CORE C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 gms) | FROM            | TO   | ELAP<br>TIME                                 | CODE<br>NO |                                     |  |  |
| 1465                                                                  | 1490 | 25                    | 15               | 17                          | 800             | 1100 | 3                                            | 5          | CIRC UP SAMPLE W.O.D.               |  |  |
|                                                                       |      |                       |                  |                             | 1100            | 1145 | .75                                          | 2          | DRILL F/1465-1471                   |  |  |
|                                                                       |      |                       |                  |                             | 1145            | 1200 | .25                                          | 7          | RIN SERVICE C/O 11400m 13 SEC ✓ RSP |  |  |
|                                                                       |      |                       |                  |                             | 1200            | 1520 | 3.5                                          | 2          | DRILL F/1471-1490                   |  |  |
|                                                                       |      |                       |                  |                             | 1520            | 1600 | .5                                           | 10         | SURFAYS                             |  |  |
| CIRCULATION PRESSURE (kPa)                                            |      |                       |                  |                             | PUMP NO. 1      |      | PUMP NO. 2                                   |            |                                     |  |  |
|                                                                       |      |                       |                  |                             | LINER SIZE (mm) |      | S.P.M.                                       |            |                                     |  |  |
|                                                                       |      |                       |                  |                             | LINER SIZE (mm) |      | S.P.M.                                       |            |                                     |  |  |
| 7000                                                                  |      |                       |                  |                             | 152             |      | 100                                          |            |                                     |  |  |
| REDUCED PUMP SPEED                                                    |      |                       |                  |                             |                 |      |                                              |            |                                     |  |  |
| 4600                                                                  |      |                       |                  |                             | @ 80            |      | @                                            |            |                                     |  |  |
| DEVIATION SURVEY                                                      |      |                       |                  |                             |                 |      |                                              |            |                                     |  |  |
| DEPTH (m)                                                             |      |                       | DEVIATION (°)    |                             | DIRECTION       |      |                                              |            |                                     |  |  |
| 1459                                                                  |      |                       | 1.2              |                             | 165.0           |      |                                              |            |                                     |  |  |
| 1468                                                                  |      |                       | 1.3              |                             | 160.1           |      |                                              |            |                                     |  |  |
| 1477                                                                  |      |                       | 1.3              |                             | 159.4           |      |                                              |            |                                     |  |  |
| NOTES                                                                 |      |                       |                  |                             |                 |      |                                              |            |                                     |  |  |
| VERBOW SAGER, BREAKS IN KATE, DEADLINE ANCHORS, JUNCTION RIMOTE CLONG |      |                       |                  |                             |                 |      |                                              |            |                                     |  |  |
| #2 BOWLER 8 LBS PUMPS SEUSO 81000000 BOWERS 2030 1216 FLUID           |      |                       |                  |                             |                 |      |                                              |            |                                     |  |  |
| DRILLER SIGNATURE                                                     |      |                       |                  |                             | BOILER          |      | MAXIMUM EXPERIENCED HOOKLOAD                 |            | SAFETY TOPIC                        |  |  |
|                                                                       |      |                       |                  |                             | HRS. RAN        |      | STACK TEMP.                                  |            | M.A.C.P.                            |  |  |
|                                                                       |      |                       |                  |                             | 8 11.5 450      |      | 62                                           |            | 7033                                |  |  |

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|         |                    |     |                                         |                  |                    |       |              |                   |               |                 |                     |                   |
|---------|--------------------|-----|-----------------------------------------|------------------|--------------------|-------|--------------|-------------------|---------------|-----------------|---------------------|-------------------|
| YEAR    | MONTH              | DAY | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)        | MIN. I.D. (mm)     | kg/m  | MAKE         | GRADE             | NO. OF JOINTS | TOTAL(m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)        |
| RIG NO. | FUEL @ 8:00        |     |                                         | 340              | 320                | 81    | Longwell     | LG                | 4             | 51.20           |                     | 51                |
| RIG     | BOILER             |     |                                         | 24445            | 226                | 53.57 | STC          | J-55              | 41            | 58211           | 5.15                | 586               |
| WEATHER | TEMPERATURE        | °C  |                                         | D.C.P. SIZE (mm) | LINEAR MASS (kg/m) | GRADE | MIN. ID (mm) | TOOL JT O.D. (mm) | TYPE THREAD   | NO. OF JOINTS   | PUMP TYPE           | PUMP MANUFACTURER |
|         | CURRENT CONDITIONS |     | 1C 158                                  | 135              |                    | 58    | 158          | 1 1/4 X 1 1/4     | 20            | R-P-80          | National            | 216               |
|         | WIND DIRECTION     |     | HV 11/11                                | 62.45            |                    | 69    | 158          | 1 1/4 X 1 1/4     | 57            | R-P-80          | National            | 216               |
|         | ROAD               |     | DP 11/4                                 | 29.77            | G+E                | 92    | 158          | 1 1/4 X 1 1/4     | 26            |                 |                     |                   |

| ITEMS DRILLED      |                       |                    |                             | TIME LOG                                                                                                                              |       |                              |             | DETAILS OF OPERATION IN SEQUENCE AND REMARKS      |  |          |  |
|--------------------|-----------------------|--------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------|-------------|---------------------------------------------------|--|----------|--|
| TO                 | DRD<br>+RAN<br>CORE-C | ROTARY<br>R.P.M.   | WT. ON<br>BIT<br>(1000/284) | FROM                                                                                                                                  | TO    | FLAP<br>TIME                 | CODE<br>NO. |                                                   |  |          |  |
| 15                 | 42                    | 20                 | 17                          | —                                                                                                                                     | 00:30 | .5                           | 9           | Slip and Cut 19m Drkline                          |  |          |  |
|                    |                       |                    |                             | 00:30                                                                                                                                 | 01:00 | .5                           | 5           | Break Circ and Test MWD                           |  |          |  |
| PUMP NO. 1         |                       | PUMP NO. 2         |                             | 01:00                                                                                                                                 | 01:45 | .75                          | 6           | Final R.I.H                                       |  |          |  |
| LINER<br>SIZE (mm) | S.P.M.                | LINER<br>SIZE (mm) | S.P.M.                      | 01:45                                                                                                                                 | 02:30 | .75                          | 5           | Break circ and Clean to Btm F/1245                |  |          |  |
| 52                 | 110                   | 152                |                             | 02:30                                                                                                                                 | 03:30 | 1                            | 2           | Drill F/1273-1282                                 |  |          |  |
| CED PUMP SPEED     |                       |                    |                             | 03:30                                                                                                                                 | 03:45 | .25                          | 7           | Rig Service c/o Hybrid 13sec ✓ R.S.P.P            |  |          |  |
| @                  | 80                    | @                  |                             | 03:45                                                                                                                                 | 07:00 | 3.25                         | 2           | Drill F/1282-1291 cut 1291-1298 shale             |  |          |  |
| VIATION SURVEY     |                       |                    |                             |                                                                                                                                       |       |                              |             | 1298-1300 cut 1300-1305 shale 1305-1310 mud       |  |          |  |
| DEVIATION (°)      |                       | DIRECTION          |                             | 07:00                                                                                                                                 | 08:00 | 1                            | 10          | Total Surveys 1310-1315 shale                     |  |          |  |
| 1.9                |                       | 147.4              |                             |                                                                                                                                       |       |                              |             | LOSELING APPROX 2m <sup>3</sup> /HR FLOW TO FORM. |  |          |  |
| 1.9                |                       | 145.3              |                             |                                                                                                                                       |       |                              |             | Functioned Remote Choke                           |  |          |  |
| 1.9                |                       | 160.8              |                             |                                                                                                                                       |       |                              |             |                                                   |  |          |  |
| NOTES              |                       |                    |                             | ✓ Crown w/over, Pendline Anchors, Brakes and Linkage Acc'dl 400mm #28 bit run Rigs Plus 554450° Downward Driller 30 inch - 1202 fluid |       |                              |             |                                                   |  |          |  |
| DRILLER SIGNATURE  |                       |                    |                             | BOILER                                                                                                                                |       | MAXIMUM EXPERIENCED HOOKLOAD |             | SAFETY TOPIC                                      |  | M.A.C.P. |  |
| HRS. RAN           |                       | ph STACK TEMP.     |                             |                                                                                                                                       |       |                              |             |                                                   |  |          |  |
| 8                  |                       | 10.5 450°          |                             |                                                                                                                                       |       | 60,000                       |             |                                                   |  | 72.63    |  |

| WELLS DRILLED     |                           |                   |                             | TIME LOG                                                                   |      | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                                       |  |
|-------------------|---------------------------|-------------------|-----------------------------|----------------------------------------------------------------------------|------|----------------------------------------------|-------------|---------------------------------------|--|
| TO                | D.R.D.<br>RIVER<br>CORE C | ROTARY<br>R.P.M.  | WT. ON<br>BIT<br>(1000 lbs) | FROM                                                                       | TO   | ELAP.<br>TIME                                | CODE<br>NO. |                                       |  |
| 85                | 80                        | 20                | 17                          | 0800                                                                       | 815  | 35                                           | 7           | RIG, 32.5 BUICK 016 H.R. 13.00 ✓ RSPP |  |
|                   |                           |                   |                             | 815                                                                        | 1200 | 3.75                                         | 2           | DRILL F/1315-1353                     |  |
| PUMP NO. 1        |                           | PUMP NO. 2        |                             | 1200                                                                       | 1230 | .5                                           | 10          | SUPPLY-13                             |  |
| LINE<br>SIZE (mm) | S.P.M.                    | LINE<br>SIZE (mm) | S.P.M.                      | 1230                                                                       | 1315 | .75                                          | 5           | CIRC UP SAMPLE                        |  |
| 52                | 110                       | 152               |                             | 1315                                                                       | 1530 | 2.25                                         | 2           | DRILL F/1353-1395                     |  |
| CED PUMP SPEED    |                           |                   |                             | 1530                                                                       | 1600 | .5                                           | 10          | SUPPLY-45                             |  |
| @                 | 50                        | @                 |                             |                                                                            |      |                                              |             |                                       |  |
| ATION SURVEY      |                           |                   |                             |                                                                            |      |                                              |             |                                       |  |
| DEVIATION (°)     |                           | DIRECTION         |                             |                                                                            |      |                                              |             |                                       |  |
| 1.3               |                           | 185.4             |                             | LOSING APPROX 2-3 m <sup>3</sup> /HR FLUID TO FORMATION                    |      |                                              |             |                                       |  |
| 1.1               |                           | 143.2             |                             |                                                                            |      |                                              |             |                                       |  |
| 1.4               |                           | 195.2             |                             | FORMATION STATION PULVER                                                   |      |                                              |             |                                       |  |
| 1.5               |                           | 186.8             |                             | NOTES                                                                      |      |                                              |             |                                       |  |
| 1.1               |                           | 96.1              |                             | VELOCITY SAVED, DEADLINE ADVANCE, BRAKE + LINKAGES, FUNCTION BEHIND CHARGE |      |                                              |             |                                       |  |
|                   |                           |                   |                             | #2 BORE 8 LBS PH 10.5 ST 450 BLENDING PUL-25 24321702 F/1310               |      |                                              |             |                                       |  |
| LER SIGNATURE     |                           |                   |                             | BOILER<br>HRS. RAN ph STACK TEMP.                                          |      | MAXIMUM EXPERIENCED HOOKLOAD                 |             | SAFETY TOPIC                          |  |
|                   |                           |                   |                             | 8 M- 4000                                                                  |      |                                              |             | M.A.C.P.                              |  |
|                   |                           |                   |                             |                                                                            |      | FIRE ESCAPE INCIDENT                         |             | 7378                                  |  |

| DAILY CHECKS                                             | OPR.    | R.M.    |
|----------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                         | Initial | Initial |
| (2) Detailed Inspection-Weekly (using checklist)         | Initial | Initial |
| (3) HIS Signage Posted (if required)                     | Initial | Initial |
| (4) Well License & Stick Diagram Posted                  | Initial | Initial |
| (5) Flare Lines Staked                                   | Initial | Initial |
| (6) BOP Drills Performed                                 | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines | Initial | Initial |
|                                                          |         |         |
| (1) Rig Site Health and Safety Meeting (once/month)      |         | Initial |
| (2) C.A.O.D. Rig Safety Inspection Checklist (one/month) |         | Initial |
| (3) Mast Inspection Before Raising or Lowering           |         | Initial |
| (4) Crown Saver Checked                                  |         | Initial |
| (5) Motor Kills checked                                  |         | Initial |

|                                 |                       |     |                                         |                       |                   |                 |                      |                |                  |                    |                        |                     |
|---------------------------------|-----------------------|-----|-----------------------------------------|-----------------------|-------------------|-----------------|----------------------|----------------|------------------|--------------------|------------------------|---------------------|
| YEAR                            | MONTH                 | DAY | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)             | MIN. I.D.<br>(mm) | kg/m            | MAKE                 | GRADE          | NO. OF<br>JOINTS | TOTAL(m)<br>LENGTH | KB. TO CSG<br>HEAD (m) | SET AT (m)          |
| RIG NO.                         | 51                    |     |                                         | 340                   | 320               | 81              | Luncheon             | LE             | 4                | 51.20              |                        | 51                  |
| FUEL @ 8:00                     |                       |     |                                         | 214.5                 | 220               | 53.57           | ST.C                 | J-55           | 44               | 50.21              | 5.15                   | 58.6                |
| RIG                             | BOILER                |     |                                         |                       |                   |                 |                      |                |                  |                    |                        |                     |
| W<br>E<br>A<br>T<br>H<br>E<br>R | TEMPERATURE           | °C  | DC/DP SIZE<br>(mm)                      | LINEAR MASS<br>(kg/m) | GRADE             | MIN. ID<br>(mm) | TOOL JT O.D.<br>(mm) | TYPE<br>THREAD | NO. OF<br>JOINTS | PUMP TYPE          | PUMP MANUFACTURER      | STROKE<br>LTH. (mm) |
|                                 | CURRENT<br>CONDITIONS |     | R158                                    | 135                   |                   | 58              | 158                  | 114XH          | 20               | 8-P-80             | National               | 216                 |
|                                 | WIND DIRECTION        |     | HW/HW                                   | 62.45                 |                   | 69              | 158                  | 114XH          | 57               | 8-P-80             | National               | 216                 |
|                                 | ROAD                  |     | DP114                                   | 25.77                 | G+E               | 92              | 158                  | 114XH          | 260              |                    |                        |                     |

