

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

API/UWI 42-461-39361-0000	Property Sub 927297-013	Operator PIONEER NATURAL RESRC USA, INC	State TEXAS	County UPTON
Field Name SPRABERRY (TREND AREA)		Surface Legal Location 2271' FSL/ 1217' FEL, SEC: 11, BLK: 3, AB: A-11U, SVY: UNIVERSITY LANDS		
Spud Date 7/21/2014	TD Date	Drilling Rig Release Date	Frac Date	On Production Date
Ground Elevation (ft) 2,709.00	Original KB Elevation (ft) 2,737.50	PBTD (All) (ftKB)	Total Depth (All) (ftKB) Original Hole - 1,115.0	Total Depth All (TVD) (ftKB) Original Hole - 1,114.6

**Report #: 1 Daily Operation: 7/20/2014 19:00 - 7/21/2014 06:00**

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 031389
Days From Spud (days) 0	Days on Location (days) 0	End Depth (ftKB) 207.0
	End Depth (TVD) (ftKB) 207.0	Dens Last Mud (lb/gal) 8.40
Rig PATTERSON - UTI, 245		

Operations Summary

Skid F/ University 3-14-14H to University 3-14-13H, rig up misc. Pick up directional BHA, spud F/ 146' to 207'.

Remarks

Rig (Patterson 245) & Well Progress: 20.00 days on location, .27 days since rig accepted on, .08 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 66.75 NPT hours for July.

Completion percentage: Surface- 6.58%, Intermediate- 0%, Curve- 0%, Lateral- 0%

Line Proximity: ' Above, ' Left of Plan #2

Estimated Pad Completion: 10/1/2014

**Time Log Summary**

Operation	Com	Dur (hr)
B_SKID	Skid rig F/University 3-14-14H to University 3-14-13H. Finish miscellaneous rigging up.  ? Rig accepted @ 23:30 hours 7-20-14.	4.5
B_SKID	Continue rigging up cellar pumps and running hoses, to shakers.	1
BHA_HAN DLING	Pick up 9 5/8" 6/7_4.0_0.15 rev/gal Mpack mud motor set @ 1.83°. MU XO bored for float, 17 1/4" stabilizer, NM pony collar, and UBHO sub. Scribe motor bend up to UBHO. MU tool carrier and install Pathfinder MWD tool. MU 17 1/2" Security SF65 dressed with 9/14's (1.353 tfa). Make up top monel and 1 joint 5" HWDP.  ? Tagged bottom @ 146.5' MD.	3
CIRC	Fill and flush conductor. Test cellar pumps.(ok)	0.5
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 61' @ 31'/Hr, 130 spm, 535 gpm, 854 spp, 486 diff, 35 top drive rpm, 80 motor rpm, 15 -20M#, 5 - 8k ft/lbs trq. Full returns to surface.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	2

**Report #: 2 Daily Operation: 7/21/2014 06:00 - 7/22/2014 06:00**

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 031389
Days From Spud (days) 1	Days on Location (days) 1	End Depth (ftKB) 1,115.0
	End Depth (TVD) (ftKB) 1,114.6	Dens Last Mud (lb/gal) 8.50
Rig PATTERSON - UTI, 245		

Operations Summary

Cont Drilling F/ 207' to 1,115'. Make wiper trip, circulate viscous sweep surface to surface. TOOH lay down directional assembly. Rig up casing crew run 13-3/8" surface casing f/ surface to 780'.

Remarks

Rig (Patterson 245) & Well Progress: 20.00 days on location, 1.27 days since rig accepted on, 1.08 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 66.75 NPT hours for July.

Completion percentage: Surface- 100%, Intermediate- 0%, Curve- 0%, Lateral- 0%

Line Proximity: ' Above, ' Left of Plan #2

Estimated Pad Completion: 10/1/2014

**Time Log Summary**

Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 98' @ 43.6'/Hr, 130 spm, 535 gpm, 854 spp, 486 diff, 80 top drive rpm, 80 motor rpm, 15 -20M#, 5 - 8k ft/lbs trq. Full returns to surface.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	2.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Time Log Summary		
Operation	Com	Dur (hr)
DRL_SLID E	Slide drill 17 1/2" Surface hole 12' @ 48 ft/hr, spm 130, spp 990, gpm 545 rpm 80, mmrpm 82, tq. 4k, wob 12, diff.260.{TF 160 mag.}	0.25
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 171' @ 114'/Hr, 130 spm, 535 gpm, 854 spp, 486 diff, 80 top drive rpm, 80 motor rpm, 15 -20M#, 5 - 8k ft/lbs trq. Full returns to surface.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	1.5
DRL_SLID E	Slide drill 17 1/2" Surface hole 15' @ 30 ft/hr, spm 130, spp 1000, gpm 545 rpm 80, mmrpm 82, tq. 4k, wob 12, diff.260.{TF 180 mag.}	0.5
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 77' @ 103'/Hr, 140 spm, 587 gpm, 1275 spp, 550 diff, 80 top drive rpm, 88 motor rpm, 15 -20M#, 5 - 13k ft/lbs trq. Full returns to surface.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	0.75
DRL_SLID E	Slide drill 17 1/2" Surface hole 15' @ 60 ft/hr, spm 160, spp 1250, gpm 670 rpm 80, mmrpm 100, tq. 4k, wob 12, diff.260.{TF 160 mag.}	0.25
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 263' @ 95.6'/Hr, 170 spm, 712 gpm, 1750 spp, 500 diff, 80 top drive rpm, 107 motor rpm, 15 -20M#, 5 - 13k ft/lbs trq. Full returns to surface.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	2.75
DRL_SLID E	Slide drill 17 1/2" Surface hole 10' @ 40 ft/hr, spm 160, spp 1450, gpm 670 rpm 80, mmrpm 100, tq. 4k, wob 12, diff.260.{TF 100 mag.}	0.25
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 76' @ 152'/Hr, 170 spm, 712 gpm, 1750 spp, 500 diff, 80 top drive rpm, 107 motor rpm, 15 -20M#, 5 - 13k ft/lbs trq. Full returns to surface.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	0.5
RIG_SVC	Service top drive, blocks, drawworks, crown.	1
DRL_ROT	Rotate Drill 17-1/2" Surface Hole 171' @ 114'/Hr, 170 spm, 712 gpm, 1750 spp, 500 diff, 80 top drive rpm, 107 motor rpm, 15 -20M#, 5 - 13k ft/lbs trq. Full returns to surface. { TD 17 1/2" Surface hole } pumped high vis sweep.  Note: Drop soap stick & polymer stick on every stand. Pumping 25 bbl viscous sweeps every stand to maintain clean hole. Taking a survey every 100'.	1.5
CIRC	Cirulate bottoms up for wiper trip	0.5
WTRIP	Make Wiper Trip up F/1,115' up to 207'. No tight hole seen throughout trip. Trip back to bottom @ 1,115' with full returns to surface. { Notified T.R.R.C 7/21/14 @ 18:15 talked with Alicia about surface cement job.}	1.5
CIRC	Circulate 50 bbl viscous sweep to clean hole for the 13 3/8" casing run.	0.5
TOOH	TOOH F/ 1,115' to 207'. (no overpulls)	1
BHA_HAN DLING	Pulled and racked 5" HWDP and 8" DCs in derrick. Laid down MWD, laid down bit and mud motor.	2.5
BHA_HAN DLING	Clean and clear rig floor.	0.5
SAFETY	Held PJSM with B&L casing crew. Rig up casing crew equipment.	1.5
CASE	Make up shoe track, pick up joint # 2 above float collar attempt to make up. (not successful) Lay out joint #2, (damaged threads) pick up joint #3. Adjust slips on rotary table and work top drive link tilts, attempting to make up joint. (Successful.) Ran centralizers on stop rings on shoe track, average make up torque 9k. Thread lock shoe track to top of float collar.	2.5
CASE	Ran 19 joints 13-3/8"OD, 54.5 PPF, J-55, BTC casing-OAL- 780' feet. shoe track 44.77'. Installed centralizers on every 4th joint. Full returns to surface.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Report #: 3 Daily Operation: 7/22/2014 06:00 - 7/22/2014 22:30

Job Category ORIG DRILLING		Primary Job Type ODR			AFE Number 031389
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
2	2	1,115.0	1,114.6	8.50	PATTERSON - UTI, 245

Operations Summary

Cont. running 13-3/8" surface casing F/ 780' t/ 1,115'. Circulate 1.5x casing capacity, rig up cementers and cement 13-3/8" surface casing. Make rough and final cut on casing, install A section well head, and abandonment cap. Prepare rig to skid to University 3-14-12H.

Remarks

Rig (Patterson 245) & Well Progress: 21.00 days on location, 1.95 days since rig accepted on, 1.76 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 66.75 NPT hours for July.

Completion percentage: Surface- 100%, Intermediate- 0%, Curve- 0%, Lateral- 0%

Line Proximity: ' Above, ' Left of Plan #2

Estimated Pad Completion: 10/1/2014

Time Log Summary

Operation	Com	Dur (hr)
CASE	Continue running 13-3/8" surface casing f/ 780' to 1,115'. Installed centralizers on every 4th joint up to 207'. Full returns to surface.  ? Torque BTC casing @10,000 ft/lbs making up to base of triangle.	1
CIRC	Rig up cement head, circulate 1.5x casing capacity @ 8 bpm, full returns throughout circulation.	2
CMT	Rig up Cementers witnessed loading of top plug. PJSM with Crest, Patterson, and PNR representative's on rig floor on cementing operations. Test lines to 3,500 psi, good test. Cemented 13-3/8" 54.5 ppf J-55 BTC Surface Casing as follows:  Water spacer: 40 bbls @ 8.33 lb/gal.  Lead Cement: 141 bbls 65/35 Poz C: 415 sks 12.8 ppg (93 lb/sk of Blend) of Lead Cement, Yield 1.91 ft <sup>3</sup> /sk, Mix water 9.40 gal/sk, Mix fluids 9.40 gal/sk with 6.0% Bentonite Gel, Sodium Chloride (Salt) 3.0%, Cellophane Flakes 0.25 lb/sx, Kol Seal 3.0 lb/sx. Start Lead @ 21:05 hrs on 7/9/2014  Tail Cement: 107 bbls Class C (Premium Plus): 345 sks 13.6 ppg (94 lb/sk of Blend) of class H Tail Cement, Yield 1.75 ft <sup>3</sup> /sk, Mix water 9.16 gal/sk, Mix fluid 9.16 with class H tail Cement 94.0 lb/sk, Calcium Chloride 2%, Cellophane Flakes 0.25 lb/sx, Bentonite Gel 4%. Start Tail @ 21:27 hrs on 7/9/2014.  PNR representative observed tattle tail leave cement head when pumping down top plug. Displaced with 161 bbls @ 8.33 lb/gal fresh water. Bump plug @ 11:06 hrs on 7/22/14 with 500 psi over final lift pressure of 390 psi (900 psi). Held pressure for 5 min, floats held. Released pressure @ 11:11 hrs, bled back 1 bbl.  Circulate cement back to surface after 100 bbls into displacement. Circulate total of 55 bbls of lead cement back to surface. (Had full returns during cement job.)  Cement fell back 4' in conductor. Rig up 1" pipe for top out cement.  Initial Lift pressure 320 psi @ 7 bpm, Final lift pressure 390 psi @ 2.5 bpm.  Pressures into displacement- 50 bbls- 7 bpm @ 320 psi, 100 bbls- 7.0 bpm @ 460 psi, 150 bbls- 2.5 bpm @ 360 psi, 161 bbls- 2.5 bpm @ 390 psi.  Top out Cement: 31 bbls Class H (Premium): 100 sks 16.4 ppg {94 lb/sk of blend } of class H tail cement, yield 1.75 ft <sup>3</sup> /sk, mix water 9.16 gal/sk, mix fluid 9.16 with class H tail cement 94.0 lb/sk Calcium Chloride 2%. Full returns during top out. Cement was static at surface. Rig down Crest Cementer's.	5.25
WLHEAD	Verifying A section well head position with drilling engineer, superintendent, and Seaboard rep. Cut off conductor, perform rough cut on 13-3/8" Surface casing. Rig down cellar pumps. Make final cut on 13-3/8" 37" below ground level, measurement confirmed by PNR representative, welder, and Seaboard representative. Preheated wellhead to 350°. Weld wellhead on casing and test to 565 psi, (half of casing collapse), test was good.	7.25
WLHEAD	Install abandonment cap on the University 3-14-13H. Prepare rig to skid to the University 3-14-12H.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

**Report #: 4 Daily Operation: 8/11/2014 06:00 - 8/12/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
22	3	1,115.0	1,114.6	8.70	PATTERSON - UTI, 245			

Operations Summary  
Walk rig from University 3-14-12H to the University 3-14-13H. Nipple up B.O.P.E. PJSM with Tester. Rig up and test all B.O.P.E and back to the pumps. Annular failed test. Rig down flowline and bell nipple. Replace annular element and retest.

