

Daily Drilling Report

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|--|--------------------|--|-------------------------------|---|-------------------------|---|--|--------------------------------------|---------------|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | |
| Safety Checks | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | |
| 14:30 | MEETING | JSA | DAY | PJSM discussing skidding operations with H&P crews | | | | | |
| 17:45 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - P/U directional tools, RIH w/ DC's and HWDP from derrick, TIH and drill out float equipment, shoe track and 10' new formation while displacing to brine water. Circulate and condition mud, perform FIT to 13ppg EMW. Drill 12 1/4 intermediate section per plan. Use good communication while working BHA, watch hand and body placement while making connections. Use good communication on fluid transfers. Double check equipment prior to use and ensure it is ready to go. | | | | | |
| 17:50 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47361 Date: 12/02/2019 Classification: Contractor - Property Damage (Low), Significant Near Miss (High) Description: Contractor was running 5-1/2 inch production casing when a joint became unlatched from the elevators when it struck the cross beam grit on the A leg. The piece of casing then slid back down the v-door to the catwalk, bouncing over the gull wing landing on the ground. There was damage to the both link tilt cylinders, production casing and elevator pin. No personnel were in the buffer zone at the time and no injuries were reported. Incident was reported to PNR Reps with further review of the incident to be conducted by the contractor | | | | | |
| 18:00 | MEETING | JSA | NIGHT | PJSM w/ PNR, H&P and Gyrodata discussing directional tool handling/pick up operations | | | | | |
| 02:15 | PROACTIVE MEASURES | STOP CARD - NON PNR | NIGHT | Stop card: RTM pressure washing on rig floor with faceshield in incorrect position, he was stopped and discussion was had about wearing PPE properly. Discussed importance of protecting his face and eyes from debris and that if he could not see he should clean it to work safely. RTM understood and agreed to do so in future | | | | | |
| Jobs | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | | Job Status | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | | IN PROGRESS | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | |
| Type | | | Subtype | | Date | Note | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 2/5/2019 | Drilling 2nd Int section on 3 well pad - batch drilling (updated 12/3/19) | | | |
| Daily Operations | | | | | | | | | |
| Footage/Meterage (ft) 270.00 | | Drilling Hours (hr) 3.25 | | % Rotating Time (%) 84.62 | | End Depth (ftKB) 2,279.0 | | Target Depth (ftKB) 18,008.0 | |
| Daily Field Est Total (Cost) 84,742.18 | | Cum Field Est To Date (Cost) 422,565.55 | | | | | | | |
| 24 HR ROP (ft/hr) 83.1 | | Circulating Hours (hr) 0.50 | | % Sliding Time (%) 15.38 | | End Depth (TVD) (ftKB) 2,278.2 | | Target Depth (TVD) (ftKB) 9,000.0 | |
| Daily Mud Field Est (Cost) | | Cum Mud Field Est (Cost) | | Total AFE + Sup (Cost) 3,098,502.34 | | | | | |
| Daily Goal Description DRILLED FEET | | | | Daily Goal - Last 24 500.0 | | Daily Goal - Next 24 2,500.0 | | Goal Comments Goal not met (-46%) | |
| Backbuild No | | Lateral Inclination | | Last Casing String SURFACE, 1,989.3ftKB | | | Next Casing String PROPOSED INTERMEDIATE, 6,072.0ftKB | | |
| Avg Connection Gas 0.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 0.00 | | Max Connection Gas 0.00 | | Max Trip Gas 0.00 | |
| Max Drill Gas 0.00 | | | | | | | | | |
| Operations Summary Skid from University 6E 5H, N/U and shell test, P/U directional tools, TIH, Drill out FE and 10' new formation, C&C, Perform FIT to 13ppg EMW, Drill 12 1/4" Int f/ 2019' t/ 2279' (15.4% sliding, 8° tangent, 0.9' behind, 3.7' left) | | | | | | | | | |
| Operations Next Report Period Drill 12 1/4" Int section f/ 2279' t/ 4779' | | | | | | | | | |
| Operations at Report Time Drilling 12 1/4" Int section @ 2279' | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | |
| Rig NPT: 1.75 hours | | | | | | | | | |
| 3rd Party NPT: 0 hours | | | | | | | | | |
| PNR NPT: 0 hours | | | | | | | | | |
| Surf:100% Int: 7% Prod Vertical: 0% Curve: 0% Lat: 0% | | | | | | | | | |
| Gen Hours: 1- 4 hrs, 2- 15.75 hrs, 3- 15.75 hrs | | | | | | | | | |
| Saver Sub footage: 4,428' | | | | | | | | | |
| Initial Water Meter Reading: 535859 | | | | | | | | | |
| Time Log | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) |
| Prob Ref # | | | | | | | | | |
| 14:15 | 0.25 | 14:30 | MOB, RIG UP | WH | NORMAL | Pull TA cap w/ Cactus rep on the University 6D 4H well | 2,009.5 | 2,009.5 | |
| 14:30 | 0.25 | 14:45 | MOB, RIG UP | SFTY | NORMAL | PJSM discussing skidding operations with H&P crews | 2,009.5 | 2,009.5 | |
| 14:45 | 1 | 15:45 | MOB, RIG UP | SKID | NORMAL | Skid rig from University 6E 5H to University 6D 4H with no incidents | 2,009.5 | 2,009.5 | |
| 15:45 | 0.75 | 16:30 | MOB, RIG UP | NU_BOPE | NORMAL | Set stack and torque up connections. N/U choke, kill and mud lines | 2,009.5 | 2,009.5 | |
| 16:30 | 0.75 | 17:15 | MOB, RIG UP | CONC_BOPE | NORMAL | Perform shell test of BOP with Battle testers. Each test 250 low / 5000 high for 5min and charted | 2,009.5 | 2,009.5 | |
| 17:15 | 0.75 | 18:00 | INT, PRE DRL | WRBSH | NORMAL | Pull test plug, install wearbushing and mousehole | 2,009.5 | 2,009.5 | |
| 18:00 | 0.25 | 18:15 | INT, PRE DRL | SFTY | NORMAL | PJSM w/ PNR, H&P and Gyrodata discussing directional tool handling/pick up operations | 2,009.5 | 2,009.5 | |
| | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | |

Daily Drilling Report

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|--------------------------|-----------------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: | Days Since RI: 79.00 |
| 1,467.00 | |

| PERMIAN ASSET TEAM | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/4/2019 |
| Report #: | 4 |
| DFS: | 2 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$84,742.18 |

| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # |
|------------|----------|----------|--------------|-----------|--------------|---|--------------------|------------------|---------------|------------|
| 18:15 | 2.25 | 20:30 | INT, PRE DRL | PU_ DIR | NORMAL | P/U directional tools as follows: P/U new Gyrodata 8 x 9 5/8" combo motor and place in hole. Handle UBHO/stabilizer/NMDC's from derrick. * BHA racked back with joint of DP and XO on top for length - had to lay both down * L/D top NMDC and install lift sub. Scribe tools. Attempt to M/U bit | 2,009.5 | 2,009.5 | | |
| 20:30 | 0.5 | 21:00 | INT, PRE DRL | PU_ DIR | NORMAL | OMRON torque for rig tongs stopped reading and manual gauge also not working. Break off bit - bit was made up and over torqued. Sent RTM to H&P 645 to P/U manual gauge. Inspect bit - gaugled threads on pin. Decision made to P/U another bit | 2,009.5 | 2,009.5 | 0.50 | 1 |
| 21:00 | 0.5 | 21:30 | INT, PRE DRL | PU_ DIR | NORMAL | While waiting on back up bit to be sent to floor, install MWD sleeve | 2,009.5 | 2,009.5 | | |
| 21:30 | 0.75 | 22:15 | INT, PRE DRL | RIG_RPR | NORMAL | Sent 12 1/4" Halliburton GT65DM to floor. Continue rigging up replacement manual gauge for tong torque | 2,009.5 | 2,009.5 | 0.75 | 2 |
| 22:15 | 0.5 | 22:45 | INT, PRE DRL | PU_ DIR | NORMAL | M/U 12 1/4" Halliburton bit, install MWD tool and M/U top NMDC | 2,009.5 | 2,009.5 | | |
| 22:45 | 0.5 | 23:15 | INT, PRE DRL | HDL_BHA | NORMAL | Work 1 stand of 8" DC from derrick - unable to torque up connection | 2,009.5 | 2,009.5 | | |
| 23:15 | 0.5 | 23:45 | INT, PRE DRL | RIG_RPR | NORMAL | C/O dies on ST-80 | 2,009.5 | 2,009.5 | 0.50 | 3 |
| 23:45 | 1.25 | 01:00 | INT, PRE DRL | HDL_BHA | NORMAL | Continue to RIH w/ remaining 8" DC's and HWDP from derrick t/ 1110'. Hole displacing properly | 2,009.5 | 2,009.5 | | |
| 01:00 | 0.25 | 01:15 | INT, PRE DRL | HDL_ROTHD | NORMAL | Pull trip nipple and install rotating head | 2,009.5 | 2,009.5 | | |
| 01:15 | 0.75 | 02:00 | INT, PRE DRL | TIH_ELEV | NORMAL | TIH w/ 5" DP from derrick f/ 1110' t/ 1944'. Tag float collar. Hole displacing properly | 2,009.5 | 2,009.5 | | |
| 02:00 | 0.5 | 02:30 | INT, PRE DRL | DRL_OUT | NORMAL | Drill out float collar, shoe track, and clean out rat hole while displacing to brine with full returns GPM: 500; WOB: 20; RPM 50 | 2,009.5 | 2,009.5 | | |
| 02:30 | 0.25 | 02:45 | INT, PRE DRL | DRL | NORMAL | Drill 10' new formation f/ 2009' t/ 2019' with full returns GPM: 500, WOB: 18; RPM: 50 | 2,009.5 | 2,019.5 | | |
| 02:45 | 0.5 | 03:15 | INT, PRE DRL | CIRC | NORMAL | Circulate and condition mud prior to perform FIT with full returns. MW in = MW out @ 10.5ppg | 2,019.5 | 2,019.5 | | |
| 03:15 | 0.5 | 03:45 | INT, PRE DRL | FIT | NORMAL | Space out and close UPR. Pump through choke and establish returns to trip tanks. Pump @ 5spm (0.38bpm) and pressure up to 258psi. Held pressure 5min - GOOD | 2,019.5 | 2,019.5 | | |
| 03:45 | 2.25 | 06:00 | INT, DRL | DRL | NORMAL | Drill F/2019' T/2279' (260' @ 116 fph), 7% complete. 78% Rot @ 131 fph 22% Sldg @ 60 fph MW-10.6 w/ 32 vis, full returns. Pump 10 bbl, hi vis sweeps every std. Last Survey @ 2088' ? Inc-0.31°, Azm-49.9°, 0.9' behind & 3.67' left to plan #1 | 2,019.5 | 2,279.0 | | |

RIG, 2,009.5ftKB, 12/3/2019 20:30

| | | | | | | | |
|-------|-----------|-------|------------------|---------------------|--------------------|---|--|
| Ref # | Dur (N... | Ex... | Subtype | Problem Descript... | Est Cost OR (Cost) | Accountable Party | Comment |
| 1 | 0.50 | No | PIPE HANDLING | TONGS | 1,500.00 | HELMERICH & PAYNE INTERNATIONAL DRILLING CO | OMRON torque for rig tongs stopped reading and manual gauge also not working. Break off bit - bit was made up and over torqued. Sent RTM to H&P 645 to P/U manual gauge. Inspect bit - gaulded threads on pin. Decision made to P/U another bit |

| Ref # | Dur (N...) | Ex... | Subtype | Problem Descript... | Est Cost OR (Cost) | Accountable Party | Comment |
|-------|------------|-------|---------------|---------------------|--------------------|---|---|
| 2 | 0.75 | No | PIPE HANDLING | HUMAN ERROR | 2,250.00 | HELMERICH & PAYNE INTERNATIONAL DRILLING CO | Sent 12 1/4" Halliburton GT65DM to floor. Continue rigging up replacement manual gauge for tong torque. C/O bits due to over torquing |

| | | | | | | | |
|---|-------------------|-------------|-----------------------------|--|--------------------------------|--|------------------------------|
| 3 | Dur (N... 0.50 | Ex... No | Subtype PIPE HANDLING | Problem Descript... PIPE SPINNER | Est Cost OR (Cost) 1,500.00 | Accountable Party HELMERICH & PAYNE INTERNATIONAL DRILLING CO | Comment C/O dies on ST-80 |
|---|-------------------|-------------|-----------------------------|--|--------------------------------|--|------------------------------|

Daily Drilling Report

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| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,467.00 | Days Since RI: 79.00 |

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| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/4/2019 |
| Report #: | 4 |
| DFS: | 2 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$84,742.18 |

| Drill Strings | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------------|--|--|-------------------------------|---------------|-----------------------------------|--------------------|-----------------------------|-----------------------------------|---------------------------------|------------------------|---|---------------------|-------------------------------|----------------------------|--------------------------|--------------------------------|-----------------------|--|-----------------------|--|
| BHA #2 , INTERMEDIATE | | | | | | | | | | | | | | | | | | | | | |
| Bit Run 2 | | | Drill Bit 12 1/4in, GT65DMOs, 13279572 | | | | | | Bit Type PDC | | | Make ULTERRA | | | | | | | | | |
| Nozzles (1/32") 11/11/11/11/11/11/10/10/10 | | | Bit Total Fluid Area (nozzles) (in²) 0.79 | | | IADC Bit Dull ----- | | | Hours Drilled By Bit (hr) 3.25 | | | Depth Drilled By Bit (ft) 270.00 | | | | | | | | | |
| BHA Drilling Time (hr) 3.25 | | | BHA Depth Drilled (ft) 270.00 | | | BHA ROP (ft/hr) 83.1 | | | Depth In (ftKB) 2,009.0 | | | Depth Out (ftKB) 2,279.0 | | | | | | | | | |
| Drill String Components | | | | | | | | | | | | | | | | | | | | | |
| Jts | Item Des | | | | OD (in) | | ID (in) | | Len (ft) | | Cum Len (ft) | | Wt (lbf) | | Cum Wt (1000lbf) | | Make | | | | |
| 37 | DRILL PIPE | | | | 5 | | 4.28 | | 1,168.74 | | 2,279.00 | | 22,790.4 | | 58 | | OTHER (PROVIDE DESCRIPTION) | | | | |
| 3 | HWDP | | | | 5 | | 3.25 | | 91.22 | | 1,110.26 | | 5,396.6 | | 36 | | OTHER (PROVIDE DESCRIPTION) | | | | |
| 1 | DRILLING JARS - MECHANICAL | | | | 6 5/16 | | 2.81 | | 31.81 | | 1,019.04 | | | | 30 | | WEATHERFORD | | | | |
| 17 | HWDP | | | | 5 | | 3.25 | | 511.68 | | 987.23 | | 30,271.0 | | 30 | | OTHER (PROVIDE DESCRIPTION) | | | | |
| 1 | SUB - XO | | | | 6 3/4 | | 2.75 | | 4.07 | | 475.55 | | | | 0 | | STABIL DRILL | | | | |
| 12 | DRILL COLLAR - SPIRALED | | | | 7 7/8 | | 2.88 | | 359.85 | | 471.48 | | | | 0 | | OTHER (PROVIDE DESCRIPTION) | | | | |
| 1 | SUB - XO | | | | 8 | | 2.94 | | 2.20 | | 111.63 | | | | 0 | | STABIL DRILL | | | | |
| 1 | DRILL COLLAR - NON MAG | | | | 8 | | 3.25 | | 30.59 | | 109.43 | | | | 0 | | STABIL DRILL | | | | |
| 1 | DRILL COLLAR - NON MAG | | | | 8 | | 3.25 | | 30.37 | | 78.84 | | | | 0 | | STABIL DRILL | | | | |
| 1 | SUB - UBHO | | | | 8 | | 3.06 | | 2.64 | | 48.47 | | | | 0 | | GYRODATA | | | | |
| 1 | STABILIZER | | | | 8 3/8 | | 2.88 | | 6.75 | | 45.83 | | | | 0 | | STABIL DRILL | | | | |
| 1 | MOTOR - STABILIZER SLEEVE | | | | 8 | | 3.00 | | 37.58 | | 39.08 | | | | 0 | | GYRODATA | | | | |
| Mud Motors | | | | | | | | | | | | | | | | | | | | | |
| SN | | Bend Angle | | | Bearing Type | | | Lobe Config | | | # Stages | | | Lwr Defin Type | | | Bit To Bend | | | | |
| GDM962020 | | 1.75 | | | NOT SEALED | | | 7:8 | | | 5.9 | | | | | | 6.38 | | | | |
| Sensors | | | | | | | | | | | | | | | | | | | | | |
| Sensor Type | | | | Sensor-Bit (ft) | | | | | | Note | | | | | | | | | | | |
| GAMMA | | | | 53.00 | | | | | | | | | | | | | | | | | |
| DIRECTIONAL | | | | 65.00 | | | | | | | | | | | | | | | | | |
| Drilling Parameters | | | | | | | | | | | | | | | | | | | | | |
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) | | | | |
| 02:00 | 02:30 | 2,009.0 | 0.00 | 0.0 | 15 | 50 | 175.0 | 500 | 1,400.0 | 100.0 | 145 | 150 | 140 | 145 | 7,100.0 | 5,500.0 | 0 | | | | |
| 02:30 | 02:45 | 2,009.0 | 10.00 | 40.0 | 15 | 50 | 175.0 | 500 | 1,400.0 | 100.0 | 145 | 150 | 140 | 145 | 7,100.0 | 5,500.0 | 0 | | | | |
| 02:45 | 03:15 | 2,019.0 | 0.00 | | 0 | 50 | 0.0 | 500 | 1,225.0 | 0.0 | 145 | 150 | 140 | 145 | 5,500.0 | 5,500.0 | 0 | | | | |
| 03:45 | 04:00 | 2,019.0 | 39.00 | 78.0 | 25 | 50 | 600.0 | 500 | 1,825.0 | 200.0 | 145 | 150 | 140 | 145 | 13,500.0 | 5,500.0 | 0 | | | | |
| 04:00 | 05:00 | 2,058.0 | 109.00 | 109.0 | 32 | 60 | 600.0 | 600 | 2,400.0 | 250.0 | 150 | 160 | 145 | 150 | 14,000.0 | 5,500.0 | 0 | | | | |
| 05:00 | 05:30 | 2,167.0 | 30.00 | 60.0 | 30 | 0 | 250.0 | 700 | 2,400.0 | 60.0 | 150 | 160 | 145 | 150 | 14,200.0 | 5,500.0 | 60 | | | | |
| 05:30 | 06:00 | 2,197.0 | 82.00 | 164.0 | 30 | 60 | 600.0 | 700 | 2,400.0 | 250.0 | 150 | 160 | 145 | 150 | 14,200.0 | 5,500.0 | 0 | | | | |
| Hydraulic Calculations | | | | | | | | | | | | | | | | | | | | | |
| Dens Mud (lb/gal) | | ECD End (lb/gal) | | Bit Hydraulic Power (hp) | | HP/Area (hp/in²) | | Jet Vel (ft/s) | | Bit dP (psi) | | Min Open Hole AV (ft/min) | | Max Open Hole AV (ft/min) | | Vol DrillString (bbl) | | Vol Bit to Shoe (bbl) | | Vol Shoe to Top (bbl) | |
| 10.80 | | 10.84 | | 325.4 | | 2.8 | | 285.4 | | 796.8 | | 19.6 | | 214.7 | | 31.16 | | 27.46 | | 249.72 | |
| Mud Checks | | | | | | | | | | | | | | | | | | | | | |
| Time 22:00 | | Mud Company PIONEER DRILLING FLUIDS | | | | | Type WATER BASE | | | Depth (ftKB) 2,009.0 | | Density (lb/gal) 10.80 | | Funnel Viscosity (s/qt) 31 | | T Flowline (°F) 126.0 | | | | | |
| PV (cP) 5.0 | | YP (lbf/100ft²) 5.000 | | Vis 3rpm 2 | | Vis 6rpm 4 | | Filtrate (mL/30min) 28.0 | | HTHP Filtrate (mL/30min) 0.0 | | HTHP Temperature (°F) 0.0 | | | HTHP Pressure (psi) 0.0 | | | | | | |
| Solids (%) 14.0 | | | | Low Gravity Solids (%) 5.0 | | | Sand (%) 0.1 | | | MBT (lb/bbl) 5.0 | | | Pm (mL/mL) 0.100 | | | Pf (mL/mL) | | | | | |
| Chlorides (ppm) 175,000,000.000 | | | | Calcium (ppm) 900.000 | | | CaCl (ppm) 0 | | Oil Water Ratio 0/100 | | | Electric Stab (V) 0.0 | | | Lime (lb/bbl) 0.0 | | pH 9.5 | | | | |
| Gel 10 sec (lbf/100ft²) 4.000 | | | | | | Gel 10 min (lbf/100ft²) 6.000 | | | | | | Gel 30 min (lbf/100ft²) 7.000 | | | | | | | | | |
| Comment Recommended Fluid Treatment: Adding Corrosion inhibitor and H2s scavenger from trailer, adding caustic soda for PH and adding soda ash for hardness. Using system mud in slug pit (80 bbls) and adding 6 sacks of xanthan gum for sweeps. | | | | | | | | | | | | | | | | | | | | | |
| Drilling Fluid Activity Last 24hrs: received chemical, Brine and OBM from University6E 5H. Transferred 150 bbl of 10.0 ppg brine from frac tank to active to make 620 bbl of 10.7 ppg to displace the hole from fresh water in hole | | | | | | | | | | | | | | | | | | | | | |
| Rig Activity Last 24hrs: skid rig to University 6D 4H and made up BHA | | | | | | | | | | | | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | | | | | | | | | | | | |
| Date | | Test Type | | | | Item Tested | | | | Next Test Date | | Com | | | | | | | | | |
| 12/3/2019 | | BOP | | | | BOP'S, 12/3/2019 14:15, FULL TEST | | | | 12/29/2019 | | Perform shell test 12/3/19. Last FULL BOP test 11/29/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | | | | | |

Daily Drilling Report

UNIVERSITY 6D 4H

H & P #601

Accept: 12/3/2019 Release: Days Since LTI: Days Since RI: 79.00
1,467.00

PERMIAN ASSET TEAM

Job: ODR
Report Date: 12/4/2019
Report #: 4
DFS: 2
AFE #: 9006758
Total AFE + Sup: \$3,098,502.34
Daily Field Est. (Cost): \$84,742.18

| Leak Off and Formation Integrity Tests | | | | | | | | | | |
|--|------------------|------------------------------|--------------------------------------|--------------------|-----------------------|---|------------------------|--------------|------------|---------|
| Test Type | | | Depth (ftKB) | | | Dens Fluid (lb/gal) | | | | |
| FORMATION INTEGRITY | | | 1,989.0 | | | 13.00 | | | | |
| Casing Pressure Test | | | | | | | | | | |
| Test Type | | Test Subtype | | Date | | Item Tested | | Failed? | Time (min) | P (psi) |
| CASING | | STANDARD | | 11/5/2019 | | SURFACE, 1,989.3ftKB | | No | 30.00 | 1,000.0 |
| Kick Offs & Key Depths | | | | | | | | | | |
| Date | | | | Type | | | Top Depth (ftKB) | | | |
| | | | | KICK OFF | | | | | | |
| | | | | HEEL | | | | | | |
| | | | | HEEL | | | | | | |
| Casing Strings | | | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | P LeakOff (psi) | | | |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | 1,342.5 | | | |
| Job Supply Amounts | | | | | | | | | | |
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed | | |
| DIESEL | MUD | GAL | 0 | 0 | 0 | Mud Diesel | 0 | 0.0 | | |
| DIESEL | FUEL | GAL | 8,688 | 579 | 0 | Rig Diesel (transferred from 6E 5H) | 8,109 | 579.0 | | |
| WATER | FRESH | BBL | 1,352 | 1,352 | 0 | Initial reading: 535859 Final reading: 537211 | 0 | 8,690.0 | | |
| Mud Additive Amounts | | | | | | | | | | |
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | | | | |
| | | | | | | | | | | |
| Pump Operations | | | | | | | | | | |
| Pump # | Make | | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | | | |
| 1 | GARDNER-DENVER | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | | |
| 2 | GARDNER-DENVER | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | | |
| 3 | GARDNER-DENVER | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | | |
| Pump Checks | | | | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | Eff (%) | | | | |
| | | | | | | | | | | |
| Deviation Surveys | | | | | | | | | | |
| Date | | Description | | | | | Job | | | |
| 10/28/2019 | | AS DRILL SURVEY | | | | | ODR, 10/28/2019 10:00 | | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | | | |
| 2,088.00 | 0.31 | 49.90 | 2,087.18 | 20.24 | 29.26 | 33.39 | 0.54 | | | |
| Formations | | | | | | | | | | |
| Formation Name | | | Prog Top (TVD SS) Override (ft(elv)) | Prog Top MD (ftKB) | Prog Top (TVD) (ftKB) | Final Top MD (ftKB) | Final Top (TVD) (ftKB) | | | |
| 255_0_TNSL_TOP_DOL | | | -90.0 | | 3,093.5 | | | | | |
| 256_0_YATES | | | -132.0 | | 3,135.5 | | | | | |
| 257_0_SEVEN RIVERS | | | -434.0 | | 3,437.5 | | | | | |
| 258_0_QUEEN | | | -1,102.0 | | 4,105.5 | | | | | |
| 259_0_GRAYBURG | | | -1,611.0 | | 4,614.5 | | | | | |
| 261_0_SAN ANDRES | | | -1,802.0 | | 4,805.5 | | | | | |
| 263_5_Top_Cherry_Canyon | | | -2,699.0 | | 5,702.5 | | | | | |
| REC ICP1 | | | -3,058.0 | | 6,061.5 | | | | | |
| 264_0_Top_Brushy_Canyon | | | -3,298.0 | | 6,301.5 | | | | | |
| 264_5_Mid_Brushy_Canyon | | | -3,596.0 | | 6,599.5 | | | | | |
| 265_0_CLEARFORK/POP | | | -3,817.0 | | 6,820.5 | | | | | |
| 267_0_SPBY_U_A1/267_0_SPBY | | | -5,444.0 | | 8,447.5 | | | | | |
| 267_5_SPBY_M_A1 | | | -5,755.0 | | 8,758.5 | | | | | |
| 268_5_SPBY_L_A1 | | | -5,996.0 | | 8,999.5 | | | | | |
| 268_5_SPBY_L_A2 | | | -6,033.0 | | 9,036.5 | | | | | |
| 268_5_SPBY_L_A3 | | | -6,117.0 | | 9,120.5 | | | | | |
| 268_6_SPBY_L_B1/JO MILL | | | -6,272.0 | | 9,275.5 | | | | | |
| 268_7_SPBY_L_C1/LOWER SPRABERRY SHALE | | | -6,321.0 | | 9,324.5 | | | | | |
| 269_0_DEAN | | | -6,639.0 | | 9,642.5 | | | | | |
| 270_0_WFMP_A1 | | | -6,802.0 | | 9,805.5 | | | | | |
| 272_0_WFMP_A2 | | | -6,885.0 | | 9,888.5 | | | | | |
| 271_0_WFMP_A3 | | | -6,946.0 | | 9,949.5 | | | | | |
| 275_0_WFMP_B1 | | | -7,009.0 | | 10,012.5 | | | | | |
| 276_0_WFMP_B2 | | | -7,031.0 | | 10,034.5 | | | | | |
| 278_0_WFMP_B3 | | | -7,085.0 | | 10,088.5 | | | | | |
| 280_0_WFMP_C1 | | | -7,175.0 | | 10,178.5 | | | | | |
| 282_0_WFMP_C2 | | | -7,275.0 | | 10,278.5 | | | | | |
| 292_0_WFMP_D | | | -7,701.0 | | 10,704.5 | | | | | |
| 304_0_STRAWN | | | -8,065.0 | | 11,068.5 | | | | | |
| FIRST TAKE POINT (FTP) | | | -5,925.0 | | 8,928.5 | | | | | |
| TARGET #1 | | | -5,929.0 | | 8,932.5 | | | | | |
| PBHL/TD | | | -5,992.0 | | 8,995.5 | | | | | |
| Daily Contacts | | | | | | | | | | |
| Job Contact | | Title | Office | Mobile | Email | | | | | |
| POLYA, JOE, AREA DRILLING SUPERINTENDENT | | AREA DRILLING SUPERINTENDENT | 432-413-6147 | 432-352-3155 | JOE.POLYA@PXD.COM | | | | | |
| PARSELL, VIC, SUPERINTENDENT | | SUPERINTENDENT | | 432-301-2539 | VIC.PARSELL@PXD.COM | | | | | |
| Daily Drilling Report | | | | | | | | | | |

Page 4/5

Printed: Wednesday, December 4, 2019

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,467.00 | Days Since RI: 79.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/4/2019 |
| Report #: | 4 |
| DFS: | 2 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$84,742.18 |

| Daily Contacts | | | | |
|---|---------------------|--------------|--------------|------------------------|
| Job Contact | Title | Office | Mobile | Email |
| LONG, TREVOR, ENGINEER | ENGINEER | 432-571-2800 | 432-307-8155 | TREVOR.LONG@PXD.COM |
| HUTTO, PAUL, WELLSITE SUPERVISOR | WELLSITE SUPERVISOR | | 318-381-5026 | PAUL.HUTTO@PXD.COM |
| YOHO, RYAN, FIELD ENGINEER | FIELD ENGINEER | | 432-307-5130 | RYAN.YOHO@PXD.COM |
| DETTORE, DON, MUD ENGINEER | MUD ENGINEER | | 850-572-6351 | DONALD.DETTORE@PXD.COM |
| RIG-H&P 601, RIG PHONE | RIG PHONE | 432-355-3111 | 469-866-2439 | |
| Personnel Log | | | | |
| Company | | | | Count |
| PIONEER NATURAL RESOURCES USA INC | | | | 2 |
| HELMERICH & PAYNE INTERNATIONAL DRILLING CO | | | | 13 |
| GYRODATA INC | | | | 4 |
| DWM CONSULTING | | | | 1 |
| STRATAGRAPH INC | | | | 1 |
| DYNAMIC OILFIELD SERVICES INC | | | | 1 |

