

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

API/UWI 42-461-39157-0000		Property Sub 927711-047		Operator PIONEER NATURAL RESRC USA INC		State TEXAS		County UPTON	
Field Name SPRABERRY (TREND AREA)				Surface Legal Location 10323' FNL / 1789 FWL, SEC: 18, BLK: 3, A-U18, SVY: UNIVERSITY LANDS					
Spud Date 5/25/2014		TD Date		Drilling Rig Release Date		Frac Date		On Production Date	
Ground Elevation (ft) 2,678.00		Original KB Elevation (ft) 2,705.00		PBDT (All) (ftKB)		Total Depth (All) (ftKB) Original Hole - 7,720.0		Total Depth All (TVD) (ftKB) Original Hole - 7,712.9	
<b>Report #: 1 Daily Operation: 5/24/2014 11:00 - 5/25/2014 06:00</b>									
Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029904	
Days From Spud (days) 0		Days on Location (days) 1		End Depth (ftKB) 0.0		End Depth (TVD) (ftKB)		Dens Last Mud (lb/gal) Rig H & P, 604	
<p>Operations Summary Skid Rig F/ 49H T 47H, WOW, Rigging up rig to Spud, Lay out and P/U BHA.</p> <p>Remarks H &amp; P 604 Well (University 3-19 47H) Progress: .80 days since rig accepted, 00 days from spud</p> <p>Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.</p> <p>Completion percentage: Surface: 00%, Intermediate: 00%, Curve: 0%, Lateral: 0%</p> <p>PTB: 000' 000° Inc 00° Azi 00' High, 00' Left</p> <p>Rig Accepted @ 11:00 on 5-24-14</p> <p>Spud @ 00:00 on</p> <p>( Called Ijuana with TRRC @ 18:30 Hr's 5/24/2014 with intent to Spud and Run 3 5/8" casing on University 3-19 47H )</p>									
<b>Time Log Summary</b>									
Operation		Com							Dur (hr)
SKID		Prep rig to skid							1
SKID		Skid Rig from University 3-19 #49H to University 3-19 #47H							4
U_WOW		Wait on weather to clear Due to bad thunderstorms and lighting.							1
RIG UP / RIG DOWN		Rigging up rig in preparation for spudding 47H, Hook up water line, airlines, ground skids, hydraulic to rig, roll up skidding hydraulic lines,							5.75
RIG UP / RIG DOWN		Pressure up and test surface mud lines to 1500 high / 200 low.							0.25
RIG UP / RIG DOWN		Continue with R/U install mouse hole, R/U water to Premix, install handrails on flow linw manifold.							2.5
RIG UP / RIG DOWN		Rig up cellar pumps, R/U 4" standpipe line, gather & strap BHA							2
BHA		M/U 9 5/8" Pathfinder motor, 17 1/4" stabilizer, float sub, MWD carrier NMDC, M/U 17 1/2" SF65 Security Bit, scribe motor, load MWD into carrier and orient to scribe line, M/U top 17 1/4" stabilizer & top NMDC, M/U shock sub and X-O to 8" DC, P/U 1 jt HWDP as kelly joint, fill pipe and conductor.							2.5
<b>Report #: 2 Daily Operation: 5/25/2014 06:00 - 5/26/2014 06:00</b>									
Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029904	
Days From Spud (days) 1		Days on Location (days) 2		End Depth (ftKB) 1,207.0		End Depth (TVD) (ftKB) 1,206.8		Dens Last Mud (lb/gal) Rig H & P, 604	
<p>Operations Summary P/U BHA, Drill Surface hole F/ 146' T/ 1,207', Circ 2 X50 Bbl sweeps around, Make Wiper Trip. Circ sweeps around, Tooh.</p> <p>Remarks H &amp; P 604 Well (University 3-19 47H) Progress: 1.80 days since rig accepted, 0.89 days from spud</p> <p>Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.</p> <p>Completion percentage: Surface:100%, Intermediate: 00%, Curve: 0%, Lateral: 0%</p> <p>PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left</p> <p>Rig Accepted @ 11:00 on 5-24-14</p> <p>Spud @ 08.30 on 5/25/14</p> <p>( Called Ijuana with TRRC @ 18:30 Hr's 5/24/2014 with intent to Spud and Run 3 5/8" casing on University 3-19 47H )</p>									

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
RIG UP / RIG DOWN	Continue riging up to drill	0.5
BHA	Picking up 17 1/2" BHBHA	2
DRL	Spud Well Drill 174' @ 36.6'/hr, 5-10 K WOB, 40 RPM, 767 GPM, Motor RPM 82, SPP 1074 psi, Diff. 95 psi Torque 4000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	4.75
DRL_SURV EY	Survey @ 243', Inc. 1.06° Azm. 133.97° DLS 0.04°	0.25
DRL	Drill 93' @ 124'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1250 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 340', Inc. 1.41° Azm. 125.10° DLS 0.41°	0.25
DRL	Drill 92' @ 122.6'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1250 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75
DRL_SURV EY	Survey @ 432', Inc. 1.14° Azm. 118.68° DLS 0.33°	0.25
DRL	Drill 92' @ 122.6'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1370 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75
DRL_SURV EY	Survey @ 524', Inc. 1.49° Azm. 129.84° DLS 0.47°	0.25
DRL	Drill 19' @ 76'/hr, 5-10 K WOB, 70 RPM, 767 GPM, Motor RPM 82, SPP 1370 psi, Diff. 100 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.25
DRL	Slide 13' @ 17.3 fph, 6K WOB, 1,350 psi, Diff 190 psi, 729 gpm, Mtr 77 rpm, TF 310°	0.75
DRL	Drill 60' @ 240'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1380 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.25
RIGSER	Service Rig	0.5
DRL_SURV EY	Survey @ 616', Inc. 0.62° Azm. 158.14° DLS 1.07°	0.25
DRL	Slide 14' @ 28 fph, 20K WOB, 1,350 psi, Diff 190 psi, 729 gpm, Mtr 77 rpm, TF 310°	0.5
DRL	Drill 80' @ 160'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 708', Inc. 0.44° Azm. 351.77° DLS 1.14°	0.25
DRL	Drill 91' @ 121'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75
DRL_SURV EY	Survey @ 800', Inc. 0.79° Azm. 333.84° DLS 0.43°	0.25
DRL	Drill 91' @ 182'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 891', Inc. 0.79° Azm. 347.11° DLS 0.20°	0.25
DRL	Drill 95' @ 126'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 986', Inc. 0.88° Azm. 347.37° DLS 0.09°	0.25
DRL	Drill 94' @ 126'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	1
DRL_SURV EY	Survey @ 1080', Inc. 1.06° Azm. 334.19° DLS 0.30°	0.25
DRL	Drill 57' @ 126'/hr, 15 K WOB, 70 RPM, 729 GPM, Motor RPM 77, SPP 1460 psi, Diff. 110 psi Torque 9000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURV EY	Survey @ 1137', Inc. 0.887° Azm. 344.82° DLS 0.45°	0.25
CIRC	Circulate 2 X 50 bbls sweeps around.	1.25
TOOH	Tooh F/1,207' T/ 146', 20K OP @1050' wipe through spot and cleaned up.	1
TIH	Tih F/ 146' T/ 1,207' washed down last std for safety no hole issues.	1
CIRC	Circulate 2 X 50 bbls sweeps around.	1.25
TOOH	POOH to run 13 3/8" Casing.	1.25

Report #: 3 Daily Operation: 5/26/2014 06:00 - 5/27/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 2	Days on Location (days) 3	End Depth (ftKB) 1,207.0
	End Depth (TVD) (ftKB) 1,206.8	Dens Last Mud (lb/gal) 8.70
	Rig H & P, 604	

#### Operations Summary

L/D directional Bha, R/U csg running equipt, Wait on Express tong head, Run 13 3/8" csg, Level Drk, Wait on welder to cut bent skid pin, Cut bent pin & skid rig to center casing in Conductor, Run 13 3/8" csg T/ 1,205', Circ prior to casing job, cement 13 3/8" csg, R/d cmt lines, Center csg & welder cut csg.

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 2.80 days since rig accepted, 1.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 00%, Curve: 0%, Lateral: 0%

PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08.30 on 5/25/14

### Time Log Summary

Operation	Com	Dur (hr)
BHA	Laying down Directional BHA	2.5
RIG UP / RIG DOWN	Rig up Express Casing Running Equipment.	1.5
U_WT	Wait on Express Casing for back up tong for 13 3/8" casing. The Lug jaw they brought out would not fit H&P set of tong.	4
CASE	Pick up float shoe make up shoe tract, check float equipment, OK, Run 13 3/8" 48 ppf J-55, STC Casing to 85'	0.5
CASE	Attempting to get Cent pass conductor pipe. Casing collars hanging up on conductor.	0.75
CASE	Continue running 13 3/8" 48 ppf J-55, STC Casing F/ 85' to 332'.	1.75
RIG UP / RIG DOWN	Install shims on driller side of derrick.	1
CASE	Attempt to Skid rig to center casing in Conductor pipe, Guide skid pin bent unable to skid with bent pin.	1
CASE	Wait on welder to arrive on location to cut bent skid guide pin.	2
CASE	Welder cut bent pin and skid rig 5" to draw works to center casing in conductor pipe	1.5
CASE	Continue running 13 3/8" 48 ppf J-55, STC Casing F/ 332' T/ 1,205'	2.5
CIRC	Rig up Crest Cement lines. Circulate prior to cement job 1 casing volume.	1

## Drilling & Completion Summary - Ascending

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### Time Log Summary

Operation	Com	Dur (hr)
CMT	<p>Test lines to 3,500 psi. Pump 40 bbl's fresh water to reserve pit to ensure clean &amp; clear lines. Mix and pump 480 sks, 162 bbls "Lead" cement, 6.0% bentonite, 3.0% calcium chloride @ 12.8 ppg, yield 1.91 mix water 9.86 gal/sk. 345 sks, 105 bbls "tail" cement 4.0% bentonite, 2.0% calcium chloride @ 13.6 ppg, yield 1.71 mix water 8.91 gal/sk. Pumped @ 6.87 bpm, slowed to 2.5 bpm for last 10 bbl's, @ 270 psi bumped plug with 500 psi over circulating rate @ 770 psi. Pressure held 5 min, Bleed off, Pressure bled back 1.0 bbl, Floats holding, Monitor 15 minutes. Cement in place @ 04:00 hrs</p> <p>Lift Pressures: 10 bbl's - 6.87 bpm @ 190 psi, 20 bbl's- 6.8 bpm @ 190 psi, 50 bbl's- 6.87 bpm@ 210 psi, 100 bbl's- 6.87 bpm@ 310 psi, 140 bbl's - 6.87 bpm @ 390 psi. 160 bbl's - 6.5 bpm @ 420 psi, 170 bbl's - 2.5 bpm @ 270 psi.</p> <p>Full returns during entire cement job, got 85 bbls cement back to surface.</p> <p>Shoe: 1,205' Shoe Track: 44.91' Float Collar: 1,160'</p>	2
CMT	Rig Down Crest cement lines and head.	0.5
WLHEAD	Center 13 3/8" casing in conductor and welder cut casing and lay out cut piece.	1.5

### Report #: 4 Daily Operation: 5/27/2014 06:00 - 5/28/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
3	4	1,207.0
		End Depth (TVD) (ftKB)
		1,206.8
		Dens Last Mud (lb/gal)
		9.00
		Rig
		H & P, 604