Remarks  
Rig (Patterson 245) & Well Progress: 35.00 days on location, 0 days since rig accepted on, 2.76 days since spud. Rig move day's 6.00

Rig NPT: 6.25 hours for previous 24 hours. 9.5 NPT hours for August.

Completion percentage: Surface- 100%, Intermediate- 0%, Curve- 0%, Lateral- 0%

Line Proximity: ' Above, ' Left of Plan #2

Estimated Pad Completion: 9/4/2014

**Time Log Summary**

Operation	Com	Dur (hr)
B_SKID	Walk rig from University 3-14 #12H back to University 3-14 #13H. PNR Rep, Tool Pusher and Driller verify rig is center and level over hole. R/U catwalk, mud lines.	2.5
NU_TEST	Install spool, d.s.a., set B.O.P.'s and torque same. Install flow line, turnbuckles, remove bells and elevators.	5.5
NU_TEST	Held PJSM, R/U Monahans tester and test the blinds, upper and lower pipe rams, HCR and choke manifold to 250 psi low/3000 psi high. Annular high test failed. Wash out annular and retest. (failed). Continued testing the Full open safety valve, Dart Valve and I-Bop to 250 psi low/ 3000 psi high. Tested standpipe back to the pumps to 4500 psi.	8.25
TST_DO_FIT	Test 13 3/8" casing to 1000 psi for 30 minutes. Rig down tester	1
U_RIG	Rig down flowline and remove bell nipple from the top of the annular. Unbolt annular top and remove bad element, replace same. Pick up 1 joint of drill pipe and function test annular.	6.25
U_RIG	Retest the annular to 250 psi low and 3000 psi high	0.5

**Report #: 5 Daily Operation: 8/12/2014 06:00 - 8/13/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
23	4	2,836.0	2,835.4	8.70	PATTERSON - UTI, 245			

Operations Summary  
RD BOP Tester. Re-Install bell nipple, flowline, kill line and centered stack. Install wear bushing under PNR supervision. Rig Service. LD 2 NMDC's and stabilizer. PU directional assembly and 24 joints of HWDP. TIH Tag cement at 1,052'. Raise flowline and retighten leaking dresser sleeve. Drill plug, float, shoe track and shoe. Drill 10' of new formation circulate and perform FIT. Trouble shoot MWD. Rotate Drill Vertical Production Section F/ 1,115' to 2,836'

Remarks  
Rig (Patterson 245) & Well Progress: 35.00 days on location, 2.0 days since rig accepted on, 3.76 days since spud. Rig move day's 6.00

Rig NPT: 0.75 hours for previous 24 hours. 10.25 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 25%, Curve- 0%, Lateral- 0%

Line Proximity: 11' Ahead, 3.5' Left of Plan #3

Estimated Pad Completion: 9/6/2014

**Time Log Summary**

Operation	Com	Dur (hr)
NU/ND BOP	R/D Monahan's Tester	0.5
NU_TEST	Re-Install bell nipple, flow line, turn buckles, kill line, center stack.	2.5
WEARBUS HING	P/U joint of drill pipe, Install short wear bushing with single latch elevators. lock down same. L/D joint drill pipe. Witnessed by PNR Rep., Driller, Tool Pusher.	1
RIG_SVC	Service top drive, blocks, draw works, crown.	1
BHA_HAN DLING	L/D 2- NMDC's, float sub, stabilizer.	1.5
BHA_HAN DLING	P/U Directional B.H.A. M/U mud motor, stabilizer, float sub, pwd, nmDC's, scribe and test same. M/U bit.	4
D_PIPE	P/U 24 joints 5" H.W.D.P. and TIH tagged cement @ 1,052'	2.25
U_RIG_OTR	Raise flowline and retighten all bolts on dresser sleeve to stop leak.	0.75
DRLCMT	Drilled the plug at 30 rpms and 500 gpm. Increased WOB in 3M# increments up to 15M# while increasing rpm to 60. Drilled float collar and back reamed through the float and plug. Drilled the remainder of the shoe track and shoe.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Time Log Summary		
Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 10' @ 55 Ft/Hr, 15 k Wob, 50 Rpm surface 153 mm rpm, 546 Gpm, 133 Spm, 1950 Spp, 600 Diff, Trq 6K	0.25
CIRC	Circulate until achieving a uniform mud weight of 8.7 ppg throughout active system.	0.5
TST_DO_FIT	Performed LOT @ 8.7 OMW up to 152 psi. Max EMW= 11.33 ppg	0.25
U_LOG	Troubleshoot MWD tool. No signal, changed settings on program. Recieved good signal	0.25
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 1,721' @ 197 Ft/Hr, 15 k Wob, 100 Rpm surface 153 mm rpm, 546 Gpm, 133 Spm, 2300 Spp, 600-700 Diff, Trq 6-10K	8.75

**Report #: 6 Daily Operation: 8/13/2014 06:00 - 8/14/2014 06:00**

Job Category ORIG DRILLING		Primary Job Type ODR		AFE Number 031389	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
24	5	5,500.0	5,496.1	8.70	PATTERSON - UTI, 245

Operations Summary  
Rotate/Slide drill 8 3/4" Vertical Production Section F/ 2,836' to 3,788'. Service rig and top drive. Rotate/Slide drill 8 3/4" Vertical Section F/ 3,788' to 5,500'.

Remarks  
Rig (Patterson 245) & Well Progress: 36.00 days on location, 3.0 days since rig accepted on, 4.76 days since spud. Rig move day's 6.00  
Rig NPT: 0 hours for previous 24 hours. 10.25 NPT hours for August.  
Completion percentage: Surface- 100%, Vertical- 64%, Curve- 0%, Lateral- 0%  
Line Proximity: 2.4' Above, 1.7' Left of Plan #3  
Estimated Pad Completion: 9/6/2014

Time Log Summary		
Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 381' @ 152.4 Ft/Hr, 15/25 k Wob, 95 Rpm surface 135 mm rpm, 482 Gpm, 115 Spm, 2200 Spp, 650/750 Diff, Trq 8K Full Returns to surface.	2.5
U_MWD	Pathfinder - Re-boot rig floor display.	0.25
DRL_SLIDE	Slide / Drill 8 3/4" Vertical Production Section: 20' @ 80 ft/hr. 10 wob, 250 Diff., 135 MMrpm, 482 gpm, 115 spm, 1690 spp {TF 230M}	0.25
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 551' @ 147 Ft/Hr, 20/30 k Wob, 95 Rpm surface 141 mm rpm, 503 Gpm, 120 Spm, 2250 Spp, 650/750 Diff, Trq 8K Full Returns to surface. ECD increased 9.4 ppg	3.75
RIG_SVC	Service Top Drive, drawworks, crown. Visually Inspect derrick for any loose items. { After servicing top drive packing circulated to bring down ECD's while finishing rig service @ 100 spm 1250 spp.}	1
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 95' @ 127 Ft/Hr, 20/30 k Wob, 95 Rpm surface 141 mm rpm, 503 Gpm, 120 Spm, 2250 Spp, 650/750 Diff, Trq 8K Full Returns to surface. ECD 9.1 ppg	0.75
DRL_SLIDE	Slide / Drill 8 3/4" Vertical Production Section: 20' @ 40 ft/hr. 10 wob, 250 Diff., 135 MMrpm, 482 gpm, 115 spm, 1690 spp {TF 200M}	0.5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 645' @ 152 Ft/Hr, 25/32 k Wob, 95 Rpm surface 155 mm rpm, 555 Gpm, 135 Spm, 2350 Spp, 650/750 Diff, Trq 8K Full Returns to surface. ECD 9.1 ppg - 9.3 ppg	4.25
DRL_SLIDE	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 40 ft/hr. 10 wob, 750 Diff., 155 MMrpm, 555 gpm, 135 spm, 1820 spp {TF 190M}	0.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 65' @ 260 Ft/Hr, 30/32 k Wob, 95 Rpm surface 155 mm rpm, 555 Gpm, 135 Spm, 2350 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.1 ppg - 9.3 ppg	0.25
DRL_SLIDE	Slide / Drill 8 3/4" Vertical Production Section: 35' @ 47 ft/hr. 12 wob, 750 Diff., 155 MMrpm, 555 gpm, 135 spm, 2275 spp {TF 200M}	0.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 60' @ 120 Ft/Hr, 30/32 k Wob, 95 Rpm surface 155 mm rpm, 555 Gpm, 135 Spm, 2350 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.1 ppg - 9.3 ppg	0.5
DRL_SLIDE	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 60 ft/hr. 12 wob, 750 Diff., 155 MMrpm, 555 gpm, 135 spm, 2275 spp {TF 190M}	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Time Log Summary		
Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 256' @ 205 Ft/Hr, 30/32 k Wob, 95 Rpm surface 155 mm rpm, 555 Gpm, 135 Spm, 2350 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.4 ppg - 9.48 ppg	1.25
CIRC	Circulate and perform cleanup cycle to reduce ECD of 9.48 ppg  ? After clean up cycle ECD = 9.21 ppg	1
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 190' @ 108' Ft/Hr, 30/32 k Wob, 95 Rpm surface 141 mm rpm, 502 Gpm, 120 Spm, 2350 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.1 ppg - 9.26 ppg	1.75
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 25' @ 33 ft/hr. 12 wob, 750 Diff., 140 MMrpm, 502 gpm, 104 spm, 2100 spp {TF 190M}	0.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 70' @ 140' Ft/Hr, 30/32 k Wob, 95 Rpm surface 122 mm rpm, 435 Gpm, 104 Spm, 2151 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.1 ppg - 9.3 ppg	0.5
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 40 ft/hr. 12 wob, 750 Diff., 122 MMrpm, 435 gpm, 104 spm, 2100 spp {TF 160M}	0.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 65' @ 130' Ft/Hr, 30/32 k Wob, 95 Rpm surface 122 mm rpm, 435 Gpm, 104 Spm, 2151 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.2 ppg - 9.3 ppg	0.5
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 31' @ 41 ft/hr. 12 wob, 750 Diff., 122 MMrpm, 435 gpm, 104 spm, 2100 spp {TF 160M}	0.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 65' @ 87' Ft/Hr, 30/32 k Wob, 95 Rpm surface 122 mm rpm, 435 Gpm, 104 Spm, 2151 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.2 ppg - 9.3 ppg	0.75

**Report #: 7 Daily Operation: 8/14/2014 06:00 - 8/15/2014 06:00**

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 031389
Days From Spud (days) 25	Days on Location (days) 6	End Depth (ftKB) 6,732.0
End Depth (TVD) (ftKB) 6,723.1	Dens Last Mud (lb/gal) 8.60	Rig PATTERSON - UTI, 245

**Operations Summary**  
Rotate/Slide Drilling 8 3/4" Vertical Production Section f/ 5,500' - t/ 6,732'. Performed rig service. Current operation, replacing wear plate on #1 mud pump.