Daily Drilling Report

| | | | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/5/2019 | | |
| Days Since LTI: 1,468.00 | | | | Report #: | 5 | | |
| Release: | | | | DFS: | 3 | | |
| Days Since RI: 80.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$239,911.78 | | |

| | | | | | | | | | | | | | | | |
|---|--------------------|--------------------------------|----------|---|-------------------------------|---|--|---|--|--|------------------|--|------------|--|--|
| P/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | | | | | |
| SSN ID00034092 | | Property Sub | | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | | Spud Date 10/28/2019 | | TD Date | | | | | |
| Safety Checks | | | | | | | | | | | | | | | |
| Time | Type | Des | | Tour | | Com | | | | | | | | | |
| 06:00 | MEETING | PRE-TOUR | | DAY | | UPCOMING OPERATIONS: Drill 12.25" Int Hole. Build & Hold 7° Tangent To 3,700'. Drop Back To 0°. TD @ 6072' +/- . Pump sweep every other connection or as needed, mud wt to 10.6 - 10.8 ppg. Casing coming in, wear all PPE. | | | | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | | DAY | | Case #: TBD Date: 12/03/2019 Classification: Contractor - Near Miss Description: While drilling intermediate the H2S alarm went off at the shakers, where it recorded 20 ppm. Everyone on location mustered and SAT was called. H2S was circulated out, SAT gave the all clear, and operations continued | | | | | | | | | |
| 17:00 | PROACTIVE MEASURES | STOP CARD - PNR | | DAY | | Stop card: Noticed multiple 3rd party workers without H2S monitors. Stopped them and discussed importance of having all proper PPE and that we were in a known H2S zone. They understood and explained they had forgotten them at the yard. Supplied workers with monitors to complete task | | | | | | | | | |
| 18:00 | MEETING | PRE-TOUR | | NIGHT | | PTSM: Discussed upcoming operations - drilling 12 1/4" section per directional plan. Dropping out angle back to vertical. Keep eye on shakers and solids control equipment. Use good communication on fluid transfers and post all transfers, centrifuge operations, water additions on Pason. Watch hand/body placement while making connections and working pipe from derrick. Continue to clean and organize location after rig skid. 9 5/8" casing still being offloaded - make sure racks are chocked. | | | | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | | NIGHT | | Case #: TBD Date: 12/03/2019 Classification: Contractor - Near Miss Description: While drilling intermediate the H2S alarm went off at the shakers, where it recorded 20 ppm. Everyone on location mustered and SAT was called. H2S was circulated out, SAT gave the all clear, and operations continued | | | | | | | | | |
| Jobs | | | | | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | | Start Date | | End Date | | Job Status | | | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | | 10/28/2019 10:00 | | | | IN PROGRESS | | | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | | | | | | |
| Type | | | | Subtype | | Date | | Note | | | | | | | |
| MILESTONE | | | | ESTIMATED PAD RELEASE | | 2/5/2019 | | Drilling 2nd Int section on 3 well pad - batch drilling (updated 12/3/19) | | | | | | | |
| Daily Operations | | | | | | | | | | | | | | | |
| Footage/Meterage (ft) 3,380.00 | | Drilling Hours (hr) 23.00 | | % Rotating Time (%) 83.70 | | End Depth (ftKB) 5,659.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 239,911.78 | | Cum Field Est To Date (Cost) 662,477.33 | | | |
| 24 HR ROP (ft/hr) 147.0 | | Circulating Hours (hr) 1.00 | | % Sliding Time (%) 16.30 | | End Depth (TVD) (ftKB) 5,646.9 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 1,666.98 | | Cum Mud Field Est (Cost) 1,666.98 | | Total AFE + Sup (Cost) 3,098,502.34 | |
| Daily Goal Description DRILLED FEET | | | | Daily Goal - Last 24 2,500.0 | | | | Daily Goal - Next 24 425.0 | | | | Goal Comments Goal achieved (+35%) | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String SURFACE, 1,989.3ftKB | | | | Next Casing String INTERMEDIATE, 6,074.4ftKB | | | | | | | |
| Avg Connection Gas 0.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 15.00 | | Max Connection Gas 0.00 | | Max Trip Gas 0.00 | | Max Drill Gas 0.00 | | | | | |
| Operations Summary Drill 12 1/4" Int section f/ 2279' t/ 5659' (16.3% sliding, 8° tangent dropped to vertical, 4.24' behind, 7.43' left) | | | | | | | | | | | | | | | |
| Operations Next Report Period Drill 12 1/4" Int section f/ 5659' t/ ~6089', C&C, TOH (possible wiper trip), L/D directional tools, Pull WB, R/U casing crew, M/U shoe track, RIH w/ 9 5/8 casing | | | | | | | | | | | | | | | |
| Operations at Report Time Drilling 12 1/4" Int section @ 5659' | | | | | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | | | | | | |
| Rig NPT: 1.75 hours | | | | | | | | | | | | | | | |
| 3rd Party NPT: 0 hours | | | | | | | | | | | | | | | |
| PNR NPT: 0 hours | | | | | | | | | | | | | | | |
| Surf:100% Int: 89% Prod Vertical: 0% Curve: 0% Lat: 0% | | | | | | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs | | | | | | | | | | | | | | | |
| Saver Sub footage: 7,808' | | | | | | | | | | | | | | | |
| Initial Water Meter Reading: 535859 | | | | | | | | | | | | | | | |
| Time Log | | | | | | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | | | | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | |
| 06:00 | 11.75 | 17:45 | INT, DRL | DRL | NORMAL | Drill F/2279' T/3953' (1674' @ 142 fph), 48% complete. 79% Rot @ 169 fph 21% Sldg @ 44 fph MW-10.7 w/ 30 vis, full returns. Pump 15 bbl, hi vis sweeps every other std. Last Survey @ 3888' ? Inc-2.27°, Azm-45.49°, 0.76' ahead & 5.24' right to plan #1 | | | | 2,279.0 | 3,953.0 | | | | |
| 17:45 | 0.25 | 18:00 | INT, DRL | RIG_SVC | NORMAL | Daily Rig Service | | | | 3,953.0 | 3,953.0 | | | | |
| | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | |
| Page 1/5 | | | | | | Printed: Thursday, December 5, 2019 | | | | | | | | | |

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,468.00 | Days Since RI: 80.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/5/2019 |
| Report #: | 5 |
| DFS: | 3 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$239,911.78 |

| Time Log | | | | | | | | | | | | | | | | | |
|---|----------------------------|--------------------|--|-----------------|--------------------------|--|------------------------------------|------------------|---------------------------------------|-----------------------------|------------------------|---------------------|---------------------|-------------------------------------|----------|------------|---------|
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | | | | | | |
| 18:00 | 10.75 | 04:45 | INT, DRL | DRL | NORMAL | Drill F/3953' T/5470' (1517' @ 141 fph), 85% complete. 93% Rot @ 149 fph 7% Sldg @ 33 fph MW-10.8 w/ 31 vis, full returns. Pump 10 bbl, hi vis sweeps every other std. Last Survey @ 5310' ? Inc-0.26°, Azm-245.94°, 4.12' behind & 7.1' left to plan #1 | 3,953.0 | 5,470.0 | | | | | | | | | |
| 04:45 | 0.5 | 05:15 | INT, DRL | RIG_SVC | NORMAL | Rig service - get SPR's, clean in-line screen, lubricate and service rig | 5,470.0 | 5,470.0 | | | | | | | | | |
| 05:15 | 0.75 | 06:00 | INT, DRL | DRL | NORMAL | Drill F/5470' T/5659' (189' @ 252 fph), 89% complete. MW-10.8 w/ 31 vis, full returns. Pump 10 bbl, hi vis sweeps every other std. Last Survey @ 5405' ? Inc-0.22°, Azm-249.23°, 4.24' behind & 7.43' left to plan #1 | 5,470.0 | 5,659.0 | | | | | | | | | |
| Drill Strings | | | | | | | | | | | | | | | | | |
| BHA #2 , INTERMEDIATE | | | | | | | | | | | | | | | | | |
| Bit Run 2 | | | Drill Bit 12 1/4in, GT65DMOs, 13279572 | | | Bit Type PDC | | Make ULTERRA | | | | | | | | | |
| Nozzles (1/32") 11/11/11/11/11/11/10/10/10 | | | Bit Total Fluid Area (nozzles) (in²) 0.79 | | IADC Bit Dull ----- | | Hours Drilled By Bit (hr) 26.25 | | Depth Drilled By Bit (ft) 3,650.00 | | | | | | | | |
| BHA Drilling Time (hr) 26.25 | | | BHA Depth Drilled (ft) 3,650.00 | | BHA ROP (ft/hr) 139.0 | | Depth In (ftKB) 2,009.0 | | Depth Out (ftKB) 5,659.0 | | | | | | | | |
| Drill String Components | | | | | | | | | | | | | | | | | |
| Jts | Item Des | | | OD (in) | ID (in) | Len (ft) | Cum Len (ft) | Wt (lbf) | Cum Wt (1000lbf) | Make | | | | | | | |
| 144 | DRILL PIPE | | | 5 | 4.28 | 4,548.74 | 5,659.00 | 88,700.4 | 124 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 3 | HWDP | | | 5 | 3.25 | 91.22 | 1,110.26 | 5,396.6 | 36 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 1 | DRILLING JARS - MECHANICAL | | | 6 5/16 | 2.81 | 31.81 | 1,019.04 | | 30 | WEATHERFORD | | | | | | | |
| 17 | HWDP | | | 5 | 3.25 | 511.68 | 987.23 | 30,271.0 | 30 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 1 | SUB - XO | | | 6 3/4 | 2.75 | 4.07 | 475.55 | | 0 | STABIL DRILL | | | | | | | |
| 12 | DRILL COLLAR - SPIRALED | | | 7 7/8 | 2.88 | 359.85 | 471.48 | | 0 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 1 | SUB - XO | | | 8 | 2.94 | 2.20 | 111.63 | | 0 | STABIL DRILL | | | | | | | |
| 1 | DRILL COLLAR - NON MAG | | | 8 | 3.25 | 30.59 | 109.43 | | 0 | STABIL DRILL | | | | | | | |
| 1 | DRILL COLLAR - NON MAG | | | 8 | 3.25 | 30.37 | 78.84 | | 0 | STABIL DRILL | | | | | | | |
| 1 | SUB - UBHO | | | 8 | 3.06 | 2.64 | 48.47 | | 0 | GYRODATA | | | | | | | |
| 1 | STABILIZER | | | 8 3/8 | 2.88 | 6.75 | 45.83 | | 0 | STABIL DRILL | | | | | | | |
| 1 | MOTOR - STABILIZER SLEEVE | | | 8 | 3.00 | 37.58 | 39.08 | | 0 | GYRODATA | | | | | | | |
| Mud Motors | | | | | | | | | | | | | | | | | |
| SN | | Bend Angle | | Bearing Type | | Lobe Config | | # Stages | | Lwr DefIn Type | | Bit To Bend | | | | | |
| GDM962020 | | 1.75 | | NOT SEALED | | 7:8 | | 5.9 | | | | 6.38 | | | | | |
| Sensors | | | | | | | | | | | | | | | | | |
| Sensor Type | | | Sensor-Bit (ft) | | | | Note | | | | | | | | | | |
| GAMMA | | | 53.00 | | | | | | | | | | | | | | |
| DIRECTIONAL | | | 65.00 | | | | | | | | | | | | | | |
| Drilling Parameters | | | | | | | | | | | | | | | | | |
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) |
| 06:00 | 07:45 | 2,279.0 | 359.00 | 205.1 | 35 | 65 | 600.0 | 900 | 4,200.0 | 285.0 | 150 | 160 | 145 | 150 | 20,000.0 | 6,000.0 | 0 |
| 07:45 | 08:15 | 2,638.0 | 15.00 | 30.0 | 20 | 0 | 200.0 | 900 | 3,800.0 | 70.0 | 150 | 160 | 145 | 150 | 0.0 | 0.0 | 30 |
| 08:15 | 08:30 | 2,653.0 | 83.00 | 332.0 | 35 | 65 | 600.0 | 900 | 4,200.0 | 285.0 | 150 | 160 | 145 | 150 | 20,000.0 | 6,000.0 | 0 |
| 08:30 | 09:00 | 2,736.0 | 15.00 | 30.0 | 20 | 0 | 200.0 | 900 | 3,800.0 | 60.0 | 150 | 160 | 145 | 150 | 0.0 | 0.0 | 330 |
| 09:00 | 09:30 | 2,751.0 | 80.00 | 160.0 | 35 | 70 | 600.0 | 710 | 3,000.0 | 250.0 | 155 | 165 | 150 | 155 | 20,000.0 | 6,000.0 | 0 |
| 09:30 | 09:45 | 2,831.0 | 15.00 | 60.0 | 20 | 0 | 200.0 | 710 | 2,600.0 | 60.0 | 155 | 165 | 150 | 155 | 0.0 | 0.0 | 330 |
| 09:45 | 10:15 | 2,846.0 | 80.00 | 160.0 | 35 | 70 | 600.0 | 710 | 3,000.0 | 250.0 | 155 | 165 | 150 | 155 | 20,000.0 | 6,000.0 | 0 |
| 10:15 | 10:30 | 2,926.0 | 15.00 | 60.0 | 20 | 0 | 200.0 | 710 | 2,600.0 | 60.0 | 155 | 165 | 150 | 155 | 0.0 | 0.0 | 280 |
| Daily Drilling Report | | | | | | | | | | | | Page 2/5 | | Printed: Thursday, December 5, 2019 | | | |

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,468.00 | Days Since RI: 80.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/5/2019 |
| Report #: | 5 |
| DFS: | 3 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$239,911.78 |

| Drilling Parameters | | | | | | | | | | | | | | | | | | |
|---|------------------|-------------------------------------|----------------|----------------------------|---------------|-----------------------------------|----------------|-------------------------|-----------------------|-------------------------------------|------------------------|---|---------------------|--------------------------|------------|-----------------------|---------|-----------------------|
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) | |
| 10:30 | 11:30 | 2,941.0 | 159.00 | 159.0 | 40 | 70 | 700.0 | 900 | 4,300.0 | 250.0 | 165 | 175 | 155 | 165 | 22,000.0 | 6,000.0 | 0 | |
| 11:30 | 13:30 | 3,100.0 | 379.00 | 189.5 | 45 | 70 | 700.0 | 900 | 4,300.0 | 250.0 | 170 | 180 | 160 | 170 | 23,000.0 | 6,500.0 | 0 | |
| 13:30 | 14:45 | 3,479.0 | 206.00 | 164.8 | 50 | 75 | 700.0 | 900 | 4,300.0 | 250.0 | 175 | 190 | 145 | 175 | 23,000.0 | 6,500.0 | 0 | |
| 14:45 | 15:15 | 3,685.0 | 15.00 | 30.0 | 20 | 0 | 200.0 | 900 | 3,900.0 | 50.0 | 175 | 190 | 145 | 175 | 0.0 | 0.0 | 180 | |
| 15:15 | 15:45 | 3,700.0 | 78.00 | 156.0 | 40 | 75 | 600.0 | 900 | 4,300.0 | 250.0 | 175 | 190 | 145 | 175 | 21,000.0 | 6,500.0 | 0 | |
| 15:45 | 16:15 | 3,778.0 | 15.00 | 30.0 | 20 | 0 | 200.0 | 900 | 3,900.0 | 40.0 | 175 | 190 | 145 | 175 | 0.0 | 0.0 | 180 | |
| 16:15 | 16:45 | 3,793.0 | 76.00 | 152.0 | 40 | 75 | 600.0 | 900 | 4,300.0 | 250.0 | 175 | 190 | 145 | 175 | 22,000.0 | 6,500.0 | 0 | |
| 16:45 | 17:15 | 3,869.0 | 20.00 | 40.0 | 20 | 0 | 200.0 | 900 | 3,900.0 | 40.0 | 175 | 190 | 145 | 175 | 0.0 | 0.0 | 180 | |
| 17:15 | 17:30 | 3,889.0 | 64.00 | 256.0 | 40 | 75 | 600.0 | 900 | 4,300.0 | 250.0 | 175 | 190 | 145 | 175 | 22,000.0 | 6,500.0 | 0 | |
| 17:30 | 18:00 | 3,953.0 | 0.00 | 0.0 | 0 | 0 | 0.0 | 900 | 3,700.0 | 0.0 | 175 | 190 | 145 | 175 | 0.0 | 0.0 | 0 | |
| 18:00 | 18:15 | 3,953.0 | 15.00 | 60.0 | 40 | 75 | 600.0 | 900 | 4,300.0 | 250.0 | 175 | 190 | 145 | 175 | 22,000.0 | 6,500.0 | 0 | |
| 18:15 | 19:00 | 3,968.0 | 25.00 | 33.3 | 18 | 0 | 100.0 | 900 | 3,900.0 | 35.0 | 175 | 190 | 145 | 175 | 0.0 | 0.0 | 225 | |
| 19:00 | 03:00 | 3,993.0 | 1,287.00 | 160.9 | 45 | 75 | 650.0 | 900 | 4,400.0 | 250.0 | 190 | 200 | 180 | 190 | 24,500.0 | 7,500.0 | 0 | |
| 03:00 | 04:45 | 5,280.0 | 190.00 | 108.6 | 45 | 75 | 600.0 | 677 | 2,900.0 | 225.0 | 190 | 200 | 180 | 190 | 23,000.0 | 7,500.0 | 0 | |
| 04:45 | 05:15 | 5,470.0 | 0.00 | 0.0 | 0 | 0 | 0.0 | 677 | 2,300.0 | 0.0 | 190 | 200 | 180 | 190 | 0.0 | 0.0 | 0 | |
| 05:15 | 06:00 | 5,470.0 | 189.00 | 252.0 | 45 | 75 | 600.0 | 677 | 2,900.0 | 225.0 | 190 | 200 | 180 | 190 | 23,000.0 | 7,500.0 | 0 | |
| Hydraulic Calculations | | | | | | | | | | | | | | | | | | |
| Dens Mud (lb/gal) | ECD End (lb/gal) | Bit Hydraulic Power (hp) | | HP/Area (hp/in²) | | Jet Vel (ft/s) | | Bit dP (psi) | | Min Open Hole AV (ft/min) | | Max Open Hole AV (ft/min) | | Vol DrillString (bbl) | | Vol Bit to Shoe (bbl) | | Vol Shoe to Top (bbl) |
| 10.70 | 10.73 | 291.6 | | 2.5 | | 276.0 | | 738.4 | | 19.0 | | 207.6 | | 91.19 | | 431.02 | | 256.80 |
| Mud Checks | | | | | | | | | | | | | | | | | | |
| Time 22:00 | | Mud Company PIONEER DRILLING FLUIDS | | | | Type WATER BASE | | Depth (ftKB) 4,867.0 | | Density (lb/gal) 10.70 | | Funnel Viscosity (s/qt) 28 | | T Flowline (°F) 106.0 | | | | |
| PV (cP) 3.0 | | YP (lb/100ft²) 2.000 | | Vis 3rpm 1 | | Vis 6rpm 2 | | Filtrate (mL/30min) 0.0 | | HTHP Filtrate (mL/30min) 0.0 | | HTHP Temperature (°F) 0.0 | | HTHP Pressure (psi) 0.0 | | | | |
| Solids (%) 16.0 | | | | Low Gravity Solids (%) 5.2 | | | | Sand (%) 0.1 | | MBT (lb/bbl) 7.5 | | Pm (mL/mL) 0.200 | | PF (mL/mL) | | | | |
| Chlorides (ppm) 189,000,000.000 | | | | Calcium (ppm) 900.000 | | | CaCl (ppm) 0 | | Oil Water Ratio 0/100 | | Electric Stab (V) 0.0 | | | Lime (lb/bbl) 0.0 | | pH 10.5 | | |
| Gel 10 sec (lb/100ft²) 2.000 | | | | | | Gel 10 min (lb/100ft²) 3.000 | | | | | | Gel 30 min (lb/100ft²) 3.000 | | | | | | |
| Comment Recommended Fluid Treatment: Adding Caustic Soda to maintain PH above 9.5, adding xanthan gum for high vis sweeps. At 4800 ft, began adding Pac LV for fluid loss, xanthan gum to system for viscosity, soda ash for hardness. | | | | | | | | | | | | | | | | | | |
| Drilling Fluid Activity Last 24hrs: Mud dumped was water left in 13 3/8" casing. Adding chemical as described to bring mud properties to within mud program specifications. | | | | | | | | | | | | | | | | | | |
| Rig Activity Last 24hrs: P/U directional BHA and TIH F109' to 1200' removed trip nipple and install rotating head. TIH from 1200 to 1994' drilled out float and shoe while displacing to 10.5 ppg brine. Drilled from 2009 to 2019 circulated hole clean and mud weight in/out 10.5 ppg . Took FIT and had 13.0 ppg FIT. start drilling began mudding up system at 4800 ft. | | | | | | | | | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | | | | | | | | | |
| Date | | Test Type | | | | Item Tested | | | | Next Test Date | | Com | | | | | | |
| 12/3/2019 | | BOP | | | | BOP'S, 12/3/2019 14:15, FULL TEST | | | | 12/20/2019 | | Perform shell test 12/3/19. Last FULL BOP test 11/29/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | | | | | | | | | | | |
| Test Type | | | | | | Depth (ftKB) | | | | | | Dens Fluid (lb/gal) | | | | | | |
| FORMATION INTEGRITY | | | | | | 1,989.0 | | | | | | 13.00 | | | | | | |
| Casing Pressure Test | | | | | | | | | | | | | | | | | | |
| Test Type | | | | Test Subtype | | | | Date | | Item Tested | | | | Failed? | Time (min) | | P (psi) | |
| CASING | | | | STANDARD | | | | 11/5/2019 | | SURFACE, 1,989.3ftKB | | | | No | 30.00 | | 1,000.0 | |
| Kick Offs & Key Depths | | | | | | | | | | | | | | | | | | |
| Date | | | | | | | Type | | | | | | Top Depth (ftKB) | | | | | |
| | | | | | | | KICK OFF | | | | | | | | | | | |
| | | | | | | | HEEL | | | | | | | | | | | |
| | | | | | | | HEEL | | | | | | | | | | | |
| Casing Strings | | | | | | | | | | | | | | | | | | |
| Description | | Set Depth (ftKB) | | Set Depth (TVD) (ftKB) | | OD (in) | | Grade | | Wt/Len (lb/ft) | | Top Thread | | P LeakOff (psi) | | | | |
| CONDUCTOR | | 106.5 | | 106.5 | | 20 | | H40 | | 78.67 | | | | | | | | |
| SURFACE | | 1,989.3 | | 1,988.5 | | 13 3/8 | | J55 | | 54.50 | | BTC | | 1,342.5 | | | | |
| | | | | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | | |
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Daily Drilling Report

UNIVERSITY 6D 4H

H & P #601

Accept: 12/3/2019 Release:
Days Since LTI: Days Since RI: 80.00
1,468.00

PERMIAN ASSET TEAM

Job: ODR
Report Date: 12/5/2019
Report #: 5
DFS: 3
AFE #: 9006758
Total AFE + Sup: \$3,098,502.34
Daily Field Est. (Cost): \$239,911.78

| Job Supply Amounts | | | | | | | | |
|--|---|--------------------------------|-----------------------|---------------------|-------------------------------------|---|---------------|--------------|
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed |
| DIESEL | MUD | GAL | 0 | 0 | 0 | Mud Diesel | 0 | 0.0 |
| DIESEL | FUEL | GAL | 0 | 3,461 | 0 | Rig Diesel | 4,648 | 4,040.0 |
| WATER | FRESH | BBL | 690 | 690 | 0 | Initial reading: 537211 Final reading: 537901 | 0 | 9,380.0 |
| Mud Additive Amounts | | | | | | | | |
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | | |
| CAUSTIC SODA | ALKALINITY CONTROL | LB | 0 | 9 | 127.0 | 9 | | |
| SODA ASH | ALKALINITY CONTROL | LB | 0 | 2 | 189.0 | 2 | | |
| XANTHAN GUM | VISCOSIFIER | LB | 0 | 22 | 292.0 | 22 | | |
| Pump Operations | | | | | | | | |
| Pump # | Make | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | | |
| 1 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 2 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 3 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| Pump Checks | | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | Eff (%) | | |
| 1 | 5,470.0 | 04:45 | 400.0 | 40 | 129 | 95 | | |
| 1 | 5,470.0 | 04:45 | 500.0 | 60 | 193 | 95 | | |
| 1 | 5,470.0 | 04:45 | 340.0 | 20 | 64 | 95 | | |
| 3 | 5,470.0 | 04:45 | 500.0 | 60 | 193 | 95 | | |
| 3 | 5,470.0 | 04:45 | 340.0 | 20 | 64 | 95 | | |
| 3 | 5,470.0 | 04:45 | 395.0 | 40 | 129 | 95 | | |
| Deviation Surveys | | | | | | | | |
| Date 10/28/2019 | | Description AS DRILL SURVEY | | | | Job ODR, 10/28/2019 10:00 | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | |
| 2,372.00 | 3.84 | 51.29 | 2,370.74 | 26.47 | 38.52 | 44.66 | 0.52 | |
| 2,467.00 | 3.52 | 53.88 | 2,465.54 | 28.89 | 42.23 | 49.49 | 0.38 | |
| 2,562.00 | 3.18 | 53.38 | 2,560.38 | 30.99 | 45.52 | 53.97 | 0.36 | |
| 2,656.00 | 3.90 | 64.41 | 2,654.20 | 32.63 | 48.46 | 58.94 | 1.05 | |
| 2,751.00 | 5.82 | 64.07 | 2,748.86 | 34.26 | 51.96 | 66.19 | 2.02 | |
| 2,846.00 | 7.83 | 55.80 | 2,843.18 | 37.47 | 57.70 | 75.87 | 2.35 | |
| 2,940.00 | 9.21 | 45.48 | 2,936.15 | 43.47 | 66.58 | 86.53 | 2.19 | |
| 3,035.00 | 9.59 | 38.95 | 3,029.87 | 52.08 | 78.06 | 96.93 | 1.19 | |
| 3,130.00 | 9.15 | 39.66 | 3,123.60 | 61.30 | 90.03 | 106.72 | 0.48 | |
| 3,225.00 | 8.72 | 40.79 | 3,217.45 | 69.90 | 101.30 | 116.25 | 0.49 | |
| 3,320.00 | 8.03 | 41.00 | 3,311.44 | 77.84 | 111.76 | 125.31 | 0.73 | |
| 3,414.00 | 7.82 | 40.78 | 3,404.54 | 85.27 | 121.56 | 133.79 | 0.23 | |
| 3,509.00 | 7.28 | 41.06 | 3,498.72 | 92.43 | 130.99 | 141.97 | 0.57 | |
| 3,604.00 | 6.72 | 42.82 | 3,593.01 | 98.90 | 139.61 | 149.70 | 0.63 | |
| 3,699.00 | 5.69 | 47.56 | 3,687.45 | 104.17 | 146.86 | 156.95 | 1.21 | |
| 3,794.00 | 4.03 | 55.34 | 3,782.11 | 107.57 | 151.94 | 163.17 | 1.88 | |
| 3,888.00 | 2.27 | 45.49 | 3,875.96 | 109.68 | 155.12 | 167.22 | 1.95 | |
| 3,983.00 | 0.54 | 343.36 | 3,970.93 | 111.08 | 156.87 | 168.43 | 2.18 | |
| 4,078.00 | 1.14 | 252.25 | 4,065.93 | 111.46 | 157.01 | 167.40 | 1.34 | |
| 4,173.00 | 0.76 | 260.64 | 4,160.91 | 111.46 | 156.62 | 165.88 | 0.42 | |
| 4,267.00 | 0.72 | 263.54 | 4,254.90 | 111.59 | 156.45 | 164.68 | 0.06 | |
| 4,362.00 | 0.59 | 266.77 | 4,349.90 | 111.76 | 156.36 | 163.60 | 0.14 | |
| 4,457.00 | 0.43 | 259.39 | 4,444.89 | 111.87 | 156.26 | 162.76 | 0.18 | |
| 4,552.00 | 0.47 | 245.79 | 4,539.89 | 111.82 | 156.04 | 162.05 | 0.12 | |
| 4,647.00 | 0.47 | 241.04 | 4,634.89 | 111.66 | 155.69 | 161.36 | 0.04 | |
| 4,741.00 | 0.54 | 230.10 | 4,728.88 | 111.36 | 155.22 | 160.68 | 0.13 | |
| 4,836.00 | 0.47 | 235.10 | 4,823.88 | 111.03 | 154.71 | 160.02 | 0.09 | |
| 4,931.00 | 0.44 | 230.66 | 4,918.88 | 110.74 | 154.26 | 159.42 | 0.05 | |
| 5,026.00 | 0.45 | 232.54 | 5,013.87 | 110.43 | 153.80 | 158.84 | 0.02 | |
| 5,120.00 | 0.36 | 232.51 | 5,107.87 | 110.17 | 153.39 | 158.31 | 0.10 | |
| 5,215.00 | 0.25 | 223.61 | 5,202.87 | 109.94 | 153.06 | 157.93 | 0.13 | |
| 5,310.00 | 0.26 | 245.94 | 5,297.87 | 109.79 | 152.82 | 157.59 | 0.10 | |
| 5,405.00 | 0.22 | 249.23 | 5,392.87 | 109.74 | 152.67 | 157.22 | 0.04 | |
| Formations | | | | | | | | |
| Formation Name | Prog Top (TVD SS) Override (ft(elv)) | Prog Top MD (ftKB) | Prog Top (TVD) (ftKB) | Final Top MD (ftKB) | Final Top (TVD) (ftKB) | | | |
| 263_5_Top_Cherry_Canyon | -2,699.0 | | 5,702.5 | | | | | |
| REC ICP1 | -3,058.0 | | 6,061.5 | | | | | |
| 264_0_Top_Brushy_Canyon | -3,298.0 | | 6,301.5 | | | | | |
| 264_5_Mid_Brushy_Canyon | -3,596.0 | | 6,599.5 | | | | | |
| 265_0_CLEARFORK/POP | -3,817.0 | | 6,820.5 | | | | | |
| 267_0_SPBY_U_A1/267_0_SPBY | -5,444.0 | | 8,447.5 | | | | | |
| 267_5_SPBY_M_A1 | -5,755.0 | | 8,758.5 | | | | | |
| 268_5_SPBY_L_A1 | -5,996.0 | | 8,999.5 | | | | | |
| 268_5_SPBY_L_A2 | -6,033.0 | | 9,036.5 | | | | | |
| 268_5_SPBY_L_A3 | -6,117.0 | | 9,120.5 | | | | | |
| | | | | | | | | |
| Daily Drilling Report | | | Page 4/5 | | Printed: Thursday, December 5, 2019 | | | |