#### Operations Summary

Install well head, N/U Bop's, Test Bop's, Csg test, Accumulator test, Install Wear bushings,

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 3.80 days since rig accepted, 2.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 00%, Curve: 0%, Lateral: 0%

PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08.30 on 5/25/14

### Time Log Summary

Operation	Com	Dur (hr)
WLHEAD	Installing Wellhead. Cut off excess conductor and surface casing, and weld on wellhead.	4
NU/TEST	Nipple up BOP's, Preform top job with Basin fill cellar to bottom casing head flange	5.75
NU/TEST	Review JSA on testing BOPs, RU testing equipment, M/U test plug, open csg valve, set 13 5/8" test plug, RU test BOP's Pipe rams, Annular, & blind rams 250 psi low and 3,500 psi high.TIW & inside BOP safety valves, Choke & Kill line 250 psi low 3,500 psi high. Choke & choke manifold & valves 250 psi. low 3500 psi. high. Tested stand pipe back to rig pumps 250 psi. low 4,500 psi. high. all test held for 5min. and charted.	6.25
NU/TEST	Test 13 3/8" casing 250 psi low 5 min 1,000 psi high for 30 minutes n Chart.	1.5
NU/TEST	Perform Accumulator Test.	1
WEARBUS HING	Install Wear Bushings.	0.5
RIG UP / RIG DOWN	Bell nipple leaking between bell nipple and Bop's tighten bell nipple.	0.5
BHA	M/U Pathfindre 7 3/4" G2 7:8 4.0 @ 1.83° Motor, 2- NMDC, scrib and install MWD & test MWD, M/u Security 121/4" MM75D PDC bit, P/U shock sub, 6-8" Dc's and Jars. Shallow test Mud Motor nd MWD (OK)	3.5
BHA	Continue picking up BHA	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 5 Daily Operation: 5/28/2014 06:00 - 5/29/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
4	5	3,157.0	3,156.7	9.04	H & P, 604

### Operations Summary

P/U 12 1/4" Bha, Cut & Slip drill line, Tih t/ 1,158', Drill shoe track T/ 1205', Drill 12 1/4" Intermediate hole Section F/ 1,207' T/ 3157'

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 4.80 days since rig accepted, 3.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 29%, Curve: 0%, Lateral: 0%

PTB: 1137' .88° Inc 344.82° Azi 00' High, 00' Left

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08.30 on 5/25/14

### Time Log Summary

Operation	Com	Dur (hr)
BHA	Continue Picking up 12 1/4" BHA.	1.5
SFTY	Held Pre-Job safety meeting on slipping and cutting Drill Line	0.5
CUTDL	Slip and cut drill line.	1.75
RIGSER	Service Rig (Lubricate)	0.5
NU/TEST	Install drip pan under rotary table. and change rubbers on dresser sleeve to stop leak.	2.75
TIH	Trip in hole to top float collar 1158'	0.5
WLHEAD	DrillFloa and shoe tract. f/ 1158' to 1205' w/ 5-10 K on bit 40 RPM.	1
DRL-ROT	Drill 55' @ 73'/hr, 5-10 K WOB, 500 GPM 40 RPM, Motor RPM 82, SPP 1350 psi, Diff. 100 psi Torque 9000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 1207', Inc. 0.70° Azm. 37.29° DLS 1.01°	0.25
DRL-ROT	Drill 95' @ 126'/hr, 14 K WOB, 683 GPM 40 RPM, Motor RPM 113, SPP 1350 psi, Diff. 290 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	1
DRL_SURVEY	Survey @ 1302, Inc. 0.53° Azm. 336.56° DLS 0.68°	0.25
DRL-ROT	Drill 95' @ 126'/hr, 14 K WOB, 683 GPM 40 RPM, Motor RPM 113, SPP 1350 psi, Diff. 290 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 1397, Inc. 0.62° Azm. 332.43° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 126'/hr, 14 K WOB, 752 GPM 40 RPM, Motor RPM 124, SPP 1850 psi, Diff. 299 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 1492, Inc. 0.70° Azm. 319.69° DLS 0.17°	0.25
DRL-ROT	Drill 95' @ 190'/hr, 14 K WOB, 752 GPM 50 RPM, Motor RPM 124, SPP 1850 psi, Diff. 299 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 1586, Inc. 0.88° Azm. 313.89° DLS 0.21°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 14 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1850 psi, Diff. 299 psi Torque 7000 ft/lbsPumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 1681, Inc. 0.97° Azm. 301.76° DLS 0.23°	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Drill 96' @ 384 '/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1754 psi, Diff. 560 psi Torque 12000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURVEY	Survey @ 1776, Inc. 0.88° Azm. 285.94° DLS 0.28°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1755 psi, Diff. 560 psi Torque 14000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURVEY	Survey @ 1871, Inc. 0.88° Azm. 287.08° DLS 0.02°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1755 psi, Diff. 560 psi Torque 14000 ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 1966, Inc. 0.79° Azm. 299.47° DLS 0.21°	0.25
DRL-ROT	Drill 94' @ 376'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 560 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURVEY	Survey @ 2060, Inc. 0.79° Azm. 306.24° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 560 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURVEY	Survey @ 2155, Inc. 0.62° Azm. 303.52° DLS 0.18°	0.25
DRL-ROT	Drill 96' @ 192'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 2250, Inc. 0.53° Azm. 296.66° DLS 0.12°	0.25
DRL-ROT	Drill 93' @ 186'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 2344, Inc. 0.35° Azm. 298.33° DLS 0.19°	0.25
DRL-ROT	Drill 96' @ 128'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.75
DRL_SURVEY	Survey @ 2439', Inc. 0.18° Azm. 309.76° DLS 0.19°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5
DRL_SURVEY	Survey @ 2534', Inc. 0.09° Azm. 325.40° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.25
DRL_SURVEY	Survey @ 2629', Inc. 0.09° Azm. 16.11° DLS 0.08°	0.25
DRL-ROT	Drill 94' @ 94'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH down drill pipe.	0.5

## Drilling & Completion Summary - Ascending

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### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURVEY	Survey @ 2723', Inc. 0.18° Azm. 21.74° DLS 0.10°	0.25
DRL-ROT	Drill 95' @ 190'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURVEY	Survey @ 2818', Inc. 0.26° Azm. 19.28° DLS 0.08°	0.25
DRL-ROT	Drill 95' @ 190'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5
DRL_SURVEY	Survey @ 2913', Inc. 0.26° Azm. 17.61° DLS 0.01°	0.25
DRL-ROT	Drill 95' @ 380'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.25
DRL_SURVEY	Survey @ 3008', Inc. 0.26° Azm. 17.61° DLS 0.01°	0.25
DRL-ROT	Drill 94' @ 188'/hr, 29 K WOB, 752 GPM 70 RPM, Motor RPM 124, SPP 1760 psi, Diff. 540 psi Torque 14K ft/lbs Pumping sweep every other connection dropping soap stick, SAPP stick and pour PH pA down drill pipe.	0.5

Report #: 6 Daily Operation: 5/29/2014 06:00 - 5/30/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
5	6	4,957.0
		End Depth (TVD) (ftKB)
		4,956.6
		Dens Last Mud (lb/gal)
		8.95
		Rig
		H & P, 604

### Operations Summary

Rot / Slid Drlg f/ 3,157' t/ 4957' Replace swab & Liner in MP# 2 While circulating with MP#1, Continue to check Pressure problems on MP's.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 5.80 days since rig accepted, 4.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 56%, Curve: 0%, Lateral: 0%

Rig Accepted @ 11:00 on 5-24-14

Spud @ 08:30 on 5/25/14

PTB: 4901 .0.09° Inc 253.68° Azi 4.68' Center to center 0.41° Right

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 493' @ 116 ft/hr, 35k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,060 psi, 550 diff, 14k torque on bottom.	4.25
DRL-SLIDE	Slide 8' @ 32 ft/hr, 25k wob, 196 spm, 752 gpm, 125 mrpm, 2,060 psi, 300 diff, 180 mtf.	0.25
DRL-ROT	Rotate 86' @ 115 ft/hr.	0.75
DRL-SLIDE	Slide 14' @ 28 ft/hr, 270 mtf.	0.5
DRL-ROT	Rotate 441' @ 110.25 ft/hr.	4
RIGSER	Service Rig.	0.5
DRL-ROT	Rotate 109' @ 87.2 ft/hr.	1.25
DRL-SLIDE	Slide 13' @ 26 ft/hr, 140 mtf.	0.5
DRL-ROT	Rotate 200' @ 80 ft/hr.	2.5
DRL-ROT	Rotate 340' @ 85 ft/hr.	4.25
	** Displace 10.0# brine water w/ 8.9 fresh water gel. Slow drilling parameters while displacing. Hole calculated 7,127 strokes. Gel mud returned @ 10,540, circulated another 2,000 strokes due to high mud weight. MW out 9.0 / 35 vis, In 8.8+ / 50 vis. Circulating steel pits. **	
DRL-SLIDE	Slide 10' @ 40 ft/hr, 315 mtf.	0.25



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 85' @ 57 ft/hr.	1.5
U_RIG_OT R	Circulate @ 320 GPM 84 stks with MP # 1 while replacing swab & liner in MP #2. Bring MP# 2 back on line MP Pressure still low by 400 psi with both MP's @ 198 SPM, Continue to check MP's.	3.5

Report #: 7 Daily Operation: 5/30/2014 06:00 - 5/31/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 6	Days on Location (days) 7	End Depth (ftKB) 5,527.0
	End Depth (TVD) (ftKB) 5,525.8	Dens Last Mud (lb/gal) 8.95
	Rig H & P, 604	

#### Operations Summary

Pump soft line, TOO H f/ 4,957' t/ 586', L/D 3 jnts HWDP, Rack back BHA, C/O motor & bit, Level derrick, TIH f/ 117" t/ 4,957', Drill 12 1/4" Inter Sec @ 5527'

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 6.80 days since rig accepted, 5.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 18.5 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 65%, Curve: 0%, Lateral: 0%

PTB: 5282 2.99° Inc 270.20° Azi 6.6' Center to center 1.51' left

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_LPP	Pump soft line, pressure increase @ 756 strokes. Calculated 4,200'.	0.5
U_LPP	L/D 1 jnt of DP to change breaks. TOO H f/ 4,957' t/ 586'. Found washout in between the 19th & 20th joint of HWDP - 4,371'.	5
U_LPP	L/D three joints of HWDP. Had cracked box & washed pin.	0.5
U_LPP	Rack back 12 - 8" D.C's	1.25
U_LPP	L/D shock sub, X/O, motor, & bit.	1.25
U_LPP	P/U motor, bit, shock sub, X/O, scribe.	1
RIGSER	Service Rig / Level derrick	1
U_LPP	Tih with BHA F/ 117' T/ 1,076', Breaking each connection visually inspecting box and pins. Found no issues and ensuring proper torque values used.	4.5
U_LPP	Tih F/ 1,076' T/ 4,769', taking returns to trip tank, getting back proper pipe displacement.	2
U_LPP	Wash down for safety F/ 4,769' T/ 4,957' and take SPR's.	0.5
DRL-SLIDE	Slide 12' @ 48 ft/hr, 16k wob, 196 spm, 752 gpm, 125 mrpm, 2,340 psi, 236 diff, 250 mtf.	0.25
DRL-ROT	Rotate 84' @ 84 ft/hr, 35k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,127 psi, 606 diff, 14k torque on bottom.	1
DRL-SLIDE	Slide 15' @ 30 ft/hr, 105 mtf.	0.5
DRL-ROT	Rotate 80' @ 106 ft/hr.	0.75
DRL-SLIDE	Slide 10' @ 40 ft/hr, 270 mtf.	0.25
DRL-ROT	Rotate 85' @ 85 ft/hr.	1
DRL-SLIDE	Slide 12' @ 48 ft/hr, 280 mtf.	0.25
DRL-ROT	Rotate 83' @ 166 ft/hr.	0.5
DRL-SLIDE	Slide 12' @ 48 ft/hr, 270 mtf.	0.5
DRL-ROT	Rotate 82' @ 109 ft/hr.	0.75
DRL-SLIDE	Slide 12' @ 48 ft/hr, 270 mtf.	0.25
DRL-ROT	Rotate 83' @ 166 ft/hr.	0.5



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 8 Daily Operation: 5/31/2014 06:00 - 6/1/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR				AFE Number 029904			
Days From Spud (days)	7	Days on Location (days)	8	End Depth (ftKB)	6,878.0	End Depth (TVD) (ftKB)	6,873.3	Dens Last Mud (lb/gal)	8.90	Rig	H & P, 604

### Operations Summary

Rot / Sld Drlg f/ 5,527' t/ 6190', Rig service, Rot / Sld Drlg f/ 6190' t/6878'

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 7.80 days since rig accepted, 6.89 days from spud

Rig NPT: .25 hours for previous 24 hours, 18.75 hours for the month of May.