**Remarks**  
Rig (Patterson 245) & Well Progress: 37.00 days on location, 4.0 days since rig accepted on, 5.76 days since spud. Rig move day's 6.00

Rig NPT: 3.25 hours for previous 24 hours. 13.5 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 82%, Curve- 0%, Lateral- 0%

Line Proximity: 6' Ahead, 3' Right of Plan #3

Estimated Pad Completion: 9/6/2014

Time Log Summary		
Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 110' @ 88' Ft/Hr, 30/32 k Wob, 95 Rpm surface 141 mm rpm, 503 Gpm, 120 Spm, 2100 Spp, 650/750 Diff, Trq 8-10K Full Returns to surface. ECD 9.3 ppg - 9.4 ppg	1.25
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 20' @ 40 ft/hr. 17 wob, 250 Diff., 141 MMrpm, 503 gpm, 104 spm, 2025 spp {TF 10L}	0.5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section @ 128' Ft/Hr, 28/30 k Wob, 95 Rpm surface 152 mm rpm, 545 Gpm, 130 Spm, 2600 Spp, 750 Diff, Trq 8-10K Full Returns to surface. ECD 9.4 ppg - 9.5 ppg	1
CIRC	Perform clean up cycle to reduce ECD's that climbed to 9.5 ppg. Shakers clean ECD's down to 9.3 ppg after circulation.	2
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 36' @ 72' Ft/Hr, 25/30 k Wob, 95 Rpm surface 152 mm rpm, 545 Gpm, 130 Spm, 2600 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.3 ppg Reduced ROP setting to 250 ft/hr to control ECD	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Time Log Summary		
Operation	Com	Dur (hr)
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 20' @ 40 ft/hr. 17 wob, 250 Diff., 141 MMrpm, 503 gpm, 120 spm, 2300 spp {TF 20L} ECD 9.35 ppg	0.5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 59' @ 79' Ft/Hr, 25/30 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2800 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.34 ppg	0.75
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 15' @ 30 ft/hr. 17 wob, 250 Diff., 141 MMrpm, 503 gpm, 120 spm, 2400 spp {TF HS} ECD 9.34 ppg	0.5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 59' @ 79' Ft/Hr, 25/30 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2800 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.4 - 9.5 ppg Reduced ROP setting to 175 ft/hr to help control ECD's	0.75
RIG_SVC	Service top drive, drawworks, crown. { circ. while rig service ECD's down to 9.2 ppg }	1
U_RIG	Change dies in grabber on top drive.	0.25
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 187' @ 75 Ft/Hr, 25/28 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2800 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.34 - 9.43 ppg Reduced ROP setting to 125 ft/hr to help control ECD	2.5
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 30 ft/hr. 17 wob, 225 Diff., 160 MMrpm, 570 gpm, 136 spm, 2560 spp {TF 15L} ECD 9.36 ppg	1
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 263' @ 88 Ft/Hr, 25/28 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2800 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.28 - 9.41 ppg Reduced ROP setting to 125 ft/hr to help control ECD	3
U_RIG	Liner spray pumps lost prime after changing water in duck pond on # 1 and # 2 mud pump. Reset breakers in VFD, re-prime both liner spray pumps.	0.5
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 24 ft/hr. 17 wob, 225 Diff., 160 MMrpm, 570 gpm, 136 spm, 2560 spp {TF 20L} ECD 9.33 ppg	1.25
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 161' @ 81 Ft/Hr, 25/28 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2800 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.2 - 9.3 ppg Reduced ROP setting to 125 ft/hr to help control ECD	2
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 17 ft/hr. 18 wob, 225 Diff., 160 MMrpm, 570 gpm, 136 spm, 2560 spp {TF 30L} ECD 9.21 ppg	1.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 57' @ 114 Ft/Hr, 25/28 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2800 Spp, 600 Diff, Trq 8-10K Full Returns to surface. ECD 9.2 - 9.3 ppg Reduced ROP setting to 125 ft/hr to help control ECD	0.5
U_RIG	Circulate and reciprocate pipe while changing out wear plate on # 1 mud pump. 418 Gpm, 100 Spm, 1450 Spp, 40 rpm. Full returns to surface. ECD 9.13 ppg.  ? Waiting on mechanic, to bring wear plate puller.	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

**Report #: 8 Daily Operation: 8/15/2014 06:00 - 8/16/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
26	7	7,800.0	7,788.8	8.70	PATTERSON - UTI, 245			

Operations Summary  
 Rotate/Slide Drilling 8 3/4" Vertical Production Section f/ 6,732' to 7,800'. Starting seeping mud @ 7637' total mud lost 253 bbls. Perform clean up cycle, TOO H for curve lateral assembly.

Remarks  
 Rig (Patterson 245) & Well Progress: 38.00 days on location, 5.0 days since rig accepted on, 6.76 days since spud. Rig move day's 6.00

Rig NPT: .25 hours for previous 24 hours. 13.75 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 100%, Curve- 0%, Lateral- 0%

Line Proximity: 20' Below, 7.5' Right of Plan #3

Estimated Pad Completion: 9/6/2014

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG	Circulate and reciprocate pipe while changing out wear plate on # 1 mud pump. 418 Gpm, 100 Spm, 1450 Spp, 40 rpm. Full returns to surface. ECD 9.13 ppg.  ? Waiting on mechanic, to bring wear plate puller.	0.25
SRVY	Re-Cycle pump, obtain mwd survey	0.25
DRL_SLID E	Slide / Drill 8 3/4" Vertical Production Section: 30' @ 20 ft/hr. 12 wob, 250 Diff., 129 MMrpm, 461 gpm, 110 spm, 2235 spp {TF 10L} ECD 9.1 - 9.21 ppg	1.5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 439' @ 88 Ft/Hr, 20/23 k Wob, 95 Rpm surface 129 mm rpm, 461 Gpm, 110 Spm, 2235 Spp, 425/450 Diff, Trq 8-10K Full Returns to surface. ECD 9.34 ppg ROP setting @ 125 ft/hr to help control ECD	5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 201' @ 80.4 Ft/Hr, 25/28 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2950 Spp, 450 Diff, Trq 8-10K Full Returns to surface. ECD 9.3 - 9.4 ppg ROP setting @ 125 ft/hr to help control ECD	2.5
RIG_SVC	Service Top Drive	0.5
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 247' @ 89 Ft/Hr, 25 k Wob, 95 Rpm surface 160 mm rpm, 570 Gpm, 136 Spm, 2950 Spp, 450 Diff, Trq 8-10K. ECD 9.2 - 9.3 ppg ROP setting @ 125 ft/hr to help control ECD  ? Starting to lose partial returns @ 7649', ECD 9.31. Lost total of 95 bbls OBM.	2.75
DRL_ROT	Rotate Drill 8 3/4" Vertical Production Section 151' @ 50' Ft/Hr, 20 k Wob, 95 Rpm surface 140 mm rpm, 443-502 Gpm, 120 Spm, 2300 Spp, 450 Diff, Trq 8-10K. ECD 9.2 - 9.3 ppg ROP setting @ 80 ft/hr to help control ECD  ? Still losing partial returns. Pump total of 3 LCM sweeps, @ 10 PPB. 6 Mica fine, 6 Nut plug fine, 6 Hubbercarb 200 medium. Lost total of 98 bbls OBM.	3
CIRC	Perform Clean up cycle, circulate bottoms up 2x reciprocation pipe 90'. Rack back one stand between circulations. Gpm 443, Spp 1650, Rpm surface 95. ECD 9.0 - 9.24 ppg.  ? Lost total 30 bbls OBM.	2
TOOH	TOOH F/ 7,800' to 6,450' monitoring hole with trip tank. Hole seeped total of 10 bbls more than calculated fill.	1.75
CIRC	Circulate and reciprocate drill string 90' while transferring OBM from frac tank to slug pit to cut mud weight back to 8.7 ppg to blend into active system for volume. ( Due to waiting on mechanic to repair transfer pump for OBM ). 188 Gpm, 500 Spp, Rpm surface 45. ECD 9.0 ppg.  ? Lost total of 20 bbls OBM while circulating.	1.5
TOOH	TOOH F/ 6,450' to 3,300' SLM, monitoring hole on trip tanks. Hole taking proper fill.  ? Monitor hole with trip tanks @ 5,600' 10 minutes well static. ? TOO H wet hole taking proper fill.	3

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

**Report #: 9 Daily Operation: 8/16/2014 06:00 - 8/17/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
27	8	7,900.0	7,888.6	8.70	PATTERSON - UTI, 245			

**Operations Summary**  
Continue TOOH F/ 3300' to surface. Laydown 5" HWDP, and 8 3/4" directional assembly. Pull inspect, re-install wear bushing.(ok) Perform BOP function test. (Good Test) Service rig and top drive. Pick up 8 1/2" curve lateral assembly, TIH to 7,800' 50'/min running speed, hole displacing properly into trip tank. Drill 8.5" vertical hole section F/ 7,800' to 7,850'. Slide 8.5" curve section f/ 7,850' to 7,900'.

**Remarks**  
Rig (Patterson 245) & Well Progress: 39.00 days on location, 6.0 days since rig accepted on, 7.76 days since spud. Rig move day's 6.00  
  
Rig NPT: .5 hours for previous 24 hours. 14.25 NPT hours for August.  
  
Completion percentage: Surface- 100%, Vertical- 100%, Curve- 10%, Lateral- 0%  
  
Line Proximity: 30' Ahead, 4' Right of Plan #4  
  
Estimated Pad Completion: 9/6/2014

**Time Log Summary**

Operation	Com	Dur (hr)
TOOH	Continue TOOH F/ 3,300' to 840', SLM, monitoring hole on trip tank. Hole taking proper fill.	3.25
BHA_HAN DLING	Laid down 5" HWDP. Wet string.	2.5
BHA_HAN DLING	Drain motor, break bit #2, pull MWD/PWD and lay down directional assembly.	2.25
WEARBUS HING	Pull, inspect, re-install wear bushing. {No wear} Engage lock pins (Witnessed by Pioneer Rep) Pick up wash sub and wash out well head. Function test BOP (OK)	2
U_RIG	While laying down joint of d.p. that was used to pull wear bushing, the derrick hand who was running the skate on the pipe wrangler did not slack it off while joint was being layed down. Assistant driller (Running Rig) hit the skate, causing the pipe to shoot up in the elevators, bending the joint of drill pipe. Inspected all equipment. (No damages)	0.5
BHA_HAN DLING	Clean and clear rig floor.	0.5
RIG_SVC	Service Rig and Top Drive.	1
BHA_HAN DLING	Pick up directional BHA. PU Mpac 6 5/8" Mud Motor 7/8 Lobe 6.4 Stage .28 rev/gal fixed housing set @ 1.83°. PU stabilizer, float sub, PWD sub, & NMDC. Scribe from bend up to PWD sub. Install MWD tool. Shallow test directional tools. (Test Good). Make up Security MM55DM bit #3.	3
TIH	Trip in hole F/ 103' to 7,800' filling pipe every 2,500'. Trip speed set at 50'/min, taking returns in trip tank, hole giving proper displacement.  ? Broke circulation @ 5,900' full returns to surface.	6.5
DRL_ROT	Rotate Drill 8 1/2" Vertical Production Section 50' @ 75' Ft/Hr, 20 k Wob, 95 Rpm surface 147 mm rpm, 527 Gpm, 126 Spm, 2290 Spp, 350 Diff, Trq 8-10K. Full returns to surface. ECD 9.2 - 9.27ppg ROP setting @ 110 ft/hr to help control ECD  ? Pumped 25 BBL/20PPB tiger bullets at 7,800'. Observed no losses.	1.5
DRL_SLID E	Slide Drill 8.5" Curve f/ 7,850' to 7,900' 50' @ 50 ft/Hr, 10-12 k wob, 350 diff, 147 motor rpm, 527 gpm, 126 spm, 2270 spp, TFO-360 MTF, Full returns to surface ECD - 9.26 PPG	1

**Report #: 10 Daily Operation: 8/17/2014 06:00 - 8/18/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
28	9	8,984.0	8,463.6	8.70	PATTERSON - UTI, 245			

**Operations Summary**  
Cont. Rotate/Slide Drill 8 1/2" Curve f/ 7,900' to 8,889'. Rotate/Slide Drill 8 1/2" Lateral Section F/ 8,889' to 8,984'. Service rig and topdrive. Circulate as needed to lower ECD's.