Daily Drilling Report

H & P #601

Days Since LTI:
1,468.00

Days Since RI: 80.00

Daily Field Est. (Cost): **\$239,911.78**

| Daily Contacts | | | | |
|---|------------------------------|--------------|--------------|-----------------------|
| Job Contact | Title | Office | Mobile | Email |
| HARDIN, JOE, AREA DRILLING SUPERINTENDENT | AREA DRILLING SUPERINTENDENT | 361-452-2118 | 361-318-8762 | JOE.HARDIN@PXD.COM |
| PARSELL, VIC, SUPERINTENDENT | SUPERINTENDENT | | 432-301-2539 | VIC.PARSELL@PXD.COM |
| LONG, TREVOR, ENGINEER | ENGINEER | 432-571-2800 | 432-307-8155 | TREVOR.LONG@PXD.COM |
| HEMBREE, KEVIN, WELLSITE SUPERVISOR | WELLSITE SUPERVISOR | | 580-209-2359 | KEVIN.HEMBREE@PXD.COM |
| YOHO, RYAN, FIELD ENGINEER | FIELD ENGINEER | | 432-307-5130 | RYAN.YOHO@PXD.COM |
| LAMB, BILL, MUD ENGINEER | MUD ENGINEER | | 210-415-8604 | WILLIAM.LAMB@PXD.COM |
| RIG-H&P 601, RIG PHONE | RIG PHONE | 432-355-3111 | 469-866-2439 | |

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Daily Drilling Report

| | | | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/6/2019 | | |
| Days Since LTI: 1,469.00 | | | | Report #: | 6 | | |
| Release: | | | | DFS: | 4 | | |
| Days Since RI: 81.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$96,505.13 | | |

| | | | | | | | | | | | | |
|--|--------------------|--------------------------------|-------------------------------|---|-----------------------------------|--------------------------------------|---|---|---|---|--|--|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | | |
| SSN ID00034092 | | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | | Spud Date 10/28/2019 | | TD Date | | | |
| Safety Checks | | | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: Discussed upcoming operations - drilling Int section per directional plan. TD will be around 6096' MD - will finalize as we get closer. At TD we will pump 2x marker sweeps and clean hole until shakers are clean. TOH monitoring hole fill with trip tanks. Use good communication on fluid transfers, keep entering memos on Pason on MW, centrifuge ops, transfers, OBP, etc. Watch hand/body placement while making connections and tripping. Wear all PPE. | | | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Case #: 47361 Date: 12/02/2019 Classification: Contractor - Property Damage (Low), Significant Near Miss (High) Description: Contractor was running 5-1/2 inch production casing when a joint became unlatched from the elevators when it struck the cross beam grit on the A leg. The piece of casing then slid back down the v-door to the catwalk, bouncing over the gull wing landing on the ground. There was damage to the both link tilt cylinders, production casing and elevator pin. No personnel were in the buffer zone at the time and no injuries were reported. Incident was reported to PNR Reps with further review of the incident to be conducted by the contractor | | | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - finish TOH, rack back HWDP and DC's, L/D directional tools, Pull WB, R/U casing crew, M/U shoe track and RIH w/ 9 5/8" casing per tally. Use good communication on any fluid transfers and working with 3rd party. Watch hand/body placement while tripping and rigging up 3rd party equipment. Obey buffer zone while PDS is in operation | | | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47361 Date: 12/02/2019 Classification: Contractor - Property Damage (Low), Significant Near Miss (High) Description: Contractor was running 5-1/2 inch production casing when a joint became unlatched from the elevators when it struck the cross beam grit on the A leg. The piece of casing then slid back down the v-door to the catwalk, bouncing over the gull wing landing on the ground. There was damage to the both link tilt cylinders, production casing and elevator pin. No personnel were in the buffer zone at the time and no injuries were reported. Incident was reported to PNR Reps with further review of the incident to be conducted by the contractor | | | | | | | | |
| 22:15 | MEETING | JSA | NIGHT | PJSM w/ PNR, H&P and Gyrodata discussing directional tool lay down operations | | | | | | | | |
| 23:45 | PROACTIVE MEASURES | STOP CARD - NON PNR | NIGHT | Stop card: RTM placed himself in dangerous area while breaking tight connection with tongs, driller stopped job and discussed proper body placement while breaking tight connections with all RTM's on floor. Thanked him for making sure everyone was in safe area before breaking connection | | | | | | | | |
| 01:45 | MEETING | JSA | NIGHT | PJSM w/ PNR, H&P, Byrd, and Weatherford discussing casing crew R/U and running operations | | | | | | | | |
| Jobs | | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | | End Date | | Job Status | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | | | IN PROGRESS | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | | | |
| Type | | | Subtype | | Date | | Note | | | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 2/5/2019 | | Drilling 2nd Int section on 3 well pad - batch drilling (updated 12/3/19) | | | | | |
| Type TXRRC CALL | | | Subtype CEMENT INT | | Date 12/6/2019 | | Note Christina OP #16. Job # 199788 | | | | | |
| Daily Operations | | | | | | | | | | | | |
| Footage/Meterage (ft) 437.00 | | Drilling Hours (hr) 4.25 | | % Rotating Time (%) 100.00 | | End Depth (ftKB) 6,096.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 96,505.13 | Cum Field Est To Date (Cost) 759,057.46 | |
| 24 HR ROP (ft/hr) 102.8 | | Circulating Hours (hr) 2.75 | | % Sliding Time (%) 0.00 | | End Depth (TVD) (ftKB) 6,083.9 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 3,698.23 | Cum Mud Field Est (Cost) 5,365.21 | Total AFE + Sup (Cost) 3,098,502.34 |
| Daily Goal Description DRILLED FEET | | | Daily Goal - Last 24 425.0 | | | Daily Goal - Next 24 0.0 | | | Goal Comments Goal achieved (TD section) | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String SURFACE, 1,989.3ftKB | | | | Next Casing String INTERMEDIATE, 6,084.5ftKB | | | | |
| Avg Connection Gas 0.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 13.00 | | Max Connection Gas 0.00 | | Max Trip Gas 0.00 | | Max Drill Gas 0.00 | | |
| Operations Summary Drill 12 1/4" Int section f/ 5659' t/ 6096', TD section, C&C, TOH t/ 3800', Perform wiper trip, C&C, TOH, L/D directional tools, Pull WB, R/U casing crew, M/U shoe track, RIH w/ 9 5/8 casing t/ 1610' (0% sliding, 8° tangent dropped to vertical, 4.54' behind, 6.89' left) | | | | | | | | | | | | |
| Operations Next Report Period Continue to RIH w/ 9 5/8" casing, land casing on hanger, R/D casing crew, Circulate 1.5x casing volume, Perform single stage cement job, N/D BOP, Install TA cap, Release rig and skid to University 6C 4H, N/U and perform shell test, P/U directional tools, TIH | | | | | | | | | | | | |
| Operations at Report Time Running 9 5/8" casing @ 1610' | | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | | | |
| Rig NPT: 1.75 hours | | | | | | | | | | | | |
| 3rd Party NPT: 0 hours | | | | | | | | | | | | |
| PNR NPT: 5.5 hours | | | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 0% Curve: 0% Lat: 0% | | | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 6 hrs, 3- 24 hrs | | | | | | | | | | | | |
| Saver Sub footage: 8,245' | | | | | | | | | | | | |
| Initial Water Meter Reading: 535859 | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | |

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Printed: Friday, December 6, 2019

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,469.00 | Days Since RI: 81.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/6/2019 |
| Report #: | 6 |
| DFS: | 4 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$96,505.13 |

| Time Log | | | | | | | | | | |
|------------|----------|----------|-----------------|---------------|-----------------|---|--------------------|------------------|---------------|------------|
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # |
| 06:00 | 4.25 | 10:15 | INT, DRL | DRL | NORMAL | Drill F/5659' T/6096' (437' @ 103 fph), 100% complete. MW-10.8 w/ 31 vis, full returns. Pump 10 bbl, hi vis sweeps every other std. Last Survey @ 6031' ? Inc-0.04°, Azm-40.25°, 4.54' behind & 6.89' left to plan #1 | 5,659.0 | 6,096.0 | | |
| 10:15 | 1.5 | 11:45 | INT, POST DRL | CIRC | NORMAL | Circulate 2 hi-vis marker sweeps (30bbl / 10ppb nut plug) with full returns Estimate hole washout @ 15% | 6,096.0 | 6,096.0 | | |
| 11:45 | 0.25 | 12:00 | INT, POST DRL | FLOW_CHK | NORMAL | Perform flow check - well static | 6,096.0 | 6,096.0 | | |
| 12:00 | 1 | 13:00 | INT, POST DRL | TOOH_ELEV | NORMAL | TOH f/ 6200' t/ 5430'. Hole taking proper fill from trip tanks * note: Work through tight spots @ 5320', 5246', 4960' | 6,096.0 | 6,096.0 | | |
| 13:00 | 0.25 | 13:15 | INT, POST DRL | TOOH_NONEL EV | HOLE CONDITIO N | Back ream through tight spots f/ 4640' t/ 4610'. Full returns. GPM: 900; SPP: 3528, RPM: 50 | 6,096.0 | 6,096.0 | 0.25 | 4 |
| 13:15 | 0.75 | 14:00 | INT, POST DRL | TOOH_ELEV | NORMAL | TOH f/ 4610' t/ 3865'. Hole taking proper fill from trip tanks * note: Work through tight spots @ 4493' | 6,096.0 | 6,096.0 | | |
| 14:00 | 1.25 | 15:15 | INT, POST DRL | WPR_TRIP | HOLE CONDITIO N | Trip in hole F/ 3,865' T/ 6,096'. No fill on bottom. Proper pipe displacement | 6,096.0 | 6,096.0 | 1.25 | 5 |
| 15:15 | 1.25 | 16:30 | INT, POST DRL | CIRC | HOLE CONDITIO N | Circulate 2x B/U. Shakers clean. Full returns | 6,096.0 | 6,096.0 | 1.25 | 5 |
| 16:30 | 2.75 | 19:15 | INT, POST DRL | TOOH_ELEV | HOLE CONDITIO N | Trip out of hole f/ 6,096' t/ 1385'. No excess drag and correct pipe displacement | 6,096.0 | 6,096.0 | 2.75 | 5 |
| 19:15 | 0.5 | 19:45 | INT, POST DRL | HDL_ROT HD | NORMAL | Pull rotating head and install trip nipple | 6,096.0 | 6,096.0 | | |
| 19:45 | 2.5 | 22:15 | INT, POST DRL | HDL_BHA | NORMAL | Rack back HWDP and DC's in derrick. Hole taking proper fill from trip tanks * Note: Had to break multiple tight connections with tongs * | 6,096.0 | 6,096.0 | | |
| 22:15 | 0.25 | 22:30 | INT, POST DRL | SFTY | NORMAL | PJSM w/ PNR, H&P and Gyrodata discussing directional tool lay down operations | 6,096.0 | 6,096.0 | | |
| 22:30 | 2 | 00:30 | INT, POST DRL | LD_DIR | NORMAL | L/D top NMDC, Pull MWD, drain motor and break bit, L/D motor, UBHO, Stabilizer and both NMDC * Note: both NMDC's had damaged on faces of connections, stabilizer also had damage on blades * | 6,096.0 | 6,096.0 | | |
| 00:30 | 0.5 | 01:00 | INT, POST DRL | RIG_SVC | NORMAL | Lubricate rig and top drive. Remove rig elevators | 6,096.0 | 6,096.0 | | |
| 01:00 | 0.25 | 01:15 | INT, POST DRL | SFTY | NORMAL | Clean rig floor of tools and prep to R/U and run casing | 6,096.0 | 6,096.0 | | |
| 01:15 | 0.5 | 01:45 | INT, POST DRL | WRBSH | NORMAL | Pull wearbushing - verified by PNR rep (pull mousehole also) | 6,096.0 | 6,096.0 | | |
| 01:45 | 0.25 | 02:00 | INT, POST DRL | SFTY | NORMAL | PJSM w/ PNR, H&P, Byrd, and Weatherford discussing casing crew R/U and running operations | 6,096.0 | 6,096.0 | | |
| 02:00 | 1.25 | 03:15 | INT, CASE & CMT | RU_CSG | NORMAL | R/U Byrd casing crew, service loop, CRT, spiders & base plate and control panel ID Elevators: 9 3/4" OD Collar: 10 11/16" | 6,096.0 | 6,096.0 | | |
| 03:15 | 0.5 | 03:45 | INT, CASE & CMT | MU_SHOE_TR K | NORMAL | M/U shoe track as follows: 1 Weatherford single valve float collar (1.77'), followed by 2 joints 9 5/8" L-80 IC BTC casing (9306'), 1 Weatherford single valve float collar (1.50') and 1 additional joint 9 5/8" L-80 IC BTC casing (47.01'). Pump through shoe track and check floats - GOOD Note: 9 5/8" x 11 3/4" solid body centralizers installed with stop rings 5' from pin on both joints of shoe track. Each connection thread locked to top of float collar | 6,096.0 | 6,096.0 | | |

Daily Drilling Report

| Time Log | | | | | | | | | | | | | | | | | | |
|---|----------------------------|--------------------|--------------------------|--------------------------------------|--------------------|---|---|---------------------------|---------------|---------------------------|-----------------------------|---------------------|---------------------------|--------------------------|-----------------------|------------|-----------------------|-----------------------|
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | | | | | | | |
| 03:45 | 2.25 | 06:00 | INT, CASE & CMT | CSG_W/O ROTATION | NORMAL | RIH w/ 9 5/8" L-80 IC BTC casing f/ 143' t/ 1270'. P/U 10' PUP (9.98') and Weatherford DV tool (2.70') (thread lock top and bottom connections of DV tool). Continue to run 9 5/8" casing per tally t/ 1610' Fill casing after 1st 10 joints and every 40jts after Hole displacing properly to trip tanks | 6,096.0 | 6,096.0 | | | | | | | | | | |
| Interval Problems | | | | | | | | | | | | | | | | | | |
| DOWNHOLE CONDITIONS, 6,096.0ftKB, 12/5/2019 13:00 | | | | | | | | | | | | | | | | | | |
| Ref # | Dur (N...) | Ex... | Subtype | Problem Descript... | Est Cost OR (Cost) | Accountable Party | Comment | | | | | | | | | | | |
| 4 | 0.25 | No | WELLBORE | TIGHT SPOT | 750.00 | PIONEER NATURAL RESOURCES USA INC | Back ream through tight spots f/ 4640' t/ 4610'. Full returns | | | | | | | | | | | |
| DOWNHOLE CONDITIONS, 6,096.0ftKB, 12/5/2019 14:00 | | | | | | | | | | | | | | | | | | |
| Ref # | Dur (N...) | Ex... | Subtype | Problem Descript... | Est Cost OR (Cost) | Accountable Party | Comment | | | | | | | | | | | |
| 5 | 5.25 | No | WELLBORE | TIGHT SPOT | 15,750.00 | PIONEER NATURAL RESOURCES USA INC | Perform wiper trip due to multiple tight spots on initial trip out of hole. Circulate 2x bottoms up and TOH w/ no issues after short trip | | | | | | | | | | | |
| Drill Strings | | | | | | | | | | | | | | | | | | |
| BHA #2 , INTERMEDIATE | | | | | | | | | | | | | | | | | | |
| Bit Run | | | | Drill Bit | | | | Bit Type | | Make | | | | | | | | |
| 2 | | | | 12 1/4in, GT65DMOs, 13279572 | | | | PDC | | HALLIBURTON | | | | | | | | |
| Nozzles (1/32") | | | | Bit Total Fluid Area (nozzles) (in²) | | IADC Bit Dull | | Hours Drilled By Bit (hr) | | Depth Drilled By Bit (ft) | | | | | | | | |
| 11/11/11/11/11/10/10/10 | | | | 0.79 | | 1-2-BT-G-X-0-WT-TD | | 30.50 | | 4,087.00 | | | | | | | | |
| BHA Drilling Time (hr) | | | | BHA Depth Drilled (ft) | | BHA ROP (ft/hr) | | Depth In (ftKB) | | Depth Out (ftKB) | | | | | | | | |
| 30.50 | | | | 4,087.00 | | 134.0 | | 2,009.0 | | 6,096.0 | | | | | | | | |
| Drill String Components | | | | | | | | | | | | | | | | | | |
| Jts | Item Des | | | | OD (in) | ID (in) | Len (ft) | Cum Len (ft) | Wt (lbf) | Cum Wt (1000lbf) | Make | | | | | | | |
| 158 | DRILL PIPE | | | | 5 | 4.28 | 4,985.74 | 6,096.00 | 97,221.9 | 133 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 3 | HWDP | | | | 5 | 3.25 | 91.22 | 1,110.26 | 5,396.6 | 36 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 1 | DRILLING JARS - MECHANICAL | | | | 6 5/16 | 2.81 | 31.81 | 1,019.04 | | 30 | WEATHERFORD | | | | | | | |
| 17 | HWDP | | | | 5 | 3.25 | 511.68 | 987.23 | 30,271.0 | 30 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 1 | SUB - XO | | | | 6 3/4 | 2.75 | 4.07 | 475.55 | | 0 | STABIL DRILL | | | | | | | |
| 12 | DRILL COLLAR - SPIRALED | | | | 7 7/8 | 2.88 | 359.85 | 471.48 | | 0 | OTHER (PROVIDE DESCRIPTION) | | | | | | | |
| 1 | SUB - XO | | | | 8 | 2.94 | 2.20 | 111.63 | | 0 | STABIL DRILL | | | | | | | |
| 1 | DRILL COLLAR - NON MAG | | | | 8 | 3.25 | 30.59 | 109.43 | | 0 | STABIL DRILL | | | | | | | |
| 1 | DRILL COLLAR - NON MAG | | | | 8 | 3.25 | 30.37 | 78.84 | | 0 | STABIL DRILL | | | | | | | |
| 1 | SUB - UBHO | | | | 8 | 3.06 | 2.64 | 48.47 | | 0 | GYRODATA | | | | | | | |
| 1 | STABILIZER | | | | 8 3/8 | 2.88 | 6.75 | 45.83 | | 0 | STABIL DRILL | | | | | | | |
| 1 | MOTOR - STABILIZER SLEEVE | | | | 8 | 3.00 | 37.58 | 39.08 | | 0 | GYRODATA | | | | | | | |
| Mud Motors | | | | | | | | | | | | | | | | | | |
| SN | | Bend Angle | | Bearing Type | | Lobe Config | | # Stages | | Lwr Defln Type | | Bit To Bend | | | | | | |
| GDM962020 | | 1.75 | | NOT SEALED | | 7:8 | | 5.9 | | | | 6.38 | | | | | | |
| Sensors | | | | | | | | | | | | | | | | | | |
| Sensor Type | | | | Sensor-Bit (ft) | | | | Note | | | | | | | | | | |
| GAMMA | | | | 53.00 | | | | | | | | | | | | | | |
| DIRECTIONAL | | | | 65.00 | | | | | | | | | | | | | | |
| Drilling Parameters | | | | | | | | | | | | | | | | | | |
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) | |
| 06:00 | 08:00 | 5,659.0 | 151.00 | 75.5 | 49 | 75 | 500.0 | 900 | 4,300.0 | 125.0 | 215 | 240 | 180 | 215 | 24,000.0 | 8,000.0 | 0 | |
| 08:00 | 09:00 | 5,810.0 | 134.00 | 134.0 | 49 | 75 | 600.0 | 710 | 3,300.0 | 100.0 | 215 | 240 | 180 | 215 | 24,000.0 | 8,000.0 | 0 | |
| 09:00 | 10:15 | 5,944.0 | 152.00 | 121.6 | 49 | 75 | 800.0 | 900 | 4,600.0 | 125.0 | 215 | 240 | 180 | 215 | 24,000.0 | 10,000.0 | 0 | |
| 10:15 | 11:45 | 6,096.0 | 0.00 | | 0 | 75 | 0.0 | 900 | 3,800.0 | 0.0 | 215 | 240 | 180 | 215 | 0.0 | 8,000.0 | 0 | |
| 15:15 | 16:30 | 6,096.0 | 0.00 | 0.0 | 0 | 75 | 0.0 | 645 | 2,100.0 | 0.0 | 215 | 240 | 180 | 215 | 0.0 | 8,000.0 | 0 | |
| Hydraulic Calculations | | | | | | | | | | | | | | | | | | |
| Dens Mud (lb/gal) | ECD End (lb/gal) | | Bit Hydraulic Power (hp) | | HP/Area (hp/in²) | | Jet Vel (ft/s) | | Bit dP (psi) | | Min Open Hole AV (ft/min) | | Max Open Hole AV (ft/min) | | Vol DrillString (bbl) | | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) |
| 10.70 | 10.73 | | 252.2 | | 2.1 | | 263.0 | | 670.2 | | 18.1 | | 197.8 | | 98.96 | | 484.11 | 256.80 |
| | | | | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | | |

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,469.00 | Days Since RI: 81.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/6/2019 |
| Report #: | 6 |
| DFS: | 4 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$96,505.13 |

| Mud Checks | | | | | | | | | | |
|--|-------------------------|--|---------------|-----------------------------------|---------------------------------|---|---|-------------------------------|----------------------------|---------|
| Time 22:00 | | Mud Company PIONEER DRILLING FLUIDS | | | Type WATER BASE | Depth (ftKB) 6,096.0 | Density (lb/gal) 10.80 | Funnel Viscosity (s/qt) 35 | T Flowline (°F) 106.0 | |
| PV (cP) 5.0 | YP (lb/100ft²) 6.000 | Vis 3rpm 3 | Vis 6rpm 4 | Filtrate (mL/30min) 0.0 | HTHP Filtrate (mL/30min) 0.0 | | HTHP Temperature (°F) 0.0 | | HTHP Pressure (psi) 0.0 | |
| Solids (%) 17.0 | | Low Gravity Solids (%) 6.7 | | Sand (%) 0.1 | | MBT (lb/bbl) 7.5 | | Pm (mL/mL) 0.200 | Pf (mL/mL) | |
| Chlorides (ppm) 181,000,000.000 | | Calcium (ppm) 800.000 | | CaCl (ppm) 0 | Oil Water Ratio 0/100 | Electric Stab (V) 0.0 | | Lime (lb/bbl) 0.0 | pH 10.0 | |
| Gel 10 sec (lb/100ft²) 6.000 | | | | Gel 10 min (lb/100ft²) 9.000 | | | Gel 30 min (lb/100ft²) 11.000 | | | |
| Comment Recommended Fluid Treatment: Adding Caustic Soda to maintain PH above 9.5, adding xanthan gum for high vis sweeps. At 4800 ft, began adding Pac LV for fluid loss, xanthan gum to system for viscosity, soda ash for hardness. Added Defoam S to active pits to control foam from 6060 ft to TD at 6096 ft. | | | | | | | | | | |
| Drilling Fluid Activity Last 24hrs: Adding chemical as described to bring mud properties to within mud program specifications. Pumped high vis sweeps every 200 ft. At TD, Pumped high vis marker sweep with washout calculated at 15%. Pumped 2nd sweep when first cleared hole and circulated hole clean. Checked chlorides on fresh water with chlorides at 900. | | | | | | | | | | |
| Rig Activity Last 24hrs: Drilled to TD called at 6096 ft and circulated three bottoms up with washout calculated at 15%. Pumped high vis sweeps every 200 ft to TD and pumped 2 marker sweeps. Flow checked well, well static, pulled ten stands and flow checked with well static. Pumped slug and began pulling out of hole and pulled to shoe with decision made to make wiper trip. Tripped back to 6039 and circulated b/u, flow checked, pumped slug and pulled out of hole laying out bit and bha. Adjusted inventory to reflect current amounts. | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | |
| Date | Test Type | | | Item Tested | | Next Test Date | Com | | | |
| 12/3/2019 | BOP | | | BOP'S, 12/3/2019 14:15, FULL TEST | | 12/20/2019 | Perform shell test 12/3/19. Last FULL BOP test 11/29/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | | | |
| Test Type | | | | Depth (ftKB) | | | Dens Fluid (lb/gal) | | | |
| FORMATION INTEGRITY | | | | 1,989.0 | | | 13.00 | | | |
| Casing Pressure Test | | | | | | | | | | |
| Test Type | | Test Subtype | | | Date | Item Tested | | Failed? | Time (min) | P (psi) |
| CASING | | STANDARD | | | 11/5/2019 | SURFACE, 1,989.3ftKB | | No | 30.00 | 1,000.0 |
| Kick Offs & Key Depths | | | | | | | | | | |
| Date | | | | Type | | | Top Depth (ftKB) | | | |
| | | | | KICK OFF | | | | | | |
| | | | | HEEL | | | | | | |
| | | | | HEEL | | | | | | |
| Casing Strings | | | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | | Grade | Wt/Len (lb/ft) | Top Thread | | P LeakOff (psi) | |
| CONDUCTOR | 106.5 | 106.5 | 20 | | H40 | 78.67 | | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | | J55 | 54.50 | BTC | | 1,342.5 | |
| Job Supply Amounts | | | | | | | | | | |
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | | Cum On Loc | Cum Consumed | |
| DIESEL | MUD | GAL | 0 | 0 | 0 | Mud Diesel | | 0 | 0.0 | |
| DIESEL | FUEL | GAL | 7,100 | 1,919 | 0 | Rig Diesel | | 9,829 | 5,959.0 | |
| WATER | FRESH | BBL | 0 | 0 | 0 | Initial reading: 537901 Final reading: 537901 | | 0 | 9,380.0 | |
| Mud Additive Amounts | | | | | | | | | | |
| Des | Type | Units | | Rec | Consumed | | On Loc | Cum Cons | | |
| BARITE | WEIGHTING MATERIAL | LB | | 0 | 10 | | 230.0 | 10 | | |
| BARITE-BULK | WEIGHTING MATERIAL | TON | | 0 | 15 | | 65.0 | 15 | | |
| BENTONITE | VISCOSIFIER | LB | | 0 | 11 | | 164.0 | 11 | | |
| CALCIUM CHLORIDE | SALT | LB | | 0 | -23 | | 115.0 | -23 | | |
| CAUSTIC SODA | ALKALINITY CONTROL | LB | | 0 | 10 | | 117.0 | 19 | | |
| GILSONITE | FLUID LOSS ADDITIVES | SACK | | 0 | 21 | | 89.0 | 21 | | |
| GRAPHITE | FLUID LOSS ADDITIVES | GAL | | 0 | -8 | | 120.0 | -8 | | |
| LIME | ALKALINITY CONTROL | LB | | 0 | -10 | | 270.0 | -10 | | |
| MICA | LOST CIRCULATION | LB | | 0 | -44 | | 219.0 | -44 | | |
| PAC LV | FLUID LOSS ADDITIVES | LB | | 0 | -5 | | 70.0 | -5 | | |
| PAC R | FLUID LOSS ADDITIVES | LB | | 0 | -4 | | 79.0 | -4 | | |
| PECAN NUT PLUG FINE | LOST CIRCULATION | GAL | | 0 | 9 | | 71.0 | 9 | | |
| POLYDRIL DEFOAMER S | DEFOAMER | GAL | | 0 | -7 | | 73.0 | -7 | | |
| SODA ASH | ALKALINITY CONTROL | LB | | 0 | 8 | | 181.0 | 10 | | |
| VG-PLUS | OIL MUD ADDITIVE | LB | | 0 | 8 | | 87.0 | 8 | | |
| XANTHAN GUM | VISCOSIFIER | LB | | 0 | 12 | | 280.0 | 34 | | |
| Pump Operations | | | | | | | | | | |
| Pump # | Make | | | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | | |
| 1 | GARDNER-DENVER | | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 2 | GARDNER-DENVER | | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| | | | | | | | | | | |
| Daily Drilling Report | | | | | Page 4/5 | | Printed: Friday, December 6, 2019 | | | |

Daily Drilling Report

| | |
|--------------------------|-----------------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: | Days Since RI: 81.00 |
| 1,469.00 | |

| PERMIAN ASSET TEAM | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/6/2019 |
| Report #: | 6 |
| DFS: | 4 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$96,505.13 |

Daily Drilling Report

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| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/6/2019 | | |
| Days Since LTI: 1,470.00 | | | | Report #: | 7 | | |
| Release: | | | | DFS: | 5 | | |
| Days Since RI: 82.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$137,410.16 | | |