Completion percentage: Surface:100%, Intermediate: 86%, Curve: 0%, Lateral: 0%

PTB: 6703 5.19° Inc 258.43° Azi 16.77' Center to center 2.82' left

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Rotate 113' @ 75 ft/hr, 40k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,300 psi, 750 diff, 16k torque on bottom.	1.5
DRL-SLIDE	Slide 15' @ 30 ft/hr, 28k wob, 196 spm, 752 gpm, 125 mrpm, 2,250 psi, 350 diff, 280 mtf.	0.5
DRL-ROT	Rotate 77' @ 77 ft/hr.	1
DRL-SLIDE	Slide 24' @ 48 ft/hr, 20R tfo.	0.5
DRL-ROT	Rotate 260' @ 104 ft/hr.	2.5
DRL-SLIDE	Slide 32' @ 32 ft/hr, 270 mtf.	1
DRL-ROT	Rotate 70' @ 93 ft/hr.	0.75
DRL-SLIDE	Slide 50' @ 32 ft/hr, 270 mtf.	1
DRL-ROT	Rotate 32' @ 128 ft/hr.	0.25
RIGSER	Servie Rig.	0.5
DRL-ROT	Rotate 15' @ 30 ft/hr.	0.5
DRL-SLIDE	Slide 36' @ 48 ft/hr, 270 mtf.	0.75
DRL-ROT	Rotate 59' @ 59 ft/hr.	1
DRL-SLIDE	Slide 40' @ 32 ft/hr, 270 mtf.	0.75
DRL-ROT	Rotate 39' @ 39 ft/hr.	1
DRL-SLIDE	Slide 45' @ 32 ft/hr, 270 mtf.	1.25
DRL-ROT	Rotate 50' @ 100 ft/hr.	0.5
U_RIG_OT R	Change out washed out MP pop off on MP31.	0.25
DRL-SLIDE	Slide 40' @ 22 ft/hr, 270 mtf.	1.75
DRL-ROT	Rotate 55' @ 110 ft/hr.	0.5
DRL-SLIDE	Slide 27' @ 27 ft/hr, 0° MFO	1
DRL-ROT	Rotate 68' @ 91 ft/hr.	0.75
DRL-SLIDE	Slide 30' @ 24 ft/hr 0° MFO	1.25
DRL-ROT	Rotate 64' @ 64 ft/hr.	1
DRL-SLIDE	Slide 25' @ 33 ft/hr, 0° MFO	0.75
DRL-ROT	Rotate 70' @ 93 ft/hr.	0.75
DRL-SLIDE	Slide ' @ 33 ft/hr, 0° MFO	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 9 Daily Operation: 6/1/2014 06:00 - 6/2/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 029904				
Days From Spud (days)	8	Days on Location (days)	9	End Depth (ftKB)	7,611.0	End Depth (TVD) (ftKB)	7,604.3	Dens Last Mud (lb/gal)	9.03	Rig	H & P, 604

### Operations Summary

Rot / Slid Drlg f/ 6,878' t/ 7,552', Repair MP#2, Lost returns build & pump LCM sweeps, Drlg f/ 7,552' t/ 7,611', Relog Gamma

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 8.80 days since rig accepted, 7.89 days from spud

Rig NPT: 0.0 hours for previous 24 hours, 0.0 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 97%, Curve: 0%, Lateral: 0%

PTB: 7461 4.84° Inc 261.86° Azi 30.48' Center to center 10.19' left

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL-SLIDE	Slide 6' @ 12 ft/hr, 20k wob, 196 spm, 752 gpm, 125 mrpm, 2,310 psi, 350 diff, 30R tfo.	0.5
DRL-ROT	Rotate 195' @ 97.5 ft/hr, 40k wob, 196 spm, 752 gpm, 70 rpm, 125 mrpm, 2,410 psi, 650 diff, 17k torque on bottom.	2
DRL-SLIDE	Slide 24' @ 16 ft/hr, HS tfo.	1.5
DRL-ROT	Rotate 57' @ 57 ft/hr.	1
DRL-SLIDE	Slide 20' @ 13 ft/hr, 270 mtf..	1.5
DRL-ROT	Rotate 62' @ 62 ft/hr.	1
DRL-SLIDE	Slide 40' @ 24 ft/hr, 290 mtf.	1.75
DRL-ROT	Rotate 44' @ 88 ft/hr.	0.5
RIGSER	Service Rig.	0.5
DRL-SLIDE	Slide 50' @ 29 ft/hr, 290 mtf.	1.75
DRL-ROT	Rotate 45' @ 90 ft/hr.	1
DRL-SLIDE	Slide 50' @ 22 ft/hr, 290 mtf.	2.25
DRL-ROT	Rotate 45' @ 90 ft/hr.	0.75
DRL-SLIDE	Slide 36' @ 48 ft/hr, 290 mtf.	2.75
U_RIG_OT R	Circulate with MP #1 while replacing 2- blown swabs in MP#2. 100 spm, 384 gpm, 870 psi, 50 rpm	1.25
U_LC	Dropped MP#1 spm down to 50 to line up MP #2 after changing swabs lost total returns. Line up and fill backside with trip tank took 27 bbls to fill annulus, mud fell 203'. Bring 1 pump online @ 20 spm and regained partial circulation.	0.5
U_LC	Pumped 25 bbl sweep, once at bit staged pumps up to 40 spm, 153 gpm with full circulation. LCM sweeps consisting of 10 lbs/bbl LCF Blend, 10 lbs/bbl tiger bullets, 5 lbs/bbl cotton seed hulls. Pumped 3 - 30 bbl sweeps back to back. Stage pumps up to 120 spm, 450 gpm.	1
DRL-ROT	Drill 59' @ 30 ft/hr with reduced drilling parameters. 15k wob, 120 spm, 450 gpm, 55 rpm, 75 mrpm, 1,250 psi, 350 diff, 10k torque on bottom. Full returns.	2
CIRC	Relog Gamma.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

**Report #: 10 Daily Operation: 6/2/2014 06:00 - 6/3/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig		
9	10	7,720.0	7,712.9	9.08	H & P, 604		

### Operations Summary

Rot / Sld Drig f/ 7,552' t/ 7,720', Circ, TOO H, L/D Bha, Function test Bop's Pull WB, Wash Well head. R/U casing R/Tools

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 9.80 days since rig accepted, 8.89 days from spud

Rig NPT: 1.0 hours for previous 24 hours, 1.0 hours for the month of June.

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

PTB: 7650 5.01° Inc 264.76° Azi 30.13' Center to center 12.02' left 2.14 Below

Estimated Pad Completion 6/30/14

\*\* Contacted TRRC for upcoming cement job ( Amy ) \*\*

### Time Log Summary

Operation	Com	Dur (hr)
DRL-ROT	Drill 109' @ 28 ft/hr with reduced drilling parameters. 15k wob, 120 spm, 450-550 gpm, 55-75 rpm, 75-90 mrpm, 1,250-1,600 psi, 350 diff, 10k torque on bottom. Full returns.  ** TD intermediate @ 7,720' @ 10:00 on 6-2-2014. **	4
CIRC	Circulate 2 - 40bbl 75 vis LCM sweeps out of hole. 1st sweep had 50% increase in cuttings. 2nd sweep brought back 10% increase.  ** Contacted TRRC for upcoming cement job ( Amy ) **	5
TOOH	Flow check, well static Pump slug & Tooh F/ 7720' T/ 1,060'	6.5
BHA	Tooh laying Down HWDP.	0.5
RIGSER	Service Rig	0.5
U_RIG	Change Belts on PDS ( Pipe Wrangler )	1
BHA	Tooh laying Down HWDP, 8" DC's & Drilling Jars.	1
BHA	Lay Down Directional Tools.	1.75
BHA	Clear and clean rig floor.	0.5
NU/TEST	Function Test Bop's	0.25
WEARBUS HING	Pull Wear bushing and wash Well Head.	0.75
RIG UP / RIG DOWN	Hold PJSM & Rig up Express CRT and Casing tools	2.25

**Report #: 11 Daily Operation: 6/3/2014 06:00 - 6/4/2014 06:00**

Job Category			Primary Job Type			AFE Number		
ORIG DRILLING			ODR			029904		
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
10	11	7,720.0	7,712.9	9.19	H & P, 604			

### Operations Summary

Run 9 5/8" casing f/ 0' t/ 7,710', R/d Csg equipmt, Circ prior to Cmt job, Cmt 9 5/8" csg.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 10.80 days since rig accepted, 9.89 days from spud

Rig NPT: 0.0 hours for previous 24 hours, 1.0 hours for the month of June.