**Remarks**  
Rig (Patterson 245) & Well Progress: 40.00 days on location, 7.0 days since rig accepted on, 8.76 days since spud. Rig move day's 6.00  
  
Rig NPT: 0 hours for previous 24 hours. 14.25 NPT hours for August.  
  
Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 3%  
  
Line Proximity: 8' Ahead, 37' Left of Plan #5  
  
Estimated Pad Completion: 9/6/2014

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Time Log Summary		
Operation	Com	Dur (hr)
DRL_SLID E	Slide Drill 8.5" Production Curve Section 96' @ 64 ft/Hr, 28 k wob, 450 diff, 148 motor rpm, 528 gpm, 126 spm, 2400 spp, {TF HS}, Full returns to surface ECD - 9.23 PPG	1.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 15' @ 60' Ft/Hr, 18 k Wob, 30 Rpm surface 148 mm rpm, 528 Gpm, 126 Spm, 2350 Spp, 500 Diff,Trq 6K. Full returns to surface. ECD 9.16 - 9.22 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 41 ft/Hr, 28 k wob, 450 diff, 148 motor rpm, 528 gpm, 126 spm, 2400 spp, Tq. 2k {TF HS}, Full returns to surface ECD - 9.17 PPG	1
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 10' @ 40' Ft/Hr, 18 k Wob, 30 Rpm surface 148 mm rpm, 528 Gpm, 126 Spm, 2350 Spp, 500 Diff,Trq 6K. Full returns to surface. ECD 9.16 - 9.22 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 29' @ 58 ft/Hr, 25 k wob, 450 diff, 148 motor rpm, 528 gpm, 126 spm, 2400 spp, Tq. 2k {TF HS}, Full returns to surface ECD - 9.17 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 25' @ 50' Ft/Hr, 18 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2425 Spp, 500 Diff,Trq 6K. Full returns to surface. ECD 9.16 ppg	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 22' @ 88 ft/Hr, 25 k wob, 450/500 diff, 153 motor rpm, 545 gpm, 130 spm, 2450 spp, Tq. 2k {TF 15R}, Full returns to surface ECD - 9.17 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 25' @ 100' Ft/Hr, 35 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2600 Spp, 650 Diff,Trq 6K. Full returns to surface. ECD 9.16 - 9.22 ppg	0.25
DRL_ROT	Slide Drill 8.5" Production Curve Section 23' @ 46 ft/Hr, 25 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2400 spp, Tq. 2k {TF 15R}, Full returns to surface ECD - 9.18 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 40' Ft/Hr, 25 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2500 Spp, 650 Diff,Trq 6K. Full returns to surface. ECD 9.18 ppg	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 27' @ 108 ft/Hr, 30 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2350 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.16 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 80' Ft/Hr, 25/30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2550 Spp, 650 Diff,Trq 6K. Full returns to surface. ECD 9.17 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 33' @ 66 ft/Hr, 30 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2350 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.16 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 15' @ 30' Ft/Hr, 25/30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2550 Spp, 650 Diff,Trq 6K. Full returns to surface. ECD 9.17 ppg	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 27' @ 54 ft/Hr, 30 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2400 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.19 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 80' Ft/Hr, 25/32 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2665 Spp, 500 Diff,Trq 6K. Full returns to surface. ECD 9.17 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 28' @ 112 ft/Hr, 20 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2400 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.19 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 25' @ 50' Ft/Hr, 33 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2665 Spp, 525 Diff,Trq 10K. Full returns to surface. ECD 9.19 ppg	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 22' @ 88 ft/Hr, 20 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2400 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.19 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 27' @ 108 Ft/Hr, 33 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2600 Spp, 525 Diff,Trq 8K. Full returns to surface. ECD 9.19 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 4' @ 16 ft/Hr, 22 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2400 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.19 PPG	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Time Log Summary		
Operation	Com	Dur (hr)
U_MTR	Trouble shoot rig floor display, change out same. {ok} Circulated and worked pipe @ 30 rpm, 130 spm, 545 gpm.	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 17' @ 34 ft/Hr, 20 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2400 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.32 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 80 Ft/Hr, 25 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2600 Spp, 500 Diff,Trq 8K. Full returns to surface. ECD 9.25 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 27' @ 108 ft/Hr, 22 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2450 spp, Tq. 2k {TF 30R}, Full returns to surface ECD - 9.26 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 40 Ft/Hr, 30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ECD 9.3 - 9.45 ppg	0.5
CIRC	Circulate and work drill string to lower ECD's. 130 spm, 545 gpm. 30 rpm. 2075 spp. ECD 9.41 - 9.25	0.75
DRL_SLID E	Slide Drill 8.5" Production Curve Section 29' @ 20 ft/Hr, 22 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2450 spp, Tq. 2k {TF 360M}, Full returns to surface ECD - 9.28 PPG	1.5
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 80 Ft/Hr, 30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ECD 9.24 - 9.33 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Curve Section 60' @ 60 ft/Hr, 22 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2450 spp, Tq. 2k {TF 20 R}, Full returns to surface ECD - 9.28 - 9.34 PPG	1
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 25' @ 50 Ft/Hr, 30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ECD 9.24 - 9.36 ppg	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 70' @ 70 ft/Hr, 22 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2450 spp, Tq. 2k {TF 360M }, Full returns to surface ECD - 9.28 - 9.38 PPG	1
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 15' @ 60 Ft/Hr, 30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ECD 9.3 - 9.4 ppg	0.25
RIG_SVC	Service rig and top drive. Circulate to lower ECD's. 130 spm, 545 gpm. 30 rpm. 2100 spp. ECD 9.40 - 9.23	1
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 40 Ft/Hr, 30 k Wob, 30 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ECD 9.24 - 9.36 ppg	0.5
DRL_SLID E	Slide Drill 8.5" Production Curve Section 40' @ 53 ft/Hr, 22 k wob, 450 diff, 153 motor rpm, 545 gpm, 130 spm, 2450 spp, Tq. 2k {TF 360 M }, Full returns to surface ECD - 9.3 - 9.38 PPG	0.75
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 94' @ 75 Ft/Hr, 20 k Wob, 90 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ROP set on 110/hr to help maintain ECD. ECD 9.3 - 9.47 ppg  ? Curve Landed @ 01:45 8/18/14 - 8,889' MD, 8,462' TVD, 88.81 Inc. 1.85 AZ.	1.25
CIRC	Circulate and work drill string to lower ECD's. 130 spm, 545 gpm. 30 rpm. 2148 spp. ECD 9.47 - 9.24 ppg.	0.75
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 53' @ 53 Ft/Hr, 20 k Wob, 90 Rpm surface 153 mm rpm, 545 Gpm, 130 Spm, 2660 Spp, 500 Diff,Trq 8K. Full returns to surface. ROP set on 90/hr to help maintain ECD. ECD 9.24 - 9.44 ppg	1
CIRC	Perform clean up cycle to lower ECD's. Circulate while reciprocating pipe 90', 130 spm, 545 gpm, 30 rpm. 2100 spp. ECD 9.44 - 9.26 ppg	2
DRL_ROT	Rotate Drill 8 1/2" Production Curve Section 20' @ 80 Ft/Hr, 20 k Wob, 90 Rpm surface 153 mm rpm, 570 Gpm, 136 Spm, 2660 Spp, 300 Diff,Trq 8K. Full returns to surface. ROP set on 50/hr to help maintain ECD. ECD 9.21 - 9.3 ppg	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Report #: 11 Daily Operation: 8/18/2014 06:00 - 8/19/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
29	10	11,230.0	8,459.0	8.80	PATTERSON - UTI, 245			

Operations Summary  
Cont. Rotate/Slide Drill 8 1/2" Lateral Section F/ 8,984' to 11,230'. Service rig and top drive. Circulate as needed to lower ECD's.

Remarks  
Rig (Patterson 245) & Well Progress: 41.00 days on location, 8.0 days since rig accepted on, 9.76 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 14.25 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 30.39%

Line Proximity: 5.4' Above, 9.7' Left of Plan #5

Estimated Pad Completion: 9/6/2014

### Time Log Summary

Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 171' @ 47 Ft/Hr, 25 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2850 Spp, 550 Diff, Trq 8K. Full returns to surface. ROP set on 50'/hr to help maintain ECD. @9090' increased rop setting to 200 ft/hr. No Losses. ECD 9.28 - 9.47 ppg	3.75
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 20' @ 80 ft/Hr, 20 k wob, 250 diff, 162 motor rpm, 545 gpm, 138 spm, 2625 spp, Tq. 2k {TF 30L }, Full returns to surface. No Losseses ECD - 9.4 - 9.5 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 265' @ 133 Ft/Hr, 25 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2850 Spp, 600 Diff, Trq 8K. Full returns to surface. ROP setting @ 225 ft/hr. No Losses ECD 9.4 - 9.58 ppg	2
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 20' @ 40 ft/Hr, 20 k wob, 250 diff, 162 motor rpm, 545 gpm, 138 spm, 2625 spp, Tq. 2k {TF 30L }, Full returns to surface. No Losseses ECD - 9.4 - 9.57 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 344' @ 138 Ft/Hr, 32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2950 Spp, 650 Diff, Trq 8/10K. Full returns to surface. ROP setting @ 215 ft/hr. No losses. ECD 9.48 - 9.6 ppg	2.5
RIG_SVC	Service top drive, blocks, drawworks, crown. check lights in derrick, and weekly top drive inspection.	1
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 390' @ 120 Ft/Hr, 32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2950 Spp, 650 Diff, Trq 8/10K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.6 - 9.72 ppg	3.25
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 21' @ 42 ft/Hr, 20 k wob, 250 diff, 162 motor rpm, 545 gpm, 138 spm, 2950 spp, Tq. 2k {TF 140 L }, Full returns to surface. No Losseses ECD - 9.6 - 9.72 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 265' @ 106 Ft/Hr, 32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2950 Spp, 650 Diff, Trq 8/10K. Full returns to surface. ROP setting @ 150 ft/hr. No losses. ECD 9.68 - 9.75 ppg	2.5
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 15' @ 60 ft/Hr, 20 k wob, 250 diff, 162 motor rpm, 545 gpm, 138 spm, 2950 spp, Tq. 2k {TF 140 L }, Full returns to surface. No Losseses ECD - 9.68 - 9.74 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 80' @ 106 Ft/Hr, 32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2980 Spp, 650 Diff, Trq 8/10K. Full returns to surface. ROP setting @ 150 ft/hr. No losses. ECD 9.68 - 9.75 ppg	0.75
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 15' @ 60 ft/Hr, 20 k wob, 250 diff, 162 motor rpm, 545 gpm, 138 spm, 2950 spp, Tq. 2k {TF 140 L }, Full returns to surface. No Losseses ECD - 9.68 - 9.74 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 640' @ 98 Ft/Hr, 32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 2880 Spp, 650 Diff, Trq 8/10K. Full returns to surface. ROP setting @ 110 ft/hr. No losses. ECD 9.7 - 9.8 ppg	6.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Report #: 12 Daily Operation: 8/19/2014 06:00 - 8/20/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
30	11	13,419.0	8,465.1	8.90	PATTERSON - UTI, 245			

Operations Summary

Continue Rotate/Slide Drill 8 1/2" Lateral Section F/ 11,230' to 13,419'. Service rig and top drive.