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|--|--------------------|-----------------------------|-------------------------------|---|---|---|--------------------------------------|---|--|--|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | |
| Safety Checks | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: RIH with 9 5/8" casing. Land casing, R/D casing crew, Circulating prior to cement job - if returns STS (10,664stks), no returns (9022stks min) @ 6-8 bpm.Perform cement job with SLB cementers - make sure cellar is sucked out.R/D cementers, install packoff, N/D BOP and install TA cap. Skid rig to the 3H well - use good communication, watch lines and equipment. Remove TA cap, N/U and perform shell test with Battle. | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Case #: 47288 Date: 11/22/2019 Classification: Contractor - Injury/Illness (Low) Description: Contractor was knocking in the top mast pin with a hammer during rig up operations. While swinging the hammer he got his right index finger caught between the hammer handle and mast causing a laceration to his finger. Incident was reported to PNR & HP personnel and contractor was treated onsite with first aid and returned to duty. | | | | | | |
| 12:30 | MEETING | JSA | DAY | PJSM on rigging down casing crew | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - finish cement 9 5/8" casing - attempting single stage again - expecting cement to surface, then drop cancellation bomb. R/D cementers, N/D BOP, Install TA cap and skid rig to 3H well. Use good communication while skidding, keep eye on hydraulic lines and hoses, stay away from high pressure lines while performing shell test and cementing. | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47288 Date: 11/22/2019 Classification: Contractor - Injury/Illness (Low) Description: Contractor was knocking in the top mast pin with a hammer during rig up operations. While swinging the hammer he got his right index finger caught between the hammer handle and mast causing a laceration to his finger. Incident was reported to PNR & HP personnel and contractor was treated onsite with first aid and returned to duty. | | | | | | |
| 22:30 | MEETING | JSA | NIGHT | PJSM w/ PNR, H&P and Edge discussing rig skidding operations | | | | | | |
| 23:00 | PROACTIVE MEASURES | STOP CARD - NON PNR | NIGHT | Stop card: While setting TA cap, RTM placed himself in bad body position, stopped job and discussion was had about safe and proper hand/body placement while performing tasks. He understood, and job continued without incident | | | | | | |
| Jobs | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | Job Status | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | IN PROGRESS | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | |
| Type | | Subtype | | Date | Note | | | | | |
| MILESTONE | | ESTIMATED PAD RELEASE | | 2/5/2019 | Drilling 2nd Int section on 3 well pad - batch drilling (updated 12/3/19) | | | | | |
| Daily Operations | | | | | | | | | | |
| Footage/Meterage (ft) 0.00 | | Drilling Hours (hr) | | % Rotating Time (%) | | End Depth (ftKB) 6,096.0 | Target Depth (ftKB) 18,008.0 | Daily Field Est Total (Cost) 137,410.16 | Cum Field Est To Date (Cost) 896,467.62 | |
| 24 HR ROP (ft/hr) | | Circulating Hours (hr) | | % Sliding Time (%) | | End Depth (TVD) (ftKB) 6,083.9 | Target Depth (TVD) (ftKB) 9,000.0 | Daily Mud Field Est (Cost) 118.74 | Cum Mud Field Est (Cost) 5,483.95 | Total AFE + Sup (Cost) 3,098,502.34 |
| Daily Goal Description DRILLED FEET | | Daily Goal - Last 24 0.0 | | | | Daily Goal - Next 24 0.0 | | | Goal Comments Operational goal achieved | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | | | Next Casing String INTERMEDIATE, 6,084.5ftKB | | |
| Avg Connection Gas 0.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 0.00 | | Max Connection Gas 0.00 | | Max Trip Gas 0.00 | | Max Drill Gas 0.00 |
| Operations Summary Continue to RIH w/ 9 5/8" casing t/ 6084', land casing on hanger, R/D casing crew, Circulate 1.5x casing volume, Perform single stage cement job, N/D BOP, Install TA cap, Release rig @ 2315hrs 12/6/19 | | | | | | | | | | |
| Operations Next Report Period Well Paused | | | | | | | | | | |
| Operations at Report Time Well Paused | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | |
| Rig NPT: 1.75 hours | | | | | | | | | | |
| 3rd Party NPT: 1.5 hours | | | | | | | | | | |
| PNR NPT: 5.5 hours | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 0% Curve: 0% Lat: 0% | | | | | | | | | | |
| Gen Hours: 1- 17.25 hrs, 2- 0 hrs, 3- 17.25 hrs | | | | | | | | | | |
| Saver Sub footage: 8,245' | | | | | | | | | | |
| Initial Water Meter Reading: 535859 | | | | | | | | | | |
| Time Log | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # |
| 06:00 | 5.25 | 11:15 | INT, CASE & CMT | CSG_W/O ROTATION | NORMAL | RIH w/ 9 5/8" L-80 IC BTC casing f/ 1270' t/ 5740' per tally. Fill casing every 30 jts Hole displacing properly to trip tanks | 6,096.0 | 6,096.0 | | |

Daily Drilling Report

Page 1/4

Printed: Saturday, December 7, 2019

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,470.00 | Days Since RI: 82.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/6/2019 |
| Report #: | 7 |
| DFS: | 5 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$137,410.16 |

| Time Log | | | | | | | | | | | | |
|--|------------------|----------------|--------------------------|---------------------|-----------------------------------|---|--|---|---------------------------|-----------------------|-----------------------|-----------------------|
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | |
| 11:15 | 1.25 | 12:30 | INT, CASE & CMT | CSG_W/WASH | NORMAL | Wash casing @ 8 bpm f/ 5740' t/ 6096' and land in wellhead w/ 173k - verified by Cactus rep. Full returns. | 6,096.0 | 6,096.0 | | | | |
| 12:30 | 0.25 | 12:45 | INT, CASE & CMT | SFTY | NORMAL | PJSM on rigging down casing crew | 6,096.0 | 6,096.0 | | | | |
| 12:45 | 0.75 | 13:30 | INT, CASE & CMT | RD_CSG | NORMAL | R/D Byrd casing crew, CRT & service loop. Send down spiders and control panel | 6,096.0 | 6,096.0 | | | | |
| 13:30 | 1.5 | 15:00 | INT, CASE & CMT | CIRC | NORMAL | R/U circulating swedge and circulate 1.5 x casing cap. with full returns | 6,096.0 | 6,096.0 | | | | |
| 15:00 | 1.5 | 16:30 | INT, CASE & CMT | CIRC | NORMAL | R/U SLB cement head and circulating iron. Circulate while waiting on cement labs. * Held PJSM with crews discussing cement job while waiting offline * | 6,096.0 | 6,096.0 | 1.50 | 6 | | |
| 16:30 | 3.25 | 19:45 | INT, CASE & CMT | CMT | NORMAL | Perform single stage cement job as follows: Pressure test lines to 4000 psi. Pump 50 bbls MPE @ 11.0 ppg followed by 530 bbls lead cement @ 11.5 ppg + 62 bbls tail cement @ 14.8 ppg. Shut down and drop plug. Displace with 130 bbl FW @ 8.4 followed by 324 bbl Brine mud @ 10.8 ppg. Bump plug with 1258 psi. Bled bump pressure to 0 psi with 1.5 bbls back. Float equipment holding. Full returns during cement job and 50 bbls spacer and 135 bbls cement to surface. | 6,096.0 | 6,096.0 | | | | |
| 19:45 | 0.75 | 20:30 | INT, CASE & CMT | CIRC | NORMAL | Drop bomb with cancellation sleeve and let gravitate for 30 min. Pressure up to 900psi and see shift in tool, Continue to pressure up to 2000psi. Hold pressure - good. DVT closed | 6,096.0 | 6,096.0 | | | | |
| 20:30 | 0.5 | 21:00 | INT, CASE & CMT | RD_CMT | NORMAL | R/D SLB cementers | 6,096.0 | 6,096.0 | | | | |
| 21:00 | 1 | 22:00 | INT, CASE & CMT | WH | NORMAL | L/O landing joint, R/U elevators and stabbing guide. M/U packoff running tool, install packoff. Test seals to 5000psi, pull test 40k - GOOD | 6,096.0 | 6,096.0 | | | | |
| 22:00 | 0.5 | 22:30 | INT, CASE & CMT | ND_BOPE | NORMAL | N/D BOP and lift stack | 6,096.0 | 6,096.0 | | | | |
| 22:30 | 0.25 | 22:45 | INT, CASE & CMT | SFTY | NORMAL | PJSM w/ PNR, H&P and Edge discussing rig skidding operations | 6,096.0 | 6,096.0 | | | | |
| 22:45 | 0.5 | 23:15 | INT, CASE & CMT | WH | NORMAL | Install TA cap. Test cap to 500psi for 15min w/ Battle testers * Release rig @ 2315hrs 12/6/19 * | 6,096.0 | 6,096.0 | | | | |
| Interval Problems | | | | | | | | | | | | |
| 3RD PARTY, 6,096.0ftKB, 12/6/2019 15:00 | | | | | | | | | | | | |
| Ref # | Dur (N...) | Ex... | Subtype | Problem Descript... | Est Cost OR (Cost) | Accountable Party | Comment | | | | | |
| 6 | 1.50 | No | CEMENT | WAIT ON CEMENT | 4,500.00 | SCHLUMBERGER TECHNOLOGY CORPORATION | Continue circulation while waiting on cement labs from SLB | | | | | |
| Hydraulic Calculations | | | | | | | | | | | | |
| Dens Mud (lb/gal) | ECD End (lb/gal) | | Bit Hydraulic Power (hp) | | HP/Area (hp/in²) | Jet Vel (ft/s) | Bit dP (psi) | Min Open Hole AV (ft/min) | Max Open Hole AV (ft/min) | Vol DrillString (bbl) | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) |
| | | | | | | | | | | | | |
| Mud Checks | | | | | | | | | | | | |
| Time | | | Mud Company | | | Type | Depth (ftKB) | Density (lb/gal) | Funnel Viscosity (s/qt) | T Flowline (°F) | | |
| 22:00 | | | PIONEER DRILLING FLUIDS | | | WATER BASE | 6,096.0 | 10.80 | 35 | 106.0 | | |
| PV (cP) | | YP (lb/100ft²) | Vis 3rpm | Vis 6rpm | Filtrate (mL/30min) | HTHP Filtrate (mL/30min) | | HTHP Temperature (°F) | | HTHP Pressure (psi) | | |
| 6.0 | | 8.000 | 4 | 5 | 0.0 | 0.0 | | 0.0 | | 0.0 | | |
| Solids (%) | | | Low Gravity Solids (%) | | Sand (%) | MBT (lb/bbl) | | Pm (mL/mL) | | Pf (mL/mL) | | |
| 16.0 | | | 6.8 | | 0.1 | 10.0 | | 0.100 | | | | |
| Chlorides (ppm) | | | Calcium (ppm) | | CaCl (ppm) | Oil Water Ratio | Electric Stab (V) | | Lime (lb/bbl) | pH | | |
| 168,000,000.000 | | | 800.000 | | 0 | 0/100 | 0.0 | | 0.0 | 10.0 | | |
| Gel 10 sec (lb/100ft²) | | | | | Gel 10 min (lb/100ft²) | | | | Gel 30 min (lb/100ft²) | | | |
| 6.000 | | | | | 10.000 | | | | 12.000 | | | |
| Comment | | | | | | | | | | | | |
| Recommended Fluid Treatment: No treatment while tripping or cementing | | | | | | | | | | | | |
| Drilling Fluid Activity Last 24hrs: Monitored returns while tripping casing in hole and while washing and reaming to bottom. Monitored returns during cement operation with 180 bbls of cement to surface. Transferred onsite chemical and mud to next location The University 6C 3H. | | | | | | | | | | | | |
| Rig Activity Last 24hrs: RIH with 9.625" casingand landing at 6087 after washing down last 5 joints for safety. Circulated 1 1/2 casing volumes while Schlumberger rigged up. Swapped over to cementers and cemented casing in one stage with 180 bbls of cement back to surface and bumping plug. Schlumberger rigged down while rig began nipping down in preparation to skid rig to the University 6C 3H. | | | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | | | |
| Date | Test Type | | | | Item Tested | | Next Test Date | Com | | | | |
| 12/3/2019 | BOP | | | | BOP'S, 12/3/2019 14:15, FULL TEST | | 12/20/2019 | Perform shell test 12/3/19. Last FULL BOP test 11/29/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | |
| | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | |
| Page 2/4 | | | | | | | | | | | | |
| Printed: Saturday, December 7, 2019 | | | | | | | | | | | | |

Daily Drilling Report

| | |
|--------------------------|----------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: 1,470.00 | Days Since RI: 82.00 |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/6/2019 |
| Report #: | 7 |
| DFS: | 5 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$137,410.16 |

| Leak Off and Formation Integrity Tests | | | | | | | | | | | | | | |
|---|----------------|--------------------------------|------------------------|---|---------------|---|----------------------|---|---------------|------------------------------|----------------|---------------------------|--------------|----------|
| Test Type | | | Depth (ftKB) | | | | Dens Fluid (lb/gal) | | | | | | | |
| FORMATION INTEGRITY | | | 1,989.0 | | | | 13.00 | | | | | | | |
| Casing Pressure Test | | | | | | | | | | | | | | |
| Test Type | | Test Subtype | | | Date | | Item Tested | | Failed? | Time (min) | P (psi) | | | |
| CASING | | STANDARD | | | 11/5/2019 | | SURFACE, 1,989.3ftKB | | No | 30.00 | 1,000.0 | | | |
| Kick Offs & Key Depths | | | | | | | | | | | | | | |
| Date | | | | Type | | | | Top Depth (ftKB) | | | | | | |
| | | | | KICK OFF | | | | | | | | | | |
| | | | | HEEL | | | | | | | | | | |
| | | | | HEEL | | | | | | | | | | |
| Casing Strings | | | | | | | | | | | | | | |
| Description | | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | | Top Thread | | P LeakOff (psi) | | | | |
| CONDUCTOR | | 106.5 | 106.5 | 20 | H40 | 78.67 | | | | | | | | |
| SURFACE | | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | | BTC | | 1,342.5 | | | | |
| INTERMEDIATE | | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | | BTC | | | | | | |
| Cement | | | | | | | | | | | | | | |
| INTERMEDIATE CASING CEMENT, Casing, 12/6/2019 16:30 | | | | | | | | | | | | | | |
| Cementing End Date 12/6/2019 19:45 | | Wellbore ORIGINAL | | Technical Result SUCCESS | | Comment Perform single stage cement job as follows: Pressure test lines to 4000 psi. Pump 50 bbls MPE @ 11.0 ppg followed by 530 bbls lead cement @ 11.5 ppg + 62 bbls tail cement @ 14.8 ppg. Shut down and drop plug. Displace with 130 bbl FW @ 8.4 followed by 324 bbl Brine mud @ 10.8 ppg. Bump plug with 1258 psi. Bled bump pressure to 0 psi with 1.5 bbls back. Float equipment holding. Full returns during cement job and 50 bbls spacer and 135 bbls cement to surface. | | | | | | | | |
| Cement Stages | | | | | | | | | | | | | | |
| Description INTERMEDIATE CASING CEMENT | | | Final Top De... | Btm (ftKB) | Top Pl... | Btm Pl... | Q Pump Init (...) | Q Pump Fina... | Q Pump Avg... | P Pump Final... | P Plug Bump... | Float... | Recip? | Rotated? |
| | | | 29.6 | 6,084.6 | Yes | No | 6 | 3 | 7 | 780.0 | 1,258.0 | No | No | No |
| Cement Fluids | | | | | | | | | | | | | | |
| Fluid Type MUDPUSH | | | | Estimated Top (ftKB) 0.0 | | Est Btm (ftKB) 0.0 | | Class | | Yield (ft³/sack) 0.00 | | Density (lb/gal) 11.00 | | |
| Fluid Type LEAD CMT | | | | Estimated Top (ftKB) 29.6 | | Est Btm (ftKB) 5,584.0 | | Class CLASS C | | Yield (ft³/sack) 2.33 | | Density (lb/gal) 11.50 | | |
| Fluid Type TAIL CMT | | | | Estimated Top (ftKB) 5,584.0 | | Est Btm (ftKB) 6,084.5 | | Class CLASS C | | Yield (ft³/sack) 1.33 | | Density (lb/gal) 14.80 | | |
| Fluid Type DSPLMT | | | | Estimated Top (ftKB) 0.0 | | Est Btm (ftKB) 4,669.0 | | Class | | Yield (ft³/sack) 0.00 | | Density (lb/gal) 8.40 | | |
| Fluid Type DSPLMT | | | | Estimated Top (ftKB) 4,669.0 | | Est Btm (ftKB) 5,988.0 | | Class | | Yield (ft³/sack) 0.00 | | Density (lb/gal) 10.80 | | |
| Job Supply Amounts | | | | | | | | | | | | | | |
| Supply Item Des | | | Type | Unit Label | Received | Consumed | Returned | Note | | | Cum On Loc | | Cum Consumed | |
| DIESEL | | | MUD | GAL | 0 | 0 | 0 | Mud Diesel | | | 0 | | 0.0 | |
| DIESEL | | | FUEL | GAL | 0 | 681 | 0 | Rig Diesel | | | 9,148 | | 6,640.0 | |
| WATER | | | FRESH | BBL | 0 | 0 | 0 | Initial reading: 537901 Final reading: 537901 | | | 0 | | 9,380.0 | |
| Mud Additive Amounts | | | | | | | | | | | | | | |
| Des | | | Type | Units | Rec | | | Consumed | | On Loc | | Cum Cons | | |
| POLYDRIL DEFOAMER S | | | DEFOAMER | GAL | 0 | | | 2 | | 71.0 | | -5 | | |
| Pump Operations | | | | | | | | | | | | | | |
| Pump # | Make | | | Model | | Liner Size (in) | | Stroke (in) | | Vol/Stk (bbl/stk) | | P Max (psi) | | |
| 1 | GARDNER-DENVER | | | PZ-11-1600 | | 5 1/2 | | 11.00 | | 0.081 | | 6,300.0 | | |
| 2 | GARDNER-DENVER | | | PZ-11-1600 | | 5 1/2 | | 11.00 | | 0.081 | | 6,300.0 | | |
| 3 | GARDNER-DENVER | | | PZ-11-1600 | | 5 1/2 | | 11.00 | | 0.081 | | 6,300.0 | | |
| Pump Checks | | | | | | | | | | | | | | |
| Pump # | Depth (ftKB) | | Time | P (psi) | Strokes (spm) | | Q Flow (gpm) | | | Eff (%) | | | | |
| | | | | | | | | | | | | | | |
| Deviation Surveys | | | | | | | | | | | | | | |
| Date 10/28/2019 | | Description AS DRILL SURVEY | | | | | | | | Job ODR, 10/28/2019 10:00 | | | | |
| Formations | | | | | | | | | | | | | | |
| Formation Name | | | | Prog Top (TVD SS) Override (ft(elv)) | | Prog Top MD (ftKB) | | Prog Top (TVD) (ftKB) | | Final Top MD (ftKB) | | Final Top (TVD) (ftKB) | | |
| 264_0_Top_Brushy_Canyon | | | | -3,298.0 | | | | 6,301.5 | | | | | | |
| 264_5_Mid_Brushy_Canyon | | | | -3,596.0 | | | | 6,599.5 | | | | | | |
| 265_0_CLEARFORK/POP | | | | -3,817.0 | | | | 6,820.5 | | | | | | |
| 267_0_SPBY_U_A1/267_0_SPBY | | | | -5,444.0 | | | | 8,447.5 | | | | | | |
| 267_5_SPBY_M_A1 | | | | -5,755.0 | | | | 8,758.5 | | | | | | |
| 268_5_SPBY_L_A1 | | | | -5,996.0 | | | | 8,999.5 | | | | | | |
| 268_5_SPBY_L_A2 | | | | -6,033.0 | | | | 9,036.5 | | | | | | |
| 268_5_SPBY_L_A3 | | | | -6,117.0 | | | | 9,120.5 | | | | | | |
| 268_6_SPBY_L_B1/JO MILL | | | | -6,272.0 | | | | 9,275.5 | | | | | | |
| 268_7_SPBY_L_C1/LOWER SPRABERRY SHALE | | | | -6,321.0 | | | | 9,324.5 | | | | | | |
| 269_0_DEAN | | | | -6,639.0 | | | | 9,642.5 | | | | | | |
| 270_0_WFMP_A1 | | | | -6,802.0 | | | | 9,805.5 | | | | | | |
| 272_0_WFMP_A2 | | | | -6,885.0 | | | | 9,888.5 | | | | | | |
| 271_0_WFMP_A3 | | | | -6,946.0 | | | | 9,949.5 | | | | | | |
| 275_0_WFMP_B1 | | | | -7,009.0 | | | | 10,012.5 | | | | | | |
| 276_0_WFMP_B2 | | | | -7,031.0 | | | | 10,034.5 | | | | | | |
| 278_0_WFMP_B3 | | | | -7,085.0 | | | | 10,088.5 | | | | | | |
| 280_0_WFMP_C1 | | | | -7,175.0 | | | | 10,178.5 | | | | | | |
| 282_0_WFMP_C2 | | | | -7,275.0 | | | | 10,278.5 | | | | | | |
| 292_0_WFMP_D | | | | -7,701.0 | | | | 10,704.5 | | | | | | |
| | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | |

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Printed: Saturday, December 7, 2019

Daily Drilling Report

H & P #601

Release:
Days Since RI: 82.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/6/2019 |
| Report #: | 7 |
| DFS: | 5 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$137,410.16 |

[illegible]

Daily Drilling Report

| | | | |
|--------------------------|---------------------|--------------------------|----------------|
| UNIVERSITY 6D 4H | | PERMIAN ASSET TEAM | |
| H & P #601 | | Job: | ODR |
| Accept: 12/3/2019 | Release: | Report Date: | 12/23/2019 |
| Days Since LTI: 1,486.00 | Days Since RI: 4.00 | Report #: | 8 |
| | | DFS: | 6 |
| | | AFE #: | 9006758 |
| | | Total AFE + Sup: | \$3,098,502.34 |
| | | Daily Field Est. (Cost): | \$90,357.19 |

| | | | | | | | | | | | |
|--|--------------------|--|-------------------------------|---|-------------------------|---|--|---|---------------|---|--|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | | |
| Safety Checks | | | | | | | | | | | |
| Time | Type | Des | | Tour | | Com | | | | | |
| 03:30 | PROACTIVE MEASURES | STOP CARD - PNR | | NIGHT | | Checked on vac trucks pulling water from reserve. Reminded drivers and supervisor that spotters are required when backing. Asked driver to put on safety glasses. | | | | | |
| Jobs | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | | Start Date | | End Date | | Job Status | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | | 10/28/2019 10:00 | | | | IN PROGRESS | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | | |
| Type | | | Subtype | | Date | | Note | | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 2/5/2019 | | Drilling 2nd Prod Vertical on 3 well pad - batch drilling (updated 12/22/19) | | | | |
| Daily Operations | | | | | | | | | | | |
| Footage/Meterage (ft) 0.00 | | Drilling Hours (hr) | | % Rotating Time (%) | | End Depth (ftKB) 6,096.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 90,357.19 | |
| 24 HR ROP (ft/hr) | | Circulating Hours (hr) 1.00 | | % Sliding Time (%) | | End Depth (TVD) (ftKB) 6,083.9 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 5,483.95 | |
| Cum Field Est To Date (Cost) 1,081,064.43 | | Cum Mud Field Est (Cost) 3,098,502.34 | | Total AFE + Sup (Cost) | | | | | | | |
| Daily Goal Description DRILLED FEET | | Daily Goal - Last 24 0.0 | | Daily Goal - Next 24 1,800.0 | | Goal Comments Operational goal achieved | | | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | | | Next Casing String PROPOSED PRODUCTION, 19,257.0ftKB | | | |
| Avg Connection Gas 0.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 0.00 | | Max Connection Gas 0.00 | | Max Trip Gas 0.00 | | Max Drill Gas 0.00 | |
| Operations Summary Skid rig to 6D 4H, Remove TA cap, N/U BOPE, Perform shell test, Install wear bushing, P/U Dir BHA, TIH to DV Tool, C/O Saver Sub and Slip & Cut drlg line, Tag DV Tool and Test casing to 2500 psi for 10 min, Drill out DV tool | | | | | | | | | | | |
| Operations Next Report Period TIH from DV tool to FC @ 5988', Test Csg to 2500 psi for 30 min, drill out shoe track and 10' new formation, circ, perform FIT, continue drilling 8.75" vertical production hole | | | | | | | | | | | |
| Operations at Report Time Drilling out DV Tool | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | | |
| Rig NPT: 17.5 hours | | | | | | | | | | | |
| 3rd Party NPT: 86.5 hours | | | | | | | | | | | |
| PNR NPT: 1 hours | | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 0% Curve: 0% Lat: 0% | | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs | | | | | | | | | | | |
| Saver Sub footage: 0' | | | | | | | | | | | |
| Initial Water Meter Reading: 538571 | | | | | | | | | | | |
| Time Log | | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | |
| 19:30 | 0.75 | 20:15 | PROD, PRE DRL | SKID | NORMAL | PJSM, Skid Rig from University 6C 3H to University 6C 4H | 6,096.0 | 6,096.0 | | | |
| 20:15 | 1 | 21:15 | PROD, PRE DRL | NU_BOPE | NORMAL | Nipple up BOP | 6,096.0 | 6,096.0 | | | |
| 21:15 | 0.25 | 21:30 | PROD, PRE DRL | SFTY | NORMAL | PJSM on BOP testing | 6,096.0 | 6,096.0 | | | |
| 21:30 | 0.75 | 22:15 | PROD, PRE DRL | CONC_BOPE | NORMAL | Shell test BOP | 6,096.0 | 6,096.0 | | | |
| 22:15 | 0.25 | 22:30 | PROD, PRE DRL | WRBSH | NORMAL | Install Wearbushing | 6,096.0 | 6,096.0 | | | |
| 22:30 | 0.25 | 22:45 | PROD, PRE DRL | SFTY | NORMAL | PJSM w/ PNR, H&P and Gyrodata discussing directional tool pickup operations | 6,096.0 | 6,096.0 | | | |
| 22:45 | 1 | 23:45 | PROD, PRE DRL | PU_DIR | NORMAL | M/U 8 3/4" production vertical BHA, scribe tools, M/U bit, install MWD | 6,096.0 | 6,096.0 | | | |
| 23:45 | 3 | 02:45 | PROD, PRE DRL | TIH_ELEV | NORMAL | Trip in hole F/102' T/4600'. Hole displacing properly | 6,096.0 | 6,096.0 | | | |
| 02:45 | 0.5 | 03:15 | PROD, PRE DRL | RIG_RPR | NORMAL | Change out saver sub for footage | 6,096.0 | 6,096.0 | | | |
| 03:15 | 1 | 04:15 | PROD, PRE DRL | SLIP_CUT | NORMAL | Slip and cut 9 wraps of drill line | 6,096.0 | 6,096.0 | | | |
| 04:15 | 0.25 | 04:30 | PROD, PRE DRL | TIH_ELEV | NORMAL | TIH f/ 4600' t/ 4801' and tag DVT twice with 35k to confirm tool is closed. Fill pipe | 6,096.0 | 6,096.0 | | | |
| 04:30 | 0.25 | 04:45 | PROD, PRE DRL | CSG_TEST | NORMAL | Test casing above DVT to 2500 psi for 10 min | 6,096.0 | 6,096.0 | | | |
| 04:45 | 0.25 | 05:00 | PROD, PRE DRL | HDL_ROT HD | NORMAL | Pull trip nipple and install rotating head | 6,096.0 | 6,096.0 | | | |
| 05:00 | 1 | 06:00 | PROD, PRE DRL | DRL_OUT | NORMAL | Drill out DVT f/ 4801' t/ 4803' with full returns. GPM: 500; WOB: 20; RPM: 40 | 6,096.0 | 6,096.0 | | | |
| | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | |

Daily Drilling Report

| | | | |
|--------------------------|--|---------------------|--|
| UNIVERSITY 6D 4H | | | |
| H & P #601 | | | |
| Accept: 12/3/2019 | | Release: | |
| Days Since LTI: 1,486.00 | | Days Since RI: 4.00 | |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/23/2019 |
| Report #: | 8 |
| DFS: | 6 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$90,357.19 |

Interval Problems

RIG, 6,096.0ftKB, 12/23/2019 02:45

| | | | | | | | |
|-------|------------|-------|---------------|---------------------|--------------------|-----------------------------------|----------------------------------|
| Ref # | Dur (N...) | Ex... | Subtype | Problem Descript... | Est Cost OR (Cost) | Accountable Party | Comment |
| 7 | 0.50 | Yes | ROTARY SYSTEM | SAVER SUB | 1,040.00 | PIONEER NATURAL RESOURCES USA INC | Change out saver sub for footage |

Drill Strings

BHA #3 , PRODUCTION - VERTICAL

| | | | |
|------------------------|--------------------------------------|-----------------|---------------------------|
| Bit Run | Drill Bit | Bit Type | Make |
| 3 | 8 3/4in, TKC76, A266227 | PDC | NOV |
| Nozzles (1/32") | Bit Total Fluid Area (nozzles) (in²) | IADC Bit Dull | Hours Drilled By Bit (hr) |
| 12/12/12/12/12/12/12 | 0.77 | ----- | |
| BHA Drilling Time (hr) | BHA Depth Drilled (ft) | BHA ROP (ft/hr) | Depth In (ftKB) |
| | | | 6,096.0 |
| | | | Depth Out (ftKB) |
| | | | 6,096.0 |

Drill String Components

| | | | | | | | | |
|-----|---------------------------|---------|---------|----------|--------------|-----------|------------------|-----------------------------|
| Jts | Item Des | OD (in) | ID (in) | Len (ft) | Cum Len (ft) | Wt (lbf) | Cum Wt (1000lbf) | Make |
| 190 | HWDP - SPIRALED | 5 | 3.00 | 5,993.67 | 6,096.00 | 354,585.5 | 355 | OTHER (PROVIDE DESCRIPTION) |
| 1 | DRILL COLLAR - NON MAG | 6 11/16 | 3.25 | 30.47 | 102.33 | | 0 | STABIL DRILL |
| 1 | DRILL COLLAR - NON MAG | 6 9/16 | 3.19 | 30.63 | 71.86 | | 0 | STABIL DRILL |
| 1 | SUB - UBHO | 6 3/4 | 2.75 | 3.04 | 41.23 | | 0 | GYRODATA |
| 1 | STABILIZER | 6 3/4 | 2.63 | 4.33 | 38.19 | | 0 | STABIL DRILL |
| 1 | MOTOR - STABILIZER SLEEVE | 7 | 2.50 | 32.86 | 33.86 | | 0 | GYRODATA |

Mud Motors

| | | | | | | |
|-----------|------------|--------------|-------------|----------|----------------|-------------|
| SN | Bend Angle | Bearing Type | Lobe Config | # Stages | Lwr Defln Type | Bit To Bend |
| GDM700009 | 1.5 | NOT SEALED | 6:7 | 6.5 | | 4.69 |

Sensors

| | | |
|---------------|-----------------|------|
| Sensor Type | Sensor-Bit (ft) | Note |
| GAMMA | 45.00 | |
| D&I (INC/AZI) | 57.00 | |

Drilling Parameters

| | | | | | | | | | | | | | | | | | |
|------------|----------|--------------------|----------------|-----------------|---------------|-----------|----------------|--------------|-----------|---------------------|------------------------|---------------------|---------------------|--------------------------|----------|------------|---------|
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) |
| 05:00 | 06:00 | 6,096.0 | 0.00 | | 0 | 50 | 350.0 | 500 | 2,350.0 | 150.0 | 185 | 195 | 179 | 185 | 10,000.0 | 8,500.0 | 0 |