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

PTB: 7650 5.01° Inc 264.76° Azi 30.13' Center to center 12.02' left 2.14 Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
SAFETY	PJSM & JSA w/ Express casing crews, H&P, & Pioneer.	0.5
CASE	MU 9 5/8" 43.5 ppf L-80 IC PDC drillable down jet single valve float shoe (2) Jt. shoe track 9 5/8" 43.5 ppf. L-80 IC LTC csg, (1) 9 5/8" 43.5 ppf L-80 IC LTC PDC Drillable Float collar, Pump thru float equip - good.	1.5
CASE	When making up 4th joint it keep cross threading. moved spider to different positions, determeined the top drive was not shimmed properly.	0.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
U_RIG	Shim top drive, CRT center with stump @ rig floor. Code error coming up on draw work could operate draw works properly. Trouble shoot same. H&P determined it was a (tension link fault). H&P by passed fault, electrician on the way. There is three of these sensors, said that it will run properly on two. If another one was to go down it would shutdown draw works completely.	1
CMT	Attempt to run casing. When CRT is stabbed into a joint of casing the joint hanging is a full joint off from the stump toward drillers side. Casing is level Toward drillers cabin & V-door. Issue has to be from rig off center. Rig up power tonges.	1
CASE	Run 9 5/8" casing f/ 136' t/ 7,711'. Check torque to diamond on casing 8,000 ft/lbs average. Installing centralizers every 3rd joint per drilling procedure. Monitor well through trip tank, hole giving proper displacement. The 10 joint caliper ID average was 8.74 on 43.5# & 8.84 f/ 40#. Circulate bottoms up every 3,000'. Full returns during circulations. 36 centralizers run. P/U mandrel hanger & landing joint. Land casing in wellhead - Seaboard & Pioneer Rep verified landing of hanger. Marked pipe for proper landing point. P/U off wellhead.  Bottom Float shoe - 7,711' / Top - 7,709.8' Shoe track - 93.4' Bottom Float collar - 7,619.8' / Top - 7,617.6' Bottom Wrap pipe - 5,956.1' / Top - 3,449.7'	14.5
CASE	Rig Down CRT and Casing tools.	0.5
CMT	Rig Up Cement head and lines to MP's.	0.25
CIRC	Circulate 1 casing volume staggering MP's up to 80 spm, 304 gpm, 625 psi. With full returns until 5200 stks pumped lost all returns. Shut down pumps turn over to cementers.	1.25
CMT	Cement Intermediate casing. After pumping 30 bbls of cement job regained full returns. Adding CemNet to the lead cement slurry. Dropped top plug @ 0530. Currently displacing with fresh water.  ** Rigging down backyard in preparation for solids control equipment w/ OBM. Jet pits to reserve while cementing. **	3

Report #: 12 Daily Operation: 6/4/2014 06:00 - 6/5/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
11	12	7,720.0
		End Depth (TVD) (ftKB)
		7,712.9
		Dens Last Mud (lb/gal)
		9.70
		Rig
		H & P, 604

### Operations Summary

Cmt 9 5/8" csg, R/D cementers, RU & run wireline temp log, PU directional BHA, TIH, work on top drive, TIH & tag float collar, displace w/ OBM

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 11.80 days since rig accepted, 10.89 days from spud

Rig NPT: 2.5 hours for previous 24 hours, 3.5 hours for the month of June.

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

PTB: 7650 5.01° Inc 264.76° Azi 30.13' Center to center 12.02' left 2.14' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CMT	Hold PJSM with Schlumberger and Pumped 5 bbls fresh water, Tested lines to 3500 psi, Pumped 25 bbls to reserve pit, before job. Drop bottom plug and pumped 50 bbl's of Mud push Express @ 10.0lb/gal, MUDPUSH Express B389 @ 1.0. lb/bbl BW/V. Spacer, antifoam 0.2 gal/bbl of Space, Weighting agent 2062.7 lb/mgal, Mica medium 3.0 lb/bbl, Mica coarse 3.0 lb/bbl.  Lead cement 912 sks 363 bbl's @ 11.5 lb/gal, yield 2.24 ft 3/sk, mix water 12.737 gal/sk, Mix fluid 12.737 gal/sk, pumped @ 6 bbls/min. With 0.4% D167, 7.0% D020, 0.1% D065, 0.2% D046, 0.5% D013, 5.0 lb/sk D0420.1 lb/sk D130, and 0.1% D208  Tail cement 188 sks, 36 bbl's @ 16.40 lb/gal, yield 1.07 ft 3/sk, mix water 4.364 gal/sk, mix fluid 4.36 gal/sk, pumped @ 6.0 bbls/min with 0.2% D046, 0.3% D013 and 0.1% D065  Release Top plug witness by company man pumped 371 bbl's of water with biocide @ 8.32 lb/gal @ 6.5 bpm. Slowed pump down to 1.5 bpm 1526 psi. prior to bumping plug to 2,026 psi. held for 5 min's floats holding, released psi flowed back 4 bbl's. Monitor 15 minutes static.  Lift pressures - 100 bbls @ 190 Psi, 200 bbls @ 181 Psi, 300 bbls @ 503 Psi , 400 bbl's 832 Psi, 450 bbl's @ 1,004 Psi, 500 bbl's @ 1,170 Psi, 560 bbls @ 1,490 Psi  Regained full returns 25 bbls into cement job, Lost returns @ 100 into displacement, regained partial returns @ 145 into displacement, full returns @ 200 bbls into displacement & through out remainder of cement job.  **Note** Bumped plug @ 07:15. No cement seen at surface	1.25
CMT	R/D cementers.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
WLHEAD	Back out landing, wash casing hanger seal off, install running tool & packoff, Install and lock down pack off with set screws. Test pack off to 5,000 psi. - Good. Co. Rep & Seaboard Rep. present during all aspects. Install wear bushing.  ** Begin cleaning pits to reserve. **	2
SAFETY	PJSM w/ VES wireline, H&P, & Pioneer.	0.25
LOG	Wireline temprature log. Est. TOC @ 2,525'.	3.25
LOG	R/D wireline.	0.25
CASE	R/D casing bails & elevators, R/U rig bails & elev.  ** Continue rigging up backyard, while waiting on orders after temp log. **	1
RIGSER	Service rig.	0.5
TEST CSG/DRILL OUT/FIT	Test casing while waiting on TRRC to proceed with operations. (Tested to 2,500 psi)	0.5
BHA	Gather & strap directional BHA. TRRC gave permission to move forward with drilling operations.  ** Continue rigging up backyard. **	0.75
BHA	M/U Smith MDSI 516 8 1/2"PDC bit with Schlumberger 6 5/8" Archer RSS, Stabilized, UBHO, 6 3/4" NMDC, Fliter sub, 6 3/4" PF Mtr 7/8 5.0 -0.0 fixed, Float sub, install & test MWD.	5
BHA	TIH picking up 21 joints of HWDP f/104' t/ 760'	1.25
TIH	TIH filling every 15 stds per RSS requirements f/ 760' t/ 7305'	3
U_RIG	H&P downtime - Top drive would not turn, blower motor issue - trouble shoot same. Change out faulty breaker and plug on J-Box.	2.5
CIRC	Test and set up RSS.	0.5
TIH	TIH & tag float collar @ 7613'	0.5
CIRC	Circ / displace with OBM	0.5

### Report #: 13 Daily Operation: 6/5/2014 06:00 - 6/6/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
12	13	8,486.0
		End Depth (TVD) (ftKB)
		8,430.9
		Dens Last Mud (lb/gal)
		9.70
		Rig
		H & P, 604

#### Operations Summary

Displace w/ OBM, drill out float equip & shoe track, FIT test, drill 8 1/2" Production f/ 7720' t/ 8486'

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 12.80 days since rig accepted, 11.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 46%, Lateral: 0%

PTB: 8486' 33.69° Inc 195.06° Azi 39' Left 30' Ahead

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Displace 8.6 fresh water w/ 9.7 OBM	2.25
DRL_FLT	Drill shoe track & 10' of new formation f/ 7,613' t/ 7,730'. 5-10 wob, 40 rpm, 150 diff, 114 spm, 438 gpm, 2,250 spp, 6k trq,	3.75
FIT	After drilling 10' of new formation, circ for 15 min, get accurate mud check. OBM 9.7 in/out. Kill pumps, shut pipe rams, closed super choke, Performed FIT t/ 12.0 EMW @ 925 psi, FIT - good. Open super choke to possum belly, opened 2" on standpipe back to flow line, open rams, close HCR.	0.5
CIRC	Downlink to rotary steerable, to "hold"	0.5
DRL-ROT	Rotate 235' @ 67 ft/hr, 20-25k wob, 134 spm, 515 gpm, 60 rpm, 148 mrpm, 3,000 psi, 450 diff, 10k torque on bottom.	3.5
CIRC	Downlink Archer RSS to "build"	0.75
DRL CURVE- ROT	Rotate 110' @ 44'/hr  **Note** Limit ROP f/ 45-65'/hr per Pathfinder. The inclination @ bit updates every 9 minutes. @ 100 ft/hr they only get one update to see what the tool is doing. By reducing ROP it gives them more control while building the curve.	2.5
CIRC	Downlink Archer RSS - swap from Magnetics to Gravity	1
DRL CURVE- ROT	Rotate 158' @ 63'/hr  **Note** Limit ROP @ 45-65'/hr per Pathfinder	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL CURVE- SLIDE	Slide 95' @ 48'/hr, 10-15k wob, 134 spm, 515 gpm, 148 mrpm, 3,000 psi, 450 diff.  **Note** Had to downlink tool into slide mode due to 14.8° DLS. Cannot rotate through high DLS w/ Archer per Pathfinder.	2
DRL CURVE- ROT	Rotate 158' @ 34'/hr  **Note** Limit ROP @ 30-45'/ hr per Pathfinder	4.75

Report #: 14 Daily Operation: 6/6/2014 06:00 - 6/7/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 13	Days on Location (days) 14	End Depth (ftKB) 10,191.0
	End Depth (TVD) (ftKB) 8,631.2	Dens Last Mud (lb/gal) 9.70
	Rig H & P, 604	

#### Operations Summary

Drill 8 1/2" Production f/ 8,486' t/ 10,191', Rig service.

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 13.80 days since rig accepted, 12.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 12%

Line Proximity: 7' Right 3.3' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL CURVE- ROT	Rotate 31' @ 62 ft/hr, 15-25k wob, 136 spm, 522 gpm, 60 rpm, 148 mrpm, 3,000 psi, 550 diff, 10k torque on bottom.	0.5
RIGSER	Service rig.	0.5
DRL_SURV EY	Survey @ 8,473', 41.42 inc, 187.68 azm.	0.5
DRL CURVE- ROT	Rotate 95' @ 76 ft/hr  ** Making all toolface / downlink adjustments on bottom while drilling unless otherwise noted. **	1.25
DRL_SURV EY	Survey @ 8,568', 51.42 inc, 185.87 azm.	0.5
DRL CURVE- ROT	Rotate 95' @ 76 ft/hr	1.25
DRL_SURV EY	Survey @ 8,663', 60.55 inc, 187.48 azm.	0.5
DRL CURVE- ROT	Rotate 94' @ 94 ft/hr	1
DRL_SURV EY	Survey @ 8,757', 69.45 inc, 187.08 azm.	0.5
DRL CURVE- ROT	Rotate 95' @ 63.3 ft/hr	1.5
DRL_SURV EY	Survey @ 8,852', 75.75 inc, 187.7 azm.  ** 20' left, 20' above. **	0.5
CIRC	Downlink tool	0.25
DRL CURVE- ROT	Rotate 95' @ 76 ft/hr	1.25
DRL_SURV EY	Survey @ 8,947', 81.51 inc, 185.54 azm.	0.5
DRL-ROT	Rotate 54' @ 108 ft/hr	0.5
CIRC	Downlink tool	0.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 135' @ 54'/hr  **Note** Control drilling @ 45-60'/hr as per Pathfinder  **Landed curve @ 9045' MD / 8634' TVD 2.2' Above Line**	2.5
DRL_SURVEY	Survey @ 9041' / 92.27° Inc / 181.84° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9231' / 88.83° Inc / 182.10° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9326' / 90.69° Inc / 181.27° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9420' / 88.35° Inc / 184.52° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 190'/hr	0.5
DRL_SURVEY	Survey @ 9515' / 88.73° Inc / 181.98° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9610' / 91.72° Inc / 182.40° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 190'/hr	0.5
DRL_SURVEY	Survey @ 9705' / 90.10° Inc / 183.76° Azi	0.25
DRL LAT-ROT	Rotate 94' @ 191'/hr	0.5
DRL_SURVEY	Survey @ 9799' / 90.24° Inc / 182.76° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 190'/hr	0.75
DRL_SURVEY	Survey @ 9894' / 91.38° Inc / 182.52° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 9989' / 88.62° Inc / 179.16° Azi	0.25
DRL LAT-ROT	Rotate 158' @ 125'/hr	1.25



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 15 Daily Operation: 6/7/2014 06:00 - 6/8/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
14	15	12,109.0	8,628.2	9.70	H & P, 604			