Remarks

Rig (Patterson 245) & Well Progress: 42.00 days on location, 9.0 days since rig accepted on, 10.76 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 14.25 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 58%

Line Proximity: 2' Below, 23' Right of Plan #5

Estimated Pad Completion: 9/6/2014

Time Log Summary

Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 110' @ 63 Ft/Hr, 25 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3020 Spp, 500 Diff,Trq 8/10K. Full returns to surface. ROP setting @ 110 ft/hr. No losses. ECD 9.7 - 9.8 ppg	1.75
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 20' @ 40 ft/Hr, 35 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 2900 spp, Tq. 2k {TF 135 R }, Full returns to surface. No Losseses ECD - 9.64 - 9.8 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 175' @ 100 Ft/Hr, 35 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3150 Spp, 600 Diff,Trq 10/13K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.7 - 9.82 ppg	1.75
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 15' @ 20 ft/Hr, 35 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 2900 spp, Tq. 2k {TF 160 R }, Full returns to surface. No Losseses ECD - 9.64 - 9.8 PPG	0.75
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 460' @ 122.7 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3225 Spp, 600 Diff,Trq 10/13K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.74 ppg	3.75
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 20' @ 40 ft/Hr, 35 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 2950 spp, Tq. 2k {TF 135 L }, Full returns to surface. No Losseses ECD - 9.72PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 152' @ 121 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3225 Spp, 600 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.89 - 9.92 ppg	1.25
RIG_SVC	Service top drive, drawworks, crown.	1
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 18' @ 72 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3225 Spp, 600 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.89 - 9.95 ppg	0.25
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 15' @ 60 ft/Hr, 35 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 2950 spp, Tq. 2k {TF 136 L }, Full returns to surface. No Losseses ECD - 9.89 - 9.5 PPG	0.25
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 548' @ 104 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3225 Spp, 600 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.89 - 10.0 ppg	5.25
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 17' @ 17 ft/Hr, 35 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 2950 spp, Tq. 2k {TF 120 L }, Full returns to surface. No Losseses ECD - 9.89 - 10.0 PPG	1
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 449' @ 128 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3325 Spp, 400 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.1 ppg	3.5
DRL_SLID E	Slide Drill 8.5" Production Lateral Section 20' @ 27 ft/Hr, 35 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 3150 spp, Tq. 2k {TF 120 L }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.75
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 170' @ 97 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3420 Spp, 500 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.1 ppg	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Report #: 13 Daily Operation: 8/20/2014 06:00 - 8/21/2014 06:00

Job Category ORIG DRILLING		Primary Job Type ODR			AFE Number 031389	
Days From Spud (days) 31	Days on Location (days) 12	End Depth (ftKB) 15,543.0	End Depth (TVD) (ftKB) 8,435.7	Dens Last Mud (lb/gal) 9.00	Rig PATTERSON - UTI, 245	

Operations Summary  
Rotate/Slide Drill 8 1/2" Lateral Production Section F/ 13,419' to 15,543'. Service rig and top drive.

Remarks  
Rig (Patterson 245) & Well Progress: 43.00 days on location, 10.0 days since rig accepted on, 11.76 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 14.25 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 85%

Line Proximity: 20' Above, 15' Left of Plan #5

Estimated Pad Completion: 9/6/2014

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 10' @ 20 ft/Hr, 25 k wob, 300 diff, 162 motor rpm, 578 gpm, 138 spm, 3035 spp, Tq. 2k {TF 130 L }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 101' @ 67 Ft/Hr, 25/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3425 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.1 ppg	1.5
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 15' @ 30 ft/Hr, 25 k wob, 200 diff, 162 motor rpm, 578 gpm, 138 spm, 3035 spp, Tq. 2k {TF 180 }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 745' @ 124 Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3475 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.3 ppg	6
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 15' @ 30 ft/Hr, 25 k wob, 200 diff, 162 motor rpm, 578 gpm, 138 spm, 3035 spp, Tq. 2k {TF 30 R }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 65' @ 87 Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3475 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.3 ppg	0.75
RIG_SVC	Service rig and top drive.	1
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 10' @ 40 Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3475 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.3 ppg	0.25
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 20' @ 27 ft/Hr, 25 k wob, 200 diff, 162 motor rpm, 578 gpm, 138 spm, 3250 spp, Tq. 2k {TF 120 R }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.75
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 170' @ 97 Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3475 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.97 - 10.3 ppg	1.75
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 15' @ 30 ft/Hr, 25 k wob, 200 diff, 162 motor rpm, 578 gpm, 138 spm, 3250 spp, Tq. 2k {TF 130 R }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.5
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 80' @ 107 Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3475 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.1 ppg	0.75
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 17' @ 17 ft/Hr, 25 k wob, 200 diff, 162 motor rpm, 578 gpm, 138 spm, 3250 spp, Tq. 2k {TF 150 R }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	1
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 78' @ 104 Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3550 Spp, 650 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.1 ppg	0.75
DRL_SLID E	Slide Drill 8 1/2" Production Lateral Section 15' @ 20 ft/Hr, 25 k wob, 200 diff, 162 motor rpm, 578 gpm, 138 spm, 3250 spp, Tq. 2k {TF 150 R }, Full returns to surface. No Losseses ECD - 9.94 - 10.1 PPG	0.75
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 768' @ 113' Ft/Hr, 28/32 k Wob, 90 Rpm surface 162 mm rpm, 578 Gpm, 138 Spm, 3650 Spp, 480 Diff,Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.2 ppg	6.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Report #: 14 Daily Operation: 8/21/2014 06:00 - 8/22/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 031389
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Days From Spud (days) 32	Days on Location (days) 13	End Depth (ftKB) 16,734.0	End Depth (TVD) (ftKB) 8,442.3	Dens Last Mud (lb/gal) 9.00	Rig PATTERSON - UTI, 245
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Operations Summary  
Rotate/Slide Drill 8 1/2" Lateral Production Section F/ 15543' to 16,734'. Perform clean up cycle, raise mud weight to 9.1 ppg. TD @ 02:00 8-22-14 Depth 16,734'.

Remarks  
Rig (Patterson 245) & Well Progress: 44.00 days on location, 11.0 days since rig accepted on, 12.76 days since spud. Rig move day's 6.00

Rig NPT: .75 hours for previous 24 hours. 15 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 100%

Line Proximity: 14' Above, 19.2' Right of Plan #5

Estimated Pad Completion: 9/12/2014

### Time Log Summary

Operation	Com	Dur (hr)
DRL_ROT	Rotate Drill 8 1/2" Production Lateral Section 77' @ 77' Ft/Hr, 25 k Wob, 90 Rpm surface 160 mm rpm, 571 Gpm, 136 Spm, 3641 Spp, 600 Diff, Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.2 ppg	1
DRL LAT-SLIDE	Slide Drill 8 1/2" Production Lateral Section 15' @ 10 ft/Hr, 35 k wob, 250 diff, 160 motor rpm, 571 gpm, 136 spm, 3233 spp, Tq. 2k {TF 140 L }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	1.5
DRL LAT-ROT	Rotate Drill 8 1/2" Production Lateral Section 77' @ 61.6' Ft/Hr, 30 k Wob, 90 Rpm surface 160 mm rpm, 571 Gpm, 136 Spm, 3550 Spp, 600 Diff, Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.2 ppg	1.25
DRL LAT-SLIDE	Slide Drill 8 1/2" Production Lateral Section 20' @ 16 ft/Hr, 35 k wob, 250 diff, 160 motor rpm, 571 gpm, 136 spm, 3233 spp, Tq. 2k {TF 140 L }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	1.25
DRL LAT-ROT	Rotate Drill 8 1/2" Production Lateral Section 75' @ 60.0' Ft/Hr, 30 k Wob, 90 Rpm surface 160 mm rpm, 571 Gpm, 136 Spm, 3550 Spp, 600 Diff, Trq 12/14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.2 ppg	1.25
DRL LAT-SLIDE	Slide Drill 8 1/2" Production Lateral Section 15' @ 15 ft/Hr, 35 k wob, 250 diff, 160 motor rpm, 571 gpm, 136 spm, 3233 spp, Tq. 2k {TF 140 L }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	1
DRL LAT-ROT	Rotate Drill 8 1/2" Production Lateral Section 24' @ 96.0' Ft/Hr, 30 k Wob, 90 Rpm surface 160 mm rpm, 571 Gpm, 136 Spm, 3550 Spp, 600 Diff, Trq 14K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.2 ppg	0.25
U_RIG	Washed out wear plate on #2 module, #2 mud pump. Swab cooling reservoir filled with OBM. Shut down, cleaned OBM out of reservoir. Isolated and put pump #1 on hole and continued drilling with pump#1, while replacing wear plate on #2 mud pump.	0.75
DRL LAT-ROT	Rotate Drill 8 1/2" Production Lateral Section 56' @ 44' Ft/Hr, 22 k Wob, 90 Rpm surface 135 mm rpm, 483 Gpm, 115 Spm, 2835 Spp, 430 Diff, Trq 14K. Full returns to surface. ROP setting @ 100 ft/hr. No losses. ECD 9.91 - 10.2 ppg	1.25
DRL LAT-SLIDE	Slide Drill 8 1/2" Production Lateral Section 15' @ 20 ft/Hr, 35 k wob, 250 diff, 135 motor rpm, 483 gpm, 115 spm, 2820 spp, Tq. 2k {TF 134 L }, Full returns to surface. No Losseses ECD - 9.87 - 10.1 PPG	0.75
DRL LAT-ROT	Rotate Drill 8 1/2" Production Lateral Section 466' @ 81' Ft/Hr, 22 k Wob, 90 Rpm surface 135 mm rpm, 483 Gpm, 115 Spm, 2835 Spp, 430 Diff, Trq 14K. Full returns to surface. ROP setting @ 100 ft/hr. No losses. ECD 9.91 - 10.2 ppg	5.75
DRL LAT-SLIDE	Slide Drill 8 1/2" Production Lateral Section 20' @ 20 ft/Hr, 35 k wob, 250 diff, 160 motor rpm, 571 gpm, 136 spm, 3450 spp, Tq. 2k {TF 150 L }, Full returns to surface. No Losseses ECD - 9.91 - 10.1 PPG	1
DRL LAT-ROT	Rotate Drill 8 1/2" Production Lateral Section 331' @ 110' Ft/Hr, 30 k Wob, 90 Rpm surface 160 mm rpm, 571 Gpm, 136 Spm, 3740 Spp, 400 Diff, Trq 17K. Full returns to surface. ROP setting @ 175 ft/hr. No losses. ECD 9.91 - 10.2 ppg  ? TD @ 0200 8/22/14 - 16,734' MD	3
CIRC	Performed clean up cycle. Circulated 3 bottoms up, with 570 gpm, rotated drill string at 100 rpm, reciprocated full stand length. Racked backed stand after each bottoms up. Shakers cleaned up after final circlation. Full returns to surface. Raised mud weight to 9.1 ppg on final circulation.  ? First sweep brought back 1/4" size cuttings coming back across shakers, covering 80% of shaker screens. No increase in cuttings with second or third sweep. Max cutting size 1/2". Circulated until shakers were clean. Torque decreased F/8,800 - 6100 ft/lbs by the end of circulation.	4

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

**Report #: 15 Daily Operation: 8/22/2014 06:00 - 8/23/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
33	14	16,734.0	8,442.3	9.10	PATTERSON - UTI, 245			

Operations Summary  
Continue circulating, raising mud weight to 9.1 ppg. TOOH F/ 16,459' to 7,950'. Spot 25 bbls 9.1 ppg system mud containing 20 ppb fine tiger bullets, from 7,000' to 7,500'. Continue TOOH F/ 7,950' to 1,000'. Hang blocks off, slip and cut 100' drill line. TOOH F/ 1,000' to 103', lay down directional assembly #3. Pull wear bushing, and wash well head. Function test BOP's. Rig up Tesco casing running equipment.