Hydraulic Calculations

| | | | | | | | | | | |
|-------------------|------------------|--------------------------|------------------|----------------|--------------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------|
| Dens Mud (lb/gal) | ECD End (lb/gal) | Bit Hydraulic Power (hp) | HP/Area (hp/in²) | Jet Vel (ft/s) | Bit dP (psi) | Min Open Hole AV (ft/min) | Max Open Hole AV (ft/min) | Vol DrillString (bbl) | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) |
| 10.80 | 10.95 | 122.8 | 2.0 | 207.5 | 421.2 | 14.0 | 121.3 | 53.27 | 1.03 | 311.32 |

Mud Checks

| | | | | | | | |
|------------------------|------------------------|------------------------|-----------------|---------------------|--------------------------|-----------------------|---------------------|
| Time | Mud Company | Type | Depth (ftKB) | Density (lb/gal) | Funnel Viscosity (s/qt) | T Flowline (°F) | |
| PV (cP) | YP (lb/100ft²) | Vis 3rpm | Vis 6rpm | Filtrate (mL/30min) | HTHP Filtrate (mL/30min) | HTHP Temperature (°F) | HTHP Pressure (psi) |
| Solids (%) | Low Gravity Solids (%) | Sand (%) | MBT (lb/bbl) | Pm (mL/mL) | Pf (mL/mL) | | |
| Chlorides (ppm) | Calcium (ppm) | CaCl (ppm) | Oil Water Ratio | Electric Stab (V) | Lime (lb/bbl) | pH | |
| Gel 10 sec (lb/100ft²) | Gel 10 min (lb/100ft²) | Gel 30 min (lb/100ft²) | | | | | |
| Comment | | | | | | | |

Last BOP Test

| | | | | |
|------------|-----------|---------------------------------|----------------|--|
| Date | Test Type | Item Tested | Next Test Date | Com |
| 12/14/2019 | BOP | BOP'S, 12/3/2019 14:15, <class> | 1/4/2020 | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min |

Leak Off and Formation Integrity Tests

| | | |
|---------------------|--------------|---------------------|
| Test Type | Depth (ftKB) | Dens Fluid (lb/gal) |
| FORMATION INTEGRITY | 1,989.0 | 13.00 |

Casing Pressure Test

| | | | | | | |
|-----------|--------------|-----------|----------------------|---------|------------|---------|
| Test Type | Test Subtype | Date | Item Tested | Failed? | Time (min) | P (psi) |
| CASING | STANDARD | 11/5/2019 | SURFACE, 1,989.3ftKB | No | 30.00 | 1,000.0 |

Kick Offs & Key Depths

| | | |
|------|----------|------------------|
| Date | Type | Top Depth (ftKB) |
| | KICK OFF | |
| | HEEL | |
| | HEEL | |

Casing Strings

| | | | | | | | |
|--------------|------------------|------------------------|---------|--------|----------------|------------|-----------------|
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | P LeakOff (psi) |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | 1,342.5 |
| INTERMEDIATE | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | BTC | |

Job Supply Amounts

| | | | | | | | | |
|-----------------|-------|------------|----------|----------|----------|--|------------|--------------|
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed |
| DIESEL | MUD | GAL | 15,214 | 0 | 0 | Transferred from' UNIVERSITY 6C 3H' | 15,214 | 0.0 |
| DIESEL | FUEL | GAL | 10,106 | 200 | 0 | Transferred from' UNIVERSITY 6C 3H' | 9,906 | 6,840.0 |
| WATER | FRESH | BBL | 0 | 0 | 0 | Initial reading: 538571. Final reading: 538571 | 0 | 9,380.0 |

Daily Drilling Report

Page 2/3

Printed: Monday, December 23, 2019

Daily Drilling Report

H & P #601

Release:
Days Since RI: 4.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/23/2019 |
| Report #: | 8 |
| DFS: | 6 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$90,357.19 |

Daily Drilling Report

Daily Drilling Report

| | | | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/24/2019 | | |
| Days Since LTI: 1,487.00 | | | | Report #: | 9 | | |
| Release: | | | | DFS: | 7 | | |
| Days Since RI: 5.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$426,943.90 | | |

| | | | | | | | | | | |
|---|--------------------|--|-------------------------------|--|-------------------------------|--|---------------------------|------------------|---------------|------------|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | |
| Safety Checks | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | |
| 06:00 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Reviewed Weekly Trends | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: Discussed upcoming testing and drilling operations. Double check valve alignment. Watch pressures closely. Prepare for casing being unloaded today and be mindful of additional traffic on location. | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - drilling 8 3/4" Prod Vertical section per directional plan, Cold weather keep water circulating, Keep rig floor clean, and organized. Keep eye on shakers and solids control equipment. Use good communication on fluid transfers and post all transfers, water & diesel additions on Pason. Wear all proper PPE | | | | | | |
| 18:00 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Reviewed Weekly Trends | | | | | | |
| 04:00 | PROACTIVE MEASURES | STOP CARD - NON PNR | NIGHT | RTM noticed that casing on racks was not chocked on side by pipe wrangler. RTM chocked pipe. | | | | | | |
| Jobs | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | Job Status | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | IN PROGRESS | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | |
| Type | | | Subtype | | Date | Note | | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 2/5/2020 | Drilling 2nd Prod Vertical on 3 well pad - batch drilling (updated 12/22/19) | | | | |
| Daily Operations | | | | | | | | | | |
| Footage/Meterage (ft) 2,250.00 | | Drilling Hours (hr) 15.25 | | % Rotating Time (%) 96.72 | | End Depth (ftKB) 8,346.0 | | | | |
| Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 426,943.90 | | Cum Field Est To Date (Cost) 1,508,008.33 | | | | | | |
| 24 HR ROP (ft/hr) 147.5 | | Circulating Hours (hr) 2.00 | | % Sliding Time (%) 3.28 | | End Depth (TVD) (ftKB) 8,333.6 | | | | |
| Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 11,543.53 | | Cum Mud Field Est (Cost) 17,027.48 | | Total AFE + Sup (Cost) 3,098,502.34 | | | | |
| Daily Goal Description DRILLED FEET | | Daily Goal - Last 24 1,800.0 | | | Daily Goal - Next 24 450.0 | | Goal Comments Met goal | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | Next Casing String PROPOSED PRODUCTION, 19,257.0ftKB | | | | |
| Avg Connection Gas 107.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 125.00 | | Max Connection Gas 146.00 | | | | |
| Max Trip Gas 0.00 | | Max Drill Gas 274.00 | | | | | | | | |
| Operations Summary TIH from DV tool to FC @ 5988', Test Csg to 2500 psi for 30 min, drill out shoe track and 10' new formation, circ, perform FIT, continue drilling 8.75" vertical production hole F/6109' T/ KOP @ 8346', Circ hole clean, TOO H (3% sliding, 0.5' ahead, 6.4' left) | | | | | | | | | | |
| Operations Next Report Period PJSM and L/D directional tools, P/U curve/lateral BHA, TIH to shoe, Slip and Cut drill line, continue TIH, drill curve | | | | | | | | | | |
| Operations at Report Time Rig service | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | |
| Rig NPT: 17.5 hours | | | | | | | | | | |
| 3rd Party NPT: 86.5 hours | | | | | | | | | | |
| PNR NPT: 1 hours | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 100% Curve: 0% Lat: 0% | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs | | | | | | | | | | |
| Saver Sub footage: 2500' | | | | | | | | | | |
| Initial Water Meter Reading: 538571 | | | | | | | | | | |
| Time Log | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # |
| 06:00 | 1 | 07:00 | PROD, PRE DRL | TIH_ELEV | NORMAL | TIH f/4801' t/5665'. Hole displacing properly to trip tanks | 6,096.0 | 6,096.0 | | |
| 07:00 | 0.5 | 07:30 | PROD, PRE DRL | HDL_ROT HD | NORMAL | Remove trip nipple & Install rotating head | 6,096.0 | 6,096.0 | | |
| 07:30 | 0.5 | 08:00 | PROD, PRE DRL | TIH_ELEV | NORMAL | TIH f/5665' t/5932'. Hole displacing properly to trip tanks | 6,096.0 | 6,096.0 | | |
| 08:00 | 0.5 | 08:30 | PROD, PRE DRL | CSG_TEST | NORMAL | Test casing to 2500 psi for 30 min = Good | 6,096.0 | 6,096.0 | | |
| 08:30 | 2.25 | 10:45 | PROD, PRE DRL | DRL_OUT | NORMAL | Drill out float equipment | 6,096.0 | 6,096.0 | | |
| 10:45 | 0.25 | 11:00 | PROD, PRE DRL | DRL | NORMAL | Drill Prod Vertical f/6096' t/6109' | 6,096.0 | 6,109.0 | | |
| 11:00 | 0.25 | 11:15 | PROD, PRE DRL | CIRC | NORMAL | Circulate and condition mud | 6,109.0 | 6,109.0 | | |
| 11:15 | 0.25 | 11:30 | PROD, PRE DRL | FIT | NORMAL | Perform FIT to 9.5 EMW, Test good | 6,109.0 | 6,109.0 | | |
| | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | |
| Page 1/5 | | | | | | | | | | |
| Printed: Tuesday, December 24, 2019 | | | | | | | | | | |

Daily Drilling Report

| PERMIAN ASSET TEAM | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/24/2019 |
| Report #: | 9 |
| DFS: | 7 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$426,943.90 |

| | | |
|-----------------------|----------|-------------------------------------|
| Daily Drilling Report | Page 2/5 | Printed: Tuesday, December 24, 2019 |
|-----------------------|----------|-------------------------------------|

PIONEER
NATURAL RESOURCES

Daily Drilling Report

UNIVERSITY 6D 4H

H & P #601

Accept: 12/3/2019

Days Since LTI:
1,487.00

Release:

Days Since RI: 5.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/24/2019

Report #: 9

| | |
|------|---|
| DFS: | 7 |
|------|---|

AFE #: 9006758

| | |
|-------------------------|-----------------------|
| Total AFE + Sup: | \$3,098,502.34 |
|-------------------------|-----------------------|

Daily Field Est. (Cost): \$426,943.90

| Drilling Parameters | | | | | | | | | | | | | | | | | |
|--|-------------------------|---------------------------------|------------------|---------------------|--------------------------|--|--|-------------------------|-----------------------|-----------------------|------------------------|---------------------|---------------------|--------------------------|----------|------------|---------|
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (*) |
| 17:30 | 18:00 | 7,264.0 | 0.00 | | 0 | 0 | 0.0 | 650 | 3,500.0 | 0.0 | 200 | 215 | 190 | 200 | 0.0 | 0.0 | 0 |
| 18:00 | 22:45 | 7,264.0 | 775.00 | 163.2 | 40 | 75 | 600.0 | 750 | 4,000.0 | 350.0 | 220 | 235 | 200 | 220 | 14,500.0 | 8,000.0 | 0 |
| 22:45 | 23:15 | 8,039.0 | 15.00 | 30.0 | 30 | 0 | 250.0 | 750 | 3,650.0 | 50.0 | 220 | 235 | 200 | 220 | 0.0 | 0.0 | 90 |
| 23:15 | 00:45 | 8,054.0 | 292.00 | 194.7 | 40 | 75 | 600.0 | 750 | 4,000.0 | 250.0 | 220 | 235 | 200 | 220 | 14,500.0 | 8,000.0 | 0 |
| 00:45 | 01:45 | 8,346.0 | 0.00 | | 0 | 75 | 0.0 | 750 | 3,400.0 | 0.0 | 220 | 235 | 200 | 220 | 8,000.0 | 8,000.0 | 0 |
| Hydraulic Calculations | | | | | | | | | | | | | | | | | |
| Dens Mud (lb/gal) | ECD End (lb/gal) | Bit Hydraulic Power (hp) | HP/Area (hp/in²) | Jet Vel (ft/s) | Bit dP (psi) | Min Open Hole AV (ft/min) | Max Open Hole AV (ft/min) | Vol DrillString (bbl) | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) | | | | | | | |
| 8.20 | 8.59 | 314.8 | 5.2 | 311.2 | 719.5 | 21.0 | 666.9 | 139.12 | 112.01 | 313.11 | | | | | | | |
| Mud Checks | | | | | | | | | | | | | | | | | |
| Time | Mud Company | | | | Type | Depth (ftKB) | Density (lb/gal) | Funnel Viscosity (s/qt) | T Flowline (°F) | | | | | | | | |
| 20:00 | PIONEER DRILLING FLUIDS | | | | OIL BASE | 7,600.0 | 8.20 | 51 | 120.0 | | | | | | | | |
| PV (cP) | YP (lb/100ft²) | Vis 3rpm | Vis 6rpm | Filtrate (mL/30min) | HTHP Filtrate (mL/30min) | HTHP Temperature (°F) | HTHP Pressure (psi) | | | | | | | | | | |
| 11.0 | 8.000 | 4 | 7 | 0.0 | 10.0 | 250.0 | 500.0 | | | | | | | | | | |
| Solids (%) | Low Gravity Solids (%) | | | Sand (%) | MBT (lb/bbl) | Pm (mL/mL) | Pf (mL/mL) | | | | | | | | | | |
| 9.0 | 5.4 | | | 0.0 | 0.0 | 0.000 | | | | | | | | | | | |
| Chlorides (ppm) | Calcium (ppm) | CaCl (ppm) | Oil Water Ratio | Electric Stab (V) | Lime (lb/bbl) | pH | | | | | | | | | | | |
| 28,000,000.000 | 0.000 | 0 | 76.9/23.1 | 730.0 | 3.0 | 0.0 | | | | | | | | | | | |
| Gel 10 sec (lb/100ft²) | Gel 10 min (lb/100ft²) | | | | Gel 30 min (lb/100ft²) | | | | | | | | | | | | |
| 6.000 | 13.000 | | | | 13.000 | | | | | | | | | | | | |
| Comment RECOMMENDED FLUID TREATMENT: Lime for alkalinity, Calcium Chloride for WPS, VG Plus and LEM for rheology, PE-50 for emulsifier, WA for wetting agent, Gilsonite and Soltex for Fluid Loss and Diesel for dilution. | | | | | | | | | | | | | | | | | |
| DRILLING FLUIDS ACTIVITY LAST 24 HRS: Added treatment to maintain mud program specifications. Added obm from storage to maintain volume while displacing to obm and dumping water to reserve volume in mud pits. Running both centrifuges to Maintain mud weight 8.0 - 8.2 ppg in system. | | | | | | | | | | | | | | | | | |
| RIG ACTIVITY LAST 24 HOURS: Picked up new bit and bha and TIH to 4600 and cut and slipped drill line. TIH to 5932 ft and tested casing to 2500 psi. Tagged up at 6084 and displaced water from hole (418 bbls) with OBM from storage and drilled shoe track and 10 ft new formation. Ran FIT to 9.5 eq/mw and began drilling vertical hole section | | | | | | | | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | | | | | | | | |
| Date | Test Type | Item Tested | | | Next Test Date | Com | | | | | | | | | | | |
| 12/14/2019 | BOP | BOP'S, 12/3/2019 14:15, <class> | | | 1/4/2020 | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | | | | | | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | | | | | | | | | | |
| Test Type | | Depth (ftKB) | | | | Dens Fluid (lb/gal) | | | | | | | | | | | |
| FORMATION INTEGRITY | | 1,989.0 | | | | 13.00 | | | | | | | | | | | |
| FORMATION INTEGRITY | | 6,084.0 | | | | 9.57 | | | | | | | | | | | |
| Casing Pressure Test | | | | | | | | | | | | | | | | | |
| Test Type | | Test Subtype | | | Date | Item Tested | | | Failed? | Time (min) | P (psi) | | | | | | |
| CASING | | STANDARD | | | 11/5/2019 | SURFACE, 1,989.3ftKB | | | No | 30.00 | 1,000.0 | | | | | | |
| CASING | | STANDARD | | | 12/23/2019 | INTERMEDIATE, 6,084.5ftKB | | | No | 30.00 | 2,500.0 | | | | | | |
| Kick Offs & Key Depths | | | | | | | | | | | | | | | | | |
| Date | | | | Type | | | | | | Top Depth (ftKB) | | | | | | | |
| | | | | KICK OFF | | | | | | | | | | | | | |
| | | | | HEEL | | | | | | | | | | | | | |
| | | | | HEEL | | | | | | | | | | | | | |
| Casing Strings | | | | | | | | | | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | | | P LeakOff (psi) | | | | | | | | |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | | | | | | | | | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | | | 1,342.5 | | | | | | | | |
| INTERMEDIATE | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | BTC | | | 3,018.5 | | | | | | | | |
| Job Supply Amounts | | | | | | | | | | | | | | | | | |
| Supply Item Des | | Type | Unit Label | Received | Consumed | Returned | Note | | | | Cum On Loc | Cum Consumed | | | | | |
| DIESEL | | MUD | GAL | 0 | 9,600 | 0 | Mud Diesel | | | | 5,614 | 9,600.0 | | | | | |
| DIESEL | | FUEL | GAL | 0 | 2,574 | 0 | Rig Diesel | | | | 7,332 | 9,414.0 | | | | | |
| WATER | | FRESH | BBL | 1,417 | 1,417 | 0 | Initial reading: 538571. Final reading: 537154 | | | | 0 | 10,797.0 | | | | | |
| Mud Additive Amounts | | | | | | | | | | | | | | | | | |
| Des | | Type | Units | Rec | | Consumed | | On Loc | | Cum Cons | | | | | | | |
| CALCIUM CHLORIDE | | SALT | LB | | | 10 | | 140.0 | | -13 | | | | | | | |
| GILSONITE | | FLUID LOSS ADDITIVES | SACK | | | 10 | | 80.0 | | 31 | | | | | | | |
| LIME | | ALKALINITY CONTROL | LB | | | 10 | | 250.0 | | 0 | | | | | | | |
| POLYDRIL LEM H60 DRUM | | OIL MUD ADDITIVE | GAL | | | 4 | | 9.0 | | 4 | | | | | | | |
| POLYDRIL OIL BASE MUD RENTAL | | OIL MUD ADDITIVE | PER BBL | 2,182 | | 2,182 | | 0.0 | | 2,182 | | | | | | | |
| POLYDRIL PE 50 DRUM | | OIL MUD ADDITIVE | GAL | | | 1 | | 12.0 | | 1 | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | |
| Page 3/5 | | | | | | Printed: Tuesday, December 24, 2019 | | | | | | | | | | | |

Daily Drilling Report

UNIVERSITY 6D 4H

H & P #601

Accept: 12/3/2019 Release:
Days Since LTI: Days Since RI: 5.00
1,487.00

PERMIAN ASSET TEAM

Job: ODR
Report Date: 12/24/2019
Report #: 9
DFS: 7
AFE #: 9006758
Total AFE + Sup: \$3,098,502.34
Daily Field Est. (Cost): \$426,943.90

| Mud Additive Amounts | | | | | | | |
|--|---|--------------------------------|-----------------------|---------------------|-------------------------------------|-------------|---------------|
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | |
| POLYDRIL SOLTEX | FLUID LOSS ADDITIVES | LB | | 15 | 50.0 | 15 | |
| VG-PLUS | OIL MUD ADDITIVE | LB | | 35 | 110.0 | 43 | |
| Pump Operations | | | | | | | |
| Pump # | Make | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | |
| 1 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | |
| 2 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | |
| 3 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | |
| Pump Checks | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | Eff (%) | |
| 1 | 8,308.0 | 00:10 | 330.0 | 20 | 64 | 95 | |
| 1 | 8,308.0 | 00:11 | 425.0 | 40 | 129 | 95 | |
| 1 | 8,308.0 | 00:12 | 560.0 | 60 | 193 | 95 | |
| 2 | 8,308.0 | 00:13 | 338.0 | 20 | 64 | 95 | |
| 2 | 8,308.0 | 00:14 | 426.0 | 40 | 129 | 95 | |
| 2 | 8,308.0 | 00:15 | 560.0 | 60 | 193 | 95 | |
| 3 | 8,308.0 | 00:16 | 325.0 | 20 | 64 | 95 | |
| 3 | 8,308.0 | 00:17 | 434.0 | 40 | 129 | 95 | |
| 3 | 8,308.0 | 00:18 | 554.0 | 60 | 193 | 95 | |
| Deviation Surveys | | | | | | | |
| Date 10/28/2019 | | Description AS DRILL SURVEY | | | Job ODR, 10/28/2019 10:00 | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) |
| 6,163.00 | 0.24 | 52.52 | 6,150.87 | 109.39 | 152.45 | 157.76 | 0.15 |
| 6,258.00 | 0.37 | 56.60 | 6,245.87 | 109.57 | 152.74 | 158.17 | 0.14 |
| 6,353.00 | 0.36 | 55.96 | 6,340.86 | 109.78 | 153.08 | 158.68 | 0.01 |
| 6,448.00 | 0.38 | 98.69 | 6,435.86 | 109.76 | 153.20 | 159.23 | 0.28 |
| 6,543.00 | 0.46 | 102.38 | 6,530.86 | 109.46 | 153.07 | 159.92 | 0.09 |
| 6,637.00 | 0.37 | 84.42 | 6,624.86 | 109.25 | 153.02 | 160.59 | 0.17 |
| 6,732.00 | 0.24 | 79.31 | 6,719.86 | 109.19 | 153.08 | 161.09 | 0.14 |
| 6,827.00 | 0.38 | 84.65 | 6,814.85 | 109.13 | 153.15 | 161.60 | 0.15 |
| 6,922.00 | 0.32 | 104.17 | 6,909.85 | 108.96 | 153.11 | 162.17 | 0.14 |
| 7,017.00 | 0.49 | 103.10 | 7,004.85 | 108.65 | 152.96 | 162.82 | 0.18 |
| 7,112.00 | 0.27 | 74.95 | 7,099.85 | 108.47 | 152.92 | 163.43 | 0.30 |
| 7,207.00 | 0.26 | 71.02 | 7,194.85 | 108.49 | 153.05 | 163.85 | 0.02 |
| 7,303.00 | 0.28 | 40.40 | 7,290.85 | 108.64 | 153.30 | 164.21 | 0.15 |
| 7,399.00 | 0.49 | 9.28 | 7,386.84 | 109.16 | 153.88 | 164.43 | 0.30 |
| 7,493.00 | 0.43 | 353.46 | 7,480.84 | 109.88 | 154.63 | 164.46 | 0.15 |
| 7,588.00 | 0.76 | 299.01 | 7,575.84 | 110.66 | 155.29 | 163.86 | 0.65 |
| 7,683.00 | 1.09 | 278.70 | 7,670.82 | 111.44 | 155.73 | 162.42 | 0.48 |
| 7,777.00 | 1.33 | 271.17 | 7,764.80 | 112.07 | 155.89 | 160.45 | 0.31 |
| 7,872.00 | 1.62 | 268.26 | 7,859.77 | 112.65 | 155.87 | 158.00 | 0.32 |
| 7,967.00 | 1.86 | 256.03 | 7,954.73 | 112.94 | 155.46 | 155.16 | 0.46 |
| 8,053.00 | 0.62 | 258.62 | 8,040.71 | 112.97 | 155.03 | 153.35 | 1.44 |
| 8,156.00 | 1.25 | 67.80 | 8,143.70 | 113.15 | 155.35 | 153.85 | 1.81 |
| 8,251.00 | 1.43 | 65.62 | 8,238.67 | 113.51 | 156.23 | 155.88 | 0.20 |
| 8,289.00 | 1.48 | 61.16 | 8,276.66 | 113.72 | 156.66 | 156.75 | 0.33 |
| Formations | | | | | | | |
| Formation Name | Prog Top (TVD SS) Override (ft(elv)) | Prog Top MD (ftKB) | Prog Top (TVD) (ftKB) | Final Top MD (ftKB) | Final Top (TVD) (ftKB) | | |
| 267_0_SPBY_U_A1/267_0_SPBY | -5,444.0 | | 8,447.5 | | | | |
| 267_5_SPBY_M_A1 | -5,755.0 | | 8,758.5 | | | | |
| 268_5_SPBY_L_A1 | -5,996.0 | | 8,999.5 | | | | |
| 268_5_SPBY_L_A2 | -6,033.0 | | 9,036.5 | | | | |
| 268_5_SPBY_L_A3 | -6,117.0 | | 9,120.5 | | | | |
| 268_6_SPBY_L_B1/JO MILL | -6,272.0 | | 9,275.5 | | | | |
| 268_7_SPBY_L_C1/LOWER SPRABERRY SHALE | -6,321.0 | | 9,324.5 | | | | |
| 269_0_DEAN | -6,639.0 | | 9,642.5 | | | | |
| 270_0_WFMP_A1 | -6,802.0 | | 9,805.5 | | | | |
| 272_0_WFMP_A2 | -6,885.0 | | 9,888.5 | | | | |
| 271_0_WFMP_A3 | -6,946.0 | | 9,949.5 | | | | |
| 275_0_WFMP_B1 | -7,009.0 | | 10,012.5 | | | | |
| 276_0_WFMP_B2 | -7,031.0 | | 10,034.5 | | | | |
| 278_0_WFMP_B3 | -7,085.0 | | 10,088.5 | | | | |
| 280_0_WFMP_C1 | -7,175.0 | | 10,178.5 | | | | |
| 282_0_WFMP_C2 | -7,275.0 | | 10,278.5 | | | | |
| 292_0_WFMP_D | -7,701.0 | | 10,704.5 | | | | |
| 304_0_STRAWN | -8,065.0 | | 11,068.5 | | | | |
| FIRST TAKE POINT (FTP) | -5,925.0 | | 8,928.5 | | | | |
| TARGET #1 | -5,929.0 | | 8,932.5 | | | | |
| PBHL/TD | -5,992.0 | | 8,995.5 | | | | |
| | | | | | | | |
| Daily Drilling Report | | | Page 4/5 | | Printed: Tuesday, December 24, 2019 | | |

Daily Drilling Report

H & P #601

Release:
Days Since RI: 5.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/24/2019 |
| Report #: | 9 |
| DFS: | 7 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$426,943.90 |

| Job Contact | Title | Office | Mobile | Email |
|--|------------------------------|--------------|--------------|------------------------|
| POLYA, JOE, AREA DRILLING SUPERINTENDENT | AREA DRILLING SUPERINTENDENT | 432-413-6147 | 432-352-3155 | JOE.POLYA@PXD.COM |
| DAFFRON, MIKE, SUPERINTENDENT | SUPERINTENDENT | 432-360-4057 | 318-243-5902 | MIKE.DAFFRON@PXD.COM |
| LONG, TREVOR, ENGINEER | ENGINEER | 432-571-2800 | 432-307-8155 | TREVOR.LONG@PXD.COM |
| HUTTO, PAUL, WELLSITE SUPERVISOR | WELLSITE SUPERVISOR | | 318-381-5026 | PAUL.HUTTO@PXD.COM |
| KELLEY, TERRY, WELLSITE SUPERVISOR | WELLSITE SUPERVISOR | | 903-799-0323 | TERRY.KELLEY@PXD.COM |
| CLARK, OWEN, FIELD ENGINEER | FIELD ENGINEER | | 469-271-0799 | OWEN.CLARK@PXD.COM |
| DETTORE, DON, MUD ENGINEER | MUD ENGINEER | | 850-572-6351 | DONALD.DETTORE@PXD.COM |
| RIG-H&P 601, RIG PHONE | RIG PHONE | 432-355-3111 | 469-866-2439 | |

| Company | Count |
|---|-------|
| PIONEER NATURAL RESOURCES USA INC | 3 |
| HELMERICH & PAYNE INTERNATIONAL DRILLING CO | 13 |
| GYRODATA INC | 4 |
| DWM CONSULTING | 1 |
| STRATAGRAPH INC | 2 |
| DYNAMIC OILFIELD SERVICES INC | 1 |