### Operations Summary

Drill 8 1/2" Production f/ 10,191' t/ 12,109', Rig service, lost SPP & drilling torque, TOOH to inspect BHA.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 14.80 days since rig accepted, 13.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 126' @ 168 ft/hr, 30k wob, 136 spm, 522 gpm, 60 rpm, 148 mrpm, 3,400 psi, 550 diff, 16k torque on bottom.	0.75
DRL_SURVEY	Survey @ 10,273' / 89.38° Inc / 174.36° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 151 ft/hr, 15k wob, 130 spm, 500 gpm, 100 rpm, 144 mrpm, 3,260 psi, 550 diff, 16k torque on bottom.	1.25
DRL_SURVEY	Survey @ 10,462' / 90.52° Inc / 179.88° Azi	0.25
DRL LAT-ROT	Rotate 190' @ 127 ft/hr ** Pump weighted sweeps every 300'. Sweeps bringing back 40% increase in fines & drill cuttings. **	1.5
DRL_SURVEY	Survey @ 10,652' / 91.44° Inc / 182.77° Azi	0.25
DRL LAT-ROT	Rotate 126' @ 151 ft/hr ** Limit ROP - 125 ft/hr. Seeing high doglegs, attempt to control better with lower ROP. **	1.5
DRL_SURVEY	Survey @ 10,841' / 90.89° Inc / 181.04° Azi	0.25
DRL LAT-ROT	Rotate 190' @ 127 ft/hr ** Lower ROP is controlling the inclination correctly. Still having issue with azimuth walk. **	1.5
DRL_SURVEY	Survey @ 11,031' / 90.14° Inc / 183.11° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 108 ft/hr ** Held conference call w/ Pathfinder, Engineer, & Superintendent. Discussing further action plan for drastic azimuth changes. Will take RSS out of Inc/azm hold and program into Inc hold only & manually steer azimuth. **	1.75
DRL_SURVEY	Survey @ 11,220' / 90.48° Inc / 184.8° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 109 ft/hr	1.75
RIGSER	Rig Service	0.5
DRL_SURVEY	Survey @ 11,410' / 87.80° Inc / 181.49° Azi	0.25
DRL LAT-ROT	Rotate 189' @ 109 ft/hr, 20k wob, 128 spm, 495 gpm, 100 rpm, 148 mrpm, 3,800 psi, 450 diff, 16k torque on bottom.	1.75
DRL_SURVEY	Survey @ 11,599' / 90.96° Inc / 187.29° Azi	0.25
DRL LAT-ROT	Rotate 190' @ 76 ft/hr	2.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 11,789' / 91.00° Inc / 182.97° Azi	0.25
DRL LAT- ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURV EY	Survey @ 11,978' / 89.17° Inc / 181.31° Azi	0.25
DRL LAT- ROT	Rotate 87' @ 116'/hr  **While drilling @ 12,109', a sudden pressure loss of 1,200 psi & 5k torque loss was noticed. Driller notified PNR rep & DD. Went to rig floor and compared current SPP vs. SPR and noticed that current SPP was 100-150 psi lower than SPR's. Brought pumps back up to drilling rates and pressure was still approx 1200 psi lower. Pumped for approx 5 mins @ drilling rate to see if MWD tool would give signal. No signal was received from MWD. Notified PNR field supt, and decision was made to TOH to inspect BHA.**	0.75
U_MTR	PJSM w/ H&P, PNR, & Pathfinder, prepare rig floor f/ trip, & flow check (well static)	0.75
U_MTR	TOOH wet f/ 12,109' - 10,200'.  **Note** Pumped out first 3 stands due to high drag. Pulling 50-75k over P/U weight. Would not pull with out pumping. Encountered tight spots & pulled 360-375k @ 11925', 11765', & 10980'	3.5

Report #: 16 Daily Operation: 6/8/2014 06:00 - 6/9/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 15	Days on Location (days) 16	End Depth (ftKB) 12,109.0
	End Depth (TVD) (ftKB) 8,628.2	Dens Last Mud (lb/gal) 9.80
		Rig H & P, 604

#### Operations Summary

TOOH, LD Dir Tools, P/U collars and reamers, TIH to circ hole clean before fishing ops

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 15.80 days since rig accepted, 14.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	TOOH f/ pressure loss f/ 10,003' t/ 7,602'. (inside casing shoe) Monitor well through trip tank, hole taking proper displacement.	3.5
RIGSER	Service Rig	0.5
U_MTR	TOOH f/ pressure loss f/ 7,602' t/ 751'. Monitor well through trip tank, hole taking proper displacement.  ** Once out of hole it was discovered that the drive shaft just above the bit box snapped. Est top of fish is 12,032' Left 77.65' of fish in the hole. Bit, RSS, UBHO, Pony Flex, NMDC, Filter sub, Pony Flex, 1' of bit box. **	5
U_MTR	Clean rig floor, & gather & strap BHA for clean out run. Bit, bit sub, 1 - 6.5" D.C, stabilizer, 1 - 6.5" D.C, stabilizer, 1 - 6.5" D.C., X/O sub.	1.5
U_MTR	MU BHA for clean out run.	1.5
U_MTR	TIH f/ BHA t/ 7200' filling every 30 stands & monitoring displacement into trip tank.	3
CUTDL	Cut and slip drill line	2.5
U_MTR	TIH f/ 7200' t/ 9900' filling every 30 stands & monitoring displacement into trip tank.  **Encountered tight spots @ approx 9,900'. Screwed into stand and reamed down. Bottoms up brought back large quarter size shards and flakes of shale w/ normal drill cutting from not cleaning the hole before TOOH. This is the first time we have seen the flaking shale. **	3
U_MTR	Circ 20 bbls weighted sweep around. Sweep brought back normal drill cuttings along with 20% of that being larger shards and flakes of shale. Bringing mud weight up from 9.8+ to 10.0 ppg.	1
U_MTR	TIH f/ 9,900 t/ 10,450' on elevators. Monitor well through trip tank, hole giving proper displacement. Tagged up @ 10,450'.	0.5
U_MTR	Wash & Ream f/ 10,450' t/ 10,835'. 150 spm, 575 gpm, 90 rpm, 2,020 spp, 12-15k trq.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

**Report #: 17 Daily Operation: 6/9/2014 06:00 - 6/10/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days) 16	Days on Location (days) 17	End Depth (ftKB) 12,109.0	End Depth (TVD) (ftKB) 8,628.2	Dens Last Mud (lb/gal) 9.80	Rig H & P, 604	

### Operations Summary

Wash & Ream f/ 10,835' t/ 12,032', Circ, Ream 5 stds out of hole, Ream back to btm, Circ & raise MW to 10.4 ppg, TOO H f/ 12029' t 113', L/D BHA, clean rig floor, gather and strap fishing tools

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 16.80 days since rig accepted, 15.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	Wash & Ream f/ 10,835' t/ 11,005'. 150 spm, 575 gpm, 90 rpm, 2,020 spp, 12-15k trq.	1.5
U_MTR	@ 11,065' Hole packing off, torqueing up. Pump 40 bbl high vis weighted sweep. Sweep unloaded hole, 50% fines, 30% sloughing shale, 20% cutting sized pieces.	1.5
U_MTR	Wash & Ream f/ 11,005' t/ 11,500'. 130 spm, 500 gpm, 70 rpm, 1,550 spp, 6-21k trq.	1.5
U_MTR	@ 11,541' Hole packing off, torqueing up. Pump 40 bbl low vis weighted sweep. Sweep unloaded hole, 30% fines, 10% sloughing shale, 20% cutting sized pieces.	1.5
U_MTR	Wash & Ream f/ 11,541' t/ 12,032'. 130 spm, 500 gpm, 90 rpm, 1,550 spp, 6-21k trq. Shakers are clean currently while reaming. Minium torque & hole not packing off.	3
U_MTR	Tagged @ 12,032', While reciprocating string circulate 40 bbl low vis weighted sweep out of hole 90 rpm, 130 spm, 1,550 spp, 8-15k trq. Sweep brought back 15% in fine cuttings. Pump a second sweep high vis weighted sweep, 120 rpm, 144 spm, 550 gpm, 2,050 spp. Sweep brought back 10% in fines. Shakers clean.	2
U_MTR	Attempt to TOO H on elevators, unable to pull without pumping. Ream 5 stands out and decision was made to ream back to bottom and increase MW from 10.0 to 10.4 ppg.	3
U_MTR	Circulate and raise MW from 10.0 to 10.4 ppg, 150 spm, 575 gpm, 2100 spp, 90 rpm	2.5
U_MTR	TOOH f/ 12,032' t/ 113' on elevators, hole taking proper fill.	6
U_MTR	Function test BOP's, LD XO, 2-stabilizers, bit sub & bit. Rack collars back.	1
U_MTR	Clean rig floor, gather and strap fishing tools.	0.5

**Report #: 18 Daily Operation: 6/10/2014 06:00 - 6/11/2014 06:00**

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days) 17	Days on Location (days) 18	End Depth (ftKB) 12,109.0	End Depth (TVD) (ftKB) 8,628.2	Dens Last Mud (lb/gal) 10.40	Rig H & P, 604	

### Operations Summary

MU fishing tools, TIH, tag and engage fish, TOO H, 100% of fish recovered, LD fishing tools, break off bit & LD Archer RSS

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 17.80 days since rig accepted, 16.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	MU Overshot, circulating sub, XO & tack weld overshot guide.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	TIH f/ surface t/ 3989', PU jars, energizer sub, & LBS. Monitor displacement through trip tank, hole giving proper displacement	4
U_MTR	TIH f/ 4684' t/ 12,032'. Slack off Wt was 205k from top of curve to fish. Monitor displacement through trip tank, hole giving proper displacement	4.5
U_MTR	Circ @ 50 spm, 320 spp & wash down to top of fish. Set down on top of fish 2 times w/ 50k wob, pressure went up to 500 psi. Pull up on fish, engage jars 2 times and TOOHH with fish.	0.75
U_MTR	TOOH f/ 12,032' t/ BHA. Retireved 100% of fish.	9.25
U_MTR	Break off overshot, LD fishing tools, and flex collar from fish	1.75
U_MTR	Break off bit, LD Archer RSS, MWD, UBHO, & MWD Collar	1.75

Report #: 19 Daily Operation: 6/11/2014 06:00 - 6/12/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
18	19	12,109.0
		End Depth (TVD) (ftKB)
		8,628.2
		Dens Last Mud (lb/gal)
		10.40
		Rig
		H & P, 604

#### Operations Summary

LD Dir BHA, LD 6.5" DC's, Rig down and skid rig to re-center, gather directional tools, pull and inspect wear bushing (good), PU RSS assembly, TIH, rig service, TIH, Ream last 5 stds to bottom

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 18.80 days since rig accepted, 17.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 29%