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| DRILLING ASSEMBLY<br>(At End of Tour) |         |         |         | BIT RECORD |                          |  |          |                |     |     |                           |      |                                                 | MUD RECORD    |                                     |                                       |                                        |                                       |                                        |
|---------------------------------------|---------|---------|---------|------------|--------------------------|--|----------|----------------|-----|-----|---------------------------|------|-------------------------------------------------|---------------|-------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|
| NO                                    | BIT     |         | O.D. mm | LENGTH     | BIT NO.                  |  |          |                |     |     | MUD TYPE                  |      | <input checked="" type="checkbox"/> WATER BASED |               | <input type="checkbox"/> OIL BASED  |                                       |                                        |                                       |                                        |
|                                       | Motor   |         | 172     | 6.04       | SIZE (mm)                |  | 222      |                |     |     | TIME                      |      | 0200                                            | 0400          | 0600                                |                                       |                                        |                                       |                                        |
|                                       | FIS     |         | 157     | .59        | IADC CODE                |  | 1 1 7    |                |     |     | DENSITY kg/m <sup>3</sup> |      | 1020                                            | 1020          | 1020                                |                                       |                                        |                                       |                                        |
|                                       | UBHO    |         | 175     | .66        | MFG.                     |  | Smith    |                |     |     | FUNNEL VISC. - (S/L)      |      | 29                                              | 29            | 28                                  |                                       |                                        |                                       |                                        |
|                                       | N.M.D.C |         | 104     | 9.21       | TYPE                     |  | FDS+2    |                |     |     | W.L. (cm <sup>3</sup> )   |      |                                                 |               |                                     |                                       |                                        |                                       |                                        |
|                                       | X10     |         | 173     | .62        | SERIAL NO.               |  | LR9325   |                |     |     | pH                        |      | 10.5                                            | 10.5          | 10.5                                |                                       |                                        |                                       |                                        |
| 6                                     | D.C     |         | 158     | 55.21      | JETS (mm)                |  | 3 x 14.3 |                |     |     | PVT m <sup>3</sup>        |      | 49.4                                            | 45.3          | 49.3                                |                                       |                                        |                                       |                                        |
|                                       | Jae     |         | 161     | 4.70       | DEPTH OUT (m)            |  |          |                |     |     | MUD MATERIALS ADDED       |      | SOLIDS CONTROL                                  |               |                                     |                                       |                                        |                                       |                                        |
| 10                                    | D.C     |         | 158     | 91.81      | DEPTH IN (m)             |  | 586      |                |     |     | PRODUCT                   |      | AMOUNT X UNIT                                   |               | DESILTER                            |                                       |                                        |                                       |                                        |
| 6                                     | H.V.C.P |         | 114     | 55.54      | TOTAL METRES DRILLED (m) |  | 626      |                |     |     | Myp                       |      | 12 ax                                           | HOURS RUN     | INTAKE DENSITY (g/cm <sup>3</sup> ) | OVERFLOW DENSITY (g/cm <sup>3</sup> ) | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |                                       |                                        |
|                                       | BHA     |         |         | 225.13     | TOTAL HOURS RUN          |  | 44       |                |     |     | Envirolite                |      | 4 ax                                            |               |                                     |                                       |                                        |                                       |                                        |
| 51                                    | D.P.    | STANDS  | 967.46  |            | CUTTING STRUCTURE        |  | T        | T <sub>0</sub> | MDC | LOC | B                         | Gage | ODC                                             | Reason Pulled | Total Run m/hr.                     | CENTRIFUGE                            |                                        |                                       |                                        |
| X                                     | D.P.    | SINGLES | 9.56    |            |                          |  |          |                |     |     |                           |      |                                                 |               | 14.2                                | lime                                  | 1 sh.                                  |                                       |                                        |
| KELLYDOWN                             |         |         | 9.85    |            | HOLE CONDITION           |  |          |                |     |     |                           |      |                                                 |               | HOURS RUN                           |                                       | INTAKE DENSITY (g/cm <sup>3</sup> )    | OVERFLOW DENSITY (g/cm <sup>3</sup> ) | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |
| TOTAL                                 |         |         | 1212.00 |            | HOLE DRAG 2-3000         |  |          |                |     |     |                           |      |                                                 |               | 8                                   |                                       | 1020                                   | 1000                                  | 1468                                   |
| WT.OF DC                              |         |         | 27      |            | TORQUE AT BOTTOM 2000    |  |          |                |     |     |                           |      |                                                 |               | HOURS RUN                           |                                       | INTAKE DENSITY (g/cm <sup>3</sup> )    | OVERFLOW DENSITY (g/cm <sup>3</sup> ) | UNDERFLOW DENSITY (g/cm <sup>3</sup> ) |
| WT.OF STRING                          |         |         | 54      |            | FILL ON BOTTOM (m) Drile |  |          |                |     |     |                           |      |                                                 |               |                                     |                                       |                                        |                                       |                                        |

| METRES DRILLED                                                     |        |                      |                  |                             |  | TIME LOG         |                  |                              |             | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |  |
|--------------------------------------------------------------------|--------|----------------------|------------------|-----------------------------|--|------------------|------------------|------------------------------|-------------|----------------------------------------------|--|----------|--|
| FROM                                                               | TO     | DRD<br>RPM<br>CORE-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 daN) |  | FROM             | TO               | ELAP.<br>TIME                | CORE<br>NO. |                                              |  |          |  |
| 1160                                                               | 1212   | 52                   | 30               | 17-18                       |  | —                | 03 <sup>15</sup> | 325                          | 2           | Drill F/1160-1186 1186                       |  |          |  |
|                                                                    |        |                      |                  |                             |  | 03 <sup>15</sup> | 03 <sup>30</sup> | 25                           | 7           | Rie Service c/o Lower Pipereams 3rr ✓RSP     |  |          |  |
|                                                                    |        |                      |                  |                             |  | 03 <sup>10</sup> | 00               | 35                           | 2           | Drill F/1186-1190-ditch 1190-1212 rot        |  |          |  |
|                                                                    |        |                      |                  |                             |  |                  | 07 <sup>00</sup> |                              |             |                                              |  |          |  |
|                                                                    |        |                      |                  |                             |  | 07 <sup>00</sup> | 08 <sup>00</sup> | 1                            | 10          | Total Surveys                                |  |          |  |
| CIRCULATION PRESSURE (KPa)                                         |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| PUMP NO. 1                                                         |        | PUMP NO. 2           |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| LINER SIZE (mm)                                                    | S.P.M. | LINER SIZE (mm)      | S.P.M.           |                             |  |                  |                  |                              |             |                                              |  |          |  |
| 6900                                                               | 152    | 152                  | 110              |                             |  |                  |                  |                              |             |                                              |  |          |  |
| REDUCED PUMP SPEED                                                 |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| 3200                                                               | @      | @                    | 80               |                             |  |                  |                  |                              |             |                                              |  |          |  |
| 2 Choke DEVIATION SURVEY                                           |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| DEPTH (m)                                                          |        | DEVIATION (°)        |                  | DIRECTION                   |  |                  |                  |                              |             |                                              |  |          |  |
| 1155                                                               |        | 1.1                  |                  | 193.1                       |  |                  |                  |                              |             |                                              |  |          |  |
| 1164                                                               |        | 1.3                  |                  | 179.1                       |  |                  |                  |                              |             |                                              |  |          |  |
| 1174                                                               |        | 1.5                  |                  | 179.8                       |  |                  |                  |                              |             |                                              |  |          |  |
| 1183                                                               |        | 1.3                  |                  | 210.0                       |  |                  |                  |                              |             |                                              |  |          |  |
| NOTES                                                              |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| Fractionated Remote Choke Formulation Little Bear                  |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| 2 Crowmover, Powellline Anchors, Brakes and Linkage Are Vol 40mm   |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| 22 Boiler 100 Bhp PH105 ST 450 Blowdown Poles 3x each = 120L Fluid |        |                      |                  |                             |  |                  |                  |                              |             |                                              |  |          |  |
| DRILLER SIGNATURE                                                  |        |                      |                  |                             |  | BOILER           |                  | MAXIMUM EXPERIENCED HOOKLOAD |             | SAFETY TOPIC                                 |  | M.A.C.P. |  |
| HRS. RAN                                                           |        |                      |                  |                             |  | ph               |                  | STACK TEMP.                  |             |                                              |  |          |  |
| 8 h 5                                                              |        |                      |                  |                             |  | 450°             |                  | 57.000                       |             |                                              |  | 7263     |  |

[illegible]

| METRES DRILLED                                                        |      |                       |                  |                             |        | TIME LOG              |              |                              |                                         | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |
|-----------------------------------------------------------------------|------|-----------------------|------------------|-----------------------------|--------|-----------------------|--------------|------------------------------|-----------------------------------------|----------------------------------------------|--|
| FROM                                                                  | TO   | DR-D<br>RMF<br>CORE-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 daN) | FROM   | TO                    | ELAP<br>TIME | CODE<br>NO                   |                                         |                                              |  |
| 1212                                                                  | 1263 | 51                    | 50               | 18                          | 0800   | 815                   | 25           | 7                            | RIG SERVICE C/O TOP PERSONS 41500 CRSPD |                                              |  |
|                                                                       |      |                       |                  |                             | 815    | 1500                  | 6.75         | 2                            | DRILL F/1212 - 1263                     |                                              |  |
|                                                                       |      |                       |                  |                             | 1500   | 1600                  | 1            | 10                           | TOTAL SUPPLY 415                        |                                              |  |
| CIRCULATION PRESSURE (kPa)                                            |      | PUMP NO. 1            |                  | PUMP NO. 2                  |        |                       |              |                              |                                         |                                              |  |
|                                                                       |      | LINER SIZE (mm)       | S.P.M.           | LINER SIZE (mm)             | S.P.M. |                       |              |                              |                                         |                                              |  |
| 7200                                                                  |      | 152                   | 110              | 152                         |        |                       |              |                              |                                         |                                              |  |
| REDUCED PUMP SPEED                                                    |      |                       |                  |                             |        |                       |              |                              |                                         |                                              |  |
| 3100                                                                  |      | @                     | 50               | @                           |        |                       |              |                              |                                         |                                              |  |
| DEVIATION SURVEY                                                      |      |                       |                  |                             |        |                       |              |                              |                                         |                                              |  |
| DEPTH (m)                                                             |      | DEVIATION (°)         |                  | DIRECTION                   |        |                       |              |                              |                                         |                                              |  |
| 1202                                                                  |      | 1.0                   |                  | 152.                        |        |                       |              |                              |                                         |                                              |  |
| 1232                                                                  |      | .8                    |                  | 142.                        |        |                       |              |                              |                                         |                                              |  |
| 1231                                                                  |      | 1.6                   |                  | 156.7                       |        |                       |              |                              |                                         |                                              |  |
| 1250                                                                  |      | 2.2                   |                  | 145.3                       |        |                       |              |                              |                                         |                                              |  |
| NOTES                                                                 |      |                       |                  |                             |        | FORMATION LITTLE BEAR |              |                              |                                         |                                              |  |
| VERMIN SAVED, DEADEND RAMPERS, BRACKLE LINES, MINIMUM PATIENCE COURSE |      |                       |                  |                             |        |                       |              |                              |                                         |                                              |  |
| #20012 R/LP PHINE STONE PL WOODMAN R/L 15 243-12012 R/L 12            |      |                       |                  |                             |        |                       |              |                              |                                         |                                              |  |
| DRILLER SIGNATURE                                                     |      |                       |                  |                             |        | BOILER                |              | MAXIMUM EXPERIENCED HOOKLOAD |                                         | SAFETY TOPIC                                 |  |
|                                                                       |      |                       |                  |                             |        | HRS. RAN              |              | STACK TEMP.                  |                                         | M.A.C.P.                                     |  |
|                                                                       |      |                       |                  |                             |        | 8 105 1650            |              | 57,000                       |                                         | 7378                                         |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |        |         |          |                    |                          | BIT RECORD     |          |         |  |                           |                                                 |                | MUD RECORD                          |                                       |                                        |  |                                     |                                       |                                        |  |
|---------------------------------------|--------|---------|----------|--------------------|--------------------------|----------------|----------|---------|--|---------------------------|-------------------------------------------------|----------------|-------------------------------------|---------------------------------------|----------------------------------------|--|-------------------------------------|---------------------------------------|----------------------------------------|--|
| NO.                                   |        |         | LENGTH   |                    | BIT NO.                  |                |          |         |  | MUD TYPE                  | <input checked="" type="checkbox"/> WATER BASED |                | <input type="checkbox"/> OIL BASED  |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | BIT    | O.D. mm |          | mm                 |                          | SIZE (mm)      |          |         |  |                           | TIME                                            |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | M.Jac  | 172     | 6.04     | m                  |                          | 1              |          | 2       |  | DENSITY kg/m <sup>3</sup> |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | FIS    | 157     | .59      | m                  | IADC CODE                | 1 1 7          |          | 4 3 7 X |  | FUNNEL VIS. - (SL)        |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | VERHO  | 175     | .66      | m                  | MFG.                     | Smitih         |          | Smitih  |  | W.L. (cm <sup>2</sup> )   |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | G.M.C. | 164     | 9.21     | m                  | TYPE                     | FAS+2          |          | FWT/PS  |  | pH                        |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | X/O    | 173     | .62      | m                  | SERIAL NO.               | LR5325         |          | LR5606  |  |                           |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
| C                                     | D.C    | 158     | 55.71    | m                  | JETS (mm)                | 3x14.3         |          | 3x14.3  |  | P.V.T.H <sup>2</sup>      |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | Jac    | 160     | 4.70     | m                  | DEPTH OUT (m)            | 1273           |          |         |  | MUD MATERIALS ADDED       |                                                 | SOLIDS CONTROL |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
| 10                                    | D.C    | 158     | 91.81    | m                  | DEPTH IN (m)             | 586            |          | 1273    |  | PRODUCT                   | AMOUNT X UNIT                                   | DESILER        |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
|                                       | H.W.P  | 114     | 55.54    | m                  | TOTAL METRES DRILLED (m) | 687            |          |         |  |                           |                                                 | HOURS RUN      | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |                                     |                                       |                                        |  |
|                                       |        |         |          | m                  | TOTAL HOURS RUN          | 51.75          |          |         |  |                           |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
| 54                                    | D.P.   | STANDS  | 1024.70  | m                  | CUTTING STRUCTURE        |                |          |         |  | B                         | Gage                                            | ODC            | Reason Pulled                       | Total Run m/hr.                       | CENTRIFUGE                             |  |                                     |                                       |                                        |  |
|                                       |        |         |          | m                  | T <sub>1</sub>           | T <sub>2</sub> | MDC      | LOC     |  |                           |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
| X                                     | D.P.   | SINGLES | 9.61     | m                  | 6                        | 6              | WT A F I |         |  | PR                        | 13.3                                            |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
| KELLYDOWN                             |        |         |          |                    | HOLE CONDITION           |                |          |         |  |                           |                                                 |                |                                     |                                       | 8                                      |  |                                     |                                       |                                        |  |
| TOTAL                                 |        |         |          |                    | HOLE DRAG 3-5000         |                |          |         |  |                           |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |
| WT OF DC                              |        | 27      | 1000 daN | TORQUE AT BOTTOM   |                          |                |          |         |  |                           |                                                 |                |                                     | HOURS RUN                             |                                        |  | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |  |
| WT OF STRING                          |        | 55      | 1000 daN | FILL ON BOTTOM (m) |                          |                |          |         |  |                           |                                                 |                |                                     |                                       |                                        |  |                                     |                                       |                                        |  |

| METRES DRILLED     |      |                          |                  |                             |      | TIME LOG                                          |               |                              |                                                 | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |          |  |
|--------------------|------|--------------------------|------------------|-----------------------------|------|---------------------------------------------------|---------------|------------------------------|-------------------------------------------------|----------------------------------------------|--|----------|--|
| FROM               | TO   | 66-0<br>R.M.P.<br>CORE-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 lbs) | FROM | TO                                                | ELAP.<br>TIME | CODE<br>NO.                  |                                                 |                                              |  |          |  |
| 1263               | 1272 | 10                       | 50               | 18                          | 1600 | 1645                                              | 25            | 7                            | RIG SERVICE - 10 UPPER 1/4 COR VRSPP            |                                              |  |          |  |
|                    |      |                          |                  |                             | 1645 | 1715                                              | 1             | 2                            | DRILL 1263-1272                                 |                                              |  |          |  |
|                    |      |                          |                  |                             | 1715 | 1730                                              | 15            | 10                           | SURVEY                                          |                                              |  |          |  |
|                    |      |                          |                  |                             | 1730 | 1800                                              | 35            | 5                            | CIRCUIT BIT TO 1000                             |                                              |  |          |  |
|                    |      |                          |                  |                             | 1800 | 2200                                              | 4             | 6                            | TRIP FOR BIT (Stop out) Flow 10 1259, 1150, 972 |                                              |  |          |  |
| REDUCED PUMP SPEED |      |                          |                  |                             |      |                                                   |               |                              |                                                 | 7.2, 403, 251, 128 and out                   |  |          |  |
| 3200               | @    | 80                       | @                |                             | 2200 | 2245                                              | 75            | 33                           | Handle Tools change Pit Vm and MW               |                                              |  |          |  |
| DEVIATION SURVEY   |      |                          |                  |                             |      | 2245                                              | 2440          | 125                          | 6                                               | R.I.H to 577m                                |  |          |  |
| DEPTH (m)          |      | DEVIATION (°)            |                  | DIRECTION                   |      |                                                   |               |                              |                                                 |                                              |  |          |  |
| 1260               |      | 2.0                      |                  | 151.2                       |      |                                                   |               |                              |                                                 |                                              |  |          |  |
|                    |      |                          |                  |                             |      | 577m <del>1237.55</del> T.M.V 16.53               |               |                              |                                                 |                                              |  |          |  |
|                    |      |                          |                  |                             |      | Tally 1237.57 T.C.V 7.32                          |               |                              |                                                 |                                              |  |          |  |
|                    |      |                          |                  |                             |      | C/O Blind from on Bank 3m d/f .02 15 9.16 h/d h/c |               |                              |                                                 |                                              |  |          |  |
| NOTES              |      |                          |                  |                             |      | C/O Blind from on Bank 3m d/f .02 15 9.16 h/d h/c |               |                              |                                                 |                                              |  |          |  |
|                    |      |                          |                  |                             |      | C/O Blind from on Bank 3m d/f .02 15 9.16 h/d h/c |               |                              |                                                 |                                              |  |          |  |
|                    |      |                          |                  |                             |      | C/O Blind from on Bank 3m d/f .02 15 9.16 h/d h/c |               |                              |                                                 |                                              |  |          |  |
| DRILLER SIGNATURE  |      |                          |                  |                             |      | BOILER                                            |               | MAXIMUM EXPERIENCED HOOKLOAD |                                                 | SAFETY TOPIC                                 |  | M.A.C.P. |  |
|                    |      |                          |                  |                             |      | HRS. RAN<br>ph                                    |               | STACK TEMP.                  |                                                 |                                              |  |          |  |
|                    |      |                          |                  |                             |      | 8 10.5 450                                        |               | 60,000                       |                                                 |                                              |  |          |  |

121173

EVENING TOUR

121172

LICENCE NO. 1887

WELL NAME AND NO. REC (West) Rgn Tite G-18

OPERATOR: AEC

CONTRACTOR: AKITA/SAHTU DRILLING, and SAHTU OIL Incorporated

SURFACE LOCATION: REC (West) Rgn Tite G-18

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature]

DAILY CHECKS

OPR. R.M.