Daily Drilling Report

| | | | | | | | |
|--|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 Accept: 12/3/2019 Days Since LTI: 1,488.00 Release: Days Since RI: 6.00 | | | | Job: | ODR | | |
| | | | | Report Date: | 12/25/2019 | | |
| | | | | Report #: | 10 | | |
| | | | | DFS: | 8 | | |
| | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$102,032.62 | | |

| | | | | | | | | | | | | | | | | | |
|---|--------------------|------------------------------|-------------------------------|---|--|---|-------------|--------------------------------------|------------------------------|---|---------------|--|--|--|-------------------------|--|--|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | | | | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | | | | | | | | |
| Safety Checks | | | | | | | | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | | | | | | | | |
| 06:00 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Case #: 47520 Date: 12/20/2019 Classification: Spill/Release (Medium) Description: While drilling intermediate section, the rig was dumping and diluting their brine-based drilling fluid while simultaneously hauling off pit water for disposal. Brine-based drilling fluid from reserve pit was noticed flowing from reserve pit across location. The reserve pit fluid had risen and washed part of the dirt berm out causing the spill. Pumping on the well was stopped and the well shut in immediately. More dirt was dumped on the berm break to hold back flow, while reserve fluid was pumped over to spare frac tanks for relief. The spill traveled across location and off the corner and side of pad and stopped at the neighboring lease road. Vacuum trucks continued to pull loads for disposal to a safe level below the berm. Free-standing fluid in and around the pad was vacuumed as well. An approximated total of 111 bbl. was spilled, while 63 bbl. escaped off the pad. PNR Environmental Dept. contacted. Further remediation to follow. | | | | | | | | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: Discussed L/D and P/U BHA, TIH operations. Last day of hitch - keep mind on task. Drive safely home. | | | | | | | | | | | | | |
| 18:00 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47520 Date: 12/20/2019 Classification: Spill/Release (Medium) Description: While drilling intermediate section, the rig was dumping and diluting their brine-based drilling fluid while simultaneously hauling off pit water for disposal. Brine-based drilling fluid from reserve pit was noticed flowing from reserve pit across location. The reserve pit fluid had risen and washed part of the dirt berm out causing the spill. Pumping on the well was stopped and the well shut in immediately. More dirt was dumped on the berm break to hold back flow, while reserve fluid was pumped over to spare frac tanks for relief. The spill traveled across location and off the corner and side of pad and stopped at the neighboring lease road. Vacuum trucks continued to pull loads for disposal to a safe level below the berm. Free-standing fluid in and around the pad was vacuumed as well. An approximated total of 111 bbl. was spilled, while 63 bbl. escaped off the pad. PNR Environmental Dept. contacted. Further remediation to follow. | | | | | | | | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - drilling 8 1/2" Prod curve section per directional plan. Keep eye on shakers and solids control equipment. Use good communication on fluid transfers and post all transfers, water & diesel additions on Pason.Watch hand/body placement while making up stands in the mouse hole. Wear all proper PPE | | | | | | | | | | | | | |
| 03:00 | PROACTIVE MEASURES | STOP CARD - PNR | NIGHT | Observed RTM throwing sacks. He was wearing respiratory protection and all other required PPE. I thanked him for working safely. | | | | | | | | | | | | | |
| Jobs | | | | | | | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | Job Status | | | | | | | | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | IN PROGRESS | | | | | | | | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | | | | | | | | |
| Type | | Subtype | | Date | Note | | | | | | | | | | | | |
| MILESTONE | | ESTIMATED PAD RELEASE | | 1/26/2020 | Drilling 2nd Curve on 3 well pad - batch drilling (updated 12/24/19) | | | | | | | | | | | | |
| Daily Operations | | | | | | | | | | | | | | | | | |
| Footage/Meterage (ft) 789.00 | | Drilling Hours (hr) 14.48 | | % Rotating Time (%) 12.08 | | End Depth (ftKB) 9,135.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 102,032.62 | | Cum Field Est To Date (Cost) 1,612,327.32 | | | | | |
| 24 HR ROP (ft/hr) 54.5 | | Circulating Hours (hr) | | % Sliding Time (%) 87.92 | | End Depth (TVD) (ftKB) 8,934.9 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 5,795.31 | | Cum Mud Field Est (Cost) 22,822.79 | | Total AFE + Sup (Cost) 3,098,502.34 | | | |
| Daily Goal Description DRILLED FEET | | | | Daily Goal - Last 24 450.0 | | | | Daily Goal - Next 24 1,200.0 | | | | Goal Comments Met goal | | | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | | | | | Next Casing String PROPOSED PRODUCTION, 19,257.0ftKB | | | | | | | |
| Avg Connection Gas 92.00 | | | Avg Trip Gas 0.00 | | | Avg Background Gas 104.00 | | | Max Connection Gas 110.00 | | | Max Trip Gas 0.00 | | | Max Drill Gas 137.00 | | |
| Operations Summary PJSM and L/D directional tools, P/U curve/lateral BHA, TIH, Build curve F/8346' T/9135' (88% sliding, Inc: 59.18°, BRN on plan: 12°, BRN 10' low: 9.8, MY: 10.47°, 5' low, 11.1' right) | | | | | | | | | | | | | | | | | |
| Operations Next Report Period Continue to drill curve to LP, drill lateral | | | | | | | | | | | | | | | | | |
| Operations at Report Time Drilling curve at 9,135' | | | | | | | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | | | | | | | | |
| Rig NPT: 17.5 hours | | | | | | | | | | | | | | | | | |
| 3rd Party NPT: 86.5 hours | | | | | | | | | | | | | | | | | |
| PNR NPT: 1 hours | | | | | | | | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 100% Curve: 86% Lat: 0% | | | | | | | | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs | | | | | | | | | | | | | | | | | |
| Saver Sub footage: 3289' | | | | | | | | | | | | | | | | | |
| Initial Water Meter Reading: 538571 | | | | | | | | | | | | | | | | | |
| Time Log | | | | | | | | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | | | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | | | | |
| 06:00 | 1 | 07:00 | PROD, DRL | HDL_BHA | NORMAL | Continue to stand back HWDP in derrick T/102' | | | 8,346.0 | 8,346.0 | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | |
| Page 1/5 | | | | | | | | | | | | | | | | | |
| Printed: Wednesday, December 25, 2019 | | | | | | | | | | | | | | | | | |

Daily Drilling Report

| Drilling Parameters | | | | | | | | | | | | | | | | | |
|--|-------------------------|---------------------------------|---------------------------|--|--------------------------|--|---------------------------|-----------------------|-----------------------|-----------------------|------------------------|---------------------|---------------------|--------------------------|----------|------------|---------|
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) |
| 20:45 | 22:15 | 8,581.0 | 80.00 | 53.3 | 32 | 0 | 250.0 | 700 | 3,600.0 | 60.0 | 210 | 230 | 195 | 210 | 0.0 | 0.0 | 340 |
| 22:15 | 22:30 | 8,661.0 | 8.00 | 32.0 | 25 | 40 | 300.0 | 700 | 3,600.0 | 50.0 | 210 | 230 | 195 | 210 | 14,000.0 | 8,000.0 | 0 |
| 22:30 | 23:59 | 8,669.0 | 87.00 | 58.7 | 33 | 0 | 300.0 | 700 | 3,600.0 | 65.0 | 220 | 230 | 205 | 220 | 0.0 | 0.0 | 345 |
| 00:00 | 00:15 | 8,756.0 | 5.00 | 20.0 | 30 | 40 | 300.0 | 700 | 3,600.0 | 50.0 | 220 | 230 | 205 | 220 | 14,000.0 | 8,000.0 | 0 |
| 00:15 | 01:30 | 8,761.0 | 90.00 | 72.0 | 38 | 0 | 350.0 | 700 | 3,650.0 | 75.0 | 220 | 230 | 205 | 220 | 0.0 | 0.0 | 0 |
| 01:30 | 01:45 | 8,851.0 | 10.00 | 40.0 | 30 | 40 | 300.0 | 700 | 3,600.0 | 50.0 | 220 | 230 | 205 | 220 | 14,000.0 | 8,000.0 | 0 |
| 01:45 | 03:00 | 8,861.0 | 85.00 | 68.0 | 40 | 0 | 350.0 | 700 | 3,650.0 | 80.0 | 220 | 230 | 205 | 220 | 0.0 | 0.0 | 0 |
| 03:00 | 03:15 | 8,946.0 | 5.00 | 20.0 | 25 | 40 | 350.0 | 700 | 3,650.0 | 70.0 | 220 | 230 | 205 | 220 | 14,000.0 | 8,000.0 | 0 |
| 03:15 | 04:45 | 8,951.0 | 89.00 | 59.3 | 40 | 0 | 350.0 | 700 | 3,650.0 | 75.0 | 220 | 230 | 205 | 220 | 0.0 | 0.0 | 350 |
| 04:45 | 05:00 | 9,040.0 | 5.00 | 20.0 | 30 | 40 | 350.0 | 700 | 3,650.0 | 70.0 | 220 | 230 | 205 | 220 | 14,000.0 | 8,000.0 | 0 |
| 05:00 | 06:00 | 9,045.0 | 90.00 | 90.0 | 40 | 0 | 350.0 | 700 | 3,650.0 | 80.0 | 220 | 230 | 205 | 220 | 0.0 | 0.0 | 355 |
| Hydraulic Calculations | | | | | | | | | | | | | | | | | |
| Dens Mud (lb/gal) | ECD End (lb/gal) | Bit Hydraulic Power (hp) | HP/Area (hp/in²) | Jet Vel (ft/s) | Bit dP (psi) | Min Open Hole AV (ft/min) | Max Open Hole AV (ft/min) | Vol DrillString (bbl) | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) | | | | | | | |
| 8.20 | 8.57 | 364.2 | 6.4 | 346.5 | 891.9 | 19.6 | 737.9 | 108.21 | 148.14 | 312.57 | | | | | | | |
| Mud Checks | | | | | | | | | | | | | | | | | |
| Time | Mud Company | Type | Depth (ftKB) | Density (lb/gal) | Funnel Viscosity (s/qt) | T Flowline (°F) | | | | | | | | | | | |
| 20:00 | PIONEER DRILLING FLUIDS | OIL BASE | 8,723.0 | 8.20 | 53 | 121.0 | | | | | | | | | | | |
| PV (cP) | YP (lbf/100ft²) | Vis 3rpm | Vis 6rpm | Filtrate (mL/30min) | HTHP Filtrate (mL/30min) | HTHP Temperature (°F) | HTHP Pressure (psi) | | | | | | | | | | |
| 10.0 | 8.000 | 5 | 7 | 0.0 | 11.7 | 250.0 | 500.0 | | | | | | | | | | |
| Solids (%) | Low Gravity Solids (%) | Sand (%) | MBT (lb/bbl) | Pm (mL/mL) | Pf (mL/mL) | | | | | | | | | | | | |
| 9.0 | 5.4 | 0.0 | 0.0 | 0.000 | | | | | | | | | | | | | |
| Chlorides (ppm) | Calcium (ppm) | CaCl (ppm) | Oil Water Ratio | Electric Stab (V) | Lime (lb/bbl) | pH | | | | | | | | | | | |
| 28,500,000.000 | 0.000 | 0 | 76.9/23.1 | 800.0 | 3.0 | 0.0 | | | | | | | | | | | |
| Gel 10 sec (lbf/100ft²) | Gel 10 min (lbf/100ft²) | Gel 30 min (lbf/100ft²) | | | | | | | | | | | | | | | |
| 8.000 | 13.000 | 14.000 | | | | | | | | | | | | | | | |
| Comment | | | | | | | | | | | | | | | | | |
| RECOMMENDED FLUID TREATMENT: Lime for alkalinity, Calcium Chloride for WPS, VG Plus and LEM for rheology, PE-50 for emulsifier, WA for wetting agent, Gilsonite and Soltex for Fluid Loss and Diesel for dilution. | | | | | | | | | | | | | | | | | |
| DRILLING FLUIDS ACTIVITY LAST 24 HRS: no treatment while tripping. When on bottom add diesel at 10 bbl a hour . Add liquid chemical to active system and perhydrate dry chemical. | | | | | | | | | | | | | | | | | |
| RIG ACTIVITY LAST 24 HOURS: Drilled to 6096' and circ hole clean and POOH to pick up curve assemble. Picked up curved assemble and TIH to 6096 and start to build curve at 8346' | | | | | | | | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | | | | | | | | |
| Date | Test Type | Item Tested | Next Test Date | Com | | | | | | | | | | | | | |
| 12/14/2019 | BOP | BOP'S, 12/3/2019 14:15, <class> | 1/4/2020 | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | | | | | | | | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | | | | | | | | | | |
| Test Type | Depth (ftKB) | Dens Fluid (lb/gal) | | | | | | | | | | | | | | | |
| FORMATION INTEGRITY | 1,989.0 | 13.00 | | | | | | | | | | | | | | | |
| FORMATION INTEGRITY | 6,084.0 | 9.57 | | | | | | | | | | | | | | | |
| Casing Pressure Test | | | | | | | | | | | | | | | | | |
| Test Type | Test Subtype | Date | Item Tested | Failed? | Time (min) | P (psi) | | | | | | | | | | | |
| CASING | STANDARD | 11/5/2019 | SURFACE, 1,989.3ftKB | No | 30.00 | 1,000.0 | | | | | | | | | | | |
| CASING | STANDARD | 12/23/2019 | INTERMEDIATE, 6,084.5ftKB | No | 30.00 | 2,500.0 | | | | | | | | | | | |
| Kick Offs & Key Depths | | | | | | | | | | | | | | | | | |
| Date | Type | Top Depth (ftKB) | | | | | | | | | | | | | | | |
| | TOE | | | | | | | | | | | | | | | | |
| | HEEL | | | | | | | | | | | | | | | | |
| 12/24/2019 15:15 | KICK OFF | 8,346.0 | | | | | | | | | | | | | | | |
| Casing Strings | | | | | | | | | | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | P LeakOff (psi) | | | | | | | | | | |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | | | | | | | | | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | 1,342.5 | | | | | | | | | | |
| INTERMEDIATE | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | BTC | 3,018.5 | | | | | | | | | | |
| Job Supply Amounts | | | | | | | | | | | | | | | | | |
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed | | | | | | | | | |
| DIESEL | MUD | GAL | 7,500 | 2,500 | 0 | Mud Diesel | 10,614 | 12,100.0 | | | | | | | | | |
| DIESEL | FUEL | GAL | 0 | 1,740 | 0 | Rig Diesel | 5,592 | 11,154.0 | | | | | | | | | |
| WATER | FRESH | BBL | 0 | 0 | 0 | Initial reading: 537154. Final reading: 537154 | 0 | 10,797.0 | | | | | | | | | |
| Mud Additive Amounts | | | | | | | | | | | | | | | | | |
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | | | | | | | | | | | |
| CALCIUM CHLORIDE | SALT | LB | | 10 | 130.0 | -3 | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | |
| Page 3/5 | | | | Printed: Wednesday, December 25, 2019 | | | | | | | | | | | | | |

Daily Drilling Report

| Mud Additive Amounts | | | | | | | |
|--|----------------------|--------------------------------|--------------------------------------|--------------------|---------------------------------------|---------------------|------------------------|
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | |
| GILSONITE | FLUID LOSS ADDITIVES | SACK | | 10 | 70.0 | 41 | |
| LIME | ALKALINITY CONTROL | LB | | 10 | 240.0 | 10 | |
| POLYDRIL LEM H60 DRUM | OIL MUD ADDITIVE | GAL | | 2 | 7.0 | 6 | |
| POLYDRIL PE 50 DRUM | OIL MUD ADDITIVE | GAL | | 1 | 11.0 | 2 | |
| POLYDRIL SOLTEX | FLUID LOSS ADDITIVES | LB | | 10 | 40.0 | 25 | |
| VG-PLUS | OIL MUD ADDITIVE | LB | | 40 | 70.0 | 83 | |
| Pump Operations | | | | | | | |
| Pump # | Make | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | |
| 1 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | |
| 2 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | |
| 3 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | |
| Pump Checks | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | Eff (%) | |
| 1 | 8,566.0 | 20:00 | 254.0 | 20 | 64 | 95 | |
| 1 | 8,566.0 | 20:01 | 347.0 | 40 | 129 | 95 | |
| 1 | 8,566.0 | 20:02 | 480.0 | 60 | 193 | 95 | |
| 2 | 8,566.0 | 20:05 | 255.0 | 20 | 64 | 95 | |
| 2 | 8,566.0 | 20:06 | 370.0 | 40 | 129 | 95 | |
| 2 | 8,566.0 | 20:07 | 482.0 | 60 | 193 | 95 | |
| 3 | 8,566.0 | 20:10 | 245.0 | 20 | 64 | 95 | |
| 3 | 8,566.0 | 20:11 | 351.0 | 40 | 129 | 95 | |
| 3 | 8,566.0 | 20:12 | 479.0 | 60 | 193 | 95 | |
| Deviation Surveys | | | | | | | |
| Date 10/28/2019 | | Description AS DRILL SURVEY | | | Job ODR, 10/28/2019 10:00 | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) |
| 8,414.00 | 9.03 | 351.20 | 8,401.23 | 121.59 | 164.91 | 157.30 | 9.18 |
| 8,509.00 | 19.12 | 350.51 | 8,493.26 | 144.58 | 187.68 | 153.58 | 10.62 |
| 8,604.00 | 26.59 | 352.75 | 8,580.74 | 181.25 | 224.17 | 148.32 | 7.91 |
| 8,699.00 | 34.29 | 350.32 | 8,662.59 | 229.11 | 271.72 | 141.13 | 8.21 |
| 8,794.00 | 42.65 | 345.09 | 8,736.92 | 288.09 | 329.31 | 128.32 | 9.44 |
| 8,889.00 | 49.87 | 347.45 | 8,802.57 | 356.67 | 395.95 | 112.13 | 7.81 |
| 8,983.00 | 59.18 | 347.89 | 8,857.06 | 433.10 | 470.66 | 95.82 | 9.91 |
| Formations | | | | | | | |
| Formation Name | | | Prog Top (TVD SS) Override (ft(elv)) | Prog Top MD (ftKB) | Prog Top (TVD) (ftKB) | Final Top MD (ftKB) | Final Top (TVD) (ftKB) |
| 268_5_SPBY_L_A1 | | | -5,996.0 | | 8,999.5 | | |
| 268_5_SPBY_L_A2 | | | -6,033.0 | | 9,036.5 | | |
| 268_5_SPBY_L_A3 | | | -6,117.0 | | 9,120.5 | | |
| 268_6_SPBY_L_B1/JO MILL | | | -6,272.0 | | 9,275.5 | | |
| 268_7_SPBY_L_C1/LOWER SPRABERRY SHALE | | | -6,321.0 | | 9,324.5 | | |
| 269_0_DEAN | | | -6,639.0 | | 9,642.5 | | |
| 270_0_WFMP_A1 | | | -6,802.0 | | 9,805.5 | | |
| 272_0_WFMP_A2 | | | -6,885.0 | | 9,888.5 | | |
| 271_0_WFMP_A3 | | | -6,946.0 | | 9,949.5 | | |
| 275_0_WFMP_B1 | | | -7,009.0 | | 10,012.5 | | |
| 276_0_WFMP_B2 | | | -7,031.0 | | 10,034.5 | | |
| 278_0_WFMP_B3 | | | -7,085.0 | | 10,088.5 | | |
| 280_0_WFMP_C1 | | | -7,175.0 | | 10,178.5 | | |
| 282_0_WFMP_C2 | | | -7,275.0 | | 10,278.5 | | |
| 292_0_WFMP_D | | | -7,701.0 | | 10,704.5 | | |
| 304_0_STRAWN | | | -8,065.0 | | 11,068.5 | | |
| PBHL/TD | | | -5,992.0 | | 8,995.5 | | |
| Daily Contacts | | | | | | | |
| Job Contact | | Title | Office | Mobile | Email | | |
| POLYA, JOE, AREA DRILLING SUPERINTENDENT | | AREA DRILLING SUPERINTENDENT | 432-413-6147 | 432-352-3155 | JOE.POLYA@PXD.COM | | |
| DAFFRON, MIKE, SUPERINTENDENT | | SUPERINTENDENT | 432-360-4057 | 318-243-5902 | MIKE.DAFFRON@PXD.COM | | |
| LONG, TREVOR, ENGINEER | | ENGINEER | 432-571-2800 | 432-307-8155 | TREVOR.LONG@PXD.COM | | |
| HUTTO, PAUL, WELLSITE SUPERVISOR | | WELLSITE SUPERVISOR | | 318-381-5026 | PAUL.HUTTO@PXD.COM | | |
| KELLEY, TERRY, WELLSITE SUPERVISOR | | WELLSITE SUPERVISOR | | 903-799-0323 | TERRY.KELLEY@PXD.COM | | |
| CLARK, OWEN, FIELD ENGINEER | | FIELD ENGINEER | | 469-271-0799 | OWEN.CLARK@PXD.COM | | |
| DETTORE, DON, MUD ENGINEER | | MUD ENGINEER | | 850-572-6351 | DONALD.DETTORE@PXD.COM | | |
| RIG-H&P 601, RIG PHONE | | RIG PHONE | 432-355-3111 | 469-866-2439 | | | |
| Personnel Log | | | | | | | |
| Company | | | | | Count | | |
| PIONEER NATURAL RESOURCES USA INC | | | | | 3 | | |
| | | | | | | | |
| Daily Drilling Report | | | Page 4/5 | | Printed: Wednesday, December 25, 2019 | | |

Daily Drilling Report

| | |
|-------------------|---------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: | Days Since RI: 6.00 |
| 1,488.00 | |

| | |
|--------------------------|----------------|
| PERMIAN ASSET TEAM | |
| Job: | ODR |
| Report Date: | 12/25/2019 |
| Report #: | 10 |
| DFS: | 8 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$102,032.62 |

| Personnel Log | |
|---|-------|
| Company | Count |
| HELMERICH & PAYNE INTERNATIONAL DRILLING CO | 13 |
| GYRODATA INC | 4 |
| DWM CONSULTING | 1 |
| STRATAGRAPH INC | 2 |
| DYNAMIC OILFIELD SERVICES INC | 1 |

Daily Drilling Report

| | | | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/26/2019 | | |
| Days Since LTI: 1,489.00 | | | | Report #: | 11 | | |
| Release: | | | | DFS: | 9 | | |
| Days Since RI: 7.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$109,175.18 | | |

| | | | | | | | | | | | | | | | |
|---|--------------------|--------------------------------|-------------------------------|--|---|---|-------------|--|------------------|--|------------|--|--|--|--|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | | | | | | |
| Safety Checks | | | | | | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: Continue to drill Curve to Landing Point @ approximately 9,268' MD per directional. Drill lateral. First day back - make good relief. Keep mind on task. Check condition of tools and equipment. Look for things that have been changed. | | | | | | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Case #: 47532 Date: 12/21/2019 Classification: Contractor - Injury/Illness (Low) Description: While conducting a team lift of wireline weight bar, tail end of weight bar slipped out of team members grasp, causing opposite end to whip. Second team-member attempted to control whipping weight bar, slightly straining his right bicep muscle. Event was immediately reported, and contractor case management contacted. Team member took an anti-inflammatory and returned to work | | | | | | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - drilling lateral per directional plan - current tolerances are 5 up / 20 down. Has been tracking fairly well. Keep cleaning and organizing around location. First day back - make sure mind is focused on job. Use good hand/body placement while making connections. Check all equipment and perform maintenance as required | | | | | | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47532 Date: 12/21/2019 Classification: Contractor - Injury/Illness (Low) Description: While conducting a team lift of wireline weight bar, tail end of weight bar slipped out of team members grasp, causing opposite end to whip. Second team-member attempted to control whipping weight bar, slightly straining his right bicep muscle. Event was immediately reported, and contractor case management contacted. Team member took an anti-inflammatory and returned to work | | | | | | | | | | | |
| 00:30 | PROACTIVE MEASURES | STOP CARD - NON PNR | NIGHT | Stop card: Witnessed RTM coaching new hire crew member on safe practices while making connections. Discussion was had discussing proper hand/body placement, setting and pulling slips with assistance and how to operate the ST-80. Thanked RTM for taking the time to coach new crew member | | | | | | | | | | | |
| Jobs | | | | | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | Job Status | | | | | | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | IN PROGRESS | | | | | | | | |
| Job Dates (ex. Estimated Pad Release, TXRRRC Calls) | | | | | | | | | | | | | | | |
| Type | | Subtype | | Date | Note | | | | | | | | | | |
| MILESTONE | | ESTIMATED PAD RELEASE | | 1/25/2019 | Drilling 2nd Prod Lateral on 3 well pad - batch drilling (updated 12/26/19) | | | | | | | | | | |
| Daily Operations | | | | | | | | | | | | | | | |
| Footage/Meterage (ft) 2,137.00 | | Drilling Hours (hr) 22.98 | | % Rotating Time (%) 77.23 | | End Depth (ftKB) 11,272.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 109,175.18 | | Cum Field Est To Date (Cost) 1,721,502.50 | | | |
| 24 HR ROP (ft/hr) 93.0 | | Circulating Hours (hr) 1.00 | | % Sliding Time (%) 22.77 | | End Depth (TVD) (ftKB) 8,941.8 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 9,032.60 | | Cum Mud Field Est (Cost) 31,855.39 | | Total AFE + Sup (Cost) 3,098,502.34 | |
| Daily Goal Description DRILLED FEET | | | | Daily Goal - Last 24 1,200.0 | | | | Daily Goal - Next 24 2,000.0 | | | | Goal Comments Goal achieved (+78%) | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | | | Next Casing String PRODUCTION, 19,258.0ftKB | | | | | | | |
| Avg Connection Gas 154.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 139.00 | | Max Connection Gas 198.00 | | Max Trip Gas 0.00 | | Max Drill Gas 252.00 | | | | | |
| Operations Summary Drill 8 1/2" curve f/ 9135' t/ 9230', Drill production lateral f/ 9230' t/ 11272' (22.8% sliding, 1.45° avg lateral DLS, 10.2' below, 6' right) | | | | | | | | | | | | | | | |
| Operations Next Report Period Drill production lateral f/ 11272' t/ 13272' | | | | | | | | | | | | | | | |
| Operations at Report Time Drilling production lateral @ 11272' | | | | | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills Rig NPT: 1.75 hours 3rd Party NPT: 1.5 hours PNR NPT: 5.5 hours Surf:100% Int: 100% Prod Vertical: 100% Curve: 100% Lat: 20% Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs Saver Sub footage: 5426' Initial Water Meter Reading: 538571 | | | | | | | | | | | | | | | |
| Time Log | | | | | | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | | | |
| 06:00 | 1.75 | 07:45 | PROD, DRL CURVE | DRL | NORMAL | Drill F/9135' T/9230' (95' @ 54 fph), 100% complete (Landed). 29% Rot @ 36 fph 71% Sldg @ 62 fph MW-8.1 w/ 51 vis, full returns. Last Survey @ 9173' ? Inc-80.64°, Azm-346.54°, 0.7' high & 13.3' right to plan #1 | | 9,135.0 | 9,230.0 | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | |

UNIVERSITY 6D 4H

H & P #601

Accept: 12/3/2019
Days Since LTI: 1,489.00

Release:
Days Since RI: 7.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/26/2019

Report #: 11

DFS: 9

AFE #: 9006758

Total AFE + Sup: \$3,098,502.34

Daily Field Est. (Cost): \$109,175.18

| Last BOP Test | | | | | | | | |
|--|----------------------|---------------------------------|---------------------------|--|-------------------|--|-----------------|--------------|
| Date | Test Type | Item Tested | Next Test Date | Com | | | | |
| 12/14/2019 | BOP | BOP'S, 12/3/2019 14:15, <class> | 1/4/2020 | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | |
| Test Type | | Depth (ftKB) | | Dens Fluid (lb/gal) | | | | |
| FORMATION INTEGRITY | | 1,989.0 | | 13.00 | | | | |
| FORMATION INTEGRITY | | 6,084.0 | | 9.57 | | | | |
| Casing Pressure Test | | | | | | | | |
| Test Type | Test Subtype | Date | Item Tested | Failed? | Time (min) | P (psi) | | |
| CASING | STANDARD | 11/5/2019 | SURFACE, 1,989.3ftKB | No | 30.00 | 1,000.0 | | |
| CASING | STANDARD | 12/23/2019 | INTERMEDIATE, 6,084.5ftKB | No | 30.00 | 2,500.0 | | |
| Kick Offs & Key Depths | | | | | | | | |
| Date | | Type | | Top Depth (ftKB) | | | | |
| | | TOE | | | | | | |
| 12/24/2019 15:15 | | KICK OFF | | 8,346.0 | | | | |
| 12/25/2019 07:45 | | HEEL | | 9,230.0 | | | | |
| Casing Strings | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | P LeakOff (psi) | |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | 1,342.5 | |
| INTERMEDIATE | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | BTC | 3,018.5 | |
| Job Supply Amounts | | | | | | | | |
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed |
| DIESEL | MUD | GAL | 14,589 | 8,220 | 0 | Mud Diesel | 16,983 | 20,320.0 |
| DIESEL | FUEL | GAL | 7,338 | 3,288 | 0 | Rig Diesel | 9,642 | 14,442.0 |
| WATER | FRESH | BBL | 0 | 0 | 0 | Initial reading: 537154. Final reading: 537154 | 0 | 10,797.0 |
| Mud Additive Amounts | | | | | | | | |
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | | |
| CALCIUM CHLORIDE | SALT | LB | 0 | 60 | 70.0 | 57 | | |
| GILSONITE | FLUID LOSS ADDITIVES | SACK | 0 | 55 | 15.0 | 96 | | |
| LIME | ALKALINITY CONTROL | LB | 0 | 40 | 200.0 | 50 | | |
| MUD DIESEL | FUEL | GAL | 14,589 | 8,220 | 16,983.0 | 20,320 | | |
| POLYDRIL SOLTEX | FLUID LOSS ADDITIVES | LB | 0 | 40 | 0.0 | 65 | | |
| VG-PLUS | OIL MUD ADDITIVE | LB | 0 | 45 | 25.0 | 128 | | |
| Pump Operations | | | | | | | | |
| Pump # | Make | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | | |
| 1 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 2 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 3 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| Pump Checks | | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | Eff (%) | | |
| 1 | 11,177.0 | 04:30 | 390.0 | 20 | 64 | 95 | | |
| 1 | 11,177.0 | 04:30 | 620.0 | 60 | 193 | 95 | | |
| 1 | 11,177.0 | 04:30 | 470.0 | 40 | 129 | 95 | | |
| 2 | 11,177.0 | 04:30 | 470.0 | 40 | 129 | 95 | | |
| 2 | 11,177.0 | 04:30 | 390.0 | 20 | 64 | 95 | | |
| 2 | 11,177.0 | 04:30 | 620.0 | 60 | 193 | 95 | | |
| 3 | 11,177.0 | 04:30 | 620.0 | 60 | 193 | 95 | | |
| 3 | 11,177.0 | 04:30 | 390.0 | 20 | 64 | 95 | | |
| 3 | 11,177.0 | 04:30 | 470.0 | 40 | 129 | 95 | | |
| Deviation Surveys | | | | | | | | |
| Date | Description | | | | | Job | | |
| 10/28/2019 | AS DRILL SURVEY | | | | | ODR, 10/28/2019 10:00 | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | |
| 9,173.00 | 80.64 | 346.54 | 8,921.34 | 610.69 | 643.62 | 55.44 | 10.88 | |
| 9,267.00 | 87.68 | 348.23 | 8,930.90 | 704.11 | 734.82 | 35.04 | 7.70 | |
| 9,362.00 | 88.11 | 346.49 | 8,934.39 | 799.01 | 827.45 | 14.27 | 1.89 | |
| 9,457.00 | 88.98 | 344.72 | 8,936.80 | 893.97 | 919.43 | -9.34 | 2.08 | |
| 9,552.00 | 88.28 | 343.92 | 8,939.07 | 988.91 | 1,010.87 | -35.01 | 1.12 | |
| 9,647.00 | 90.08 | 344.53 | 8,940.43 | 1,083.85 | 1,102.28 | -60.83 | 2.00 | |
| 9,741.00 | 90.37 | 343.74 | 8,940.06 | 1,177.81 | 1,192.70 | -86.53 | 0.90 | |
| 9,836.00 | 90.71 | 342.64 | 8,939.16 | 1,272.70 | 1,283.63 | -114.00 | 1.21 | |
| 9,931.00 | 90.42 | 345.00 | 8,938.23 | 1,367.62 | 1,374.86 | -140.47 | 2.50 | |
| 10,026.00 | 90.45 | 345.25 | 8,937.51 | 1,462.61 | 1,466.67 | -164.85 | 0.27 | |
| 10,116.00 | 89.94 | 344.51 | 8,937.20 | 1,552.60 | 1,553.56 | -188.33 | 1.00 | |
| 10,206.00 | 89.10 | 345.92 | 8,937.95 | 1,642.58 | 1,640.57 | -211.30 | 1.82 | |
| 10,297.00 | 88.67 | 346.39 | 8,939.73 | 1,733.56 | 1,728.91 | -233.07 | 0.70 | |
| 10,387.00 | 89.35 | 346.74 | 8,941.28 | 1,823.54 | 1,816.43 | -253.97 | 0.85 | |
| 10,478.00 | 89.18 | 346.45 | 8,942.45 | 1,914.53 | 1,904.94 | -275.07 | 0.37 | |
| 10,568.00 | 88.84 | 346.07 | 8,944.00 | 2,004.51 | 1,992.36 | -296.44 | 0.57 | |
| Daily Drilling Report | | | | | | | | |
| Page 4/5 | | | | Printed: Thursday, December 26, 2019 | | | | |