Line Proximity: 26' Right 15' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_MTR	Continue laying down directional BHA.	2
U_MTR	L/D 1 stand of 6.5" D.C.'s out of derrick from clean out run.	1
U_RIG	JSA w/ H&P, & Pioneer for skid rig back over center.	0.5
	** Precautionary shut in, monitoring pressure on choke. **	
U_OTR	Rig down turn buckles, suck out & remove drip pan, dock top drive, remove gull wings on wrangler, run Hydraulic hoses - connect same.	3.5
U_OTR	Re-center rig over hole. It was moved off center to run surface casing. Had issues running 9 5/8" casing. D.P. pulling bushings out of rotary.	1
U_OTR	Rig back up after rig centered.	3
U_MTR	Gather directional tools to rig floor	0.5
U_MTR	Clean rig floor	0.5
U_MTR	Pull & inspect wear bushing (good), PU wash sub and wash wellhead, Install wear bushing.	1.5
U_MTR	MU bit, MWD, RSS assembly & test	3.25
U_MTR	TIH f/ BHA t/ 7385', motnitor displacement through trip tank, hole giving proper displacement.	3.25
RIGSER	Rig Service	0.5
U_MTR	TIH f/7385' t/ 11,647', motnitor displacement through trip tank, hole giving proper displacement.	2.5
U_MTR	Ream f/ 11,647' t/ 12,109', 110 spm, 415 gpm, 2575 spp, 35 rpm, 9500 trq.	1

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 20 Daily Operation: 6/12/2014 06:00 - 6/13/2014 06:00

Job Category ORIG DRILLING				Primary Job Type ODR			AFE Number 029904	
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig			
19	20	13,920.0	8,598.1	10.40	H & P, 604			

### Operations Summary

Ream f/ 12,000' t/ 12,109', Drill 8 1/2" Production lateral f/ 12,109' t/ 13,920'

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 19.80 days since rig accepted, 18.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 47%

Line Proximity: 0.7' Right 2.3' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
WASH_RE AM	Continue washing and reaming to bottom F/ 12,000' to 12,109' 40 RPM's 420 GPM,	1
DRL LAT-ROT	Rotate 12' @ 16 ft/hr, 30k wob, 136 spm, 420 gpm, 60 rpm, 148 mrpm, 3,460 psi, 126 diff, 13k torque on bottom.	0.75
DRL_SURV EY	Survey @ 12081' / 87.97° Inc / 181.672° Azi	0.25
DRL LAT-ROT	Rotate 95' @ 63 ft/hr, 30k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,150 psi, 190 diff, 13k torque on bottom.	1.5
DRL_SURV EY	Survey @ 12,175' / 91.27° Inc / 181.29° Azi Right 26.7' Below 18.5	0.25
DRL LAT-ROT	Rotate 95' @ 76' ft/hr, 30k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,150 psi, 180 diff, 13k torque on bottom.	1.25
DRL_SURV EY	Survey @ 12,270' / 91.45° Inc / 180.92° Azi Right 26' Below 17' DLS 0.43°	0.25
DRL LAT-ROT	Rotate 95' @ 54.3' ft/hr, 34k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,500 psi, 190 diff, 13k torque on bottom.	1.75
DRL_SURV EY	Survey @ 12,365' / 91.27° Inc., 180.38° Azi, 25.5', Right, 15.7' Below, 0.60° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 95' ft/hr, 35 k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,500 psi, 302 diff, 17k torque on bottom.	1
DRL_SURV EY	Survey @ 12,460' / 91.27° Inc., 91.51° Azi, 24.1', Right, 14.2' Below, 0.26° DLS	0.25
DRL LAT-ROT	Rotate 94' @ 125' ft/hr, 40 k wob, 136 spm, 475 gpm, 60 rpm, 148 mrpm, 3,540 psi, 354 diff, 18k torque on bottom.	0.75
DRL_SURV EY	Survey @ 12,554' / 91.17° Inc / 179.3° Azi / 19.1' Right / 12.8' Below / 1.24° DLS	0.25
DRL LAT-ROT	Rotate 190' @ 85'/hr	2.25
DRL_SURV EY	Survey @ 12,744' / 90.76° Inc / 178.60° Azi / 11.56' Right / 10.35' Below / 1.48° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURV EY	Survey @ 12,933' / 91.03° Inc / 178.64° Azi / 7.1' Right / 7.4' Below / 0.51° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 95'/hr	2
DRL LAT-ROT	Survey @ 13,123' / 90.79° Inc / 179.38° Azi / 0.5' Right / 5.9' Below / 0.72° DLS	0.25
DRL LAT-ROT	Rotate 190' @ 108'/hr	1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 13,312' / 90.86° Inc / 181.7° Azi / 0.2' Left / 3.6' Below / 0.76° DLS	0.25
DRL LAT- ROT	Rotate 189' @ 94'/hr	2
DRL LAT- ROT	Survey @ 13,501' / 90.55° Inc / 180.88° Azi / 0.5' Left / 3.6' Below / 0.29° DLS	0.25
DRL LAT- ROT	Rotate 189' @ 126'/hr	1.5
DRL_SURV EY	Survey @ 13,691' / 91.03° Inc / 182.14° Azi / 0.7' Right / 2.3' Below / 0.54° DLS	0.25
DRL LAT- ROT	Rotate 190' @ 126'/hr	1.75

Report #: 21 Daily Operation: 6/13/2014 06:00 - 6/14/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 20	Days on Location (days) 21	End Depth (ftKB) 16,098.0
	End Depth (TVD) (ftKB) 8,553.9	Dens Last Mud (lb/gal) 10.40
		Rig H & P, 604

#### Operations Summary

Drill 8 1/2" Production lateral f/13,920' t/ 16,098'

#### Remarks

H & P 604 Well (University 3-19 47H) Progress: 20.80 days since rig accepted, 19.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 78%

Line Proximity: 2' Left, 10.8' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURV EY	Survey @ 13,880' / 89.45° Inc / 182.50° Azi / 5.4' Right / 3' Below / 1.05° DLS	0.25
DRL LAT- ROT	Rotate 94' @ 94' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,620 psi, 477 diff, 18k torque on bottom.	1
DRL_SURV EY	Survey @ 13,975' / 89.76° Inc / 182.62° Azi / 7.6' Right / 4.5' Below / 0.35° DLS	0.25
RIGSER	Rig Service	0.5
DRL LAT- ROT	Rotate 95' @ 126.6' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,069' / 90.00° Inc / 182.49° Azi / 9.8' Right / 5.5' Below / 0.29° DLS	0.25
DRL LAT- ROT	Rotate 95' @ 126.6' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,164' / 89.59° Inc / 180.73° Azi / 10.4' Right / 6.7' Below / 1.91° DLS	0.25
DRL LAT- ROT	Rotate 95' @ 126.6' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,259' / 89.62° Inc / 179.95° Azi / 9' Right / 8' Below / .82° DLS	0.25
DRL LAT- ROT	Rotate 93' @ 93' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	1
DRL LAT- ROT	Survey @ 14,354' / 90.52° Inc / 180.76° Azi / 7.5' Right / 9' Below / .82° DLS	0.25
DRL LAT- ROT	Rotate 94' @ 125' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURV EY	Survey @ 14,448' / 90.93° Inc / 181.26° Azi / 7' Right / 8.5' Below / .69° DLS	0.25

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL LAT-ROT	Rotate 95' @ 95' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	1
DRL_SURVEY	Survey @ 14,543' / 90.48° Inc / 181.43° Azi / 7.3.' Right / 8.2' Below / .69° DLS	0.25
DRL LAT-ROT	Rotate 97' @ 129' ft/hr, 36 k wob, 124 spm, 475 gpm, 66 rpm, 138 mrpm, 3,700 psi, 494 diff, 19k torque on bottom.	0.75
DRL_SURVEY	Survey @ 14,638' / 91.69° Inc / 181.69° Azi / 7.8.' Right / 7.3' Below / 1.3° DLS	0.25
DRL LAT-ROT	Rotate 64' @ 85' ft/hr, 36 k wob, 124 spm, 475 gpm, 65 rpm, 138 mrpm, 3,700 psi, 545 diff, 19k torque on bottom.	0.75
DRL_SURVEY	Survey @ 14,732' / 91.62° Inc / 181.66° Azi / 8.5.' Right / 5.4' Below / 0.08° DLS	0.25
DRL LAT-ROT	Rotate 93' @ 186' ft/hr, 36 k wob, 124 spm, 475 gpm, 65 rpm, 138 mrpm, 3,700 psi, 565 diff, 19k torque on bottom.	0.5
DRL_SURVEY	Survey @ 14,827' / 91.17° Inc / 179.09° Azi / 7.16.' Right / 3.89' Below / 2.75° DLS	0.25
DRL LAT-ROT	Rotate 126' @ 126' ft/hr, 36 k wob, 124 spm, 475 gpm, 65 rpm, 138 mrpm, 3,700 psi, 565 diff, 19k torque on bottom.	0.75
DRL_SURVEY	Survey @ 14,922' / 91.58° Inc / 178° Azi / 7.16.' Right / 3.89' Below / 1.22° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 15,111' / 91.89° Inc / 179.49° Azi / 1.58.' Right / 15.69' Below / 1.28° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 15,300' / 91.75° Inc / 181.16° Azi / 0.5' Left / 13.2' Below / 0.92° DLS	0.25
DRL LAT-ROT	Rotate 190' @ 108' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 19.5k torque on bottom.	1.75
DRL_SURVEY	Survey @ 15,490' / 92.41° Inc / 182.09° Azi / 1.9' Right / 10.8' Below / 0.75° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 15,679' / 90.21° Inc / 179.80° Azi / 2.0' Right / 10.9' Below / 1.61° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 126'/hr	1.5
DRL_SURVEY	Survey @ 15,868' / 92.03° Inc / 179.65° Azi / 2.0' Left / 10.8' Below / 0.6° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 126'/hr	0.75
DRL_SURVEY	Survey @ 15,963' / 91.75° Inc / 179.85° Azi / 4.0' Left / 9.7' Below / 0.36° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 95'/hr	1



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

<b>Report #: 22 Daily Operation: 6/14/2014 06:00 - 6/15/2014 06:00</b>					
Job Category ORIG DRILLING				Primary Job Type ODR	
				AFE Number 029904	
Days From Spud (days) 21	Days on Location (days) 22	End Depth (ftKB) 18,080.0	End Depth (TVD) (ftKB) 8,506.0	Dens Last Mud (lb/gal) 10.40	Rig H & P, 604
<b>Operations Summary</b> Drill 8 1/2" Production lateral f/16,098' t/ 18,080', Pump 2 80 bbl weighted sweeps & Circ 2 BU. <b>Remarks</b> H & P 604 Well (University 3-19 47H) Progress: 21.80 days since rig accepted, 20.89 days from spud  Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.  Completion percentage: Surface:100%, Intermediate: 100%, Curve: 100%, Lateral: 100%  Line Proximity: 11.3' Left, 1' Below  Surface drill time: 12.5 hrs / 0% Slide  Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide  Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)  Lateral drill time: 84 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)  Estimated Pad Completion 6/30/14					
<b>Time Log Summary</b>					
Operation	Com				Dur (hr)
DRL LAT-ROT	Rotate 95 ' @ 95' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 19.5k torque on bottom.				0.75
DRL_SURVEY	Survey @ 16,153' / 91.89° Inc / 180.76° Azi / 6.6 Left / 7.8' Below / 0.77° DLS				0.25
DRL LAT-ROT	Rotate 95 ' @ 128' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				0.75
RIGSER	Service Rig.				0.5
DRL_SURVEY	Survey @ 16247' / 90.41° Inc / 178.97° Azi / 8 Left / 8' Below / 2.48° DLS				0.25
DRL LAT-ROT	Rotate 94 ' @ 125' ft/hr, 24k wob, 124 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				0.75
DRL_SURVEY	Survey @ 16342' / 91.82° Inc / 180.16° Azi / 10.7 Left / 8' Below / 1.95° DLS				0.25
DRL LAT-ROT	Rotate 95 ' @ 95' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				1
DRL_SURVEY	Survey @ 16437' / 91.72° Inc / 181.29° Azi / 11 Left / 7.3' Below / 1.19° DLS				0.25
DRL LAT-ROT	Rotate 94 ' @ 125' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				0.75
DRL_SURVEY	Survey @ 16,531' / 91.62° Inc / 182.64° Azi / 9.4 Left / 6.6' Below / 1.43° DLS				0.25
DRL LAT-ROT	Rotate 95 ' @ 190' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				0.5
DRL_SURVEY	Survey @ 16,626' / 91.38° Inc / 182.99° Azi / 6.4 Left / 6.3' Below / 0.36° DLS				0.25
DRL LAT-ROT	Rotate 94 ' @ 94' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				1
DRL_SURVEY	Survey @ 16,720' / 91.65° Inc / 183.38° Azi / 2.8 Left / 5.8' Below / 0.60° DLS				0.25
DRL LAT-ROT	Rotate 95 ' @ 126' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				0.75
DRL_SURVEY	Survey @ 16,815' / 90.96° Inc / 181.57° Azi / 0.3 Left / 5.8' Below / 2.05° DLS				0.25
DRL LAT-ROT	Rotate 95 ' @ 195' ft/hr, 28k wob, 122 spm, 475 gpm, 75 rpm, 138 mrpm, 3,850 psi, 500 diff, 20k torque on bottom.				0.5
DRL_SURVEY	Survey @ 16910' / 91.27° Inc / 180.78° Azi / 0.1Right / 6' Below / 0.89° DLS				0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr				1.75