YEAR MONTH DAY

LAST CASING TUBING OR LINER

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

W E A T H E R

TEMPERATURE °C

CURRENT CONDITIONS

WIND DIRECTION

ROAD

DC/DP SIZE (mm) LINEAR MASS (kg/m) GRADE MIN. ID (mm) TOOL JT O.D. (mm) TYPE THREAD NO. OF JOINTS PUMP TYPE PUMP MANUFACTURER STROKE LTH (m)

TIME HOURS

CODE NO.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

DRILLING ASSEMBLY (At End of Tour)

BIT RECORD

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILLING ASSEMBLY (At End of Tour)

BIT RECORD

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

DRILLING ASSEMBLY (At End of Tour)

BIT RECORD

MUD RECORD

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

121171

| DAILY CHECKS                                                       | OPR.              | R.M.    |
|--------------------------------------------------------------------|-------------------|---------|
| (1) Daily Walk Around Inspection                                   | initial <i>BB</i> | initial |
| (2) Detailed Inspection-Weekly (using checklist)                   | initial <i>BB</i> | initial |
| (3) H/S Signs Posted (if required)                                 | initial           | initial |
| (4) Well License & Stick Diagram Posted                            | initial           | initial |
| (5) Flare Lines Staked                                             | initial <i>BB</i> | initial |
| (6) BOP Drills Performed                                           | initial           | initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines           | initial <i>BB</i> | initial |
| (1) Rig Site Health and Safety Meeting (one/crowinorth)            |                   | initial |
| (2) C. A. O. D. C. Rig Safety Inspection Checklist (one/highmorth) |                   | initial |
| (3) Mast Inspection Before Raising or Lowering                     |                   | initial |
| (4) Crown Saver Checked                                            |                   | initial |
| (5) Motor Kilts checked                                            |                   | initial |

| YEAR MONTH DAY |                    |        | LAST<br>CASING<br>TUBING<br>OR<br>LINER | O.D. (mm)          | MIN. I.D. (mm) | kg/m         | MAKE              | GRADE         | NO. OF JOINTS | TOTAL (m) LENGTH | KB. TO CSG HEAD (m) | SET AT (m)      |  |
|----------------|--------------------|--------|-----------------------------------------|--------------------|----------------|--------------|-------------------|---------------|---------------|------------------|---------------------|-----------------|--|
| RIG NO.        |                    |        |                                         |                    |                |              |                   |               |               |                  |                     |                 |  |
| FUEL @ 8:00    |                    |        |                                         |                    |                |              |                   |               |               |                  |                     |                 |  |
| RIG            |                    | BOILER |                                         |                    |                |              |                   |               |               |                  |                     |                 |  |
| WEATHER        | TEMPERATURE °C     |        | D.C./P. SIZE (mm)                       | LINEAR MASS (kg/m) | GRADE          | MIN. ID (mm) | TOOL JT O.D. (mm) | TYPE THREAD   | NO. OF JOINTS | PUMP TYPE        | PUMP MANUFACTURER   | STROKE LTH (mm) |  |
|                | CURRENT CONDITIONS |        | DC 158                                  | 135                |                | 58           | 158               | 1 1/2 X 1 1/2 | 20            | 8-P80            | National            | 216             |  |
|                | WIND DIRECTION     |        | HN 114                                  | 62.45              |                | 69           | 158               | 1 1/2 X 1 1/2 | 57            | 8-P80            | National            | 216             |  |
|                | ROAD               |        | TP 114                                  | 29.77              | G+F 92         | 158          | 1 1/2 X 1 1/2     | 260           |               |                  |                     |                 |  |

| TIME - HRS | CODE NO.           |              |         |        |                 |       |             |            |                    |            |                |                   |                |                  |             |                 |           |                |         |           |             |             |             |          |      |     |    | TOTALS | SHALE SHAKER(S) |      | RENTALS/SERVICES |                 | MORN                                                     | DAY        | EVE |  |  |  |
|------------|--------------------|--------------|---------|--------|-----------------|-------|-------------|------------|--------------------|------------|----------------|-------------------|----------------|------------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|-------------|-------------|----------|------|-----|----|--------|-----------------|------|------------------|-----------------|----------------------------------------------------------|------------|-----|--|--|--|
|            |                    | 1            | 2       | 3      | 4               | 5     | 6           | 7          | 8                  | 9          | 10             | 11                | 12             | 13               | 14          | 15              | 16        | 17             | 18      | 19        | 20          | 21          | 22          | 23       | 24   | 25  | 26 |        | NO.             | TYPE |                  |                 |                                                          |            |     |  |  |  |
| OPER       | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | COND. MUD & CBC | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV SURVEY | WIRE LINE LOGS | RLN CASE & CEMENT | WAIT ON CEMENT | NIPPLE UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIR. WORK | SAFETY MTG. | Well B. out | MAINT. TIME | Well out |      |     |    |        |                 |      | 0                | 2               | 22x 500                                                  | MS 6657    |     |  |  |  |
| MORN       |                    |              |         |        |                 |       |             |            |                    |            |                |                   |                | 6.5              | 1.5         |                 |           |                |         |           |             |             | 1           |          | 2.25 |     |    |        |                 |      | 0                | SCREENS CHANGED | <input type="checkbox"/> YES <input type="checkbox"/> NO | AMS 189887 |     |  |  |  |
| DAY        |                    |              |         |        |                 |       |             |            |                    |            |                |                   |                |                  | 5.25        |                 |           |                |         |           |             |             |             |          | 2.25 |     |    |        |                 |      | 0                | TOP             | 180                                                      | TOP        | 180 |  |  |  |
| EVE        |                    |              |         |        |                 |       |             |            |                    |            |                |                   |                |                  | 4.5         |                 |           |                |         |           |             |             |             |          |      | .25 |    |        |                 |      | 0                | MIDDLE          | 170                                                      | MIDDLE     | 170 |  |  |  |
| TOTAL      |                    |              |         |        |                 |       |             |            |                    |            |                |                   |                |                  | 5.5         | 1.25            |           |                |         |           |             | 1           |             | 2.25     |      | .25 |    |        |                 |      | 0                | BOTTOM          | 170                                                      | BOTTOM     | 170 |  |  |  |

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |        |         |             | BIT RECORD |                                                                                  |                              |  | MUD RECORD |  |  |  | METRES DRILLED |      |     |                        | TIME LOG         |                             |      |                  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|---------------------------------------|--------|---------|-------------|------------|----------------------------------------------------------------------------------|------------------------------|--|------------|--|--|--|----------------|------|-----|------------------------|------------------|-----------------------------|------|------------------|----------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| NO.                                   | BIT    | Q.D. mm | LENGTH<br>m | BIT NO.    | MUD TYPE <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |                              |  |            |  |  |  |                | FROM | TO  | DR-D<br>RM-R<br>CORE-C | ROTARY<br>R.P.M. | WT. CH<br>BIT<br>(1000 daN) | FROM | TO               | ELAP.<br>TIME                                | CODE<br>NO. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|                                       | Moto 2 | 172     | 6.04        | SIZE (mm)  | 222                                                                              | TIME                         |  |            |  |  |  |                |      | 586 |                        |                  |                             | 800  | 13 <sup>15</sup> | 525                                          | 15          | PRESS TEST BANDRANS, ALL START LOGS AND LOG VALUES.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| 1                                     | F 1/2  | 157     | .59         | IADC CODE  | 1 1 7                                                                            | DENSITY<br>kg/m <sup>3</sup> |  |            |  |  |  |                |      |     |                        |                  |                             |      |                  |                                              |             | HMA KHA 100, 12000 KPA 14000 KPA 16000 KPA 18000 KPA 20000 KPA 22000 KPA 24000 KPA 26000 KPA 28000 KPA 30000 KPA 32000 KPA 34000 KPA 36000 KPA 38000 KPA 40000 KPA 42000 KPA 44000 KPA 46000 KPA 48000 KPA 50000 KPA 52000 KPA 54000 KPA 56000 KPA 58000 KPA 60000 KPA 62000 KPA 64000 KPA 66000 KPA 68000 KPA 70000 KPA 72000 KPA 74000 KPA 76000 KPA 78000 KPA 80000 KPA 82000 KPA 84000 KPA 86000 KPA 88000 KPA 90000 KPA 92000 KPA 94000 KPA 96000 KPA 98000 KPA 100000 KPA 102000 KPA 104000 KPA 106000 KPA 108000 KPA 110000 KPA 112000 KPA 114000 KPA 116000 KPA 118000 KPA 120000 KPA 122000 KPA 124000 KPA 126000 KPA 128000 KPA 130000 KPA 132000 KPA 134000 KPA 136000 KPA 138000 KPA 140000 KPA 142000 KPA 144000 KPA 146000 KPA 148000 KPA 150000 KPA 152000 KPA 154000 KPA 156000 KPA 158000 KPA 160000 KPA 162000 KPA 164000 KPA 166000 KPA 168000 KPA 170000 KPA 172000 KPA 174000 KPA 176000 KPA 178000 KPA 180000 KPA 182000 KPA 184000 KPA 186000 KPA 188000 KPA 190000 KPA 192000 KPA 194000 KPA 196000 KPA 198000 KPA 200000 KPA 202000 KPA 204000 KPA 206000 KPA 208000 KPA 210000 KPA 212000 KPA 214000 KPA 216000 KPA 218000 KPA 220000 KPA 222000 KPA 224000 KPA 226000 KPA 228000 KPA 230000 KPA 232000 KPA 234000 KPA 236000 KPA 238000 KPA 240000 KPA 242000 KPA 244000 KPA 246000 KPA 248000 KPA 250000 KPA 252000 KPA 254000 KPA 256000 KPA 258000 KPA 260000 KPA 262000 KPA 264000 KPA 266000 KPA 268000 KPA 270000 KPA 272000 KPA 274000 KPA 276000 KPA 278000 KPA 280000 KPA 282000 KPA 284000 KPA 286000 KPA 288000 KPA 290000 KPA 292000 KPA 294000 KPA 296000 KPA 298000 KPA 300000 KPA 302000 KPA 304000 KPA 306000 KPA 308000 KPA 310000 KPA 312000 KPA 314000 KPA 316000 KPA 318000 KPA 320000 KPA 322000 KPA 324000 KPA 326000 KPA 328000 KPA 330000 KPA 332000 KPA 334000 KPA 336000 KPA 338000 KPA 340000 KPA 342000 KPA 344000 KPA 346000 KPA 348000 KPA 350000 KPA 352000 KPA 354000 KPA 356000 KPA 358000 KPA 360000 KPA 362000 KPA 364000 KPA 366000 KPA 368000 KPA 370000 KPA 372000 KPA 374000 KPA 376000 KPA 378000 KPA 380000 KPA 382000 KPA 384000 KPA 386000 KPA 388000 KPA 390000 KPA 392000 KPA 394000 KPA 396000 KPA 398000 KPA 400000 KPA 402000 KPA 404000 KPA 406000 KPA 408000 KPA 410000 KPA 412000 KPA 414000 KPA 416000 KPA 418000 KPA 420000 KPA 422000 KPA 424000 KPA 426000 KPA 428000 KPA 430000 KPA 432000 KPA 434000 KPA 436000 KPA 438000 KPA 440000 KPA 442000 KPA 444000 KPA 446000 KPA 448000 KPA 450000 KPA 452000 KPA 454000 KPA 456000 KPA 458000 KPA 460000 KPA 462000 KPA 464000 KPA 466000 KPA 468000 KPA 470000 KPA 472000 KPA 474000 KPA 476000 KPA 478000 KPA 480000 KPA 482000 KPA 484000 KPA 486000 KPA 488000 KPA 490000 KPA 492000 KPA 494000 KPA 496000 KPA 498000 KPA 500000 KPA 502000 KPA 504000 KPA 506000 KPA 508000 KPA 510000 KPA 512000 KPA 514000 KPA 516000 KPA 518000 KPA 520000 KPA 522000 KPA 524000 KPA 526000 KPA 528000 KPA 530000 KPA 532000 KPA 534000 KPA 536000 KPA 538000 KPA 540000 KPA 542000 KPA 544000 KPA 546000 KPA 548000 KPA 550000 KPA 552000 KPA 554000 KPA 556000 KPA 558000 KPA 560000 KPA 562000 KPA 564000 KPA 566000 KPA 568000 KPA 570000 KPA 572000 KPA 574000 KPA 576000 KPA 578000 KPA 580000 KPA 582000 KPA 584000 KPA 586000 KPA 588000 KPA 590000 KPA 592000 KPA 594000 KPA 596000 KPA 598000 KPA 600000 KPA 602000 KPA 604000 KPA 606000 KPA 608000 KPA 610000 KPA 612000 KPA 614000 KPA 616000 KPA 618000 KPA 620000 KPA 622000 KPA 624000 KPA 626000 KPA 628000 KPA 630000 KPA 632000 KPA 634000 KPA 636000 KPA 638000 KPA 640000 KPA 642000 KPA 644000 KPA 646000 KPA 648000 KPA 650000 KPA 652000 KPA 654000 KPA 656000 KPA 658000 KPA 660000 KPA 662000 KPA 664000 KPA 666000 KPA 668000 KPA 670000 KPA 672000 KPA 674000 KPA 676000 KPA 678000 KPA 680000 KPA 682000 KPA 684000 KPA 686000 KPA 688000 KPA 690000 KPA 692000 KPA 694000 KPA 696000 KPA 698000 KPA 700000 KPA 702000 KPA 704000 KPA 706000 KPA 708000 KPA 710000 KPA 712000 KPA 714000 KPA 716000 KPA 718000 KPA 720000 KPA 722000 KPA 724000 KPA 726000 KPA 728000 KPA 730000 KPA 732000 KPA 734000 KPA 736000 KPA 738000 KPA 740000 KPA 742000 KPA 744000 KPA 746000 KPA 748000 KPA 750000 KPA 752000 KPA 754000 KPA 756000 KPA 758000 KPA 760000 KPA 762000 KPA 764000 KPA 766000 KPA 768000 KPA 770000 KPA 772000 KPA 774000 KPA 776000 KPA 778000 KPA 780000 KPA 782000 KPA 784000 KPA 786000 KPA 788000 KPA 790000 KPA 792000 KPA 794000 KPA 796000 KPA 798000 KPA 800000 KPA 802000 KPA 804000 KPA 806000 KPA 808000 KPA 810000 KPA 812000 KPA 814000 KPA |  |

[illegible]

