# DRILLING REPORT

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|---|---|---|---|---|---|---|---|---|---|
| **WELL:** | UL American Basin 14-21 1H | | **CONTRACTOR:** | Cactus | | | **RIG:** | Cactus 139 | |
| **RPT DATE:** | September 11, 2017 | | **SPUD DATE:** | 8/7/17 | **CASING** | **OD** | **WT** | **GRD** | **MD** | **TVD** |
| | **API #:** | 42495338760000 | **DFS:** | 35 | Conductor | 20 | 94 | J-55 | 80 | 80 |
| | | | **REPORT NO:** | 36 | Surface | 13-3/8 | 55 | J-55 | 1,172 | 1,171 |
| **FIELD:** | Phantom (Wolfcamp) | | **DOL:** | 39 | Intermediate | 10-3/4 | 46 | J-55 | 4,623 | 4,616 |
| **ELEV:** | | **RKB:** | **LAST BOP TEST:** | 8/30/17 | Intermediate 2 | 7-5/8 | 30 | P-110HC | 11,046 | |
| **MD:** | 16,828 | **TVD:** 11,813 | | | | | | | | |
| **24 HR FTG:** | | **HRS DRLG:** | **CSGHD:** | | | | | | | |

**DRILLING FLUID** — **SHOE TEST:**

| TIME | MW | FV | WL | 3RPM | 6RPM | PH | CAKE | GELS (10s/10m/30m) | | | PV | YP | CL | K | Pf | Mf | Ca | OIL | LGS | HTHP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18:00 | 14.4 | 62.0 | 1.9 | 4 | 5 | | 2 | 12 | 16 | 14 | 22 | 8 | 47,000 | | | | 6,000 | 55.00 | 5.35 | 250.00 |

**REDUCED PUMP RATES**

| PUMP | SPM | PRESS | DEPTH |
|---|---|---|---|
| #1 | 30 | 1,250 | 16,663 |
| #2 | 30 | 875 | 14,526 |

**BIT DATA**

| NO. | SIZE | MAKE | TYPE | SER NO. | NOZZLES | RE-RUN | IN | OUT | FEET | HRS | WOB | RPM | ROP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 6.75 | Smith | (RR) XR+ | RJ2583 (RR) | 3x20 | | 16,828 | 16,828 | | | 5 | 0 | |

| BIT NO. | | INNER | | OUTER | | DULL | | LOC | | SEAL | | GAUGE | | OTHER | | RP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**HYDRAULICS DATA**

| PUMP | MAKE | MODEL | LINER | STK | SPM | PSI | GPM | GPS | EFF % | ECD | AV DP | AV DC | BIT HHP | PUMP HHP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HHF | 1600 | 5.000 | 12.000 | | | | | | | | | | |
| 2 | HHF | 1600 | 5.000 | 12.000 | 95 | 3050 | 275 | 2.9106 | 95 | | | | | 1600 |

**BHA**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION: | 6.75" Lateral Reamer Run | | | | | | |
| LENGTH | 7,162.87 | BHA WT. AIR | 85,000 | BHA WT. MUD | 68,000 | HRS. ON JARS | |
| ROT. WT. | 220,000 | P.U. WT. | 270,000 | S.O. WT. | 195,000 | TORQUE | 10,500 |
| TIME MADE UP | 17:30 | DATE MADE UP | 8/8/2017 | TIME PULLED | | DATE PULLED | |

**SURVEY DATA**

| MD | ANGLE | AZIMUTH | TVD | N/S | COORDINATES | E/W | V. SECTION | DLS |
|---|---|---|---|---|---|---|---|---|
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| **CONSUMABLES** | DIESEL FUEL (gal) Rvcd/Used/On Hand: | | DRILL H2O (gal) Rcvd/Used/On Hand: | |
|---|---|---|---|---|

## *OPERATIONS TIME LOG*

| FROM | TO | HRS | CODE | | Start MD | End MD |
|---|---|---|---|---|---|---|
| 06:00 | 10:30 | 4.5 | Reaming | Work pipe while attempting to ream at 14,909' with little success. Hole attempting to pack-off | 16828 | 16828 |
| 10:30 | 12:30 | 2.0 | Cond Mud & Circ | Working tight hole F/ 14,815' - 14,909'<br>Weight up from 14.2 ppg to 14.4 ppg. | 16828 | 16828 |
| 12:30 | 15:30 | 3.0 | Reaming | Cont. Reaming tight hole F/ 14,909' - 15,090'<br>90-RPM, 275-GPM, 95-SPM, 5K-WOB | 16828 | 16828 |
| 15:30 | 16:00 | 0.5 | Lubricate Rig | Lubricate Rig as follows: Grease all lower zerks on TD & swivel packing, 2.5 gals. Hydraulic oil | 16828 | 16828 |
| 16:00 | 16:30 | 0.5 | Reaming | Cont. Reaming tight hole F/ 15,090' - 15,107', 90-RPM, 275-GPM, 95-SPM, 5K-WOB, Hole began packing off, rack 1 stand back in derrick | 16828 | 16828 |
| 16:30 | 17:00 | 0.5 | Other | Work to regain circulation | 16828 | 16828 |
| 17:00 | 20:00 | 3.0 | Cond Mud & Circ | Working tight hole F/ 15,002' - 15,096'. Weight up from 14.4 ppg to 14.5+ ppg. Pumping LCM sweeps to combat losses to hole<br>24 hr, 18:00-18:00 losses to formation reported @ 166 bbls. | 16828 | 16828 |
| 20:00 | 21:00 | 1.0 | Reaming | Cont. Reaming tight hole F/ 15,096' - 15,153'. 90-RPM, 275-GPM, 95-SPM, 5K-WOB. Hole packed off @ 15,153' | 16828 | 16828 |
| 21:00 | 22:30 | 1.5 | Cond Mud & Circ | Work to regain circulation, CBU | 16828 | 16828 |
| 22:30 | 06:00 | 7.5 | Reaming | Cont. Reaming tight hole F/ 15,153' - 15,594'. 90-RPM, 275-GPM, 95-SPM, 10K-WOB | 16828 | 16828 |
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| **TOTAL HRS** | | **24.0** | | | | |

**WEATHER**

| **GEN. CONDITIONS:** | Clear | **WIND SPEED:** | 9 MPH | **WIND DIRECTION:** | E | **TEMP:** | 65 |
|---|---|---|---|---|---|---|---|
| **COMMENTS:** | Forecast: A mainly sunny sky. High around 90F. Winds E at 5 to 10 mph. | | | | | | |