Remarks  
Rig (Patterson 245) & Well Progress: 45.00 days on location, 12.0 days since rig accepted on, 13.76 days since spud. Rig move day's 6.00  
  
Rig NPT: 0 hours for previous 24 hours. 15 NPT hours for August.  
  
Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 100%  
  
Line Proximity: 14' Above, 19.2' Right of Plan #5  
  
Estimated Pad Completion: 9/12/2014

**Time Log Summary**

Operation	Com	Dur (hr)
CIRC	Circulated at 570 gpm, rotated drill string at 100 rpm and reciprocated full stand length while increasing mud weight from 9.0 to 9.1 ppg prior to pulling out of hole for production casing.	1.75
TRIP	Stopped pumps. Flow checked well - negative flow. Pulled 5 stands wet pipe. Filled hole with trip tank. Hole took correct fill, no overpulls. Pumped slug and continued pulling out of hole from 16459 to 7950 feet. Monitored hole fill with trip tank - hole took correct fill, with no overpulls.	6.25
CIRC	Broke circulation with 210 gpm@500 psi. Circulate slug out of hole. Spot 25 bbls 9.1 ppg system mud containing 20 ppb fine Tiger Bullets pill from 7000 to 7500 feet. Space out with 9.1 ppg system mud, and chase with 40 bbl slug. Rotating drill string at 25 rpm and reciprocating full stand length during circulation. Full returns to surface.	2.25
TRIP	Flow checked well - negative flow. Continue TOOH F/ 7,950' to 1,000'. Monitored hole fill with trip tank - hole took correct fill, no overpulls.	4.5
CUTDL	Held PJSM with crew and Rig Manager. Slip and cut 100' drill line. Recalibrate hookload and draw works.	1.5
TOOH	Continue TOOH F/ 1,000' to 103'. Monitored hole fill with trip tank - hole took correct fill.	1.25
BHA_HAN DLING	Laid down directional bottom hole assembly and bit #3.	1.75
WEARBUS HING	Back out lock nuts on wear bushing. Pull, inspect wear bushing {OK}. P/U joint d.p., wash jet sub, and wash out well head. L/D same. Function test BOP's.(Good Test) Witnessed by PNR Rep.	1.75
U_REQ_C ODE	Clean and clear rig floor.	0.5
CASE	Rig down elevators, bails and remove stabbing guide from Top Drive	0.5
CASE	Hold PJSM with Tesco. Rig up CRT, and all other 5.5" casing running equipment.	2

**Report #: 16 Daily Operation: 8/23/2014 06:00 - 8/24/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 031389		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
34	15	16,734.0	8,442.3	9.20	PATTERSON - UTI, 245			

Operations Summary  
Pick up 5.5" Production casing shoe track and toe sleeve assembly. Run 5.5" Production casing F/ 157' to 1,000'. Break circulation, circulate total of 40 bbls. Run 5.5" Production casing F/ 1,000' to 6,998'. Circulate bottoms up, cutting mud weight to 9.1 ppg. Run 5.5" casing F/ 6,998' to 9,000'. Break circulation, circulate total of 100 bbls. Run 5.5" casing F/ 9,000' to 12,900'. Break circulation, circulate total of 100 bbls. Run 5.5" casing F/ 12,900' to 13,152'

Remarks  
Rig (Patterson 245) & Well Progress: 46.00 days on location, 13.0 days since rig accepted on, 14.76 days since spud. Rig move day's 6.00  
  
Rig NPT: 0 hours for previous 24 hours. 15 NPT hours for August.  
  
Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 100%  
  
Line Proximity: 14' Above, 19.2' Right of Plan #5  
  
Estimated Pad Completion: 9/12/2014

**Time Log Summary**

Operation	Com	Dur (hr)
CASE	PJSM with Patterson, Tesco, Tenaris, Weatherford and PNR company rep	0.25
CASE	Cleared rig floor of trip hazards.	0.5
CASE	Picked up 5-1/2"OD, 20 ppf,P-110, TXP/BTC thread production casing shoe track, toe sleeve assembly. Total length of assembly 157 feet. Baker locked all thread connections in shoe track/toe sleeve. Monitored make up torque with torque turn. Broke circulation with 10 bbls to ensure shoe track open. No mud losses. Monitored casing displacement with trip tank.	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

### Time Log Summary

Operation	Com	Dur (hr)
CASE	Continued running 5-1/2"OD, 20 ppf, P-110, TXP/BTC thread casing form 157 to 836 feet. Monitored casing displacement with trip tank - nomud losses. Experienced problem with CRT dies slipping, before optimum make up torque. Optimum make up torque of 12520 ft/lbs.	1.25
U_SEQ	Cleaned gripper dies in CRT, gripper continued to slip, not make up casing connection to full torque requirement. Installed new gripper dies in CRT,	1.25
CASE	Continued running 5-1/2" production casing from 836 to 1006 feet, filling casing while running. Monitored casing displacement with trip tank.No mud losses. Optimum make up torque of 12520 ft/lbs.	0.5
CIRC	Broke circulation, staged rate to 5 BPM, circulated total of 40bbbs to break mud gel strength. No mud losses.	0.25
CASE	Continued running 5-1/2" production casing from 1,006' to 6,998' feet, filling casing while running. Monitored casing displacement with trip tank.No mud losses. Optimum make up torque of 12520 ft/lbs.	6.25
CIRC	Broke circulation, Staged pump rate to 5 BPM, circulate bottoms up. Continue to circulate and condition mud, cutting mud weight from 9.3 ppg to 9.1 ppg, due to circulating slug out of Annulus. No mud losses.	4.5
CASE	Continued running 5-1/2" production casing from 6,998' to 9,000' feet, filling casing while running. Monitored casing displacement with trip tank.No mud losses. Optimum make up torque of 12520 ft/lbs.	2.5
CIRC	Broke circulation, staged rate to 5 BPM, circulated total of 100bbbs to break mud gel strength. No mud losses.	0.5
CASE	Continued running 5-1/2" production casing from 9,000' to 12,900' feet, filling casing while running. Monitored casing displacement with trip tank.No mud losses. Optimum make up torque of 12520 ft/lbs.	4.75
CIRC	Broke circulation, staged rate to 5 BPM, circulated total of 100bbbs to break mud gel strength. No mud losses.	0.5
CASE	Continued running 5-1/2" production casing from 12,900' to 13,152' feet, filling casing while running. Monitored casing displacement with trip tank.No mud losses. Optimum make up torque of 12520 ft/lbs.	0.25

### Report #: 17 Daily Operation: 8/24/2014 06:00 - 8/25/2014 06:00

Job Category ORIG DRILLING		Primary Job Type ODR		AFE Number 031389	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
35	16	16,734.0	8,442.3	9.10	PATTERSON - UTI, 245

#### Operations Summary

Continue running 5.5" Production casing F/ 13,152' to 16734'. Break circulation and adjust mud weight from 9.2 ppg, to 9.1 ppg. Rigged down CRT, rigged up casing bells and elevators. Observed well flowing during rig up process, 4 bbls within 15 minutes. Close annular and monitor on choke, no pressure build up. Resumed circulating additional 11,250 strokes, no gain observed on PVT, max gas 546 units, mud weight cut to 8.9+. Shut down pumps and monitor on trip tank, well flowing .9 bbls in 5 minutes. Shut well in with annular preventer, monitor for 45 minutes, no pressure build up. Cement 5.5" production casing. While rigging down cementing iron, noticed that fluid level dropped in the well bore. Fill hole with trip tank, hole took 15 bbls, level drop of 118'. Monitor hole with trip tanks while waiting on cement set up time. (Well Static) Nipple down BOP and flowline, lift stack and set 5.5" casing slips with 172k string wt.

#### Remarks

Rig (Patterson 245) & Well Progress: 47.00 days on location, 14.0 days since rig accepted on, 15.76 days since spud. Rig move day's 6.00

Rig NPT: 0 hours for previous 24 hours. 15 NPT hours for August.

Completion percentage: Surface- 100%, Vertical- 100%, Curve- 100%, Lateral- 100%

Line Proximity: 14' Above, 19.2' Right of Plan #5

Estimated Pad Completion: 9/12/2014

### Time Log Summary

Operation	Com	Dur (hr)
CASE	Continued running 5-1/2" production casing from 13,152' to 16734' feet, filling casing while running. Precautionary washed from 16651 to 16734 feet, no fill. Monitored casing displacement with trip tank.No mud losses. Optimum make up torque of 12520 ft/lbs.	4.5
CIRC	Staged circulation rate to 210gpm@430 psi. Continued to circulate and adjust mud weight from 9.2 to 9.1 ppg, while reciprocating casing 20 feet. No mud losses.	2
CASE	Rigged down CRT, rigged up long bales and 5-1/2" elevators. Noted well flow on annulus, casing standing full at surface. Gained 4 bbls/15 minutes in trip tank.Installed swedge and valve in casing string and shut well in with annular preventer.	1.25
U_WC	With well shut in on annular preventer, monitored annulus for pressure build up for 30 minutes - no pressure build up.	0.5
U_WC	Aligned valves, opened annular and lined up to circulate down flowline. Circulating 1200 strokes(120 bbls at 210 gpm, 270 psi) down casing and out flowline, while monitoring PVT for gain.No mud volume gain observed on PVT during circulation. Mud weight in 9.1 ppg, out 9.0 ppg. Shut down pumping after 1200 strokes and put annulus on trip tank. Gained .7 bbls in 5 minutes.	0.75
U_WC	Resumed circulation at 210 gpm@275 psi for an additional 11,250 strokes(1,121 bbls). maintaining mud weight at 9.1 ppg in. Mud weight out cut to8.9+, with maximum gas of 546 units. No mud volume gain observed on PVT during circulation. Shut down pumping after 11,250 strokes and put annulus on trip tank. Gained .9 bbls in 5 minutes.	3.75
U_WC	Shut well in with annular preventer. With well shut in on annular preventer, monitored annulus for pressure build up for 45 minutes - no pressure build up. Decision was made to cement 5.5" Production casing.	0.75
CMT	PJSM with Schlumberger cement crew, rig crew, tool pusher, Weatherford Toe Sleeve hand and PNR representative on cementing operations. Rig up Schlumberger cementing iron.	1.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

### Time Log Summary

Operation	Com	Dur (hr)
CMT	Pump cement job for 5 1/2" 20# P110 TXP/BTC Production Casing as follows:  Mudpush Express: 50 bbls @ 9.20 lb/gal (anti foam .100), mudpush express B389, 1.20 lb/bbl BW/v.spacer, surfactant B220 2.0 gal/bbl if space, weighting agent 1146.6 lb/mgal.  Lead: 194 bbls, 446 sks 9.7 ppg (100 lb/sk of Blend) of LiteCRETE Cement, Yield 2.45 ft <sup>3</sup> /sk, Mix water 9.117 gal/sk, Mix fluid 9.117 with D195 LiteCRETE cement 100.0 lb/sk WBWOB, D046 Anti-Foam 0.2% BWOB, D065 Dispersant 0.1% ,D208 Visc 0.1%,BWOB, and D800 Retarder 0.9% BWOB, D167 fluid loss .3% BWOB.  Tail: 419 bbls, 2207 sks 16.4 ppg (94 lb/sk of Blend) of Class H Tail Cement, Yield 1.07 ft <sup>3</sup> /sk, Mix water 4.366 gal/sk, Mix fluid 4.36 with Class H cement 94.0 lb/sk WBWOB, D046 Anti-Foam 0.2% BWOB, D065 Dispersant 0.2% BWOB, and D013 Retarder 0.2% BWOB.  PNR representative observed tattle tail leave cement head when pumping down top plug. Displaced with 360 bbls 8.32 H2O mixed with .084 gal/bbl Green-Cide 25G B244. Bump plug @ 24:00 hrs 8/25/14 with 500 psi over final lift pressure of 1600 psi (2160 psi). Held pressure for 5 min, floats held. Released pressure bled back 3 bbls.  Note:Initial Lift pressure 363 psi @ 8.3 bpm, Final lift pressure 1600 psi @ 2.1 bpm.  Monitored well for flow into trip tank for 15 minutes once pressure was released, well static.  Full Returns throughout job. Top of cement estimated to be @ 3,250'.  Top of Float Shoe @ 16,732 Top of Float Collar @ 16,664' Top of Toe Sleeve @ 16,632'  Pressures recorded during displacement= 50 bbls- 8.3 bpm @ 363psi, 100 bbls- 8.3 bpm @ 363 psi, 150 bbls- 8.3 bpm @ 1382 psi, 200 bbls- 8.3 bpm @ 1935 psi, 250 bbls- 8.1 bpm @ 2070 psi, 300 bbls- 8.1 bpm @ 2384 psi, 350 bbls- 4.4 bpm @ 1892 psi, 360 bbls - 2.1 bpm @ 1600 psi.  R/D cementers,	4
U_WT	After rigging down cement iron, noticed that fluid in the well bore had dropped. Put trip tank #1 on hole. Hole took a total of 15 bbls to fill, calculated level/fluid drop @ 118'. Decision was made to monitor hole with trip tank, while waiting on cement set up time. (6.5 hrs)	0.25
U_WT	Monitor hole with trip tank while waiting on cement. Well static.	2.25
NU/TEST	Lay out mousehole, nipple down B.O.P. and flowline, remove turnbuckles. Lift B.O.P. and install 5.5" casing slips.(set slips w/172k string wt.) Witnessed by company rep. Contined to monitor hole throughout operation - well static.	2.75