121140

| TIME - HRS | CODE NO. | 1                  | 2            | 3       | 4      | 5                 | 6     | 7           | 8          | 9                  | 10          | 11             | 12                | 13             | 14             | 15          | 16              | 17        | 18             | 19      | 20       | 21         | 22          | 23 | 24                                                       | 25 | 26         | TOTAL | SHALE SHAKER(S) |  | RENTALS/SERVICES |  |  | MON | DAY | FRI |
|------------|----------|--------------------|--------------|---------|--------|-------------------|-------|-------------|------------|--------------------|-------------|----------------|-------------------|----------------|----------------|-------------|-----------------|-----------|----------------|---------|----------|------------|-------------|----|----------------------------------------------------------|----|------------|-------|-----------------|--|------------------|--|--|-----|-----|-----|
|            | OPER.    | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | CONC. MUD & CIRC. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | RUN CASE & CEMENT | WAIT ON CEMENT | MAKE UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DPR WORK | SAFETY MTO | NO. TYPE    |    | <input type="checkbox"/> YES <input type="checkbox"/> NO |    |            |       |                 |  |                  |  |  |     |     |     |
| MORN.      |          |                    |              |         |        | 1                 | 25    |             |            |                    |             | 6.5            |                   |                |                |             |                 |           |                |         |          | 25         | 21 22X 5003 |    | MS 6651                                                  |    | AMT 189887 |       |                 |  |                  |  |  |     |     |     |
| DAY        |          |                    |              |         |        | 2.5               |       |             |            |                    |             | 3              | 1.25              |                |                |             |                 |           |                |         |          | 25         |             |    |                                                          |    |            |       |                 |  |                  |  |  |     |     |     |
| EVE        |          |                    |              |         |        |                   |       |             |            |                    |             |                | 2.25              |                |                |             |                 |           |                |         |          |            | 5.95        |    |                                                          |    |            |       |                 |  |                  |  |  |     |     |     |
| TOTAL      |          |                    |              |         |        | 4.5               | 1.25  |             |            |                    |             | 10.4           |                   |                |                |             |                 |           |                |         |          | 5          | 5.95        |    |                                                          |    |            |       |                 |  |                  |  |  |     |     |     |

| DRILLING ASSEMBLY<br>(At End of Tour) |            |         | BIT RECORD |                          |                |     |     |                           | MUD RECORD                                      |                                    |               |                                     | METRES DRILLED                        |                                        |                                        |                                        |               | TIME LOG              |      |      |            | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |  |  |  |
|---------------------------------------|------------|---------|------------|--------------------------|----------------|-----|-----|---------------------------|-------------------------------------------------|------------------------------------|---------------|-------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|---------------|-----------------------|------|------|------------|----------------------------------------------|--|--|--|--|
| NO.                                   | BIT        | O.D. mm | LENGTH     | BIT NO.                  |                |     |     | MUD TYPE                  | <input checked="" type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED |               |                                     |                                       | FROM                                   | TO                                     | D.R. CORRECTION                        | POTARY R.P.M. | WT. ON BIT (1000-lbs) | FROM | TO   | ELAP. TIME | CODE NO.                                     |  |  |  |  |
|                                       |            |         | m          | SIZE (mm)                |                |     |     | TIME                      |                                                 |                                    |               |                                     |                                       | 586                                    |                                        |                                        |               |                       | 1600 | 1815 | 22513      | W.O.C.                                       |  |  |  |  |
|                                       |            |         | m          | IADG CODE                |                |     |     | DENSITY kg/m <sup>3</sup> |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       | 1815 | 2400 | 57522      | CUT CSB, LID DIAMETER HELD ON BOWL           |  |  |  |  |
|                                       |            |         | m          | MFG.                     |                |     |     | FUNNEL VIS. - (S/L)       |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | TYPE                     |                |     |     | W.L. (cm <sup>3</sup> )   |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | SERIAL NO.               |                |     |     | pH                        |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | JETS (mm)                |                |     |     |                           |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | DEPTH OUT (m)            |                |     |     | MUD MATERIALS ADDED       |                                                 |                                    |               | SOLIDS CONTROL                      |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | DEPTH IN (m)             |                |     |     | PRODUCT                   | AMOUNT X UNIT                                   |                                    | DESILTER      |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | TOTAL METRES DRILLED (m) |                |     |     |                           |                                                 |                                    | HOURS RUN     | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       |            |         | m          | TOTAL HOURS RUN          |                |     |     |                           |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       | D.P.       | STANDS  | m          | CUTTING STRUCTURE        |                |     |     | CENTRIFUGE                |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       | D.P.       | SINGLES | m          | T <sub>1</sub>           | T <sub>2</sub> | MDC | LOG | B                         | Gage                                            | ODC                                | Reason Pulled | Total Run m/hr.                     | HOURS RUN                             | INTAKE DENSITY (kg/m <sup>3</sup> )    | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |               |                       |      |      |            |                                              |  |  |  |  |
|                                       | KELLY DOWN |         | m          | HOLE CONDITION           |                |     |     |                           |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
|                                       | TOTAL      |         | m          | HOLE DRAG                |                |     |     |                           |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |
| WT. OF DC                             |            |         | 1000 gms   | TORQUE AT BOTTOM         |                |     |     |                           |                                                 |                                    |               | HOURS RUN                           | INTAKE DENSITY (kg/m <sup>3</sup> )   | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |               |                       |      |      |            |                                              |  |  |  |  |
| WT. OF STRING                         |            |         | 1000 gms   | FILL ON BOTTOM (m)       |                |     |     |                           |                                                 |                                    |               |                                     |                                       |                                        |                                        |                                        |               |                       |      |      |            |                                              |  |  |  |  |

EVENING TOUR

CIRCULATION PRESSURE (kPa) @ 153

PUMP NO. 1 LINER SIZE (mm) S.P.M. PUMP NO. 2 LINER SIZE (mm) S.P.M. @ 153

REDUCED PUMP SPEED @

DEVIATION SURVEY

DEPTH (m) DEVIATION (°) DIRECTION

NOTES: Blank down Boilers 3x each = 120L fluid + 22 lbs from 8 hrs PM 105 ST 40

DRILLER SIGNATURE

BOILER HRS. RAN ph STACK TEMP MAXIMUM EXPERIENCED HOOKLOAD SAFETY TOPIC M.A.C.P.

121139

LICENCE NO. 1887

WELL NAME AND NO. AEC WEST G-18

OPERATOR: A.E.C

CONTRACTOR: AKITA/SAHTU DRILLING, and SAHTU OIL Incorporated

SURFACE LOCATION: AEC(WEST) REN TATE G-18

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [Signature]

DAILY CHECKS

(1) Daily Walk Around Inspection

(2) Detailed Inspection Weekly (using checklist)

(3) H/S Signs Posted (if required)

(4) Well Licence & Stick Diagram Posted

(5) Flare Lines Staked

(6) BOP Drills Performed

(7) Visually inspect SOPs - Flarelines & Degasser Lines

OPR. Initial

R.M. Initial

(1) Pig Site Health and Safety Meeting (one/twice/month)

(2) C.A.O.D.C. Pig Safety Inspection Checklist (one/twice/month)

(3) Mast Inspection Before Raising or Lowering

(4) Crown Saver Checked

(5) Motor Kils checked

YEAR 2020

MONTH 05

DAY 20

LAST CASING TUBING OR LINER

O.D. (mm) 310

MIN. I.D. (mm) 320

kg/m 81

MAKE LE

GRADE 4

NO. OF JOINTS 51.20

TOTAL (m) 51

KB TO CSG HEAD (m)

SET AT (m)

TEMPERATURE +C

DC/DP SIZE (mm) 225

LINEAR MASS (kg/m) 225

GRADE 74

MIN. ID (mm) 225

TOOL JOINT (mm) 74

TYPE 2

NO. OF JOINTS 8-P-80

PUMP TYPE National

PUMP MANUFACTURER 216

CURRENT CONDITIONS

WIND DIRECTION 158

ROAD HWY 6245

69 158 424 57

TIME

CODE NO.

1

2

3

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99

100

DRILLING ASSEMBLY (At End of Tour)

LENGTH

BIT NO.

1A

2RR

MUD TYPE

WATER BASED

OIL BASED

SIZE (mm)

311

311

TIME

0530

0630

DENSITY kg/m³

1170

1175

FUNNEL VIS. (S/L)

50

52

W.L. (cm³)

9

9

SERIAL NO.

LN 8597

LK 3974

PH

38.9

35.4

JETS (mm)

3x19.87

4x12.7

DEPTH OUT (m)

474

474

DEPTH IN (m)

474

474

TOTAL METRES DRILLED (m)

423

31

TOTAL HOURS RUN

20.75

2.5

CUTTING STRUCTURE

T<sub>1</sub>

T<sub>2</sub>

MDC

LOC

B

Gage

ODC

Reason Pulled

Total Run m/hr.

14

D.P.

STANDS

265.08

3

4

5

6

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100

DRILLING ASSEMBLY (At End of Tour)

LENGTH

BIT NO.

2RR

MUD TYPE

WATER BASED

OIL BASED

SIZE (mm)

311

311

TIME

0900

1200

DENSITY kg/m³

1170

1180

FUNNEL VIS. (S/L)

55

95

W.L. (cm³)

9.5

9.0

SERIAL NO.

LK 3974

LK 3974

PH

36.2

36.4

JETS (mm)

4x12.7

4x12.7

DEPTH OUT (m)

474

474

DEPTH IN (m)

474

474

TOTAL METRES DRILLED (m)

95

7

TOTAL HOURS RUN

7

7

CUTTING STRUCTURE

T<sub>1</sub>

T<sub>2</sub>

MDC

LOC

B

Gage

ODC

Reason Pulled

Total Run m/hr.

17

D.P.

STANDS

321.94

3

4

5

6

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99

100

DRILLING ASSEMBLY (At End of Tour)

LENGTH

BIT NO.

2RR

MUD TYPE

WATER BASED

OIL BASED

SIZE (mm)

311

311

TIME

2130

2130

DENSITY kg/m³

1345

1345

FUNNEL VIS. (S/L)

120+

120+

W.L. (cm³)

9

9

SERIAL NO.

LK 3974

LK 3974

PH

31.4

31.4

JETS (mm)

4x12.7

4x12.7

DEPTH OUT (m)

586

586

DEPTH IN (m)

474

474

TOTAL METRES DRILLED (m)

113

9

TOTAL HOURS RUN

9

9

CUTTING STRUCTURE

T<sub>1</sub>

T<sub>2</sub>

MDC

LOC

B

Gage

ODC

Reason Pulled

Total Run m/hr.

18

D.P.

STANDS

340.97

3

4

5

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99

100

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

MORNING

TOUR

DAY

TOUR

EVENING

TOUR

LICENCE NO:  
1809

WELL NAME AND NO:  
Tate G-18

OPERATOR:  
A.E.C.

CONTRACTOR:  
AKITA/SAHTU DRILLING,  
Joint venture of AKITA Drilling Ltd  
and SAHTU OIL Incorporated

SURFACE LOCATION:  
G-18

SIGNATURE OF OPERATOR'S REPRESENTATIVE:  
*[Signature]*

SIGNATURE OF CONTRACTOR'S RIG MANAGER:  
*[Signature]*

DAILY CHECKS  
(1) Daily Walk Around Inspection  
(2) Detailed Inspection Weekly (using checklist)  
(3) H/S Signs Posted (if required)  
(4) Well License & Stick Diagram Posted  
(5) Flare Lines Inspected  
(6) BOP Drills Performed  
(7) Visually inspect BOP's - Flarelines & Degasser Lines  
  
(1) Rig Site Health and Safety Meeting (monthly/weekly)  
(2) C.A.O.D.C. Rig Safety Inspection Checklist (monthly/weekly)  
(3) Mast Inspection Before Raising or Lowering  
(4) Crossover Checked  
(5) Motor Kils checked

OPR  
R.M.  
*[Initials]*

YEAR: 2014  
MONTH: 05  
DAY: 14

LAST CASING TUBING OR LINER  
FUEL @ 8:00

TEMPERATURE °C  
CURRENT CONDITIONS  
WIND DIRECTION  
ROAD

O.D. (mm): 340  
MIN. I.D. (mm): 320  
kg/m: 81  
GRADE: 1E  
NO. OF JOINTS: 11  
TOTAL LENGTH (m): 52.30  
KB. TO CSG HEAD (m):  
SET AT (m): 51

DC/OP SIZE (mm): 225  
LINEAR MASS (kg/m): 286  
GRADE: 7H  
MIN. ID (mm): 225  
TOOL JOINT (mm): 7H  
TYPE THREAD: 2  
NO. OF JOINTS: 8  
PUMP TYPE: 8-7-80  
PUMP MANUFACTURER: National  
STROKE LTH (mm): 216

| TIME<br>-<br>HOURS | CODE<br>NO. | 1                        | 2               | 3                 | 4                      | 5     | 6              | 7             | 8                        | 9             | 10                   | 11                      | 12                   | 13                     | 14             | 15                    | 16           | 17                | 18      | 19           | 20             | 21 | 22 | 23 | 24 | 25 | 26 | TOTALS | SHALE SHAKER(S) |    | RENTALS/SERVICES |     |     | MORN | DAY | EVE |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|-------------|--------------------------|-----------------|-------------------|------------------------|-------|----------------|---------------|--------------------------|---------------|----------------------|-------------------------|----------------------|------------------------|----------------|-----------------------|--------------|-------------------|---------|--------------|----------------|----|----|----|----|----|----|--------|-----------------|----|------------------|-----|-----|------|-----|-----|------------|------|------------|-----|--|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                    | OPER.       | RIG UP<br>& TEAR<br>DOWN | DRILL<br>ACTUAL | REAMING<br>CORING | CONO<br>MUD &<br>CIRC. | TRIPS | RIG<br>SERVICE | REPAIR<br>RIG | CUT OFF<br>DRILL<br>LINE | DEV<br>SURVEY | WIRE<br>LINE<br>LOGS | RUN<br>CASE &<br>CEMENT | WAIT<br>ON<br>CEMENT | NIPPLE<br>UP<br>B.O.P. | TEST<br>R.O.P. | DRILL<br>STEM<br>TEST | PLUG<br>BACK | SQUEEZE<br>CEMENT | FISHING | DIP.<br>WORK | SAFETY<br>MTG. |    |    |    |    |    |    |        | NO. TOP         |    | SCREENS CHANGED  |     | YES |      |     |     | NO         | MORN |            | DAY |  | EVE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | MORN        |                          | 6.5             |                   |                        |       |                | 25            |                          |               | 125                  |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        | 8               | 8  | 120              | TOP | TOP |      |     |     | MORN 30418 |      | AMT 146278 |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | DAY         |                          | 6.5             |                   |                        |       |                | 25            |                          |               | 125                  |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        | 8               | 8  |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | EVE         |                          | 6.5             |                   |                        |       |                | 25            |                          |               | 125                  |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        | 8               | 8  |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    | TOTAL       |                          | 19.5            |                   |                        |       |                | 75            |                          |               | 375                  |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        | 24              | 24 |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |             |                          |                 |                   |                        |       |                |               |                          |               |                      |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        |                 |    |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |             |                          |                 |                   |                        |       |                |               |                          |               |                      |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        |                 |    |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |             |                          |                 |                   |                        |       |                |               |                          |               |                      |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        |                 |    |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                    |             |                          |                 |                   |                        |       |                |               |                          |               |                      |                         |                      |                        |                |                       |              |                   |         |              |                |    |    |    |    |    |    |        |                 |    |                  |     |     |      |     |     |            |      |            |     |  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

DRILLING ASSEMBLY (At End of Tour)  
NO. BIT Q.D. mm LENGTH  
2 B/S 226 1.22  
D.C. 225 18.59  
X10 215 .43  
X10 205 .81  
16 D.C. 158 147.52  
5 H.WOP 114 46.14

BIT RECORD  
BIT NO. 1  
SIZE (mm) 311  
IADC CODE  
MFG. Smith  
TYPE MFDSSH  
SERIAL NO. LN 8597  
JETS (mm) 3x19.81  
DEPTH OUT (m)  
DEPTH IN (m) 51  
TOTAL METRES DRILLED (m) 177  
TOTAL HOURS RUN 7.25  
CUTTING STRUCTURE  
D.P. STANDS  
D.P. SINGLES  
KELLYDOWN 13.26  
TOTAL 228.32  
WT. OF DC 30  
WT. OF STRING 34

MUD RECORD  
MUD TYPE ☒ WATER BASED ☐ OIL BASED  
TIME 02:00 04:00 06:00  
DENSITY kg/m<sup>3</sup> 1110 1080 1070  
FUNNEL VIS. (S/L) 39 43 40  
W.L. (cm<sup>3</sup>)  
pH 10.5 10.0 10.0  
MUD MATERIALS ADDED  
PRODUCT AMOUNT X UNIT  
CENTRIFUGE  
HOURS RUN INTAKE DENSITY OVERFLOW DENSITY UNDERFLOW DENSITY  
B 1070 1050 1920

METRES DRILLED  
FROM TO R.P.M. WT. ON BIT (1000 S.F.)  
71 228 157 180 5.10  
CIRCULATION PRESSURE (kPa)  
PUMP NO. 1 PUMP NO. 2  
REDUCED PUMP SPEED  
DEVIATION SURVEY  
DEPTH (m) DEVIATION (°) DIRECTION  
67 72  
105 72  
132 24  
160 34  
188 34

TIME LOG  
FROM TO ELAP. TIME CODE NO.  
00:00 00:15 25 2 Drill F/171-80  
00:15 00:30 25 7 Rig Service on Upper Kellycock  
00:30 00:45 25 10 Survey @ 67m  
00:45 02:00 125 2 Drill F/170-118  
02:00 02:15 25 10 Survey @ 105m  
02:15 02:30 25 2 Drill F/118-145  
02:30 03:45 25 10 Survey @ 132m  
03:45 05:00 125 2 Drill F/145-173  
05:00 05:15 25 10 Survey @ 167m  
05:15 06:15 1 2 Drill F/173-201  
06:15 06:30 25 10 Survey @ 188m  
06:30 08:00 15 2 Drill F/201-228