Daily Drilling Report

H & P #601

1,489.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/26/2019 |
| Report #: | 11 |
| DFS: | 9 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$109,175.18 |

| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) |
|-----------|----------|---------|------------|----------|----------|---------|---------------|
| 10,659.00 | 93.31 | 347.40 | 8,942.30 | 2,095.46 | 2,080.89 | -317.31 | 5.12 |
| 10,750.00 | 91.55 | 347.14 | 8,938.44 | 2,186.35 | 2,169.57 | -337.35 | 1.96 |
| 10,840.00 | 91.70 | 346.88 | 8,935.89 | 2,276.30 | 2,257.23 | -357.57 | 0.33 |
| 10,931.00 | 90.85 | 345.98 | 8,933.86 | 2,367.27 | 2,345.67 | -378.92 | 1.36 |
| 11,025.00 | 88.76 | 345.60 | 8,934.18 | 2,461.26 | 2,436.78 | -401.99 | 2.26 |
| 11,120.00 | 88.11 | 345.74 | 8,936.77 | 2,556.23 | 2,528.79 | -425.49 | 0.70 |

| Formation Name | Prog Top (TVD SS) Override (ft(elv)) | Prog Top MD (ftKB) | Prog Top (TVD) (ftKB) | Final Top MD (ftKB) | Final Top (TVD) (ftKB) |
|---------------------------------------|---|--------------------|-----------------------|---------------------|------------------------|
| 268_5_SPBY_L_A1 | -5,996.0 | | 8,999.5 | | |
| 268_5_SPBY_L_A2 | -6,033.0 | | 9,036.5 | | |
| 268_5_SPBY_L_A3 | -6,117.0 | | 9,120.5 | | |
| 268_6_SPBY_L_B1/JO MILL | -6,272.0 | | 9,275.5 | | |
| 268_7_SPBY_L_C1/LOWER SPRABERRY SHALE | -6,321.0 | | 9,324.5 | | |
| 269_0_DEAN | -6,639.0 | | 9,642.5 | | |
| 270_0_WFMP_A1 | -6,802.0 | | 9,805.5 | | |
| 272_0_WFMP_A2 | -6,885.0 | | 9,888.5 | | |
| 271_0_WFMP_A3 | -6,946.0 | | 9,949.5 | | |
| 275_0_WFMP_B1 | -7,009.0 | | 10,012.5 | | |
| 276_0_WFMP_B2 | -7,031.0 | | 10,034.5 | | |
| 278_0_WFMP_B3 | -7,085.0 | | 10,088.5 | | |
| 280_0_WFMP_C1 | -7,175.0 | | 10,178.5 | | |
| 282_0_WFMP_C2 | -7,275.0 | | 10,278.5 | | |
| 292_0_WFMP_D | -7,701.0 | | 10,704.5 | | |
| 304_0_STRAWN | -8,065.0 | | 11,068.5 | | |
| PBHL/TD | -5,992.0 | | 8,995.5 | | |

| Job Contact | Title | Office | Mobile | Email |
|--|------------------------------|--------------|--------------|------------------------|
| POLYA, JOE, AREA DRILLING SUPERINTENDENT | AREA DRILLING SUPERINTENDENT | 432-413-6147 | 432-352-3155 | JOE.POLYA@PXD.COM |
| DAFFRON, MIKE, SUPERINTENDENT | SUPERINTENDENT | 432-360-4057 | 318-243-5902 | MIKE.DAFFRON@PXD.COM |
| LONG, TREVOR, ENGINEER | ENGINEER | 432-571-2800 | 432-307-8155 | TREVOR.LONG@PXD.COM |
| HUTTO, PAUL, WELLSITE SUPERVISOR | WELLSITE SUPERVISOR | | 318-381-5026 | PAUL.HUTTO@PXD.COM |
| YOHO, RYAN, FIELD ENGINEER | FIELD ENGINEER | | 432-307-5130 | RYAN.YOHO@PXD.COM |
| DETTORE, DON, MUD ENGINEER | MUD ENGINEER | | 850-572-6351 | DONALD.DETTORE@PXD.COM |
| RIG-H&P 601, RIG PHONE | RIG PHONE | 432-355-3111 | 469-866-2439 | |

| Company | Count |
|---|-------|
| PIONEER NATURAL RESOURCES USA INC | 2 |
| HELMERICH & PAYNE INTERNATIONAL DRILLING CO | 13 |
| GYRODATA INC | 4 |
| DWM CONSULTING | 1 |
| STRATAGRAPH INC | 2 |
| DYNAMIC OILFIELD SERVICES INC | 1 |

Daily Drilling Report

| | | | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/27/2019 | | |
| Days Since LTI: 1,490.00 | | | | Report #: | 12 | | |
| Release: | | | | DFS: | 10 | | |
| Days Since RI: 8.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$99,175.09 | | |

| | | | | | | | | | | |
|--|--------------------|---|-------------------------------|---|---------------------------------|---|---------------------------------------|------------------|---------------|------------|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | |
| Safety Checks | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: Drill Prod Lateral per Plan. EXPECTED STRUCTURE: Structure is expected to continue to downdip (~89-89.5*) over the next 1000' VS. RECOMMENDED DRILLING: Shale package 9' to 18' below plan 1. Tolerances: Tolerances are set at 0' up / 25' down to Plan 1 | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Case #: 47496 Date: 12/19/2019 Classification: Contractor - Injury/Illness (Low) Description: Contractor floor hand was in the process of tripping pipe back into the hole, while setting the slips around the Heavy Weight Drill Pipe he lost his footing. This caused contractor to slip and strike his lower back on the tongs. Incident was reported to PNR reps and contractor HSE has been notified. | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - drilling lateral per plan - current tolerances 0 up / 25 down. Continue to clean and organize around location. Mentor new hire RTM and look out for each other. Possibility of some rain/storms this evening followed by cooler weather. Make sure electrical is covered and dress accordingly | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47496 Date: 12/19/2019 Classification: Contractor - Injury/Illness (Low) Description: Contractor floor hand was in the process of tripping pipe back into the hole, while setting the slips around the Heavy Weight Drill Pipe he lost his footing. This caused contractor to slip and strike his lower back on the tongs. Incident was reported to PNR reps and contractor HSE has been notified. | | | | | | |
| 23:30 | PROACTIVE MEASURES | STOP CARD - PNR | NIGHT | Stop card: While walking location noticed frac tank missing bull plug - stopped RTM and discussed importance of capping all connections. He understood and capped connection | | | | | | |
| Jobs | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | Job Status | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | IN PROGRESS | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | |
| Type | | | Subtype | | Date | Note | | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 1/20/2019 | Drilling 2nd Prod Lateral on 3 well pad - batch drilling (updated 12/27/19) | | | | |
| Daily Operations | | | | | | | | | | |
| Footage/Meterage (ft) 2,306.00 | | Drilling Hours (hr) 22.50 | | % Rotating Time (%) 85.56 | | End Depth (ftKB) 13,578.0 | | | | |
| Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 99,175.09 | | Cum Field Est To Date (Cost) 1,820,677.59 | | | | | | |
| 24 HR ROP (ft/hr) 102.5 | | Circulating Hours (hr) 1.00 | | % Sliding Time (%) 14.44 | | End Depth (TVD) (ftKB) 8,952.3 | | | | |
| Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 6,140.82 | | Cum Mud Field Est (Cost) 37,996.21 | | Total AFE + Sup (Cost) 3,098,502.34 | | | | |
| Daily Goal Description DRILLED FEET | | Daily Goal - Last 24 2,000.0 | | | Daily Goal - Next 24 2,000.0 | | Goal Comments Goal achieved (+15%) | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | Next Casing String PRODUCTION, 19,258.0ftKB | | | | |
| Avg Connection Gas 172.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 141.00 | | Max Connection Gas 306.00 | | | | |
| Max Trip Gas 0.00 | | Max Drill Gas 270.00 | | | | | | | | |
| Operations Summary Drill production lateral f/ 11272' t/ 13578' (13.3% sliding, 1.56° avg lateral DLS, 20' below, 7.9' right) | | | | | | | | | | |
| Operations Next Report Period Drill production lateral f/ 13578' t/ 15578' | | | | | | | | | | |
| Operations at Report Time Drilling production lateral @ 13578' | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | |
| Rig NPT: 2.25 hours | | | | | | | | | | |
| 3rd Party NPT: 1.5 hours | | | | | | | | | | |
| PNR NPT: 5.5 hours | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 100% Curve: 100% Lat: 43% | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs | | | | | | | | | | |
| Saver Sub footage: 7732' | | | | | | | | | | |
| Initial Water Meter Reading: 538571 | | | | | | | | | | |
| Time Log | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # |
| 06:00 | 10.25 | 16:15 | PROD, DRL LAT | DRL | NORMAL | Drill F/11272' T/12409' (1137' @ 108 fph), 32% complete. 88% Rot @ 115 fph 12% Sldg @ 57 fph MW-8.1 w/ 52 vis, full returns. Last Survey @ 12352' ? Inc-91.02°, Azm-345.91°, 3' above & 6.8' left to plan #1 | 11,272.0 | 12,409.0 | | |
| 16:15 | 0.5 | 16:45 | PROD, DRL LAT | RIG_SVC | NORMAL | Service Rig and take SPR's | 12,409.0 | 12,409.0 | | |
| Daily Drilling Report | | | | | | | | | | |
| Page 1/5 | | | | | | | | | | |
| Printed: Friday, December 27, 2019 | | | | | | | | | | |

Daily Drilling Report

| | | | |
|--------------------------|----------------------------|---------------------------------|-----------------------|
| UNIVERSITY 6D 4H | | PERMIAN ASSET TEAM | |
| H & P #601 | | Job: | ODR |
| Accept: 12/3/2019 | Release: | Report Date: | 12/27/2019 |
| Days Since LTI: | Days Since RI: 8.00 | Report #: | 12 |
| 1,490.00 | | DFS: | 10 |
| | | AFE #: | 9006758 |
| | | Total AFE + Sup: | \$3,098,502.34 |
| | | Daily Field Est. (Cost): | \$99,175.09 |

Daily Drilling Report

| Last BOP Test | | | | | | | | |
|--|----------------------|---------------------------------|---------------------------|--|------------------------------------|--|-----------------|--------------|
| Date | Test Type | Item Tested | Next Test Date | Com | | | | |
| 12/14/2019 | BOP | BOP'S, 12/3/2019 14:15, <class> | 1/4/2020 | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | |
| Test Type | | Depth (ftKB) | | Dens Fluid (lb/gal) | | | | |
| FORMATION INTEGRITY | | 1,989.0 | | 13.00 | | | | |
| FORMATION INTEGRITY | | 6,084.0 | | 9.57 | | | | |
| Casing Pressure Test | | | | | | | | |
| Test Type | Test Subtype | Date | Item Tested | Failed? | Time (min) | P (psi) | | |
| CASING | STANDARD | 11/5/2019 | SURFACE, 1,989.3ftKB | No | 30.00 | 1,000.0 | | |
| CASING | STANDARD | 12/23/2019 | INTERMEDIATE, 6,084.5ftKB | No | 30.00 | 2,500.0 | | |
| Kick Offs & Key Depths | | | | | | | | |
| Date | | Type | | Top Depth (ftKB) | | | | |
| | | TOE | | | | | | |
| 12/24/2019 15:15 | | KICK OFF | | 8,346.0 | | | | |
| 12/25/2019 07:45 | | HEEL | | 9,230.0 | | | | |
| Casing Strings | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | P LeakOff (psi) | |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | 1,342.5 | |
| INTERMEDIATE | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | BTC | 3,018.5 | |
| Job Supply Amounts | | | | | | | | |
| Supply Item Des | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed |
| DIESEL | MUD | GAL | 8,542 | 9,600 | 0 | Mud Diesel | 15,925 | 29,920.0 |
| DIESEL | FUEL | GAL | 5,990 | 3,024 | 0 | Rig Diesel | 12,608 | 17,466.0 |
| WATER | FRESH | BBL | 0 | 0 | 0 | Initial reading: 537154. Final reading: 537154 | 0 | 10,797.0 |
| Mud Additive Amounts | | | | | | | | |
| Des | Type | Units | Rec | Consumed | On Loc | Cum Cons | | |
| CALCIUM CHLORIDE | SALT | LB | 150 | 30 | 190.0 | 87 | | |
| DRUM DISPOSAL | MISCELLANEOUS | EA | 28 | 28 | 0.0 | 28 | | |
| GILSONITE | FLUID LOSS ADDITIVES | SACK | 150 | 25 | 140.0 | 121 | | |
| LIME | ALKALINITY CONTROL | LB | 0 | 40 | 160.0 | 90 | | |
| MUD DIESEL | FUEL | GAL | 7,011 | 9,600 | 14,394.0 | 29,920 | | |
| PALLET | MISCELLANEOUS | EA | 14 | 14 | 0.0 | 14 | | |
| POLYDRIL LEM H60 DRUM | OIL MUD ADDITIVE | GAL | 4 | 0 | 11.0 | 6 | | |
| POLYDRIL PE 50 DRUM | OIL MUD ADDITIVE | GAL | 4 | 0 | 15.0 | 2 | | |
| POLYDRIL SOLTEX | FLUID LOSS ADDITIVES | LB | 120 | 10 | 110.0 | 75 | | |
| SHRINK WRAP | MISCELLANEOUS | EA | 12 | 12 | 0.0 | 12 | | |
| TRUCKING | MISCELLANEOUS | EA | 1,300 | 1,300 | 0.0 | 1,300 | | |
| VG-PLUS | OIL MUD ADDITIVE | LB | 105 | 20 | 110.0 | 148 | | |
| Pump Operations | | | | | | | | |
| Pump # | Make | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | | |
| 1 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 2 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 3 | GARDNER-DENVER | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| Pump Checks | | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | Eff (%) | | |
| | | | | | | | | |
| Deviation Surveys | | | | | | | | |
| Date | Description | Job | | | | | | |
| 10/28/2019 | AS DRILL SURVEY | ODR, 10/28/2019 10:00 | | | | | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | |
| 11,309.00 | 91.41 | 347.08 | 8,936.44 | 2,745.17 | 2,712.80 | -468.49 | 1.05 | |
| 11,404.00 | 90.62 | 346.15 | 8,934.76 | 2,840.14 | 2,805.21 | -490.48 | 1.28 | |
| 11,499.00 | 90.00 | 344.00 | 8,934.25 | 2,935.12 | 2,896.99 | -514.94 | 2.36 | |
| 11,594.00 | 89.69 | 344.13 | 8,934.50 | 3,030.08 | 2,988.34 | -541.03 | 0.35 | |
| 11,688.00 | 91.27 | 343.64 | 8,933.72 | 3,124.01 | 3,078.64 | -567.11 | 1.76 | |
| 11,783.00 | 91.27 | 345.30 | 8,931.61 | 3,218.96 | 3,170.15 | -592.54 | 1.75 | |
| 11,878.00 | 92.29 | 344.40 | 8,928.66 | 3,313.89 | 3,261.80 | -617.36 | 1.43 | |
| 11,973.00 | 89.86 | 344.32 | 8,926.88 | 3,408.83 | 3,353.26 | -642.96 | 2.56 | |
| 12,068.00 | 88.87 | 345.10 | 8,927.93 | 3,503.81 | 3,444.89 | -668.01 | 1.33 | |
| 12,162.00 | 90.37 | 345.37 | 8,928.55 | 3,597.80 | 3,535.78 | -691.97 | 1.62 | |
| 12,257.00 | 90.08 | 346.19 | 8,928.18 | 3,692.79 | 3,627.87 | -715.30 | 0.92 | |
| 12,352.00 | 91.02 | 345.91 | 8,927.27 | 3,787.79 | 3,720.06 | -738.20 | 1.03 | |
| 12,447.00 | 89.07 | 345.62 | 8,927.19 | 3,882.78 | 3,812.14 | -761.56 | 2.08 | |
| | | | | | | | | |
| Daily Drilling Report | | | Page 4/5 | | Printed: Friday, December 27, 2019 | | | |

Daily Drilling Report

H & P #601

1,490.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/27/2019 |
| Report #: | 12 |
| DFS: | 10 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$99,175.09 |

| Formations | |
|------------|---------------|
| 1 | Formation 1 |
| 2 | Formation 2 |
| 3 | Formation 3 |
| 4 | Formation 4 |
| 5 | Formation 5 |
| 6 | Formation 6 |
| 7 | Formation 7 |
| 8 | Formation 8 |
| 9 | Formation 9 |
| 10 | Formation 10 |
| 11 | Formation 11 |
| 12 | Formation 12 |
| 13 | Formation 13 |
| 14 | Formation 14 |
| 15 | Formation 15 |
| 16 | Formation 16 |
| 17 | Formation 17 |
| 18 | Formation 18 |
| 19 | Formation 19 |
| 20 | Formation 20 |
| 21 | Formation 21 |
| 22 | Formation 22 |
| 23 | Formation 23 |
| 24 | Formation 24 |
| 25 | Formation 25 |
| 26 | Formation 26 |
| 27 | Formation 27 |
| 28 | Formation 28 |
| 29 | Formation 29 |
| 30 | Formation 30 |
| 31 | Formation 31 |
| 32 | Formation 32 |
| 33 | Formation 33 |
| 34 | Formation 34 |
| 35 | Formation 35 |
| 36 | Formation 36 |
| 37 | Formation 37 |
| 38 | Formation 38 |
| 39 | Formation 39 |
| 40 | Formation 40 |
| 41 | Formation 41 |
| 42 | Formation 42 |
| 43 | Formation 43 |
| 44 | Formation 44 |
| 45 | Formation 45 |
| 46 | Formation 46 |
| 47 | Formation 47 |
| 48 | Formation 48 |
| 49 | Formation 49 |
| 50 | Formation 50 |
| 51 | Formation 51 |
| 52 | Formation 52 |
| 53 | Formation 53 |
| 54 | Formation 54 |
| 55 | Formation 55 |
| 56 | Formation 56 |
| 57 | Formation 57 |
| 58 | Formation 58 |
| 59 | Formation 59 |
| 60 | Formation 60 |
| 61 | Formation 61 |
| 62 | Formation 62 |
| 63 | Formation 63 |
| 64 | Formation 64 |
| 65 | Formation 65 |
| 66 | Formation 66 |
| 67 | Formation 67 |
| 68 | Formation 68 |
| 69 | Formation 69 |
| 70 | Formation 70 |
| 71 | Formation 71 |
| 72 | Formation 72 |
| 73 | Formation 73 |
| 74 | Formation 74 |
| 75 | Formation 75 |
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| 77 | Formation 77 |
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| 84 | Formation 84 |
| 85 | Formation 85 |
| 86 | Formation 86 |
| 87 | Formation 87 |
| 88 | Formation 88 |
| 89 | Formation 89 |
| 90 | Formation 90 |
| 91 | Formation 91 |
| 92 | Formation 92 |
| 93 | Formation 93 |
| 94 | Formation 94 |
| 95 | Formation 95 |
| 96 | Formation 96 |
| 97 | Formation 97 |
| 98 | Formation 98 |
| 99 | Formation 99 |
| 100 | Formation 100 |

| Formation | Prog Top (TVD SS) Cumulative (ft/ft) | Permeability (MD) Permeability (MD) | Permeability (MD) Permeability (MD) | Permeability (MD) Permeability (MD) | Permeability (MD) Permeability (MD) |
|-----------|---|--|--|--|--|
|-----------|---|--|--|--|--|

Daily Contacts

| Personnel Log | | | | | | | | | |
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[illegible]

Daily Drilling Report

| | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | |
| H & P #601 | | | | Job: | ODR |
| Accept: 12/3/2019 | | | | Report Date: | 12/29/2019 |
| Days Since LTI: 1,492.00 | | | | Report #: | 14 |
| Release: | | | | DFS: | 12 |
| Days Since RI: 10.00 | | | | AFE #: | 9006758 |
| | | | | Total AFE + Sup: | \$3,098,502.34 |
| | | | | Daily Field Est. (Cost): | \$57,917.99 |

| | | | | | | | | | | | | | | | |
|---|--------------------|--------------------------------|-------------------------------|--|-------------------------|--|--------------------|--------------------------------------|---------------|--|--|--|--|--|--|
| API/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | | | | | |
| SSN ID00034092 | Property Sub | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | | | | | | |
| Safety Checks | | | | | | | | | | | | | | | |
| Time | Type | Des | Tour | Com | | | | | | | | | | | |
| 06:00 | MEETING | PRE-TOUR | DAY | PTSM: Discussed upcoming operations - drilling lateral per plan. Current tolerances are 0 up / 30 down with recommended 16-22' below plan. Watch hand/body placement while making connections. Continue to clean/organize around location. Keep mud chemicals covered and use good communication on any fluid transfers | | | | | | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | DAY | Case #: 47556 Date: 12/26/2019 Classification: Contractor - Injury/Illness (Low) Description: While Contractor was preparing to clean casing, he squeezed the trigger to the pressure washer wand, Contractor stepped back and lost his balance and twisted his right knee slightly. Contractor refusing medical attention and continued to work. | | | | | | | | | | | |
| 18:00 | MEETING | PRE-TOUR | NIGHT | PTSM: Discussed upcoming operations - finish TOH t/ shoe monitoring hole fill with trip tanks. C/O off-driller side traction motor with H&P mechanics/techs. Use good communication working with mechanics and make sure they have everything they need. Monitor hole on trip tanks while working on top drive. Cold weather and windy conditions - dress accordingly. Make sure all proper paperwork is done for work on TDS and tools are tethered when working at heights | | | | | | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | NIGHT | Case #: 47556 Date: 12/26/2019 Classification: Contractor - Injury/Illness (Low) Description: While Contractor was preparing to clean casing, he squeezed the trigger to the pressure washer wand, Contractor stepped back and lost his balance and twisted his right knee slightly. Contractor refusing medical attention and continued to work. | | | | | | | | | | | |
| 01:15 | PROACTIVE MEASURES | STOP CARD - NON PNR | NIGHT | Stop card: noticed RTM wearing H2S monitor on his hard hat, he was stopped and discussion was had about proper placement for monitor. He understood and placed monitor correctly in breathing zone | | | | | | | | | | | |
| Jobs | | | | | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | End Date | | Job Status | | | | | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | | IN PROGRESS | | | | | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | | | | | | |
| Type | | | Subtype | | Date | Note | | | | | | | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 1/16/2019 | Drilling 2nd Prod Lateral on 3 well pad - batch drilling (updated 12/28/19) | | | | | | | | | |
| Daily Operations | | | | | | | | | | | | | | | |
| Footage/Meterage (ft) 378.00 | | Drilling Hours (hr) 4.25 | | % Rotating Time (%) 82.35 | | End Depth (ftKB) 16,387.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 57,917.99 | | Cum Field Est To Date (Cost) 1,978,606.09 | | | |
| 24 HR ROP (ft/hr) 88.9 | | Circulating Hours (hr) 3.75 | | % Sliding Time (%) 17.65 | | End Depth (TVD) (ftKB) 8,964.5 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 1,451.93 | | Cum Mud Field Est (Cost) 45,862.77 | | Total AFE + Sup (Cost) 3,098,502.34 | |
| Daily Goal Description DRILLED FEET | | | | Daily Goal - Last 24 2,200.0 | | | | Daily Goal - Next 24 0.0 | | | | Goal Comments Goal not achieved - TDS NPT | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | | | | | Next Casing String PRODUCTION, 19,258.0ftKB | | | | | |
| Avg Connection Gas 182.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 178.00 | | Max Connection Gas 210.00 | | Max Trip Gas 0.00 | | Max Drill Gas 298.00 | | | | | |
| Operations Summary Drill production lateral f/ 16009' t/ 16387', Troubleshoot TDS, TOH t/ shoe, C/O off-driller side traction motor (17.7% sliding, 1.45° avg lateral DLS, 13.1' below, 7.4' left) | | | | | | | | | | | | | | | |
| Operations Next Report Period Finish working on TDS, TOH, C/O directional tools, TIH, Slip & cut at shoe, Take survey management checkshots and re-log gamma, TIH | | | | | | | | | | | | | | | |
| Operations at Report Time C/O traction motor on top drive | | | | | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | | | | | | |
| Rig NPT: 22.0 hours | | | | | | | | | | | | | | | |
| 3rd Party NPT: 1.5 hours | | | | | | | | | | | | | | | |
| PNR NPT: 5.5 hours | | | | | | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 100% Curve: 100% Lat: 71% | | | | | | | | | | | | | | | |
| Gen Hours: 1- 13 hrs, 2- 24 hrs, 3- 13 hrs | | | | | | | | | | | | | | | |
| Saver Sub footage: 10,541' | | | | | | | | | | | | | | | |
| Initial Water Meter Reading: 538571 | | | | | | | | | | | | | | | |
| Time Log | | | | | | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | | | | |
| 06:00 | 4.25 | 10:15 | PROD, DRL LAT | DRL | NORMAL | Drill F/16009' T/16387' (378' @ 89 fph), 71% complete. 88% Rot @ 97 fph 12% Sldg @ 30 fph MW-8.15 w/ 51 vis, full returns. Last Survey @ 16237' ? Inc-89.39°, Azm-345.87°, 13.1' low & 7.4' left to plan #1 | 16,009.0 | 16,387.0 | | | | | | | |
| | | | | | | | | | | | | | | | |

Daily Drilling Report

Page 1/4

Printed: Sunday, December 29, 2019

Daily Drilling Report

| | |
|--------------------------|-----------------------------|
| UNIVERSITY 6D 4H | |
| H & P #601 | |
| Accept: 12/3/2019 | Release: |
| Days Since LTI: | Days Since RI: 10.00 |
| 1,492.00 | |

| PERMIAN ASSET TEAM | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/29/2019 |
| Report #: | 14 |
| DFS: | 12 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$57,917.99 |

| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # |
|------------|----------|----------|---------------|-----------|--------------|---|--------------------|------------------|---------------|------------|
| 10:15 | 3.75 | 14:00 | PROD, DRL LAT | RIG_RPR | NORMAL | Driller had a Alarm for Top Drive traction motor. Confirm motor hot. Shut down traction motor. Reciprocate DP and circulate while waiting for HP electrician to arrive at rig (1130 hrs). Trouble shoot traction motor issue and confirm motor bad. * Note: Circulating while troubleshooting top drive issues | 16,387.0 | 16,387.0 | 3.75 | 10 |
| 14:00 | 0.25 | 14:15 | PROD, DRL LAT | FLOW_CHK | NORMAL | Flow check well - Static | 16,387.0 | 16,387.0 | 0.25 | 10 |
| 14:15 | 0.5 | 14:45 | PROD, DRL LAT | RIG_RPR | NORMAL | Remove pipe handler from TD to access top DP connection. Break with manual tongs due to torque too high for pipe handler on TD to break with only one motor available. | 16,387.0 | 16,387.0 | 0.50 | 10 |
| 14:45 | 4.25 | 19:00 | PROD, DRL LAT | TOOH_ELEV | NORMAL | Trip out of hole to casing shoe to change out Traction motor on top drive (off driller side). Hole taking proper fill from trip tanks | 16,387.0 | 16,387.0 | 4.25 | 10 |
| 19:00 | 11 | 06:00 | PROD, DRL LAT | RIG_RPR | NORMAL | Dock TDS on maintenance pins. Split blocks. Change out ODS traction motor w/ H&P mechanics Bad traction motor off @ 22:45 hrs. While working on TDS well was monitored on trip tanks. Noticed gain in trip tanks on average of 2 bph. Shut UPR @ 0330hrs and SICP stabilized at 130 psi | 16,387.0 | 16,387.0 | 11.00 | 10 |

RIG, 16,387.0ftKB, 12/28/2019 10:15

| | | | | | | | |
|-------------|------------|-------------|-----------------------------|----------------------------------|--------------------|--|---|
| Ref # 10 | Dur (N...) | Ex... No | Subtype ROTARY SYSTEM | Problem Descript... TOP DRIVE | Est Cost OR (Cost) | Accountable Party HELMERICH & PAYNE INTERNATIONAL DRILLING CO | Comment Driller had a Alarm for Top Drive traction motor. Confirm motor hot. Shut down traction motor. Reciprocate DP and circulate while waiting for HP electrician to arrive at rig (1130 hrs). Electrician trouble shoot traction motor issue and confirm motor bad.Trip to shoe to change out motor. C/O off driller side traction motor |
|-------------|------------|-------------|-----------------------------|----------------------------------|--------------------|--|---|