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
DRL_SURVEY	Survey @ 17099' / 91.55° Inc / 180.37° Azi / 1.1 Left / 5.3' Below / 0.28° DLS	0.25
DRL LAT-ROT	Rotate 190' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 17,289' / 91.24° Inc / 180.43° Azi / 3.13 Left / 5' Below / 0.18° DLS	0.25
DRL LAT-ROT	Rotate 189' @ 108'/hr	1.75
DRL_SURVEY	Survey @ 17,383' / 91.17° Inc / 180.02° Azi / 4.3 Left / 5.8' Below / 0.44° DLS	0.25
DRL LAT-ROT	Rotate 95' @ 76' ft/hr, 27k wob, 110 spm, 422 gpm, 85 rpm, 122 mrpm, 3,350 psi, 350 diff, 20k torque on bottom. ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	1.25
DRL_SURVEY	Survey @ 17,573' / 91.79° Inc / 180.86° Azi / 5.1 Left / 4.5' Below / 0.42° DLS	0.25
DRL LAT-ROT	Rotate 187' @ 93.5' ft/hr, 17k wob, 110 spm, 422 gpm, 85 rpm, 122 mrpm, 3,350 psi, 350 diff, 17k torque on bottom. ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	2
DRL_SURVEY	Survey @ 17,762' / 91.41° Inc / 179.68° Azi / 7.6 Left / 3.9' Below / 0.51° DLS	0.25
DRL LAT-ROT	Rotate 191' @ 95'/hr ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	2
DRL_SURVEY	Survey @ 17,951' / 91.07° Inc / 179.87° Azi / 13.1 Left / 3.8' Below / 0.24° DLS	0.25
DRL LAT-ROT	Rotate 89' @ 89'/hr *TD Lateral section of well 18,080' @ 4:30.* ** NOTE** Drilling with 1 pump on hole while changing swabs & liner on #2 pump.	1
DRL_SURVEY	Survey @ 18,040' / 91.31° Inc / 179.99° Azi / 11.3' Left / 1' Below / 0.30° DLS	0.25
CIRC	Pump 2 80 bbl weighted sweeps, Circ 2 BU, Back ream t/ 14,000', ream f/ 14,000' t/18,080', Circ 2 BU, TOOH	1.25

Report #: 23 Daily Operation: 6/15/2014 06:00 - 6/16/2014 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
22	23	18,080.0
		End Depth (TVD) (ftKB)
		8,506.0
		Dens Last Mud (lb/gal)
		10.50
		Rig
		H & P, 604

### Operations Summary

Pump 2-80 bbl weighted sweeps, Circ 2 BU, Back ream t/ 11,458', TOOH f/ 11,458' t/ 9,090' Pump 40 bbl weighted sweep, Circ BU.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 22.80 days since rig accepted, 21.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Surface drill time: 12.5 hrs / 0% Slide

Intermediate drill time: 99.1 Hrs / 79.1% Rotate & 20.9% Slide

Curve drill time: 18.5 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Lateral drill time: 84 Hrs / 100% Rotate & 0% Slide (Pathfinder RSS)

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Pump 2-80 bbl weighted sweeps, Circ 2 BU,	3.5

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Time Log Summary

Operation	Com	Dur (hr)
WASH_RE AM	Backream f/18,080' t/11,458' (70 stds) Rot wt 195k, PU wt 205k, 50 rpm, 120 spm, 3400 psi and 11,200 trq.  **Note** Attempted to pull without rotary & pumps every stand from 12,500' up. Was not able to pull without pumps until we reached 11,458' due to pick up weight being 100k+ over string weight.  **Note** Pulling 15'/min as per Pathfinder.	16.5
TOOH	TOOH f/ 11,458' t/ 9090' on elevators, hole taking proper fill.	2.5
CIRC	Pump 1-40 bbl weighted sweep, Circ until sweep clears and shakers are clean, 120 spm, 2650 psi, 50 rpm and reciprocate pipe.	1.5

Report #: 24 Daily Operation: 6/16/2014 06:00 - 6/17/2014 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 029904
Days From Spud (days) 23	Days On Location (days) 24	End Depth (ftKB) 18,080.0
	End Depth (TVD) (ftKB) 8,506.0	Dens Last Mud (lb/gal) 10.70
	Rig H & P, 604	

Operations Summary  
Lost 1000 psi while circ. @ base of curve. TOOH to inspect. Left all tools below mandrel in hole. Test BOP and accum. . Pick up fishing tools TIH.

Remarks  
H & P 604 Well (University 3-19 47H) Progress: 23.80 days since rig accepted, 22.89 days from spud

Rig NPT: 16 hours for previous 24 hours, 19.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CIRC	Pump 2-40 bbl weighted sweep, Circ until sweep clears and shakers are clean, 120 spm, 2650 psi, 50 rpm and reciprocate pipe.	0.75
U_LPP	While Circ. second sweep out of hole and working pipe, pump pressure fell from 2750 psi to 1610 psi. Test all surface lines and trouble shoot problem. Came down on string to 9061' and regained pump psi. Finish Circ sweep out of hole and TOOH.	1.25
U_OTR	TOOH f/ 9090' t/ 1892' surface on elevators, hole taking proper fill.	5
U_OTR	Lay down 19 stands DP that no room to rack in derrick F/ 1892' to 187', lay down all associated directional tools. Motors sperated from lower BHA @ mandrel. Clean and clear rig floor after pulling entire string wet.  *Fish in hole DBL pin pony sub, Filter sub, Stabalizer, Flow sleeve, NMDC, CLPS sub, UBHO, Power drive and Bit. Fish length 63.64'. Expected top of fish @ 8998'.	3.5
RIGSER	Rig Service	0.5
U_OTR	Remove wear bushing and inspect, PU wash out tool and clean stack to prepare for BOP test.	2
NU/TEST	Review JSA on testing BOPs, RU testing equipment, M/U test plug, open csg valve, set 13 5/8" test plug, RU test BOP's Pipe rams, Annular, & blind rams 250 psi low and 3,500 psi high. TIW & inside BOP safety valves, Choke & Kill line 250 psi low 3,500 psi high. Choke & choke manifold & valves 250 psi. low 3500 psi. high. Tested stand pipe back to rig pumps 250 psi. low 4,500 psi. high. all test held for 5min. and charted. Rig down testing equipment and Preform Accumulator bleed down test. Final Accumulator bottle pressure 1200 psi.	6.75
U_OTR	Install wear bushing..	0.5
U_FSH	Stage and PU Fishing BHA, 8 1/8" overshot, 8 1/8" extension, 4 1/2 IF box to 4 1/2 FH XO, 1 Stnd of 5" DP, and 6 1/2' float sub. Total length 104'.	1.75
U_FSH	TIH w/ 94 stand of 5" DP to top of fish 8998'.	2

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Report #: 25 Daily Operation: 6/17/2014 06:00 - 6/18/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
24	25	18,080.0	8,506.0	10.70	H & P, 604	

### Operations Summary

TIH to 7708', cut and slip drill line. TIH to top fish, tag @ 8927'. Catch Fish, TOH. Lay down fishing tools and break down directional BHA. Pull wear bushing, rig up CRT and Run 5.5" casing

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 24.80 days since rig accepted, 23.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
U_FSH	TIH w/ Fishing BHA T/7539.	1.5
CUTDL	Slip and Cut Drilling Line. Recalibrate Drawworks.	3
RIGSER	Service rig and clean floor	0.5
U_FSH	Continue TIH with fishing assembly F/ 7711' to 8927' Top of fish	1
U_FSH	Circulate on top of fish Slack down onto fish with 90 K down. Inccress in pump pressure from 400 PSI to 700 PSI, Pick up before latching onto fish 220 K after 230 K.	0.5
U_FSH	POOH with Fish. Normal drag and hole taking proper fill.	7.5
BHA	Break down and lay out fishing BHA and fish ( lower directional BHA ).	2
WEARBUS HING	Clear rig floor and remove wear bushing. Verified by PNR rep.	0.5
RU/RD EQUIPT	Safety meeting w/ Franks CRT, PNR rep. on floor. Stage and rig up all CRT equipment and prepare for casing run.	4.5
CASE	Make up shoe track, Run 5.5" production casing f/ RKB to 350'. Torque values and track assmb. verified by PNR rep. Rcommended optimal torque of 11,000 lbs being applied. Run casing in hole @ 100' per min while in casing. Slow speed to 60' per min in curve.	3

Report #: 26 Daily Operation: 6/18/2014 06:00 - 6/19/2014 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 029904
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig	
25	26	8,927.0	8,623.6	10.80	H & P, 604	

### Operations Summary

Run 5.5" Prod. casing f/ 1,200' to 11,733'.

### Remarks

H & P 604 Well (University 3-19 47H) Progress: 25.80 days since rig accepted, 24.89 days from spud

Rig NPT: 0 hours for previous 24 hours, 3.5 hours for the month of June.