DETAILS OF OPERATION IN SEQUENCE AND REMARKS  
NOTES  
Crownover, Drillline Anchors, Pickers and Linkage  
#2 Boiler 8 HRS PH 10.5 ST 450° Breakdown Boilers 4 each = 160 Hrs

DRILLER SIGNATURE  
HRS. RAN 8  
BOILER PH 10.5 ST 450°  
MAXIMUM EXPERIENCED HOOKLOAD 40,000  
SAFETY TOPIC  
M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)  
NO. BIT Q.D. mm LENGTH  
2 B/S 226 1.22  
D.C. 225 18.59  
X10 215 .43  
X10 205 .81  
16 D.C. 158 147.52  
6 H.WOP 114 55.54

BIT RECORD  
BIT NO. 1  
SIZE (mm) 311  
IADC CODE  
MFG. Smith  
TYPE MFDSSH  
SERIAL NO. LN 8597  
JETS (mm) 3x19.81  
DEPTH OUT (m)  
DEPTH IN (m) 51  
TOTAL METRES DRILLED (m) 300  
TOTAL HOURS RUN 13.75  
CUTTING STRUCTURE  
D.P. STANDS  
D.P. SINGLES  
KELLYDOWN 13.26  
TOTAL 351.49  
WT. OF DC 30  
WT. OF STRING 36

MUD RECORD  
MUD TYPE ☒ WATER BASED ☐ OIL BASED  
TIME 09:00 12:00 15:00  
DENSITY kg/m<sup>3</sup> 1085 1085 1090  
FUNNEL VIS. (S/L) 45 44 49  
W.L. (cm<sup>3</sup>)  
pH 9.5 9.5 9.5  
MUD MATERIALS ADDED  
PRODUCT AMOUNT X UNIT  
CENTRIFUGE  
HOURS RUN INTAKE DENSITY OVERFLOW DENSITY UNDERFLOW DENSITY  
8 1090 1075 1890

METRES DRILLED  
FROM TO R.P.M. WT. ON BIT (1000 S.F.)  
228 351 123 180 10  
CIRCULATION PRESSURE (kPa)  
PUMP NO. 1 PUMP NO. 2  
REDUCED PUMP SPEED  
DEVIATION SURVEY  
DEPTH (m) DEVIATION (°) DIRECTION  
215 .5  
244 .75  
273 .5  
301 .75  
330 .75

TIME LOG  
FROM TO ELAP. TIME CODE NO.  
08:15 08:45 25 7 RIG SERVICE  
08:45 09:30 25 10 SURVEY  
09:30 09:45 25 2 DRILL F/1228-256  
09:45 09:50 25 10 SURVEY  
09:50 11:00 15 2 DRILL F/1228-256  
11:00 11:45 25 10 SURVEY  
11:45 12:45 15 2 DRILL F/1228-313  
12:45 13:00 25 10 SURVEY  
13:00 15:45 235 2 DRILL F/1313-341  
15:45 15:30 25 10 SURVEY  
15:30 16:00 25 2 DRILL F/1341-351  
16:00 16:00 25 2 DRILL F/1341-351

DETAILS OF OPERATION IN SEQUENCE AND REMARKS  
NOTES  
VERBODEN TOEGANG AAN DE BOILER, BRANES & LINKAGES  
#2 BOILER 8 HRS PH 10.5 ST 450° Breakdown Boilers 2 each = 120 Hrs

DRILLER SIGNATURE  
HRS. RAN 8  
BOILER PH 10.5 ST 450°  
MAXIMUM EXPERIENCED HOOKLOAD 50,000  
SAFETY TOPIC  
M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)  
NO. BIT Q.D. mm LENGTH  
2 B/S 226 1.22  
D.C. 225 18.59  
X10 215 .43  
X10 205 .81  
16 D.C. 158 147.52  
6 H.WOP 114 55.54

BIT RECORD  
BIT NO. 1  
SIZE (mm) 311  
IADC CODE  
MFG. Smith  
TYPE MFDSSH  
SERIAL NO. LN 8597  
JETS (mm) 3x19.81  
DEPTH OUT (m)  
DEPTH IN (m) 51  
TOTAL METRES DRILLED (m) 421  
TOTAL HOURS RUN 20.5  
CUTTING STRUCTURE  
D.P. STANDS  
D.P. SINGLES  
KELLYDOWN 11.20  
TOTAL 472.00  
WT. OF DC 30  
WT. OF STRING 38

MUD RECORD  
MUD TYPE ☒ WATER BASED ☐ OIL BASED  
TIME 18:00 20:00 23:00  
DENSITY kg/m<sup>3</sup> 1085 1125 1130  
FUNNEL VIS. (S/L) 51 80 65.42  
W.L. (cm<sup>3</sup>)  
pH 9.5 9.5 9.0  
MUD MATERIALS ADDED  
PRODUCT AMOUNT X UNIT  
CENTRIFUGE  
HOURS RUN INTAKE DENSITY OVERFLOW DENSITY UNDERFLOW DENSITY  
8 1130 1085 1860

METRES DRILLED  
FROM TO R.P.M. WT. ON BIT (1000 S.F.)  
351 472 121 190 10  
CIRCULATION PRESSURE (kPa)  
PUMP NO. 1 PUMP NO. 2  
REDUCED PUMP SPEED  
DEVIATION SURVEY  
DEPTH (m) DEVIATION (°) DIRECTION  
357 .75  
413 .75  
491 1°

TIME LOG  
FROM TO ELAP. TIME CODE NO.  
16:00 16:15 25 7 RIG SERVICE  
16:15 17:30 125 2 DRILL F/1351-370  
17:30 17:45 25 10 SURVEY  
17:45 19:00 125 2 DRILL F/1370-398  
19:00 19:15 25 10 SURVEY  
19:15 20:45 15 2 DRILL F/1398-426  
20:45 21:00 25 10 SURVEY @ 413m  
21:00 22:00 15 2 DRILL F/1426-454  
22:00 22:45 25 10 SURVEY @ 441m  
22:45 24:00 125 2 DRILL F/1454-472

DETAILS OF OPERATION IN SEQUENCE AND REMARKS  
NOTES  
Crownover, Drillline Anchors, Pickers and Linkage  
#2 Boiler 8 HRS PH 10.5 ST 450° Breakdown Boilers 3 each = 120 Hrs

DRILLER SIGNATURE  
HRS. RAN 8  
BOILER PH 10.5 ST 450°  
MAXIMUM EXPERIENCED HOOKLOAD 35,000  
SAFETY TOPIC  
M.A.C.P.

FOLD HERE →

121137

|                                         |                                                                                                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------|
| LICENCE NO.: 1887                       | WELL NAME AND NO.: TAIL 6-19                                                                      |
| OPERATOR: A.E.C.                        | CONTRACTOR: AKITA/SAHTU DRILLING, Joint venture of AKITA Drilling Ltd. and SAHTU OIL Incorporated |
| SURFACE LOCATION:                       | UNIQUE NO. 11111011                                                                               |
| SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER:                                                            |

|                                                              |         |         |
|--------------------------------------------------------------|---------|---------|
| DAILY CHECKS                                                 | OPF     | R.M.    |
| (1) Daily Walk Around Inspection                             | Initial | Initial |
| (2) Detailed Inspection Weekly (using checklist)             | Initial | Initial |
| (3) H/S Signs Posted (if required)                           | Initial | Initial |
| (4) Well License & Stick Diagram Posted                      | Initial | Initial |
| (5) Flare Lines Checked                                      | Initial | Initial |
| (6) BOP Drills Performed                                     | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degasser Lines     | Initial | Initial |
| (1) Rig Site Health and Safety Meeting (one/crow/monthly)    | Initial | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (one/monthly) | Initial | Initial |
| (3) Mast Inspection Before Raising or Lowering               | Initial | Initial |
| (4) Crown Sheave Checked                                     | Initial | Initial |
| (5) Motor Kits checked                                       | Initial | Initial |

|                    |           |         |                                  |                         |                    |                   |                       |                  |                        |                             |                      |
|--------------------|-----------|---------|----------------------------------|-------------------------|--------------------|-------------------|-----------------------|------------------|------------------------|-----------------------------|----------------------|
| YEAR: 08           | MONTH: 02 | DAY: 18 | LAST CASING TUBING OR LINER: 340 | O.D. (mm): 320          | MIN. I.D. (mm): 81 | kg/m: 286         | GRADE: LE             | NO. OF JOINTS: 4 | TOTAL(m) LENGTH: 51.20 | KB. TO CSG HEAD (m): 51     | SET AT (m):          |
| FUEL @ 8:00        |           |         |                                  |                         |                    |                   |                       |                  |                        |                             |                      |
| TEMPERATURE: °C    |           |         | DC/DP SIZE (mm): 225             | LINEAR MASS (kg/m): 286 | GRADE: 7H          | MIN. ID (mm): 225 | TOOL JT O.D. (mm): 7H | NO. OF JOINTS: 2 | PUMP TYPE: 8-P-80      | PUMP MANUFACTURER: National | STROKE LTH (mm): 216 |
| CURRENT CONDITIONS |           |         | 225                              | 286                     | 7H                 | 225               | 7H                    | 2                | 8-P-80                 | National                    | 216                  |
| WIND DIRECTION     |           |         | 158                              | 135                     | 58                 | 158               | 135                   | 20               | 8-P-80                 | National                    | 216                  |
| ROAD               |           |         | 158                              | 135                     | 58                 | 158               | 135                   | 20               | 8-P-80                 | National                    | 216                  |

| TIME  | CODE NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | SHALES SHAKER(S) | RENTALS/SERVICES | MORN | DAY | EVE |
|-------|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------|------------------|------|-----|-----|
| MORN  | OPER     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                  |                  |      |     |     |
| DAY   |          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                  |                  |      |     |     |
| EVE   |          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                  |                  |      |     |     |
| TOTAL |          |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                  |                  |      |     |     |

|                                    |           |           |            |                                  |        |                                                             |                                                                                    |
|------------------------------------|-----------|-----------|------------|----------------------------------|--------|-------------------------------------------------------------|------------------------------------------------------------------------------------|
| DRILLING ASSEMBLY (At End of Tour) |           | LENGTH    |            | BIT RECORD                       |        | MUD RECORD                                                  |                                                                                    |
| NO.                                | BIT       | O.D. (mm) | LENGTH (m) | BIT NO.                          | 2A     | MUD TYPE                                                    | <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |
|                                    |           |           |            | SIZE (mm)                        | 114    | TIME                                                        | 0200 0400                                                                          |
|                                    |           |           |            | IADC CODE                        |        | DENSITY kg/m <sup>3</sup>                                   | 1140                                                                               |
|                                    |           |           |            | MFG.                             | Smith  | FUNNEL VIS. (S/L)                                           | 50 73                                                                              |
|                                    |           |           |            | TYPE                             | SDSC   | W.L. (cm)                                                   |                                                                                    |
|                                    |           |           |            | SERIAL NO.                       | XH5805 | pH                                                          | 8.5                                                                                |
|                                    |           |           |            | JETS (mm)                        | 3x19   |                                                             | 8.5 10.0                                                                           |
|                                    |           |           |            | DEPTH OUT (m)                    | 51     | MUD MATERIALS ADDED                                         |                                                                                    |
|                                    |           |           |            | DEPTH IN (m)                     | 0      | SOLIDS CONTROL                                              |                                                                                    |
|                                    |           |           |            | TOTAL METRES DRILLED (m)         | 51     | PRODUCT                                                     | AMOUNT X UNIT                                                                      |
|                                    |           |           |            | TOTAL HOURS RUN                  | 2      |                                                             |                                                                                    |
|                                    | D.P.      | STANDS    |            | CUTTING STRUCTURE                |        | CENTRIFUGE                                                  |                                                                                    |
|                                    | D.P.      | SINGLES   |            | MDC LOC B Gage ODC Reason Pulled |        | HOURS RUN INTAKE DENSITY OVERFLOW DENSITY UNDERFLOW DENSITY |                                                                                    |
|                                    | KELLYDOWN |           |            | HOLE CONDITION                   |        |                                                             |                                                                                    |
|                                    | TOTAL     |           |            | HOLE DRAG                        |        |                                                             |                                                                                    |
| WT. OF DC                          |           |           | 1000 daN   | TORQUE AT BOTTOM                 |        |                                                             |                                                                                    |
| WT. OF STRING                      |           |           | 1000 daN   | FILL ON BOTTOM (m)               |        |                                                             |                                                                                    |

|                                    |           |           |            |                                  |          |                                                             |                                                                                    |
|------------------------------------|-----------|-----------|------------|----------------------------------|----------|-------------------------------------------------------------|------------------------------------------------------------------------------------|
| DRILLING ASSEMBLY (At End of Tour) |           | LENGTH    |            | BIT RECORD                       |          | MUD RECORD                                                  |                                                                                    |
| NO.                                | BIT       | O.D. (mm) | LENGTH (m) | BIT NO.                          | 311      | MUD TYPE                                                    | <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |
|                                    |           |           |            | SIZE (mm)                        | 311      | TIME                                                        | 340mm CSC Cemented by D-S                                                          |
|                                    |           |           |            | IADC CODE                        |          | DENSITY kg/m <sup>3</sup>                                   | 1140                                                                               |
|                                    |           |           |            | MFG.                             | Smith    | FUNNEL VIS. (S/L)                                           | W/ 8 TONE Arctic Set                                                               |
|                                    |           |           |            | TYPE                             | MFDSSH   | W.L. (cm)                                                   | +12% B.W.O.W D-44                                                                  |
|                                    |           |           |            | SERIAL NO.                       | LN3597   | pH                                                          | +0.5% D-65 +.5% D-13                                                               |
|                                    |           |           |            | JETS (mm)                        | 3x19 8.7 |                                                             | +0.3% D-44                                                                         |
|                                    |           |           |            | DEPTH OUT (m)                    | 51       | MUD MATERIALS ADDED                                         |                                                                                    |
|                                    |           |           |            | DEPTH IN (m)                     |          | SOLIDS CONTROL                                              |                                                                                    |
|                                    |           |           |            | TOTAL METRES DRILLED (m)         |          | PRODUCT                                                     | AMOUNT X UNIT                                                                      |
|                                    |           |           |            | TOTAL HOURS RUN                  |          |                                                             |                                                                                    |
|                                    | D.P.      | STANDS    |            | CUTTING STRUCTURE                |          | CENTRIFUGE                                                  |                                                                                    |
|                                    | D.P.      | SINGLES   |            | MDC LOC B Gage ODC Reason Pulled |          | HOURS RUN INTAKE DENSITY OVERFLOW DENSITY UNDERFLOW DENSITY |                                                                                    |
|                                    | KELLYDOWN |           |            | HOLE CONDITION                   |          |                                                             |                                                                                    |
|                                    | TOTAL     |           |            | HOLE DRAG                        |          |                                                             |                                                                                    |
| WT. OF DC                          |           |           | 1000 daN   | TORQUE AT BOTTOM                 |          |                                                             |                                                                                    |
| WT. OF STRING                      |           |           | 1000 daN   | FILL ON BOTTOM (m)               |          |                                                             |                                                                                    |