BHA #4 , PRODUCTION - CURVE

| | | | | |
|--------------------------------------|--|-------------------------|------------------------------------|---------------------------------------|
| Bit Run 4 | Drill Bit 8 1/2in, GTD64DCHE, 13234125 | | Bit Type PDC | Make HALLIBURTON |
| Nozzles (1/32") 13/13/13/13/13/13 | Bit Total Fluid Area (nozzles) (in²) 0.78 | IADC Bit Dull ----- | Hours Drilled By Bit (hr) 87.25 | Depth Drilled By Bit (ft) 8,041.00 |
| BHA Drilling Time (hr) 87.25 | BHA Depth Drilled (ft) 8,041.00 | BHA ROP (ft/hr) 92.2 | Depth In (ftKB) 8,346.0 | Depth Out (ftKB) 16,387.0 |

| Jts | Item Des | OD (in) | ID (in) | Len (ft) | Cum Len (ft) | Wt (lbf) | Cum Wt (1000lbf) | Make |
|-----|---------------------------|---------|---------|----------|--------------|-----------|------------------|-----------------------------------|
| 171 | DRILL PIPE | 5 | 4.28 | 5,398.67 | 16,387.00 | 105,274.1 | 739 | OTHER (PROVIDE DESCRIPTION) |
| 30 | HWDP - SPIRALED | 5 | 3.00 | 905.18 | 10,988.33 | 45,259.0 | 634 | OTHER (PROVIDE DESCRIPTION) |
| 219 | DRILL PIPE | 5 | 4.28 | 6,921.84 | 10,083.15 | 409,496.1 | 589 | OTHER (PROVIDE DESCRIPTION) |
| 1 | AGITATOR | 6 7/8 | 2.56 | 24.84 | 3,161.31 | | 179 | NOV |
| 96 | DRILL PIPE | 5 | 4.28 | 3,033.01 | 3,136.47 | 179,432.9 | 179 | OTHER (PROVIDE DESCRIPTION) |
| 1 | DRILL COLLAR - FLEX | 6 7/8 | 3.25 | 31.08 | 103.46 | | 0 | STABIL DRILL |
| 1 | DRILL COLLAR - NON MAG | 6 9/16 | 3.19 | 30.63 | 72.38 | | 0 | STABIL DRILL |
| 1 | SUB - UBHO | 6 3/4 | 2.81 | 3.04 | 41.75 | | 0 | GYRODATA |
| 1 | STABILIZER | 6 5/8 | 2.50 | 5.43 | 38.71 | | 0 | STABIL DRILL |
| 1 | MOTOR - STABILIZER SLEEVE | 7 | 2.50 | 32.28 | 33.28 | | 0 | GYRODATA |

| SN | Bend Angle | Bearing Type | Lobe Config | # Stages | Lwr Defin Type | Bit To Bend |
|-----------|------------|--------------|-------------|----------|----------------|-------------|
| GDM700026 | 2 | NOT SEALED | 6:7 | 6.5 | | 4.06 |

| Sensor Type | Sensor-Bit (ft) | Note |
|---------------|-----------------|------|
| GAMMA | 45.00 | |
| D&I (INC/AZI) | 57.00 | |

| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) |
|------------|----------|--------------------|----------------|-----------------|---------------|-----------|----------------|--------------|-----------|---------------------|------------------------|---------------------|---------------------|--------------------------|----------|------------|---------|
| 06:00 | 08:15 | 16,009.0 | 211.00 | 93.8 | 45 | 60 | 500.0 | 700 | 4,950.0 | 125.0 | 235 | 280 | 170 | 235 | 23,000.0 | 13,000.0 | 0 |
| 08:15 | 09:00 | 16,220.0 | 15.00 | 20.0 | 60 | 0 | 180.0 | 700 | 4,560.0 | 30.0 | 235 | 280 | 170 | 235 | 0.0 | 0.0 | 135 |
| 09:00 | 10:15 | 16,235.0 | 152.00 | 121.6 | 45 | 60 | 500.0 | 700 | 4,950.0 | 125.0 | 235 | 280 | 170 | 235 | 23,000.0 | 13,000.0 | 0 |
| 10:15 | 14:00 | 16,387.0 | 0.00 | | 0 | 0 | 0.0 | 700 | 4,450.0 | 0.0 | 235 | 280 | 170 | 235 | 0.0 | 0.0 | 0 |

Daily Drilling Report

| Hydraulic Calculations | | | | | | | | | | |
|--|------------------|--|------------------|---|------------------|------------------------------|--|--|--------------------------|---------------------------------|
| Dens Mud (lb/gal) | ECD End (lb/gal) | Bit Hydraulic Power (hp) | HP/Area (hp/in²) | Jet Vel (ft/s) | Bit dP (psi) | Min Open Hole AV (ft/min) | Max Open Hole AV (ft/min) | Vol DrillString (bbl) | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) |
| 8.15 | 8.60 | 251.4 | 4.4 | 288.8 | 615.6 | 19.6 | 737.9 | 281.65 | 480.47 | 313.11 |
| Mud Checks | | | | | | | | | | |
| Time 20:00 | | Mud Company PIONEER DRILLING FLUIDS | | | Type OIL BASE | | Depth (ftKB) 16,387.0 | | Density (lb/gal) 8.20 | |
| Funnel Viscosity (s/qt) 52 | | T Flowline (°F) 125.0 | | PV (cP) 10.0 | | YP (lb/100ft²) 9.000 | | Vis 3rpm 5 | | Vis 6rpm 8 |
| Filtrate (mL/30min) 0.0 | | HTHP Filtrate (mL/30min) 10.3 | | HTHP Temperature (°F) 250.0 | | HTHP Pressure (psi) 500.0 | | Solids (%) 9.0 | | Low Gravity Solids (%) 5.2 |
| Sand (%) 0.0 | | MBT (lb/bbl) 0.0 | | Pm (mL/mL) 0.000 | | Pf (mL/mL) | | Chlorides (ppm) 29,500,000.000 | | Calcium (ppm) 0.000 |
| CaCl (ppm) 0 | | Oil Water Ratio 75.8/24.2 | | Electric Stab (V) 775.0 | | Lime (lb/bbl) 3.0 | | pH 0.0 | | Gel 10 sec (lb/100ft²) 7.000 |
| Gel 10 min (lb/100ft²) 10.000 | | Gel 30 min (lb/100ft²) 13.000 | | Comment RECOMMENDED FLUID TREATMENT: Lime for alkalinity, Calcium Chloride for WPS, VG Plus and LEM for rheology, PE-50 for emulsifier, WA for wetting agent, Gilsonite and Soltex for Fluid Loss and Diesel for dilution. | | | | | | |
| DRILLING FLUIDS ACTIVITY LAST 24 HRS: continue to add chemical to maintain mud specification and run centrifuges to maintain mud weight and remove LGS. No treatment while trip pipe and work on top drive | | | | | | | | | | |
| RIG ACTIVITY LAST 24 HOURS: drilled to 16387' service top drive and circulated hole clean while trouble shooting top drive. TOO H to casing shoe (6069) to replace traction motor | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | |
| Date | Test Type | | | Item Tested | | Next Test Date | | Com | | |
| 12/14/2019 | BOP | | | BOP'S, 12/3/2019 14:15, <class> | | 1/4/2020 | | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | |
| Leak Off and Formation Integrity Tests | | | | | | | | | | |
| Test Type | | | | Depth (ftKB) | | | Dens Fluid (lb/gal) | | | |
| FORMATION INTEGRITY | | | | 1,989.0 | | | 13.00 | | | |
| FORMATION INTEGRITY | | | | 6,084.0 | | | 9.57 | | | |
| Casing Pressure Test | | | | | | | | | | |
| Test Type | | Test Subtype | | | Date | | Item Tested | | Failed? | Time (min) |
| CASING | | STANDARD | | | 11/5/2019 | | SURFACE, 1,989.3ftKB | | No | 30.00 |
| CASING | | STANDARD | | | 12/23/2019 | | INTERMEDIATE, 6,084.5ftKB | | No | 30.00 |
| Kick Offs & Key Depths | | | | | | | | | | |
| Date | | | | Type | | | | Top Depth (ftKB) | | |
| | | | | TOE | | | | | | |
| 12/24/2019 15:15 | | | | KICK OFF | | | | 8,346.0 | | |
| 12/25/2019 07:45 | | | | HEEL | | | | 9,230.0 | | |
| Casing Strings | | | | | | | | | | |
| Description | Set Depth (ftKB) | Set Depth (TVD) (ftKB) | OD (in) | Grade | Wt/Len (lb/ft) | Top Thread | P LeakOff (psi) | | | |
| CONDUCTOR | 106.5 | 106.5 | 20 | H40 | 78.67 | | | | | |
| SURFACE | 1,989.3 | 1,988.5 | 13 3/8 | J55 | 54.50 | BTC | 1,342.5 | | | |
| INTERMEDIATE | 6,084.5 | 6,072.4 | 9 5/8 | L80-IC | 40.00 | BTC | 3,018.5 | | | |
| Job Supply Amounts | | | | | | | | | | |
| Supply Item Des | | Type | Unit Label | Received | Consumed | Returned | Note | Cum On Loc | Cum Consumed | |
| DIESEL | | MUD | GAL | 0 | 2,886 | 0 | Mud Diesel | 12,038 | 41,016.0 | |
| DIESEL | | FUEL | GAL | 0 | 1,743 | 0 | Rig Diesel | 7,138 | 22,936.0 | |
| WATER | | FRESH | BBL | 0 | 0 | 0 | Initial reading: 537154. Final reading: 537154 | 0 | 10,797.0 | |
| Mud Additive Amounts | | | | | | | | | | |
| Des | | Type | Units | Rec | Consumed | On Loc | Cum Cons | | | |
| CALCIUM CHLORIDE | | SALT | LB | 0 | 5 | 255.0 | 122 | | | |
| LIME | | ALKALINITY CONTROL | LB | 0 | 10 | 360.0 | 140 | | | |
| MUD DIESEL | | FUEL | GAL | 0 | 2,886 | 12,038.0 | 41,016 | | | |
| POLYDRIL LEM H60 DRUM | | OIL MUD ADDITIVE | GAL | 0 | 1 | 13.0 | 8 | | | |
| POLYDRIL SOLTEX | | FLUID LOSS ADDITIVES | LB | 0 | 5 | 125.0 | 100 | | | |
| VG-PLUS | | OIL MUD ADDITIVE | LB | 0 | 5 | 155.0 | 173 | | | |
| Pump Operations | | | | | | | | | | |
| Pump # | Make | | | Model | Liner Size (in) | Stroke (in) | Vol/Stk (bbl/stk) | P Max (psi) | | |
| 1 | GARDNER-DENVER | | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 2 | GARDNER-DENVER | | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| 3 | GARDNER-DENVER | | | PZ-11-1600 | 5 1/2 | 11.00 | 0.081 | 6,300.0 | | |
| Pump Checks | | | | | | | | | | |
| Pump # | Depth (ftKB) | Time | P (psi) | Strokes (spm) | Q Flow (gpm) | | | Eff (%) | | |
| | | | | | | | | | | |
| Deviation Surveys | | | | | | | | | | |
| Date 10/28/2019 | | Description AS DRILL SURVEY | | | | | | Job ODR, 10/28/2019 10:00 | | |
| Survey Data - All surveys for 24 hr reporting period | | | | | | | | | | |
| MD (ftKB) | Incl (°) | Azm (°) | TVD (ftKB) | VS (ft) | NS (ft) | EW (ft) | DLS (°/100ft) | | | |
| 16,047.00 | 90.56 | 346.88 | 8,965.03 | 7,481.48 | 7,301.88 | -1,640.39 | 0.83 | | | |
| 16,142.00 | 90.68 | 346.15 | 8,964.00 | 7,576.47 | 7,394.25 | -1,662.54 | 0.78 | | | |
| 16,237.00 | 89.69 | 345.87 | 8,963.70 | 7,671.46 | 7,486.43 | -1,685.50 | 1.08 | | | |
| | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | |

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Printed: Sunday, December 29, 2019

Daily Drilling Report

H & P #601

Days Since LTI:
1,492.00

Days Since RI: 10.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/29/2019 |
| Report #: | 14 |
| DFS: | 12 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$57,917.99 |

Daily Contacts

Personnel Log

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Daily Drilling Report

| | | | | | | | |
|--------------------------|--|--|--|--------------------------|----------------|--|--|
| UNIVERSITY 6D 4H | | | | PERMIAN ASSET TEAM | | | |
| H & P #601 | | | | Job: | ODR | | |
| Accept: 12/3/2019 | | | | Report Date: | 12/30/2019 | | |
| Days Since LTI: 1,493.00 | | | | Report #: | 15 | | |
| Release: | | | | DFS: | 13 | | |
| Days Since RI: 11.00 | | | | AFE #: | 9006758 | | |
| | | | | Total AFE + Sup: | \$3,098,502.34 | | |
| | | | | Daily Field Est. (Cost): | \$80,635.62 | | |

| | | | | | | | | | | | | | | | |
|--|--------------------|--------------------------------|-----------------------|---|--|---|---|--------------------------------------|------------------|--|------------|--|--|--|--|
| P/I/UWI 42-003-48164-0000 | | Well Profile HORIZONTAL | | Open Formation MIDDLE SPRABERRY (SPBY M A1) | | Field Name SPRABERRY (TREND AREA) | | | | | | | | | |
| SSN ID00034092 | | Property Sub | | KB-Grd (ft) 26.50 | Orig KB Elev (ft) 3,003.50 | Ground Elevation (ft) 2,977.00 | Spud Date 10/28/2019 | TD Date | | | | | | | |
| Safety Checks | | | | | | | | | | | | | | | |
| Time | Type | Des | | Tour | Com | | | | | | | | | | |
| 06:00 | MEETING | PRE-TOUR | | DAY | PTSM: Finish changing out traction motor. TOH to change out BHA. L/D directional tools - have new NMDC and motor staged out. Bit is Halliburton GT65DHE. P/U new directional tools. TIH - test agitator before/after and record pressure drop. | | | | | | | | | | |
| 06:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | | DAY | Date: 12/27/2019 Classification: Contractor - Injury/Illness Description: While removing the casing slips from the floor, contractor slipped and fell. Contractor refused medical attention and returned to work. | | | | | | | | | | |
| 18:00 | MEETING | PRE-TOUR | | NIGHT | PTSM: Discussed upcoming operations - finish TOH, C/O directional tools, TIH to shoe and slip/cut per RM. TIH to survey point and take checkshots/re-log gamma per directional/geo. TIH to bottom to resume drilling lateral per plan. Monitor hole fill and displacement during tripping operations - spotted 50bbl mud cap inside 9 5/8 casing due to 147psi on casing while working on top drive. Watch hand/body placement while tripping and working BHA, cold weather here dress accordingly | | | | | | | | | | |
| 18:05 | PROACTIVE MEASURES | WEEKLY TRENDS REVIEWED | | NIGHT | Date: 12/27/2019 Classification: Contractor - Injury/Illness Description: While removing the casing slips from the floor, contractor slipped and fell. Contractor refused medical attention and returned to work. | | | | | | | | | | |
| 19:15 | MEETING | JSA | | NIGHT | PJSM w/ PNR, H&P and Gyrodata discussing directional tool change out operations | | | | | | | | | | |
| 19:45 | PROACTIVE MEASURES | STOP CARD - NON PNR | | NIGHT | Stop card: While going to remove lift sub from stump with single latch elevators, RTM failed to install keeper pin. He was stopped by hoist operator and discussion was had about importance of the keep to prevent latch from potentially opening and dropping sub. He understood, installed keeper and continued handling BHA without incident | | | | | | | | | | |
| Jobs | | | | | | | | | | | | | | | |
| Responsible Grp 2 | | Responsible Grp 3 | | Job Type | Start Date | | End Date | | Job Status | | | | | | |
| DRL ENG - TREVOR LONG | | AREA TEAM 1 | | ODR | 10/28/2019 10:00 | | | | IN PROGRESS | | | | | | |
| Job Dates (ex. Estimated Pad Release, TXRRC Calls) | | | | | | | | | | | | | | | |
| Type | | | Subtype | | Date | | Note | | | | | | | | |
| MILESTONE | | | ESTIMATED PAD RELEASE | | 1/18/2019 | | Drilling 2nd Prod Lateral on 3 well pad - batch drilling (updated 12/30/19) | | | | | | | | |
| Daily Operations | | | | | | | | | | | | | | | |
| Footage/Meterage (ft) 0.00 | | Drilling Hours (hr) | | % Rotating Time (%) | | End Depth (ftKB) 16,387.0 | | Target Depth (ftKB) 18,008.0 | | Daily Field Est Total (Cost) 80,635.62 | | Cum Field Est To Date (Cost) 2,059,241.71 | | | |
| 24 HR ROP (ft/hr) | | Circulating Hours (hr) 2.50 | | % Sliding Time (%) | | End Depth (TVD) (ftKB) 8,964.5 | | Target Depth (TVD) (ftKB) 9,000.0 | | Daily Mud Field Est (Cost) 2,696.15 | | Cum Mud Field Est (Cost) 48,558.92 | | Total AFE + Sup (Cost) 3,098,502.34 | |
| Daily Goal Description DRILLED FEET | | | | Daily Goal - Last 24 0.0 | | | | Daily Goal - Next 24 1,800.0 | | | | Goal Comments Operational goal achieved | | | |
| Backbuild No | | Lateral Inclination | | Last Casing String INTERMEDIATE, 6,084.5ftKB | | | | | | Next Casing String PRODUCTION, 19,258.0ftKB | | | | | |
| Avg Connection Gas 182.00 | | Avg Trip Gas 0.00 | | Avg Background Gas 17.00 | | Max Connection Gas 210.00 | | Max Trip Gas 0.00 | | Max Drill Gas 0.00 | | | | | |
| Operations Summary Finish working on TDS, TOH, C/O directional tools, TIH, Slip & cut at shoe, Take survey management checkshots and re-log gamma, TIH t/ 11000' (0% sliding, 1.45° avg lateral DLS, 13.1' below, 10.5' left) | | | | | | | | | | | | | | | |
| Operations Next Report Period Finish TIH t/ 16387', Drill lateral f/ 16387' t/ 18187' | | | | | | | | | | | | | | | |
| Operations at Report Time TIH with lateral assembly @ 11,000' | | | | | | | | | | | | | | | |
| Remarks No Accidents, Incidents, or spills | | | | | | | | | | | | | | | |
| Rig NPT: 33.0 hours | | | | | | | | | | | | | | | |
| 3rd Party NPT: 1.5 hours | | | | | | | | | | | | | | | |
| PNR NPT: 6.75 hours | | | | | | | | | | | | | | | |
| Surf:100% Int: 100% Prod Vertical: 100% Curve: 100% Lat: 71% | | | | | | | | | | | | | | | |
| Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 0 hrs | | | | | | | | | | | | | | | |
| Saver Sub footage: 10,541' | | | | | | | | | | | | | | | |
| Initial Water Meter Reading: 538571 | | | | | | | | | | | | | | | |
| Time Log | | | | | | | | | | | | | | | |
| Start Time | Dur (hr) | End Time | Phase | Operation | Ops Category | Com | | Start Depth (ftKB) | End Depth (ftKB) | Prob Hrs (hr) | Prob Ref # | | | | |
| 06:00 | 7.25 | 13:15 | PROD, DRL LAT | RIG_RPR | NORMAL | TDS docked on maintenance pins. Finish changing out ODS traction motor w/ H&P mechanics. New one installed at 0900 hrs with H&P mechanics. H&P electricians connect electrical to the new traction motor and confirm correct operation. MU Torque sub and calibrate torque. Note: Well Shut in on UPR's and Monitor SICP (140 psi). | | 16,387.0 | 16,387.0 | 7.25 | 10 | | | | |
| 13:15 | 0.5 | 13:45 | PROD, DRL LAT | RIG_SVC | NORMAL | Service Rig | | 16,387.0 | 16,387.0 | | | | | | |
| 13:45 | 0.25 | 14:00 | PROD, DRL LAT | WELL_CTRL | WELL CONTROL | Bleed 140 psi SICP to 0 psi with 3/4 bbls back to trip tank. Shut well in at choke and Monitor for pressure build up. 0 psi after 15 mins. Open UPR's and re-position bit below casing shoe. | | 16,387.0 | 16,387.0 | 0.25 | 11 | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | |
| Page 1/5 | | | | | | | | | | | | | | | |
| Printed: Monday, December 30, 2019 | | | | | | | | | | | | | | | |

Daily Drilling Report

| PERMIAN ASSET TEAM | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/30/2019 |
| Report #: | 15 |
| DFS: | 13 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$80,635.62 |

Daily Drilling Report Page 3/5 Printed: Monday, December 30, 2019

PIONEER
NATURAL RESOURCES

Daily Drilling Report

UNIVERSITY 6D 4H

H & P #601

Accept: 12/3/2019

Days Since LTI:
1,493.00

Release:

Days Since RI: 11.00

PERMIAN ASSET TEAM

| | |
|-------------|------------|
| Job: | ODR |
|-------------|------------|

Report Date: 12/30/2019

Report #: 15

| | |
|------|----|
| DFS: | 13 |
|------|----|

AFE #: 9006758

| | |
|-------------------------|-----------------------|
| Total AFE + Sup: | \$3,098,502.34 |
|-------------------------|-----------------------|

| | |
|---------------------------------|--------------------|
| Daily Field Est. (Cost): | \$80,635.62 |
|---------------------------------|--------------------|

| Sensors | | | | | | | | | | | | | | | | | |
|--|------------------|-------------------------------------|------------------|----------------------------|---------------|---------------------------------|---------------------------|---------------------------|-----------------------|-------------------------------|------------------------|--|---------------------|---------------------------|----------|--------------|---------|
| Sensor Type | | | | Sensor-Bit (ft) | | | | | | Note | | | | | | | |
| GAMMA | | | | 45.00 | | | | | | | | | | | | | |
| DIRECTIONAL | | | | 57.00 | | | | | | | | | | | | | |
| Drilling Parameters | | | | | | | | | | | | | | | | | |
| Start Time | End Time | Start Depth (ftKB) | Int Depth (ft) | Int ROP (ft/hr) | WOB (1000lbf) | RPM (rpm) | dP (SPP) (psi) | Q Flow (gpm) | SPP (psi) | ROP Average (ft/hr) | Drill Str Wt (1000lbf) | PU Str Wt (1000lbf) | SO Str Wt (1000lbf) | Off-Btm Str Wt (1000lbf) | Drill Tq | Off Btm Tq | TFO (°) |
| 23:30 | 23:45 | 16,387.0 | 0.00 | | 0 | 0 | 0.0 | 700 | 2,675.0 | 0.0 | 215 | 220 | 210 | 215 | 0.0 | 0.0 | 0 |
| 03:30 | 04:45 | 16,387.0 | 0.00 | | 0 | 0 | 0.0 | 700 | 3,300.0 | 0.0 | 215 | 220 | 210 | 215 | 0.0 | 0.0 | 0 |
| Hydraulic Calculations | | | | | | | | | | | | | | | | | |
| Dens Mud (lb/gal) | ECD End (lb/gal) | Bit Hydraulic Power (hp) | HP/Area (hp/in²) | Jet Vel (ft/s) | Bit dP (psi) | Min Open Hole AV (ft/min) | Max Open Hole AV (ft/min) | Vol DrillString (bbl) | Vol Bit to Shoe (bbl) | Vol Shoe to Top (bbl) | | | | | | | |
| 8.20 | 8.65 | 252.9 | 4.5 | 288.8 | 619.4 | 19.6 | 737.9 | 281.64 | 480.54 | 313.11 | | | | | | | |
| Mud Checks | | | | | | | | | | | | | | | | | |
| Time 20:00 | | Mud Company PIONEER DRILLING FLUIDS | | | | Type OIL BASE | | Depth (ftKB) 16,387.0 | | Density (lb/gal) 8.20 | | Funnel Viscosity (s/qt) 58 | | T Flowline (°F) 125.0 | | | |
| PV (cP) 10.0 | | YP (lbf/100ft²) 10.000 | | Vis 3rpm 6 | | Vis 6rpm 8 | | Filtrate (mL/30min) 0.0 | | HTHP Filtrate (mL/30min) 10.6 | | HTHP Temperature (°F) 250.0 | | HTHP Pressure (psi) 500.0 | | | |
| Solids (%) 9.0 | | | | Low Gravity Solids (%) 5.3 | | | | Sand (%) 0.0 | | | | MBT (lb/bbl) 0.0 | | Pm (mL/mL) 0.000 | | Pf (mL/mL) | |
| Chlorides (ppm) 29,000,000.000 | | | | Calcium (ppm) 0.000 | | | | CaCl (ppm) 0 | | Oil Water Ratio 76.9/23.1 | | Electric Stab (V) 690.0 | | Lime (lb/bbl) 3.0 | | pH 0.0 | |
| Gel 10 sec (lbf/100ft²) 7.000 | | | | | | Gel 10 min (lbf/100ft²) 11.000 | | | | | | Gel 30 min (lbf/100ft²) 14.000 | | | | | |
| Comment RECOMMENDED FLUID TREATMENT: Lime for alkalinity, Calcium Chloride for WPS, VG Plus and LEM for rheology, PE-50 for emulsifier, WA for wetting agent, Gilsonite and Soltex for Fluid Loss and Diesel for dilution. | | | | | | | | | | | | | | | | | |
| DRILLING FLUIDS ACTIVITY LAST 24 HRS: prepared 50 bbl Mud cap and spotted at casing shoe after repairing traction motor on top drive. Finished POOH with no issues after spotting mud cap | | | | | | | | | | | | | | | | | |
| RIG ACTIVITY LAST 24 HOURS: finished replacing traction motor service top drive and circulated bottoms up with 940 units of gas. Prepared and pumped 50 bbl 11.0 ppg mud cap and displaced with 308 bbl of 8.2 ppg active mud. Pumped slug @ 11.0 ppg and POOH . Made up new Bha and RIH | | | | | | | | | | | | | | | | | |
| Last BOP Test | | | | | | | | | | | | | | | | | |
| Date | | Test Type | | | | Item Tested | | | | Next Test Date | | Com | | | | | |
| 12/14/2019 | | BOP | | | | BOP'S, 12/3/2019 14:15, <class> | | | | 1/4/2020 | | Perform shell test 12/22/19. Last FULL BOP test 12/14/19: Test all rams, floor valves 250 low / 5000 high for 5min. Test annular 250 low / 3500 high for 5min. Test back to mud pumps 250 low / 6325 high for 5min | | | | | |
| Leak Off and Formation Integrity Tests | | | | | | | | | | | | | | | | | |
| Test Type | | | | | | Depth (ftKB) | | | | | | Dens Fluid (lb/gal) | | | | | |
| FORMATION INTEGRITY | | | | | | | | | | | | 1,989.0 13.00 | | | | | |
| FORMATION INTEGRITY | | | | | | | | | | | | 6,084.0 9.57 | | | | | |
| Casing Pressure Test | | | | | | | | | | | | | | | | | |
| Test Type | | Test Subtype | | | | Date | | Item Tested | | | | Failed? | | Time (min) | | P (psi) | |
| CASING | | STANDARD | | | | 11/5/2019 | | SURFACE, 1,989.3ftKB | | | | No | | 30.00 | | 1,000.0 | |
| CASING | | STANDARD | | | | 12/23/2019 | | INTERMEDIATE, 6,084.5ftKB | | | | No | | 30.00 | | 2,500.0 | |
| Kick Offs & Key Depths | | | | | | | | | | | | | | | | | |
| Date | | | | | | Type | | | | | | Top Depth (ftKB) | | | | | |
| | | | | | | TOE | | | | | | | | | | | |
| 12/24/2019 15:15 | | | | | | KICK OFF | | | | | | 8,346.0 | | | | | |
| 12/25/2019 07:45 | | | | | | HEEL | | | | | | 9,230.0 | | | | | |
| Casing Strings | | | | | | | | | | | | | | | | | |
| Description | | Set Depth (ftKB) | | Set Depth (TVD) (ftKB) | | OD (in) | | Grade | | Wt/Len (lb/ft) | | Top Thread | | P LeakOff (psi) | | | |
| CONDUCTOR | | 106.5 | | 106.5 | | 20 | | H40 | | 78.67 | | | | | | | |
| SURFACE | | 1,989.3 | | 1,988.5 | | 13 3/8 | | J55 | | 54.50 | | BTC | | 1,342.5 | | | |
| INTERMEDIATE | | 6,084.5 | | 6,072.4 | | 9 5/8 | | L80-IC | | 40.00 | | BTC | | 3,018.5 | | | |
| Job Supply Amounts | | | | | | | | | | | | | | | | | |
| Supply Item Des | | Type | | Unit Label | | Received | | Consumed | | Returned | | Note | | Cum On Loc | | Cum Consumed | |
| DIESEL | | MUD | | GAL | | 7,505 | | 873 | | 0 | | Mud Diesel | | 18,670 | | 41,889.0 | |
| DIESEL | | FUEL | | GAL | | 0 | | 1,162 | | 0 | | Rig Diesel | | 5,976 | | 24,098.0 | |
| WATER | | FRESH | | BBL | | 0 | | 0 | | 0 | | Initial reading: 537154. Final reading: 537154 | | 0 | | 10,797.0 | |
| Mud Additive Amounts | | | | | | | | | | | | | | | | | |
| Des | | | | Type | | Units | | Rec | | Consumed | | On Loc | | Cum Cons | | | |
| BARITE-BULK | | | | WEIGHTING MATERIAL | | TON | | 21 | | 8 | | 57.42 | | 23 | | | |
| MUD DIESEL | | | | FUEL | | GAL | | 7,505 | | 873 | | 18,670.0 | | 41,889 | | | |
| TRUCKING | | | | MISCELLANEOUS | | EA | | 1,050 | | 1,050 | | 0.0 | | 3,200 | | | |
| Pump Operations | | | | | | | | | | | | | | | | | |
| Pump # | Make | | | | | Model | | Liner Size (in) | | Stroke (in) | | Vol/Stk (bbl/stk) | | P Max (psi) | | | |
| 1 | GARDNER-DENVER | | | | | PZ-11-1600 | | 5 1/2 | | 11.00 | | 0.081 | | 6,300.0 | | | |
| 2 | GARDNER-DENVER | | | | | PZ-11-1600 | | 5 1/2 | | 11.00 | | 0.081 | | 6,300.0 | | | |
| 3 | GARDNER-DENVER | | | | | PZ-11-1600 | | 5 1/2 | | 11.00 | | 0.081 | | 6,300.0 | | | |
| Pump Checks | | | | | | | | | | | | | | | | | |
| Pump # | Depth (ftKB) | | Time | | P (psi) | | Strokes (spm) | | Q Flow (gpm) | | | | Eff (%) | | | | |
| | | | | | | | | | | | | | | | | | |
| Deviation Surveys | | | | | | | | | | | | | | | | | |
| Date 10/28/2019 | | Description AS DRILL SURVEY | | | | | | | | | | Job ODR, 10/28/2019 10:00 | | | | | |
| | | | | | | | | | | | | | | | | | |
| Daily Drilling Report | | | | | | | | | | | | | | | | | |

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Printed: Monday, December 30, 2019

Daily Drilling Report

H & P #601

Release:
Days Since RI: 11.00

| | |
|--------------------------|----------------|
| Job: | ODR |
| Report Date: | 12/30/2019 |
| Report #: | 15 |
| DFS: | 13 |
| AFE #: | 9006758 |
| Total AFE + Sup: | \$3,098,502.34 |
| Daily Field Est. (Cost): | \$80,635.62 |

[illegible]