### WELL DETAILS

Well Name UNIVERSITY 3-14 13H	API/UWI 42-461-39361-0000	Operator PIONEER NATURAL RESRC USA, INC						
<b>Wellbore Hole Size</b>								
Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date			
Conductor	30	28.5	148.5	5/4/2014	5/4/2014			
Surface	17 1/2	148.5	1,115.0	7/21/2014	7/21/2014			
Production	8 3/4	1,115.0		8/12/2014				
<b>Conductor Casing</b>								
Run Date	Set Depth (ftKB)	Centralizers						
	120.0							
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	20	19.124	94.00	J-55	120.00	1	0.0	120.0
Run Date	Set Depth (ftKB)	Centralizers						
5/4/2014	148.5	None						
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	20	19.124	94.00	J-55	120.00	3	28.5	148.5
<b>Surface Casing</b>								
Set Depth (ftKB)	Run Date	Centralizers						
1,115.0	7/22/2014	7						

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	13 3/8	12.615	54.50	J-55	0.00	0	28.5	28.5
Cut off	13 3/8	12.615	54.50	J-55	9.02	1	28.5	37.5
Casing Joints	13 3/8	12.615	54.50	J-55	1,032.69	25	37.5	1,070.2
Float Collar	13 3/8	12.615	54.50	J-55	1.45	1	1,070.2	1,071.7
Casing Joints	13 3/8	12.615	54.50	J-55	42.44	1	1,071.7	1,114.1
Guide Shoe	13 3/8	12.615	54.50	J-55	0.88	1	1,114.1	1,115.0

Set Depth (ftKB)	Run Date	Centralizers
1,225.0		

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	13 3/8	12.715	48.00	J-55	1,200.00	30	25.0	1,225.0

### Surface Casing Cement

Type	String	Cementing Start Date	Cementing End Date	Cementing Company	Top (ftKB)	Btm (ftKB)
Casing	Surface, 1,115.0ftKB	7/22/2014	7/22/2014	Crest	28.5	1,115.0
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
Class C Poz	415	1.91	12.80			
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
PREMIUM PLUS	345	1.75	13.60			
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
Water	166		8.40			

### Production Casing

Set Depth (ftKB)	Run Date	Centralizers
16,734.0	8/22/2014	41

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Marker Joint	5 1/2	4.778			0.00	0	-3.1	-3.1
Casing Joints	5 1/2	4.778	20.00	P-110	3,455.53	82	-3.1	3,452.4
Casing Joints - RytWrap	5 1/2	4.778	20.00	P-110 IC	1,533.86	37	3,452.4	4,986.3
Casing Joints	5 1/2	4.778	20.00	P-110	2,555.48	61	4,986.3	7,541.7
Marker Joint	5 1/2	4.778			14.11	1	7,541.7	7,555.9
Casing Joints	5 1/2	4.778	20.00	P-110	168.94	4	7,555.9	7,724.8
Marker Joint	5 1/2	4.778			14.11	1	7,724.8	7,738.9
Casing Joints	5 1/2	4.778	20.00	P-110	8,881.21	209	7,738.9	16,620.1
Pup Joint					12.12	1	16,620.1	16,632.2
Toe Sleeve					5.63	1	16,632.2	16,637.9
Pup Joint					6.50	1	16,637.9	16,644.4
Float Collar					1.80	1	16,644.4	16,646.2
Casing Joints	5 1/2	4.778	20.00	P-110	86.34	2	16,646.2	16,732.5
Float Shoe					1.50	1	16,732.5	16,734.0

Set Depth (ftKB)	Run Date	Centralizers
17,200.0		

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	5 1/2	4.778	20.00	P-110	17,175.00	429	25.0	17,200.0

### Production Casing Cement

Type	String	Cementing Start Date	Cementing End Date	Cementing Company	Top (ftKB)	Btm (ftKB)
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			

### Cement Squeeze

Description	Type	String	Cementing Start Date	Cementing End Date	Top (ftKB)	Btm (ftKB)
Amount (sacks)	Yield (ft³/sack)	Dens (lb/gal)				

### Perforations

Top (ftKB)	Btm (ftKB)	Zone	Shot Dens (shots/ft)	Entered Shot Total	Com

### Completion (FRAC) Details

<typ> on <dtm>					
Date	Type	Zone	Stim/Treat Company	Min Top Depth (ftKB)	Max Btm Depth (ftKB)

### GEL

Fluid Name	Total Clean Volume (bbl)

**Drilling & Completion Summary - Ascending**

**Well Name: UNIVERSITY 3-14 13H**

**SAND & ACID**

Additive	Type	Amount	Units	Sand Size	Concentration...

**Zones**

Zone Name	Top (ftKB)

**Tubing Details**

Tubing Description	Set Depth (ftKB)	Run Date

**Tubing Components**

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)

**Rod Strings**

Rod Description	Set Depth (ftKB)	Run Date

**Rod Components**

Item Des	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	Make	Model	SN

**Well Tests**

Description					Volume Oil Total (bbl)	Volume Gas Total (MCF)	Volume Water Total (bbl)	
Start Date	End Date	Sz Dia Choke (in)	P Tub End (psi)	P Cas End (psi)	Com	Vol Oil Tot (bbl)	Vol Gas Tot (MCF)	Vol Water Tot (bbl)

**Directional Survey**

Date	Description					
7/21/2014	MAIN HOLE SURVEY					
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
8/21/2014	15.00			15.00	0.00	Pathfinder
7/21/2014	176.00	1.06	337.30	175.99	1.49	Pathfinder
7/21/2014	232.00	1.06	335.53	231.98	2.53	Pathfinder
7/21/2014	325.00	0.44	339.65	324.97	3.74	Pathfinder
7/21/2014	417.00	0.26	181.78	416.97	3.92	Pathfinder
7/21/2014	509.00	0.62	245.86	508.97	4.54	Pathfinder
7/21/2014	601.00	1.67	224.48	600.95	6.35	Pathfinder
7/21/2014	694.00	2.29	214.85	693.89	9.55	Pathfinder
7/21/2014	786.00	2.37	205.56	785.82	13.28	Pathfinder
7/21/2014	878.00	2.20	200.34	877.75	16.95	Pathfinder
7/21/2014	972.00	2.20	164.80	971.68	20.38	Pathfinder
7/22/2014	1,044.00	2.02	168.64	1,043.63	23.03	Pathfinder
8/12/2014	1,163.00	1.23	171.89	1,162.58	26.40	Pathfinder
8/12/2014	1,258.00	1.32	170.05	1,257.56	28.52	Pathfinder
8/12/2014	1,354.00	1.32	177.20	1,353.53	30.73	Pathfinder
8/12/2014	1,449.00	1.06	175.13	1,448.51	32.70	Pathfinder
8/12/2014	1,543.00	1.06	180.13	1,542.50	34.44	Pathfinder
8/12/2014	1,639.00	0.88	164.07	1,638.48	36.04	Pathfinder
8/12/2014	1,734.00	0.88	177.02	1,733.47	37.49	Pathfinder
8/13/2014	1,829.00	0.70	157.21	1,828.46	38.79	Pathfinder
8/13/2014	1,924.00	0.62	150.92	1,923.46	39.88	Pathfinder
8/13/2014	2,019.00	0.44	154.66	2,018.45	40.76	Pathfinder
8/13/2014	2,114.00	0.18	162.35	2,113.45	41.27	Pathfinder
8/13/2014	2,209.00	0.26	44.42	2,208.45	41.47	Pathfinder
8/13/2014	2,304.00	0.26	24.51	2,303.45	41.89	Pathfinder
8/13/2014	2,399.00	0.26	51.39	2,398.45	42.31	Pathfinder
8/13/2014	2,494.00	0.62	94.24	2,493.45	43.00	Pathfinder
8/13/2014	2,590.00	0.62	239.63	2,589.44	43.31	Pathfinder
8/13/2014	2,684.00	0.88	88.61	2,683.44	43.68	Pathfinder
8/13/2014	2,779.00	0.70	83.70	2,778.43	44.99	Pathfinder
8/13/2014	2,875.00	1.06	77.65	2,874.42	46.46	Pathfinder
8/13/2014	2,970.00	0.97	80.43	2,969.41	48.14	Pathfinder
8/13/2014	3,065.00	0.97	90.33	3,064.39	49.74	Pathfinder