|                                    |           |           |            |                                  |        |                                                             |                                                                                    |
|------------------------------------|-----------|-----------|------------|----------------------------------|--------|-------------------------------------------------------------|------------------------------------------------------------------------------------|
| DRILLING ASSEMBLY (At End of Tour) |           | LENGTH    |            | BIT RECORD                       |        | MUD RECORD                                                  |                                                                                    |
| NO.                                | BIT       | O.D. (mm) | LENGTH (m) | BIT NO.                          | 1      | MUD TYPE                                                    | <input checked="" type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |
|                                    | 215       | 226       | 1.22       | SIZE (mm)                        | 311    | TIME                                                        |                                                                                    |
|                                    | 215       | 225       | 10.59      | IADC CODE                        |        | DENSITY kg/m <sup>3</sup>                                   |                                                                                    |
|                                    | 215       | 215       | .47        | MFG.                             | Smith  | FUNNEL VIS. (S/L)                                           |                                                                                    |
|                                    | 215       | 205       | .81        | TYPE                             | MFDSSH | W.L. (cm)                                                   |                                                                                    |
|                                    | 215       | 158       | 36.72      | SERIAL NO.                       | LN3597 | pH                                                          |                                                                                    |
|                                    |           |           |            | JETS (mm)                        | 3x19   |                                                             |                                                                                    |
|                                    |           |           |            | DEPTH OUT (m)                    | 51     | MUD MATERIALS ADDED                                         |                                                                                    |
|                                    |           |           |            | DEPTH IN (m)                     |        | SOLIDS CONTROL                                              |                                                                                    |
|                                    |           |           |            | TOTAL METRES DRILLED (m)         | 20     | PRODUCT                                                     | AMOUNT X UNIT                                                                      |
|                                    |           |           |            | TOTAL HOURS RUN                  | 75     |                                                             |                                                                                    |
|                                    | D.P.      | STANDS    |            | CUTTING STRUCTURE                |        | CENTRIFUGE                                                  |                                                                                    |
|                                    | D.P.      | SINGLES   |            | MDC LOC B Gage ODC Reason Pulled |        | HOURS RUN INTAKE DENSITY OVERFLOW DENSITY UNDERFLOW DENSITY |                                                                                    |
|                                    | KELLYDOWN |           |            | HOLE CONDITION                   |        |                                                             |                                                                                    |
|                                    | TOTAL     |           |            | HOLE DRAG                        |        |                                                             |                                                                                    |
| WT. OF DC                          |           |           | 1000 daN   | TORQUE AT BOTTOM                 |        |                                                             |                                                                                    |
| WT. OF STRING                      |           |           | 1000 daN   | FILL ON BOTTOM (m)               |        |                                                             |                                                                                    |

|                    |               |            |          |                                                                       |  |
|--------------------|---------------|------------|----------|-----------------------------------------------------------------------|--|
| METRES DRILLED     |               | TIME LOG   |          | DETAILS OF OPERATION IN SEQUENCE AND REMARKS                          |  |
| FROM               | TO            | ELAP. TIME | CODE NO. |                                                                       |  |
| 40                 | 51            | 02:30      | 25       | Circ + Work pipe Wait on Csg                                          |  |
|                    |               | 03:15      | 3        | Ream F/40-51                                                          |  |
|                    |               | 04:15      | 1        | Circ + Work pipe to clean Hole                                        |  |
|                    |               | 04:30      | 25       | Survey                                                                |  |
|                    |               | 05:00      | 5        | Hurst to run Csg                                                      |  |
|                    |               | 05:00      | 3        | Rig to and Run Csg                                                    |  |
| REDUCED PUMP SPEED |               |            |          |                                                                       |  |
| DEVIATION SURVEY   |               |            |          |                                                                       |  |
| DEPTH (m)          | DEVIATION (°) | DIRECTION  |          |                                                                       |  |
| 38                 | 3.8           |            |          |                                                                       |  |
| NOTES              |               |            |          | ✓ Circumfer. Deadline Anchors, Brakes and Linkage                     |  |
| DRILLER SIGNATURE  |               |            |          | #2 Boiler can 8hrs PH 10.5 St 450 Bladown Boilers 3x each = 12x Fluid |  |
| HRS. RAN           |               | 8          |          | 10.5 450                                                              |  |

|                    |               |            |          |                                                     |  |
|--------------------|---------------|------------|----------|-----------------------------------------------------|--|
| METRES DRILLED     |               | TIME LOG   |          | DETAILS OF OPERATION IN SEQUENCE AND REMARKS        |  |
| FROM               | TO            | ELAP. TIME | CODE NO. |                                                     |  |
| 51                 | 800           | 9:15       | 1.15     | CIRC CSH                                            |  |
|                    | 9:15          | 9:30       | 25       | CEMENTING SAFE IN HOLE                              |  |
|                    | 9:30          | 10:00      | 5        | RIG TO + CEMENT                                     |  |
|                    | 10:00         | 14:00      | 4        | W.O.C. (CUT CSH) (WATER ON BOWL)                    |  |
|                    | 14:00         | 16:00      | 2        | WELD ON BOWL                                        |  |
| REDUCED PUMP SPEED |               |            |          |                                                     |  |
| DEVIATION SURVEY   |               |            |          |                                                     |  |
| DEPTH (m)          | DEVIATION (°) | DIRECTION  |          |                                                     |  |
|                    |               |            |          |                                                     |  |
| NOTES              |               |            |          | CHECKED ALL FIRE FITTINGS                           |  |
| DRILLER SIGNATURE  |               |            |          | VERAUN SAUTER, BRACKETS + LINKAGE, DEADLINE ANCHORS |  |
| HRS. RAN           |               | 8          |          | 10.5 450                                            |  |

|                    |               |            |          |                                                                       |  |
|--------------------|---------------|------------|----------|-----------------------------------------------------------------------|--|
| METRES DRILLED     |               | TIME LOG   |          | DETAILS OF OPERATION IN SEQUENCE AND REMARKS                          |  |
| FROM               | TO            | ELAP. TIME | CODE NO. |                                                                       |  |
| 51                 | 71            | 20:00      | 9.5      | NIPPLE UP. DIVERTER                                                   |  |
|                    | 20:30         | 21:30      | 1        | McKup Bit - R.I.H                                                     |  |
|                    | 21:30         | 22:15      | 25       | Break Circ + Press Test Diverter 1500kPa                              |  |
|                    | 22:15         | 23:00      | 25       | Drill out Cement                                                      |  |
|                    | 23:00         | 23:15      | 25       | B.O.P. Drill & Pass Spud.                                             |  |
|                    | 23:15         | 24:00      | 25       | Drill F/51-71                                                         |  |
| REDUCED PUMP SPEED |               |            |          |                                                                       |  |
| DEVIATION SURVEY   |               |            |          |                                                                       |  |
| DEPTH (m)          | DEVIATION (°) | DIRECTION  |          |                                                                       |  |
|                    |               |            |          |                                                                       |  |
| NOTES              |               |            |          | ✓ Motor Kits, Circumfer. Deadline Anchors, Brakes and Linkage         |  |
| DRILLER SIGNATURE  |               |            |          | #2 Boiler can 8hrs PH 10.5 St 450 Bladown Boilers 3x each = 12x Fluid |  |
| HRS. RAN           |               | 8          |          | 10.5 450                                                              |  |

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|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| LICENCE NO.:                            | WELL NAME AND NO.:                     |
| OPERATOR:                               | CONTRACTOR:                            |
| SURFACE LOCATION:                       | UNIQUE ID:                             |
| SIGNATURE OF OPERATOR'S REPRESENTATIVE: | SIGNATURE OF CONTRACTOR'S RIG MANAGER: |

| DAILY CHECKS                                                     |         | OPR.    | R.M. |
|------------------------------------------------------------------|---------|---------|------|
| (1) Daily Walk Around Inspection                                 | Initial | Initial |      |
| (2) Detailed Inspection-Weekly (using checklist)                 | Initial | Initial |      |
| (3) HPS Signs Posted (if required)                               | Initial | Initial |      |
| (4) Well License & Stick Diagram Posted                          | Initial | Initial |      |
| (5) Flare Lines Staked                                           | Initial | Initial |      |
| (6) BOP Drills Performed                                         | Initial | Initial |      |
| (7) Visually Inspect BOP's - Firelines & Crossover Lines         | Initial | Initial |      |
|                                                                  |         |         |      |
| (1) Rig Site Health and Safety Meeting (one/crew/month)          |         | Initial |      |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (one/shift/month) |         | Initial |      |
| (3) Mast Inspection Before Raising or Lowering                   |         | Initial |      |
| (4) Crown Saver Checked                                          |         | Initial |      |
| (5) Motor Kills checked                                          |         | Initial |      |

[illegible]

| TIME - HRS | CODE NO. | 1                  | 2            | 3              | 4                 | 5     | 6           | 7          | 8                  | 9           | 10             | 11                | 12             | 13            | 14          | 15         | 16        | 17             | 18      | 19        | 20          | 21      | 22 | 23 | 24 | 25 | 26 | TOTALS | SHALE SHAKER(S) |                                                          | RENTALS/SERVICES |  | MORN | DAY | EVE |
|------------|----------|--------------------|--------------|----------------|-------------------|-------|-------------|------------|--------------------|-------------|----------------|-------------------|----------------|---------------|-------------|------------|-----------|----------------|---------|-----------|-------------|---------|----|----|----|----|----|--------|-----------------|----------------------------------------------------------|------------------|--|------|-----|-----|
|            | OPER     | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING CORING | COND. MUD & CIRC. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | RUN CASE & CEMENT | WAIT ON CEMENT | NIPLER B.O.P. | TEST B.O.P. | DRILL TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIR. WORK | SAFETY MTG. | CRATERS |    |    |    |    |    |        |                 |                                                          |                  |  |      |     |     |
|            |          |                    |              |                |                   |       |             |            |                    |             |                |                   |                |               |             |            |           |                |         |           |             |         |    |    |    |    |    |        |                 |                                                          |                  |  |      |     |     |
| MORN.      |          |                    |              |                |                   |       |             |            |                    |             |                |                   |                |               |             |            |           |                |         |           |             |         |    |    |    |    |    | 8      | SCREENS CHANGED | <input type="checkbox"/> YES <input type="checkbox"/> NO |                  |  |      |     |     |
| DAY        |          |                    | 6            |                |                   |       |             |            |                    |             |                |                   |                |               |             |            |           |                |         |           |             |         |    |    |    |    |    | 8      | TOP             | TOP                                                      |                  |  |      |     |     |
| EVE        |          |                    | 3            | 1.25           |                   | 2.75  | 1           |            |                    |             |                |                   |                |               |             |            |           |                |         |           |             |         |    |    |    |    |    | 8      | MIDDLE          | MIDDLE                                                   |                  |  |      |     |     |
| TOTAL      |          |                    | 9            | 1.25           |                   | 2.75  | 1           | 2.25       |                    |             |                |                   |                |               |             |            |           |                |         |           |             |         |    |    |    |    |    | 24     | BOTTOM          | BOTTOM                                                   |                  |  |      |     |     |

| DRILLING ASSEMBLY<br>(At End of Tour) |      |         |         | BIT RECORD |                          |                |     |     |   |      |     |               |                 | MUD RECORD |                           |  |                                                                         |  |            |  |  |  |
|---------------------------------------|------|---------|---------|------------|--------------------------|----------------|-----|-----|---|------|-----|---------------|-----------------|------------|---------------------------|--|-------------------------------------------------------------------------|--|------------|--|--|--|
| NO.                                   | BIT  |         | O.D. mm | LENGTH     | BIT NO.                  |                |     |     |   |      |     |               |                 |            | MUD TYPE                  |  | <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |  |            |  |  |  |
|                                       |      |         |         | m          | SIZE (mm)                |                |     |     |   |      |     |               |                 |            | TIME                      |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | IADC CODE                |                |     |     |   |      |     |               |                 |            | DENSITY kg/m <sup>3</sup> |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | MFG.                     |                |     |     |   |      |     |               |                 |            | FUNNEL VIS. - (S/L)       |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | TYPE                     |                |     |     |   |      |     |               |                 |            | W.L. (cm <sup>2</sup> )   |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | SERIAL NO.               |                |     |     |   |      |     |               |                 |            | pH                        |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | JETS (mm)                |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | DEPTH OUT (m)            |                |     |     |   |      |     |               |                 |            | MUD MATERIALS ADDED       |  | SOLIDS CONTROL                                                          |  |            |  |  |  |
|                                       |      |         |         | m          | DEPTH IN (m)             |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |
|                                       |      |         |         | m          | TOTAL METRES DRILLED (m) |                |     |     |   |      |     |               |                 |            | PRODUCT                   |  | AMOUNT X UNIT                                                           |  | DESILTER   |  |  |  |
|                                       |      |         |         | m          | TOTAL HOURS RUN          |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |
|                                       | D.P. | STANDS  |         | m          | CUTTING STRUCTURE        |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  | CENTRIFUGE |  |  |  |
|                                       | D.P. | SINGLES |         | m          | T <sub>1</sub>           | T <sub>6</sub> | MDC | LOC | B | Gage | ODC | Reason Pulled | Total Run m/hr. |            |                           |  |                                                                         |  |            |  |  |  |
| KELLY DOWN                            |      |         |         | m          | HOLE CONDITION           |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |
| TOTAL                                 |      |         |         | m          | HOLE DRAG                |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |
| WT. OF DC                             |      |         |         | 1000 daN   | TORQUE AT BOTTOM         |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |
| WT. OF STRING                         |      |         |         | 1000 daN   | FILL ON BOTTOM (m)       |                |     |     |   |      |     |               |                 |            |                           |  |                                                                         |  |            |  |  |  |

| METRES DRILLED                                                                        |                    |                            |                    |                             | TIME LOG |     | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |             |                                                      |          |  |
|---------------------------------------------------------------------------------------|--------------------|----------------------------|--------------------|-----------------------------|----------|-----|----------------------------------------------|-------------|------------------------------------------------------|----------|--|
| FROM                                                                                  | TO                 | D.R.O.<br>R.M.R.<br>CORE-C | ROTARY<br>R.P.M.   | WT. ON<br>BIT<br>(1000 daN) | FROM     | TO  | ELAP.<br>TIME                                | CODE<br>NO. |                                                      |          |  |
|                                                                                       |                    |                            |                    |                             | 0        | 900 | 50R2                                         |             | Drill Rat Hole                                       |          |  |
|                                                                                       |                    |                            |                    |                             | 900      | 800 | 52                                           |             | <del>Rig was pulled &amp; Drill String + 1 bit</del> |          |  |
| CIRCULATION<br>PRESSURE<br>(kPa)                                                      | PUMP NO. 1         | PUMP NO. 2                 |                    |                             |          |     |                                              |             |                                                      |          |  |
|                                                                                       | LINER<br>SIZE (mm) | S.P.M.                     | LINER<br>SIZE (mm) | S.P.M.                      |          |     |                                              |             |                                                      |          |  |
| REDUCED PUMP SPEED                                                                    |                    |                            |                    |                             |          |     |                                              |             |                                                      |          |  |
|                                                                                       | @                  |                            | @                  |                             |          |     |                                              |             |                                                      |          |  |
| DEVIATION SURVEY                                                                      |                    |                            |                    |                             |          |     |                                              |             |                                                      |          |  |
| DEPTH (m)                                                                             | DEVIATION (°)      | DIRECTION                  |                    |                             |          |     |                                              |             |                                                      |          |  |
|                                                                                       |                    |                            |                    |                             |          |     |                                              |             |                                                      |          |  |
|                                                                                       |                    |                            |                    |                             |          |     |                                              |             |                                                      |          |  |
| NOTES                                                                                 |                    |                            |                    |                             |          |     |                                              |             |                                                      |          |  |
|                                                                                       |                    |                            |                    |                             |          |     |                                              |             |                                                      |          |  |
| DRILLER SIGNATURE                                                                     |                    |                            |                    |                             | BOILER   |     | MAXIMUM EXPERIENCED HOOKLOAD                 |             | SAFETY TOPIC                                         |          |  |
|  |                    |                            |                    |                             | HRS. RAN | ph  | STACK TEMP.                                  |             |                                                      | M.A.C.P. |  |
|                                                                                       |                    |                            |                    |                             | 8        | 105 | 210°                                         |             |                                                      |          |  |