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
8/13/2014	3,160.00	0.97	73.17	3,159.38	51.33	Pathfinder
8/13/2014	3,255.00	0.35	282.88	3,254.38	51.90	Pathfinder
8/13/2014	3,350.00	0.44	307.78	3,349.37	52.54	Pathfinder
8/13/2014	3,445.00	0.26	339.68	3,444.37	53.10	Pathfinder
8/13/2014	3,540.00	0.26	339.55	3,539.37	53.53	Pathfinder
8/13/2014	3,636.00	0.53	20.53	3,635.37	54.16	Pathfinder
8/13/2014	3,731.00	1.06	40.85	3,730.36	55.46	Pathfinder
8/13/2014	3,826.00	1.32	45.99	3,825.34	57.43	Pathfinder
8/13/2014	3,921.00	0.18	87.40	3,920.33	58.64	Pathfinder
8/13/2014	4,016.00	0.44	77.25	4,015.33	59.15	Pathfinder
8/13/2014	4,111.00	0.62	71.67	4,110.32	60.03	Pathfinder
8/13/2014	4,206.00	0.62	88.05	4,205.32	61.05	Pathfinder
8/13/2014	4,301.00	0.62	74.43	4,300.31	62.07	Pathfinder
8/13/2014	4,396.00	0.97	71.24	4,395.30	63.39	Pathfinder
8/13/2014	4,491.00	1.06	81.25	4,490.29	65.06	Pathfinder
8/13/2014	4,586.00	1.49	167.85	4,585.27	66.62	Pathfinder
8/13/2014	4,681.00	3.78	197.81	4,680.17	70.87	Pathfinder
8/13/2014	4,776.00	6.16	200.86	4,774.80	79.09	Pathfinder
8/13/2014	4,871.00	6.16	199.53	4,869.26	89.29	Pathfinder
8/13/2014	4,967.00	6.16	196.77	4,964.70	99.59	Pathfinder
8/14/2014	5,062.00	4.66	200.12	5,059.28	108.54	Pathfinder
8/14/2014	5,157.00	2.37	215.55	5,154.09	114.32	Pathfinder
8/14/2014	5,252.00	3.08	203.71	5,248.99	118.81	Pathfinder
8/14/2014	5,347.00	4.40	188.23	5,343.78	124.95	Pathfinder
8/14/2014	5,442.00	5.72	185.00	5,438.41	133.33	Pathfinder
8/14/2014	5,537.00	4.92	182.20	5,533.00	142.13	Pathfinder
8/14/2014	5,633.00	5.45	183.71	5,628.61	150.81	Pathfinder
8/14/2014	5,728.00	5.01	184.71	5,723.21	159.47	Pathfinder
8/14/2014	5,823.00	5.10	178.94	5,817.84	167.83	Pathfinder
8/14/2014	5,917.00	5.98	180.32	5,911.40	176.90	Pathfinder
8/14/2014	6,012.00	5.63	182.29	6,005.92	186.51	Pathfinder
8/14/2014	6,108.00	4.66	181.71	6,101.53	195.12	Pathfinder
8/14/2014	6,203.00	5.63	179.97	6,196.15	203.63	Pathfinder
8/14/2014	6,298.00	5.01	181.86	6,290.74	212.44	Pathfinder
8/14/2014	6,393.00	4.40	181.50	6,385.42	220.23	Pathfinder
8/15/2014	6,489.00	5.28	185.13	6,481.07	228.33	Pathfinder
8/15/2014	6,584.00	4.57	184.92	6,575.72	236.49	Pathfinder
8/15/2014	6,679.00	5.28	179.90	6,670.37	244.63	Pathfinder
8/15/2014	6,774.00	6.68	179.10	6,764.85	254.53	Pathfinder
8/15/2014	6,869.00	5.89	177.95	6,859.28	264.93	Pathfinder
8/15/2014	6,965.00	5.01	176.72	6,954.84	274.05	Pathfinder
8/15/2014	7,060.00	4.48	182.56	7,049.52	281.90	Pathfinder
8/15/2014	7,155.00	3.78	183.35	7,144.27	288.74	Pathfinder
8/15/2014	7,250.00	2.99	185.27	7,239.11	294.35	Pathfinder
8/15/2014	7,345.00	2.37	191.39	7,334.00	298.78	Pathfinder
8/15/2014	7,440.00	2.11	195.69	7,428.93	302.49	Pathfinder
8/15/2014	7,535.00	1.76	192.21	7,523.87	305.70	Pathfinder
8/15/2014	7,630.00	1.67	189.53	7,618.83	308.54	Pathfinder
8/15/2014	7,725.00	0.97	188.36	7,713.81	310.73	Pathfinder
8/17/2014	7,747.00	0.97	186.96	7,735.80	311.10	Pathfinder
8/17/2014	7,842.00	0.62	150.22	7,830.79	312.36	Pathfinder
8/17/2014	7,937.00	12.66	354.31	7,925.06	322.34	Pathfinder
8/17/2014	8,033.00	24.71	356.05	8,015.83	353.04	Pathfinder
8/17/2014	8,128.00	31.66	352.69	8,099.52	397.86	Pathfinder
8/17/2014	8,223.00	38.60	353.90	8,177.17	452.50	Pathfinder
8/17/2014	8,318.00	46.08	356.04	8,247.34	516.43	Pathfinder

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
8/17/2014	8,413.00	52.06	359.93	8,309.56	588.14	Pathfinder
8/17/2014	8,509.00	58.12	0.86	8,364.48	666.83	Pathfinder
8/17/2014	8,604.00	64.90	1.11	8,409.77	750.28	Pathfinder
8/17/2014	8,699.00	75.36	1.01	8,442.01	839.50	Pathfinder
8/17/2014	8,794.00	85.65	1.66	8,457.66	933.07	Pathfinder
8/17/2014	8,889.00	88.81	1.85	8,462.25	1,027.95	Pathfinder
8/17/2014	8,984.00	89.52	2.37	8,463.64	1,122.93	Pathfinder
8/17/2014	9,080.00	91.01	3.20	8,463.19	1,218.93	Pathfinder
8/17/2014	9,175.00	89.08	2.55	8,463.12	1,313.93	Pathfinder
8/17/2014	9,270.00	89.78	2.66	8,464.07	1,408.92	Pathfinder
8/17/2014	9,365.00	90.57	2.23	8,463.78	1,503.92	Pathfinder
8/17/2014	9,460.00	87.32	1.93	8,465.52	1,598.89	Pathfinder
8/17/2014	9,555.00	87.32	2.30	8,469.97	1,693.79	Pathfinder
8/17/2014	9,650.00	87.76	2.22	8,474.04	1,788.70	Pathfinder
8/17/2014	9,746.00	87.76	2.10	8,477.80	1,884.62	Pathfinder
8/17/2014	9,841.00	88.72	2.77	8,480.71	1,979.58	Pathfinder
8/17/2014	9,936.00	90.13	3.51	8,481.67	2,074.57	Pathfinder
8/17/2014	10,031.00	90.75	3.45	8,480.94	2,169.57	Pathfinder
8/17/2014	10,126.00	92.59	4.17	8,478.17	2,264.52	Pathfinder
8/17/2014	10,221.00	90.22	1.82	8,475.84	2,359.48	Pathfinder
8/17/2014	10,317.00	91.45	2.56	8,474.44	2,455.47	Pathfinder
8/17/2014	10,412.00	92.59	2.82	8,471.09	2,550.41	Pathfinder
8/17/2014	10,507.00	91.28	1.25	8,467.88	2,645.35	Pathfinder
8/17/2014	10,602.00	90.22	359.96	8,466.64	2,740.34	Pathfinder
8/17/2014	10,697.00	90.48	359.96	8,466.06	2,835.33	Pathfinder
8/17/2014	10,792.00	90.84	359.76	8,464.97	2,930.33	Pathfinder
8/17/2014	10,887.00	90.48	359.79	8,463.87	3,025.32	Pathfinder
8/17/2014	11,077.00	90.66	358.17	8,461.98	3,215.30	Pathfinder
8/17/2014	11,172.00	91.36	358.83	8,460.31	3,310.29	Pathfinder
8/17/2014	11,268.00	91.28	358.56	8,458.10	3,406.26	Pathfinder
8/17/2014	11,363.00	90.22	0.63	8,456.85	3,501.25	Pathfinder
8/17/2014	11,458.00	91.01	0.89	8,455.83	3,596.24	Pathfinder
8/17/2014	11,553.00	89.25	2.44	8,455.62	3,691.24	Pathfinder
8/17/2014	11,648.00	89.25	2.28	8,456.86	3,786.23	Pathfinder
8/17/2014	11,743.00	90.04	3.08	8,457.45	3,881.22	Pathfinder
8/17/2014	11,839.00	89.96	2.57	8,457.45	3,977.22	Pathfinder
8/17/2014	11,934.00	91.80	4.86	8,455.99	4,072.20	Pathfinder
8/17/2014	12,029.00	89.34	3.05	8,455.04	4,167.19	Pathfinder
8/17/2014	12,124.00	89.25	3.37	8,456.21	4,262.18	Pathfinder
8/17/2014	12,219.00	88.20	2.18	8,458.33	4,357.15	Pathfinder
8/17/2014	12,314.00	88.20	1.88	8,461.31	4,452.11	Pathfinder
8/17/2014	12,410.00	88.64	2.59	8,463.96	4,548.07	Pathfinder
8/17/2014	12,505.00	89.16	2.78	8,465.78	4,643.05	Pathfinder
8/17/2014	12,600.00	89.69	2.62	8,466.74	4,738.04	Pathfinder
8/17/2014	12,695.00	90.66	4.26	8,466.44	4,833.04	Pathfinder
8/20/2014	12,790.00	88.81	1.12	8,466.88	4,928.02	Pathfinder
8/20/2014	12,885.00	89.96	1.81	8,467.90	5,023.02	Pathfinder
8/20/2014	12,980.00	90.13	2.23	8,467.83	5,118.02	Pathfinder
8/20/2014	13,075.00	90.48	2.52	8,467.32	5,213.01	Pathfinder
8/20/2014	13,171.00	91.54	4.00	8,465.63	5,308.99	Pathfinder
8/20/2014	13,266.00	89.34	359.91	8,464.90	5,403.97	Pathfinder
8/20/2014	13,361.00	90.22	0.27	8,465.27	5,498.96	Pathfinder
8/20/2014	13,456.00	90.13	358.95	8,464.98	5,593.96	Pathfinder
8/20/2014	13,551.00	88.81	359.99	8,465.86	5,688.95	Pathfinder
8/20/2014	13,646.00	88.90	359.49	8,467.75	5,783.93	Pathfinder
8/20/2014	13,741.00	89.52	0.54	8,469.06	5,878.92	Pathfinder

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-14 13H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
8/20/2014	13,836.00	89.25	359.57	8,470.08	5,973.92	Pathfinder
8/20/2014	13,931.00	90.66	0.62	8,470.16	6,068.91	Pathfinder
8/20/2014	14,026.00	90.92	0.49	8,468.85	6,163.90	Pathfinder
8/20/2014	14,122.00	90.40	359.17	8,467.74	6,259.90	Pathfinder
8/20/2014	14,217.00	89.78	357.48	8,467.59	6,354.89	Pathfinder
8/20/2014	14,312.00	90.31	357.09	8,467.52	6,449.89	Pathfinder
8/20/2014	14,407.00	93.56	358.67	8,464.31	6,544.82	Pathfinder
8/20/2014	14,502.00	94.44	358.93	8,457.68	6,639.59	Pathfinder
8/20/2014	14,597.00	93.91	0.59	8,450.77	6,734.33	Pathfinder
8/21/2014	14,692.00	92.68	1.31	8,445.31	6,829.17	Pathfinder
8/21/2014	14,788.00	90.84	1.70	8,442.36	6,925.12	Pathfinder
8/21/2014	14,883.00	90.13	0.45	8,441.55	7,020.12	Pathfinder
8/21/2014	14,978.00	90.57	0.80	8,440.97	7,115.12	Pathfinder
8/21/2014	15,073.00	90.13	1.66	8,440.39	7,210.11	Pathfinder
8/21/2014	15,168.00	90.31	2.09	8,440.03	7,305.11	Pathfinder
8/21/2014	15,263.00	89.60	1.73	8,440.10	7,400.11	Pathfinder
8/21/2014	15,358.00	90.75	3.33	8,439.81	7,495.11	Pathfinder
8/21/2014	15,454.00	91.10	3.29	8,438.26	7,591.09	Pathfinder
8/21/2014	15,549.00	92.24	3.63	8,435.49	7,686.05	Pathfinder
8/21/2014	15,644.00	93.12	3.15	8,431.05	7,780.95	Pathfinder
8/21/2014	15,739.00	90.40	3.30	8,428.14	7,875.89	Pathfinder
8/21/2014	15,835.00	89.08	2.36	8,428.57	7,971.89	Pathfinder
8/21/2014	15,930.00	87.32	1.11	8,431.56	8,066.84	Pathfinder
8/21/2014	16,025.00	87.76	1.11	8,435.63	8,161.75	Pathfinder
8/21/2014	16,120.00	88.37	1.39	8,438.84	8,256.69	Pathfinder
8/21/2014	16,215.00	89.43	1.93	8,440.66	8,351.67	Pathfinder
8/21/2014	16,310.00	90.84	3.17	8,440.44	8,446.67	Pathfinder
8/21/2014	16,406.00	88.11	2.53	8,441.32	8,542.66	Pathfinder
8/22/2014	16,501.00	88.81	2.56	8,443.87	8,637.62	Pathfinder
8/22/2014	16,596.00	90.22	2.92	8,444.68	8,732.61	Pathfinder
8/22/2014	16,676.00	91.28	3.56	8,443.63	8,812.61	Pathfinder
8/22/2014	16,734.00	91.28	3.56	8,442.33	8,870.59	Pathfinder