| DRILLING ASSEMBLY<br>(At End of Tour) |                         |         |        |          |                          | BIT RECORD     |     |      |     |               |                           |                                                 | MUD RECORD                          |                                       |                                        |                                        |                                        |
|---------------------------------------|-------------------------|---------|--------|----------|--------------------------|----------------|-----|------|-----|---------------|---------------------------|-------------------------------------------------|-------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| NO.                                   | BIT<br>(At End of Tour) |         | LENGTH |          | BIT NO.                  |                |     |      |     |               | MUD TYPE                  | <input checked="" type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED  |                                       |                                        |                                        |                                        |
|                                       | BIT                     | O.D. mm |        |          | SIZE (mm)                |                |     |      |     |               | TIME                      |                                                 |                                     |                                       |                                        |                                        |                                        |
|                                       | RHS                     | 226     | 1.22   | m        | 311                      |                |     |      |     |               | DENSITY kg/m <sup>3</sup> | 15.06                                           |                                     |                                       |                                        |                                        |                                        |
|                                       | LHC                     |         | 1859   | m        | IADC CODE                |                |     |      |     |               | FUNNEL VIS. - (S/L)       | 43                                              |                                     |                                       |                                        |                                        |                                        |
|                                       | X10                     | 245     | .43    | m        | MFG.                     | REED           |     |      |     |               | W.L. (cm <sup>3</sup> )   |                                                 |                                     |                                       |                                        |                                        |                                        |
|                                       | X10                     | 205     | .81    | m        | TYPE                     | HP13GJ         |     |      |     |               | pH                        | 8.5                                             |                                     |                                       |                                        |                                        |                                        |
|                                       |                         |         |        | m        | SERIAL NO.               | EB 8857        |     |      |     |               |                           |                                                 |                                     |                                       |                                        |                                        |                                        |
|                                       |                         |         |        | m        | JETS (mm)                | 2.14/3/16.9    |     |      |     |               |                           |                                                 |                                     |                                       |                                        |                                        |                                        |
|                                       |                         |         |        | m        | DEPTH OUT (m)            |                |     |      |     |               | MUD MATERIALS ADDED       |                                                 |                                     | SOLIDS CONTROL                        |                                        |                                        |                                        |
|                                       |                         |         |        | m        | DEPTH IN (m)             | 0              |     |      |     |               | PRODUCT                   | AMOUNT X UNIT                                   | DESILTER                            |                                       |                                        |                                        |                                        |
|                                       |                         |         |        | m        | TOTAL METRES DRILLED (m) | 34             |     |      |     |               | MSJ                       | 50 AX                                           | HOURS RUN                           | INTAKE DENSITY (kg/m <sup>3</sup> )   | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |
|                                       |                         |         |        | m        | TOTAL HOURS RUN          | 6              |     |      |     |               |                           |                                                 |                                     |                                       |                                        |                                        |                                        |
|                                       | D.P.                    | STANDS  |        | m        | CUTTING STRUCTURE        |                | B   | Gage | ODG | Reason Pulled | Total Run m/hr.           | CENTRIFUGE                                      |                                     |                                       |                                        |                                        |                                        |
|                                       | D.P.                    | SINGLES |        | m        | T <sub>1</sub>           | T <sub>2</sub> | MDC | LOC  |     |               | 56                        | HOURS RUN                                       | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |                                        |
|                                       | KELLYDOWN               |         | 13.26  | m        | HOLE CONDITION           |                |     |      |     |               |                           |                                                 |                                     |                                       |                                        |                                        |                                        |
|                                       | TOTAL                   |         | 34.66  | m        | HOLE DRAG                |                |     |      |     |               |                           |                                                 |                                     |                                       |                                        |                                        |                                        |
| WT. OF DC                             |                         |         | 15     | 1500 gms | TORQUE AT BOTTOM         |                |     |      |     |               |                           |                                                 |                                     | HOURS RUN                             | INTAKE DENSITY (kg/m <sup>3</sup> )    | OVERFLOW DENSITY (kg/m <sup>3</sup> )  | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |
| WT. OF STRING                         |                         |         | 15     | 1500 gms | FILL ON BOTTOM (m)       |                |     |      |     |               |                           |                                                 |                                     |                                       |                                        |                                        |                                        |

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |           |          |                    |                                       |                                          | BIT RECORD                |                                      |                                    |                |                                     |                                       |                                        | MUD RECORD |  |  |  |  |
|---------------------------------------|-----------|----------|--------------------|---------------------------------------|------------------------------------------|---------------------------|--------------------------------------|------------------------------------|----------------|-------------------------------------|---------------------------------------|----------------------------------------|------------|--|--|--|--|
| NO.                                   | BIT       | O.D. mm  | LENGTH             | B.T. NO.                              |                                          | MUD TYPE                  | <input type="checkbox"/> WATER BASED | <input type="checkbox"/> OIL BASED |                |                                     |                                       |                                        |            |  |  |  |  |
|                                       | BIS       | 326      | 1.12               | SIZE (mm)                             | 444                                      | TIME                      | 18:00                                | 21:00                              | 24:00          |                                     |                                       |                                        |            |  |  |  |  |
| 2                                     | DC        | 315      | .93                | IADC CODE                             |                                          | DENSITY kg/m <sup>3</sup> | 1106                                 | 1140                               | 1140           |                                     |                                       |                                        |            |  |  |  |  |
|                                       | 315       | 315      | .93                | MFG.                                  | SUNN                                     | FUNNEL VIS. - (S/L)       | 120+                                 | 100                                | 60             |                                     |                                       |                                        |            |  |  |  |  |
|                                       | 315       | 305      | .91                | TYPE                                  | SDSC                                     | W.L. (cm <sup>3</sup> )   |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |
| 1                                     | DC        | 198      | .93                | SERIAL NO.                            | XH5505                                   | pH                        | 8.5                                  | 8.5                                | 8.5            |                                     |                                       |                                        |            |  |  |  |  |
|                                       |           |          |                    | JETS (mm)                             | 3 x 1/4                                  | P.V.T                     | 8.5                                  | 8.2                                | 9.0            |                                     |                                       |                                        |            |  |  |  |  |
|                                       |           |          |                    | DEPTH OUT (m)                         | 40                                       | MUD MATERIALS ADDED       |                                      |                                    | SOLIDS CONTROL |                                     |                                       |                                        |            |  |  |  |  |
|                                       |           |          |                    | DEPTH IN (m)                          | 0                                        | PRODUCT AMOUNT X UNIT     |                                      |                                    | DESILER        |                                     |                                       |                                        |            |  |  |  |  |
|                                       |           |          |                    | TOTAL METRES DRILLED (m)              | 40                                       | GEL                       | 61                                   | 5X                                 | HOURS RUN      | INTAKE DENSITY (kg/m <sup>3</sup> ) | OVERFLOW DENSITY (kg/m <sup>3</sup> ) | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |            |  |  |  |  |
|                                       |           |          |                    | TOTAL HOURS RUN                       |                                          |                           |                                      |                                    | CENTRIFUGE     |                                     |                                       |                                        |            |  |  |  |  |
|                                       | D.P.      | STANDS   |                    | CUTTING STRUCTURE                     | B Gage ODC Reason Pulled Total Run m/hr. |                           |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |
|                                       | D.P.      | SINGLES  |                    | T <sub>1</sub> T <sub>2</sub> MDC LOC |                                          |                           |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |
|                                       | KELLYDOWN |          | 9.37               | HOLE CONDITION                        |                                          |                           |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |
|                                       | TOTAL     |          | 40.00              | HOLE DRAG                             |                                          |                           |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |
| WT.OF DC                              | 17        | 1200 g/m | TORQUE AT BOTTOM   |                                       |                                          |                           |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |
| WT.OF STRING                          | 17        | 1200 g/m | FILL ON BOTTOM (m) |                                       |                                          |                           |                                      |                                    |                |                                     |                                       |                                        |            |  |  |  |  |

| METRES DRILLED             |                 |                      |                  |                             |  | TIME LOG                                                                                                                        |                  |               |                              | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |              |  |  |          |  |  |
|----------------------------|-----------------|----------------------|------------------|-----------------------------|--|---------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|------------------------------|----------------------------------------------|--|--------------|--|--|----------|--|--|
| FROM                       | TO              | DMD<br>PSH<br>CORE-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 lbs) |  | FROM                                                                                                                            | TO               | ELAP.<br>TIME | CORE<br>NO.                  |                                              |  |              |  |  |          |  |  |
| 34                         | 50              | 16                   | 180              | S                           |  | 16 <sup>00</sup>                                                                                                                | 19 <sup>00</sup> | 3             | 2                            | DRILL F(34-50) INCREASE VIS GRIND W/35       |  |              |  |  |          |  |  |
| 0                          | 40 R            |                      |                  |                             |  | 10 <sup>00</sup>                                                                                                                | 19 <sup>30</sup> | 5             | 5                            | CIRC + CLEAN HOLE                            |  |              |  |  |          |  |  |
| CIRCULATION PRESSURE (kPa) | PUMP NO. 1      | PUMP NO. 2           |                  |                             |  | 19 <sup>30</sup>                                                                                                                | 20 <sup>30</sup> | 1             | 6                            | LID DRILL COLLARS MAKE UP FIT                |  |              |  |  |          |  |  |
|                            | LINER SIZE (mm) | S.P.M.               | LINER SIZE (mm)  | S.P.M.                      |  | 20 <sup>30</sup>                                                                                                                | 21 <sup>45</sup> | 125           | 3                            | REAM F(10-40)                                |  |              |  |  |          |  |  |
|                            | 152             | 120                  |                  |                             |  | 21 <sup>45</sup>                                                                                                                | 24 <sup>00</sup> | 225           | 5                            | CORE WAIT ON C/S                             |  |              |  |  |          |  |  |
| REDUCED PUMP SPEED         |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
| @                          |                 | @                    |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
| DEVIATION SURVEY           |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
| DEPTH (m)                  | DEVIATION (°)   |                      | DIRECTION        |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  |                                                                                                                                 |                  |               |                              |                                              |  |              |  |  |          |  |  |
|                            |                 |                      |                  |                             |  | NOTES ✓ CHANGED SAW TO BRASS AT 11M ALTHOUGH DEPTH WAS APPROX 12 M<br>#2 POWER SWING PH. 10.5 USED ST. PATENTED POW. 22-11-1974 |                  |               |                              |                                              |  |              |  |  |          |  |  |
| DRILLER SIGNATURE          |                 |                      |                  |                             |  | HRS. RUN:                                                                                                                       | BOILER ph        | STACK TEMP.   | MAXIMUM EXPERIENCED HOOKLOAD |                                              |  | SAFETY TOPIC |  |  | M.A.C.P. |  |  |
|                            |                 |                      |                  |                             |  | 8                                                                                                                               | 110              | 140           |                              |                                              |  |              |  |  |          |  |  |

121135

| DAILY CHECKS                                                  | O.P.R.  | R.M.    |
|---------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                              | Initial | Initial |
| (2) Detailed Inspection Weekly (using checklist)              | Initial | Initial |
| (3) H/S Signs Posted (if required)                            | Initial | Initial |
| (4) Wet License & Stick Diagram Posted                        | Initial | Initial |
| (5) Flare Lines Staked                                        | Initial | Initial |
| (6) BOP Daily Performed                                       | Initial | Initial |
| (7) Visually inspect BOP's - Flarelines & Degassifier Lines   | Initial | Initial |
|                                                               |         |         |
| (1) Rig Site Health and Safety Meeting (crew/crewmembers)     | Initial | Initial |
| (2) C.A.O.D.C. Rig Safety Inspection Checklist (once/monthly) | Initial | Initial |
| (3) Mast Inspection Before Raising or Lowering                | Initial | Initial |
| (4) Crown Saver Checked                                       | Initial | Initial |
| (5) Motor Kills checked                                       | Initial | Initial |

[illegible]

| NO. | DRILLING ASSEMBLY<br>(At End of Tour) |  |           | LENGTH | BIT RECORD                            |  |  |  |                    |      |     |               | MUD RECORD      |                              |                                                                         |                         |                          |                       | METRES DRILLED          |                          |                              |                  | TIME LOG                    |      |    |               | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |  |  |  |  |  |  |
|-----|---------------------------------------|--|-----------|--------|---------------------------------------|--|--|--|--------------------|------|-----|---------------|-----------------|------------------------------|-------------------------------------------------------------------------|-------------------------|--------------------------|-----------------------|-------------------------|--------------------------|------------------------------|------------------|-----------------------------|------|----|---------------|----------------------------------------------|--|--|--|--|--|--|--|
|     | BIT                                   |  | C.D. DATA |        | BIT NO.                               |  |  |  |                    |      |     |               |                 | MUD TYPE                     | <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |                         |                          |                       | FROM                    | TO                       | D.R.O.<br>R.A.C.H.<br>CORE C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 daN) | FROM | TO | ELAP.<br>TIME | CODE<br>NO.                                  |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | SIZE (mm)                             |  |  |  |                    |      |     |               |                 | TIME                         |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | IADC CODE                             |  |  |  |                    |      |     |               |                 | DENSITY<br>kg/m <sup>3</sup> |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | MFG.                                  |  |  |  |                    |      |     |               |                 | FUNNEL<br>VIS. - (S/L)       |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | TYPE                                  |  |  |  |                    |      |     |               |                 | W.L. (cm <sup>2</sup> )      |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | SERIAL NO.                            |  |  |  |                    |      |     |               |                 | pH                           |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | JETS (mm)                             |  |  |  |                    |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | DEPTH OUT (m)                         |  |  |  |                    |      |     |               |                 | MUD MATERIALS ADDED          |                                                                         | SOLIDS CONTROL          |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | DEPTH IN (m)                          |  |  |  |                    |      |     |               |                 | PRODUCT                      | AMOUNT X UNIT                                                           | DESILTER                |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | TOTAL METRES DRILLED (m)              |  |  |  |                    |      |     |               |                 | HOURS RUN                    | INTAKE DENSITY (kgm.)                                                   | OVERFLOW DENSITY (kgm.) | UNDERFLOW DENSITY (kgm.) |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | TOTAL HOURS RUN                       |  |  |  |                    |      |     |               |                 |                              |                                                                         | CENTRIFUGE              |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | CUTTING STRUCTURE                     |  |  |  | B                  | Gage | ODC | Reason Pulled | Total Run m/hr. | HOURS RUN                    | INTAKE DENSITY (kgm.)                                                   | OVERFLOW DENSITY (kgm.) | UNDERFLOW DENSITY (kgm.) |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | T <sub>1</sub> T <sub>2</sub> MDC LOC |  |  |  |                    |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | D.P. STANDS                           |  |  |  |                    |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | D.P. SINGLES                          |  |  |  |                    |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | KELLYDOWN                             |  |  |  | HOLE CONDITION     |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | TOTAL                                 |  |  |  | HOLE DRAG          |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | WT. OF DC                             |  |  |  | TORQUE AT BOTTOM   |      |     |               |                 |                              |                                                                         |                         | HOURS RUN                | INTAKE DENSITY (kgm.) | OVERFLOW DENSITY (kgm.) | UNDERFLOW DENSITY (kgm.) |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |
|     |                                       |  |           | m      | WT. OF STRING                         |  |  |  | FILL ON BOTTOM (m) |      |     |               |                 |                              |                                                                         |                         |                          |                       |                         |                          |                              |                  |                             |      |    |               |                                              |  |  |  |  |  |  |  |

MORNING TOUR

Rig up

#2 Boiler 8 Hrs.

Joda Black

[illegible]

| DRILLING ASSEMBLY<br>(At End of Tour) |      |           |        | BIT RECORD                                                                     |                                                                                  |  |  | MUD RECORD |                                     |                                     |                                       | METRES DRILLED                        |                                        |                                        |                                        | TIME LOG   |          |                             |  | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |  |  |  |
|---------------------------------------|------|-----------|--------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--|--|------------|-------------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|------------|----------|-----------------------------|--|----------------------------------------------|--|--|--|
| NO.                                   | BIT  | O.D. (mm) | LENGTH | BIT NO.                                                                        | MUD TYPE <input type="checkbox"/> WATER BASED <input type="checkbox"/> OIL BASED |  |  |            | FROM                                | TO                                  | D.T.D. (min)                          | ROTARY R.P.M.                         | WT. ON BIT (1000 gms)                  | FROM                                   | TO                                     | ELAP. TIME | CODE NO. |                             |  |                                              |  |  |  |
|                                       |      |           |        | SIZE (mm)                                                                      | TIME                                                                             |  |  |            |                                     |                                     |                                       |                                       |                                        | 1600                                   | 2300                                   | 7          | 1        | Big up.<br>Drill Mouse Hole |  |                                              |  |  |  |
|                                       |      |           |        | DENSITY kg/m <sup>3</sup>                                                      |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        | 2300                                   | 2400                                   | 1          |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | ADC CODE                                                                       | DENSITY kg/m <sup>3</sup>                                                        |  |  |            | CIRCULATION PRESSURE (kPa)          |                                     | PUMP NO. 1                            |                                       | PUMP NO. 2                             |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | MFG.                                                                           | FUNNEL VIS. - (S/L)                                                              |  |  |            | LINER SIZE (mm)                     |                                     | S.P.M.                                |                                       | LINER SIZE (mm)                        |                                        | S.P.M.                                 |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | TYPE                                                                           | W.L. (cm <sup>3</sup> )                                                          |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | SERIAL NO.                                                                     | pH                                                                               |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | JETS (mm)                                                                      |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | DEPTH OUT (m)                                                                  | MUD MATERIALS ADDED                                                              |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | DEPTH IN (m)                                                                   | PRODUCT                                                                          |  |  |            | AMOUNT X UNIT                       |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | TOTAL METRES DRILLED (m)                                                       | HOURS RUN                                                                        |  |  |            | INTAKE DENSITY (kg/m <sup>3</sup> ) |                                     | OVERFLOW DENSITY (kg/m <sup>3</sup> ) |                                       | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       |      |           |        | TOTAL HOURS RUN                                                                | CENTRIFUGE                                                                       |  |  |            | HOURS RUN                           |                                     | INTAKE DENSITY (kg/m <sup>3</sup> )   |                                       | OVERFLOW DENSITY (kg/m <sup>3</sup> )  |                                        | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |            |          |                             |  |                                              |  |  |  |
|                                       | D.P. | STANDS    |        | CUTTING STRUCTURE                                                              |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
|                                       | D.P. | SINGLES   |        | T <sub>1</sub> T <sub>2</sub> MDC LOC B Gage ODC Reason Pulled Total Run m/hr. |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
| KELLY DOWN                            |      |           |        | HOLE CONDITION                                                                 |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
| TOTAL                                 |      |           |        | HOLE DRAG                                                                      |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |
| WT. OF DC                             |      |           |        | TORQUE AT BOTTOM                                                               |                                                                                  |  |  | HOURS RUN  |                                     | INTAKE DENSITY (kg/m <sup>3</sup> ) |                                       | OVERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        | UNDERFLOW DENSITY (kg/m <sup>3</sup> ) |                                        |            |          |                             |  |                                              |  |  |  |
| WT. OF STRING                         |      |           |        | FILL ON BOTTOM (m)                                                             |                                                                                  |  |  |            |                                     |                                     |                                       |                                       |                                        |                                        |                                        |            |          |                             |  |                                              |  |  |  |

EVENING TOUR

NOTES  
 #2 Bounce 8H.A.

DRILLER SIGNATURE  
 2nd Shift

BOILER  
 HRS. RAN ph STACK TEMP.

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

121134

| DAILY CHECKS                                                    | OPR.          | R.M.          |
|-----------------------------------------------------------------|---------------|---------------|
| (1) Daily Walk Around Inspection                                | Initial _____ | Initial _____ |
| (2) Detailed Inspection-Weekly (using checklist)                | Initial _____ | Initial _____ |
| (3) H/S Signs Posted (if required)                              | Initial _____ | Initial _____ |
| (4) Well License & Stick Diagram Posted                         | Initial _____ | Initial _____ |
| (5) Flare Lines Staked                                          | Initial _____ | Initial _____ |
| (6) BOP Drills Performed                                        | Initial _____ | Initial _____ |
| (7) Visually Inspect BOP's - Flarelines & Degasser Lines        | Initial _____ | Initial _____ |
|                                                                 |               |               |
| (1) Rig Site Health and Safety Meeting (one/crew/month)         |               | Initial _____ |
| (2) C.A.O.D.G. Rig Safety Inspection Checklist (one/crow/month) |               | Initial _____ |
| (3) Mast Inspection Before Raising or Lowering                  |               | Initial _____ |
| (4) Crown Saver Checked                                         |               | Initial _____ |
| (5) Motor Killa checked                                         |               | Initial _____ |

[illegible]

| TIME - HRS | CODE NO. | 1                  | 2            | 3       | 4      | 5                 | 6     | 7           | 8          | 9                  | 10         | 11             | 12                | 13             | 14               | 15          | 16              | 17        | 18             | 19      | 20        | 21          | 22 | 23     | 24 | 25 | 26 | TOTALS | SHALE SHAKER(S) |     | RENTALS/SERVICES |                                                          |        |     |     |  |
|------------|----------|--------------------|--------------|---------|--------|-------------------|-------|-------------|------------|--------------------|------------|----------------|-------------------|----------------|------------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|----|--------|----|----|----|--------|-----------------|-----|------------------|----------------------------------------------------------|--------|-----|-----|--|
|            |          | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | COND. MUD & CIRC. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV SURVEY | WIRE LINE LOGS | RUN CASE & CEMENT | WAIT ON CEMENT | NIPPLE UP B.O.P. | TEST B.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DRL. WORK | SAFETY MTG. |    |        |    |    |    |        |                 | NO. | TYPE             |                                                          | MORN   | DAY | EVE |  |
|            | MORN.    |                    |              |         |        |                   |       |             |            |                    |            |                |                   |                |                  |             |                 |           |                |         |           |             |    | Mac Ry |    |    |    |        |                 |     |                  | <input type="checkbox"/> YES <input type="checkbox"/> NO |        |     |     |  |
|            | DAY      |                    |              |         |        |                   |       |             |            |                    |            |                |                   |                |                  |             |                 |           |                |         |           |             |    | 8      |    |    |    |        |                 |     | 8                | TOP                                                      | TOP    |     |     |  |
|            | EVE      |                    |              |         |        |                   |       |             |            |                    |            |                |                   |                |                  |             |                 |           |                |         |           |             |    |        |    |    |    |        |                 |     |                  | MIDDLE                                                   | MIDDLE |     |     |  |
|            | TOTAL    |                    |              |         |        |                   |       |             |            |                    |            |                |                   |                |                  |             |                 |           |                |         |           |             |    |        |    |    |    |        |                 |     |                  | BOTTOM                                                   | BOTTOM |     |     |  |

| METRES DRILLED                   |               |                             |                  |                            | TIME LOG           |              |               |                              | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |          |  |  |
|----------------------------------|---------------|-----------------------------|------------------|----------------------------|--------------------|--------------|---------------|------------------------------|----------------------------------------------|----------|--|--|
| FROM                             | TO            | D.R.O.<br>R.M.R.<br>CORE C. | POTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 gN) | FROM               | TO           | ELAP.<br>TIME | CODE<br>NO.                  |                                              |          |  |  |
| CIRCULATION<br>PRESSURE<br>(kPa) | PUMP NO. 1    | LINER<br>SIZE (mm)          | S.P.M.           | PUMP NO. 2                 | LINER<br>SIZE (mm) | S.P.M.       |               |                              |                                              |          |  |  |
| REDUCED PUMP SPEED               |               |                             |                  |                            |                    |              |               |                              |                                              |          |  |  |
| @                                |               | @                           |                  |                            |                    |              |               |                              |                                              |          |  |  |
| DEVIATION SURVEY                 |               |                             |                  |                            |                    |              |               |                              |                                              |          |  |  |
| DEPTH (m)                        | DEVIATION (°) |                             | DIRECTION        |                            |                    |              |               |                              |                                              |          |  |  |
|                                  |               |                             |                  |                            | NOTES              |              |               |                              |                                              |          |  |  |
| DRILLER SIGNATURE                |               |                             |                  |                            | HRS. RAN           | BOILER<br>ph | STACK TEMP.   | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC                                 | M.A.C.P. |  |  |

*inload Trucks + spot loads*

*Lody Black*

| METRES DRILLED             |               |                        |                  |                             |  | TIME LOG         |                  |               |                              | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |          |  |  |
|----------------------------|---------------|------------------------|------------------|-----------------------------|--|------------------|------------------|---------------|------------------------------|----------------------------------------------|----------|--|--|
| FROM                       | TO            | DR-D<br>RM-R<br>CORE-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 daN) |  | FROM             | TO               | ELAP.<br>TIME | CODE<br>NO.                  |                                              |          |  |  |
|                            |               |                        |                  |                             |  | 08 <sup>00</sup> | 16 <sup>00</sup> | 8 22          |                              | Max Rig                                      |          |  |  |
| CIRCULATION PRESSURE (kPa) | PUMP NO. 1    | PUMP NO. 2             |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
| LINER SIZE (mm)            | S.P.M.        | LINER SIZE (mm)        | S.P.M.           |                             |  |                  |                  |               |                              |                                              |          |  |  |
| REDUCED PUMP SPEED         |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
| @                          |               | @                      |                  |                             |  |                  |                  |               |                              | Rig up DERRICK                               |          |  |  |
| DEVIATION SURVEY           |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
| DEPTH (m)                  | DEVIATION (°) | DIRECTION              |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
|                            |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
|                            |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
| NOTES                      |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
|                            |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |
| DRILLER SIGNATURE          |               |                        |                  |                             |  | HRS. RUN         | BOILER<br>ph     | STACK TEMP.   | MAXIMUM EXPERIENCED HOOKLOAD | SAFETY TOPIC                                 | M.A.C.P. |  |  |
|                            |               |                        |                  |                             |  |                  |                  |               |                              |                                              |          |  |  |

DAY  
TOWER

NGH  
60-12-24

|                   | METRES DRILLED             |               |                            |                  |                            | TIME LOG |             |               |                              | DETAILS OF OPERATION IN SEQUENCE AND REMARKS |              |  |          |
|-------------------|----------------------------|---------------|----------------------------|------------------|----------------------------|----------|-------------|---------------|------------------------------|----------------------------------------------|--------------|--|----------|
|                   | FROM                       | TO            | D.R.D<br>P.M.-R.<br>CORE-C | ROTARY<br>R.P.M. | WT. ON<br>BIT<br>(1000 lb) | FROM     | TO          | ELAP.<br>TIME | CODE<br>NO.                  |                                              |              |  |          |
| EVENING TOUR      | CIRCULATION PRESSURE (kPa) | PUMP NO. 1    | PUMP NO. 2                 |                  |                            |          |             |               |                              | FIRE 2 BOILERS                               |              |  |          |
|                   | LINER SIZE (mm)            | S.P.M.        | LINER SIZE (mm)            | S.P.M.           |                            |          |             |               |                              | SPOT SUB.                                    |              |  |          |
|                   | REDUCED PUMP SPEED         |               |                            |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   | @                          |               | @                          |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   | DEVIATION SURVEY           |               |                            |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   | DEPTH (m)                  | DEVIATION (") | DIRECTION                  |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   |                            |               |                            |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   |                            |               |                            |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   |                            |               |                            |                  |                            |          |             |               |                              |                                              |              |  |          |
|                   |                            |               |                            |                  |                            |          |             |               |                              |                                              |              |  |          |
| DRILLER SIGNATURE |                            |               |                            |                  | BOILER                     |          |             |               | MAXIMUM EXPERIENCED HOOKLOAD |                                              | SAFETY TOPIC |  | M.A.C.P. |
| Jade Black        |                            |               |                            |                  | HRS. RUN                   | ph       | STACK TEMP. |               |                              |                                              |              |  |          |
|                   |                            |               |                            |                  | 8                          |          |             |               |                              |                                              |              |  |          |

121133

| DAILY CHECKS                                                       | OPR.    | R.M.    |
|--------------------------------------------------------------------|---------|---------|
| (1) Daily Walk Around Inspection                                   | Initial | Initial |
| (2) Detailed Inspection Weekly (using checklist)                   | Initial | Initial |
| (3) H/S Signs Posted (if required)                                 | Initial | Initial |
| (4) Wall Loose & Stick Diagram Posted                              | Initial | Initial |
| (5) Flame Lines Staked                                             | Initial | Initial |
| (6) BOP Drills Performed                                           | Initial | Initial |
| (7) Visually inspect BOP's - Flowlines & Degasser Lines            | Initial | Initial |
|                                                                    |         |         |
| (1) Rig Site Health and Safety Meeting (once/week/monthly)         |         | Initial |
| (2) C.A.O.B.C. Rig Safety Inspection Checklist (once/week/monthly) |         | Initial |
| (3) Mast Inspection Before Raising or Lowering                     |         | Initial |
| (4) Crown Saver Checked                                            |         | Initial |
| (5) Motor Kolls checked                                            |         | Initial |

[illegible][illegible][illegible][illegible][illegible]

LICENCE NO.: 1887

WELL NAME AND NO.: 121132

OPERATOR: AKITA/SAHTU DRILLING,

CONTRACTOR: a joint venture of AKITA Drilling Ltd.

SURFACE LOCATION: TATE C-18

UNIQUE ID: AKITA/SAHTU DRILLING, a joint venture of AKITA Drilling Ltd.

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S REPRESENTATIVE:

DAILY CHECKS

OPR. R.M.

YEAR MONTH DAY

FUEL @ 8:00

WATER

TEMPERATURE

CURRENT CONDITIONS

WIND DIRECTION

ROAD

O.D. (mm)

MIN. I.D. (mm)

kg/m

MAKE

GRADE

NO. OF JOINTS

TOTAL (m) LENGTH

KB TO CSG HEAD (m)

SET AT (m)

OC/D.P. SIZE (mm)

LINEAR MASS (kg/m)

GRADE

MIN. ID (mm)

TOOL JT O.D. (mm)

TYPE THREAD

NO. OF JOINTS

PUMP TYPE

PUMP MANUFACTURER

STROKE LTH. (mm)

| TIME - HRS | CODE NO. | 1     | 2                  | 3            | 4       | 5      | 6                  | 7     | 8           | 9          | 10                 | 11          | 12             | 13                 | 14             | 15               | 16          | 17              | 18        | 19             | 20      | 21        | 22          | 23 | 24 | 25 | 26     | TOTALS | SHALE SHAKER(S)                                                          |        | RENTALS/SERVICES |      | MORN | DAY | EVE |  |  |
|------------|----------|-------|--------------------|--------------|---------|--------|--------------------|-------|-------------|------------|--------------------|-------------|----------------|--------------------|----------------|------------------|-------------|-----------------|-----------|----------------|---------|-----------|-------------|----|----|----|--------|--------|--------------------------------------------------------------------------|--------|------------------|------|------|-----|-----|--|--|
|            |          | OPER. | RIG UP & TEAR DOWN | DRILL ACTUAL | REAMING | CORING | COND. MUD & C.D.C. | TRIPS | RIG SERVICE | REPAIR RIG | CUT OFF DRILL LINE | DEV. SURVEY | WIRE LINE LOGS | FEEL CASE & CEMENT | WAT. ON CEMENT | NIPPLE UP R.O.P. | TEST R.O.P. | DRILL STEM TEST | PLUG BACK | SQUEEZE CEMENT | FISHING | DIR. WORK | SAFETY MTG. |    |    |    |        |        |                                                                          |        | NO.              | TYPE |      |     |     |  |  |
|            |          |       |                    |              |         |        |                    |       |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |    |    |    |        |        | SCREENS CHANGED <input type="checkbox"/> YES <input type="checkbox"/> NO |        |                  |      |      |     |     |  |  |
|            |          | MORN  |                    |              |         |        |                    |       |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |    |    |    |        |        | TOP                                                                      | TOP    |                  |      |      |     |     |  |  |
|            |          | DAY   |                    |              |         |        |                    |       |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |    |    |    |        |        | MIDDLE                                                                   | MIDDLE |                  |      |      |     |     |  |  |
| EVE        |          |       |                    |              |         |        |                    |       |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |    |    |    | BOTTOM | BOTTOM |                                                                          |        |                  |      |      |     |     |  |  |
| TOTAL      |          |       |                    |              |         |        |                    |       |             |            |                    |             |                |                    |                |                  |             |                 |           |                |         |           |             |    |    |    |        |        |                                                                          |        |                  |      |      |     |     |  |  |

DRILLING ASSEMBLY (At End of Tour)

LENGTH

NO.

BIT

O.D. (mm)

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

WT. OF STRING

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m³)

FUNNEL VIS. (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

REDUCED PUMP SPEED

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

BOILER

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)

LENGTH

NO.

BIT

O.D. (mm)

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

WT. OF STRING

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m³)

FUNNEL VIS. (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

REDUCED PUMP SPEED

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

BOILER

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

DRILLING ASSEMBLY (At End of Tour)

LENGTH

NO.

BIT

O.D. (mm)

BIT NO.

SIZE (mm)

IADC CODE

MFG.

TYPE

SERIAL NO.

JETS (mm)

DEPTH OUT (m)

DEPTH IN (m)

TOTAL METRES DRILLED (m)

TOTAL HOURS RUN

CUTTING STRUCTURE

D.P.

STANDS

D.P.

SINGLES

KELLY DOWN

TOTAL

WT. OF DC

WT. OF STRING

BIT RECORD

MUD RECORD

MUD TYPE

WATER BASED

OIL BASED

TIME

DENSITY (kg/m³)

FUNNEL VIS. (S/L)

W.L. (cm³)

pH

MUD MATERIALS ADDED

SOLIDS CONTROL

PRODUCT

AMOUNT X UNIT

DESILTER

CENTRIFUGE

HOURS RUN

INTAKE DENSITY (kg/m³)

OVERFLOW DENSITY (kg/m³)

UNDERFLOW DENSITY (kg/m³)

HOLE CONDITION

HOLE DRAG

TORQUE AT BOTTOM

FILL ON BOTTOM (m)

METRES DRILLED

TIME LOG

DETAILS OF OPERATION IN SEQUENCE AND REMARKS

FROM

TO

ELAP. TIME

CODE NO.

CIRCULATION PRESSURE (kPa)

PUMP NO. 1

PUMP NO. 2

REDUCED PUMP SPEED

DEVIATION SURVEY

DEPTH (m)

DEVIATION (°)

DIRECTION

DRILLER SIGNATURE

BOILER

MAXIMUM EXPERIENCED HOOKLOAD

SAFETY TOPIC

M.A.C.P.