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

Line Proximity: 11.3' Left, 1' Below

Estimated Pad Completion 6/30/14

### Time Log Summary

Operation	Com	Dur (hr)
CASE	Run Production Casing 5 1/2" P-110 20# BTC casing F/ 1200' to 3290'	4
U_OTR	Frank's Working on mud Valve on CRT Tool could not get valve broke out layed down CRT tool and Picked up Back up tool.	4
CASE	Continue Running in hole with 5 1/2" P-110 20# BTC casing f/ 3290' to 7678'.	8
CIRC	Circ. BU @ base of shoe 7678'. 3700 STK @ 75 SPM.	1
CASE	Continue Running in hole with 5 1/2" P-110 20# BTC casing f/ 7678' to 11,733'. SO speed trough curve 60'/ min. PU speed to 100'/ min after entering lateral section.	6
CIRC	Circ. BU @ 11,733'. 5,500 STK @ 75 SPM.	1

### WELL DETAILS

Well Name UNIVERSITY 3-19 47H	API/UWI 42-461-39157-0000	Operator PIONEER NATURAL RESRC USA INC
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## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Wellbore Hole Size									
Section Des		Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date		End Date		
Conductor		30	27.0	147.0	12/16/2013		12/16/2013		
Surface		17 1/2	147.0	1,207.0	5/25/2014		5/26/2014		
Intermediate		12 1/4	1,207.0	7,720.0	5/28/2014		6/2/2014		
Production		8 1/2	7,720.0		6/5/2014				
Conductor Casing									
Run Date		Set Depth (ftKB) 120.0			Centralizers				
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		20				120.00	1	0.0	120.0
Run Date 12/17/2013		Set Depth (ftKB) 147.0			Centralizers				
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		20	19.000	106.50	J-55	120.00	3	27.0	147.0
Surface Casing									
Set Depth (ftKB) 1,100.0		Run Date			Centralizers				
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	1,075.00	27	25.0	1,100.0
Set Depth (ftKB) 1,207.0		Run Date 5/27/2014			Centralizers				
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Jnt		13 3/8	12.715	48.00	J-55	0.00	0	27.0	27.0
Cut Off		13 3/8	12.715	48.00	J-55	0.00	0	27.0	27.0
Casing Jnt		13 3/8	12.715	48.00	J-55	1,135.13	28	27.0	1,162.1
Float Collar		13 3/8	12.715	48.00	J-55	1.50	1	1,162.1	1,163.6
Casing Joints		13 3/8	12.715	48.00	J-55	41.91	1	1,163.6	1,205.5
Shoe Joint		13 3/8	12.715	48.00	H-40	1.50	1	1,205.5	1,207.0
Surface Casing Cement									
Type Casing		String Surface, 1,207.0ftKB		Cementing Start Date 5/27/2014	Cementing End Date 5/27/2014	Cementing Company Crest		Top (ftKB) 27.0	Btm (ftKB) 1,207.0
Class Class C		Amount (sacks) 480			Yield (ft³/sack) 1.90		Density (lb/gal) 13.60		
Class Class C		Amount (sacks) 345			Yield (ft³/sack) 1.71		Density (lb/gal) 12.80		
Intermediate Casing									
Set Depth (ftKB) 7,711.0		Run Date 6/3/2014			Centralizers 38				
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Landing Joint		9 5/8	8.835	40.00	L-80	0.00	0	30.1	30.1
Hanger		9 5/8	8.835	40.00	L-80	4.10	1	30.1	34.2
Marker Joints		9 5/8	8.835	40.00	L-80	39.91	2	34.2	74.1
Casing Jnts		9 5/8	8.835	40.00	L-80	3,375.59	74	74.1	3,449.7
Ryte Wrap		9 5/8	8.835	40.00	L-80	2,506.39	55	3,449.7	5,956.1
Casing Jnts		9 5/8	8.755	43.50	L-80	1,661.49	36	5,956.1	7,617.6
Float Collar		9 5/8	8.755	43.50	L-80	2.19	1	7,617.6	7,619.8
Casing Jnts		9 5/8	8.755	43.50	L-80	90.04	2	7,619.8	7,709.8
Float Collar		9 5/8	8.755	43.50	L-80	1.17	1	7,709.8	7,711.0
Set Depth (ftKB) 8,010.0		Run Date			Centralizers				
Item Des		OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints		9 5/8	8.755	43.50	L-80	7,984.00	200	26.0	8,010.0
Intermediate Casing Cement									
Type Casing		String Intermediate, 7,711.0ftKB		Cementing Start Date 6/4/2014	Cementing End Date 6/4/2014	Cementing Company Crest		Top (ftKB) 2,525.0	Btm (ftKB) 7,720.0
Class MudPush		Amount (sacks) 0			Yield (ft³/sack) 2.83		Density (lb/gal) 10.00		
Class TXI LITEWEIGHT		Amount (sacks) 912			Yield (ft³/sack) 2.23		Density (lb/gal) 11.50		
Class Class H		Amount (sacks) 188			Yield (ft³/sack) 1.07		Density (lb/gal) 16.40		
Class Water		Amount (sacks) 0			Yield (ft³/sack)		Density (lb/gal) 8.60		

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

### Production Casing

Set Depth (ftKB)	18,068.0	Run Date	6/18/2014	Centralizers	40			
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Landing Joint	5 1/2	4.778	20.00	P-110	32.24	1	-4.3	28.0
Casing Running Tool	5 1/2	4.778	20.00	P-110	0.50	1	28.0	28.5
Casing Hanger	5 1/2	4.778	20.00	P-110	1.00	1	28.5	29.5
Pup Joint	5 1/2	4.778	20.00	P-110	3.00	1	29.5	32.5
Casing Jnt	5 1/2	4.778	20.00	P-110	0.00	0	32.5	32.5
Casing Jnt	5 1/2	4.778	20.00	P-110	0.00	0	32.5	32.5
Casing Jnt	5 1/2	4.778	20.00	P-110	0.00	0	32.5	32.5
Casing Jnt	5 1/2	4.778	20.00	P-110	0.00	0	32.5	32.5
Casing Jnt	5 1/2	4.778	20.00	P-110	7,762.93	190	32.5	7,795.4
Casing Marker Jnt	5 1/2	4.778	20.00	P-110	10.31	1	7,795.4	7,805.7
Casing Jnt	5 1/2	4.778	20.00	P-110	209.69	5	7,805.7	8,015.4
Casing Marker Jnt	5 1/2	4.778	20.00	P-110	9.31	1	8,015.4	8,024.7
Casing Jnt	5 1/2	4.778	20.00	P-110	9,919.61	244	8,024.7	17,944.3
Pup Joint	5 1/2	4.778	20.00	P-110	8.12	1	17,944.3	17,952.5
Toe Sleeve	5 1/2	4.778	20.00	P-110	5.50	1	17,952.5	17,958.0
Pup Joints	5 1/2	4.778	20.00	P-110	8.55	1	17,958.0	17,966.5
Marker Joints	5 1/2	4.778	20.00	P-110	19.16	1	17,966.5	17,985.7
Latch In Double Float Collar	5 1/2	4.778	20.00	P-110	2.18	1	17,985.7	17,987.8
Casing Jnt	5 1/2	4.778	20.00	P-110	79.00	2	17,987.8	18,066.8
Reaming Float Shoe	5 1/2	4.778	20.00	P-110	1.16	1	18,066.8	18,068.0

### 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)
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### GEL

Fluid Name	Total Clean Volume (bbl)
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### SAND & ACID

Additive	Type	Amount	Units	Sand Size	Concentration...
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### Zones

Zone Name	Top (ftKB)

### Tubing Details

Tubing Description	Set Depth (ftKB)	Run Date
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### 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
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### Rod Components

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

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Other In Hole										
Des		Top (ftKB)	Btm (ftKB)	OD (in)	Run Date	Com		String	Wellbore	
									Original Hole	
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							
5/25/2014			MAIN HOLE SURVEY							
Date	MD (ftKB)		Incl (°)		Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company		
6/2/2014	150.00		1.06		132.04	149.99	1.39	Pathfinder		
6/2/2014	243.00		1.06		133.97	242.98	3.11	Pathfinder		
6/2/2014	340.00		1.41		125.10	339.95	5.19	Pathfinder		
6/2/2014	432.00		1.14		118.68	431.93	7.24	Pathfinder		
6/2/2014	524.00		1.49		129.84	523.91	9.34	Pathfinder		
6/2/2014	616.00		0.62		158.14	615.89	10.99	Pathfinder		
6/2/2014	708.00		0.44		351.70	707.89	11.16	Pathfinder		
6/2/2014	800.00		0.79		333.84	799.88	12.14	Pathfinder		
6/2/2014	891.00		0.79		347.11	890.87	13.39	Pathfinder		
6/2/2014	986.00		0.88		347.37	985.86	14.77	Pathfinder		
6/2/2014	1,080.00		1.06		334.19	1,079.85	16.35	Pathfinder		
6/2/2014	1,137.00		0.88		344.82	1,136.84	17.31	Pathfinder		
6/2/2014	1,302.00		0.53		336.56	1,301.83	19.34	Pathfinder		
6/2/2014	1,397.00		0.62		332.43	1,396.83	20.29	Pathfinder		
6/2/2014	1,492.00		0.70		319.69	1,491.82	21.38	Pathfinder		
6/2/2014	1,586.00		0.88		313.89	1,585.81	22.67	Pathfinder		
6/2/2014	1,681.00		0.97		301.76	1,680.80	24.20	Pathfinder		
6/2/2014	1,776.00		0.88		285.94	1,775.79	25.72	Pathfinder		
6/2/2014	1,871.00		0.88		287.08	1,870.77	27.18	Pathfinder		
6/2/2014	1,966.00		0.79		299.47	1,965.76	28.55	Pathfinder		
6/2/2014	2,060.00		0.79		306.24	2,059.76	29.85	Pathfinder		
6/2/2014	2,155.00		0.62		303.52	2,154.75	31.01	Pathfinder		
6/2/2014	2,250.00		0.53		296.66	2,249.74	31.97	Pathfinder		
6/2/2014	2,344.00		0.35		298.33	2,343.74	32.69	Pathfinder		
6/2/2014	2,439.00		0.18		309.76	2,438.74	33.13	Pathfinder		
6/2/2014	2,534.00		0.09		325.40	2,533.74	33.35	Pathfinder		
6/2/2014	2,629.00		0.09		16.11	2,628.74	33.48	Pathfinder		
6/2/2014	2,723.00		0.18		21.74	2,722.74	33.70	Pathfinder		
6/2/2014	2,818.00		0.26		19.28	2,817.74	34.07	Pathfinder		
6/2/2014	2,913.00		0.26		17.61	2,912.74	34.50	Pathfinder		
6/2/2014	3,008.00		0.35		17.61	3,007.74	35.01	Pathfinder		
6/2/2014	3,102.00		0.26		14.27	3,101.73	35.51	Pathfinder		
6/2/2014	3,197.00		0.26		5.14	3,196.73	35.94	Pathfinder		
6/2/2014	3,292.00		0.26		2.05	3,291.73	36.37	Pathfinder		
6/2/2014	3,386.00		0.26		6.18	3,385.73	36.79	Pathfinder		
6/2/2014	3,481.00		0.35		8.64	3,480.73	37.30	Pathfinder		
6/2/2014	3,576.00		0.44		5.39	3,575.73	37.95	Pathfinder		
6/2/2014	3,670.00		0.09		87.92	3,669.73	38.33	Pathfinder		
6/2/2014	3,765.00		0.62		223.27	3,764.73	38.79	Pathfinder		
6/2/2014	3,860.00		0.97		240.06	3,859.72	40.10	Pathfinder		
6/2/2014	3,954.00		1.06		234.96	3,953.70	41.76	Pathfinder		
6/2/2014	4,049.00		1.06		236.19	4,048.69	43.52	Pathfinder		
6/2/2014	4,144.00		0.88		235.40	4,143.67	45.13	Pathfinder		
6/2/2014	4,238.00		0.88		224.06	4,237.66	46.56	Pathfinder		
6/2/2014	4,333.00		0.70		157.44	4,332.65	47.66	Pathfinder		
6/2/2014	4,428.00		1.06		137.40	4,427.64	49.10	Pathfinder		



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/2/2014	4,522.00	1.14	141.71	4,521.62	50.90	Pathfinder
6/2/2014	4,617.00	1.06	137.40	4,616.61	52.73	Pathfinder
6/2/2014	4,712.00	1.23	134.85	4,711.59	54.62	Pathfinder
6/2/2014	4,806.00	0.97	125.98	4,805.57	56.42	Pathfinder
6/2/2014	4,901.00	0.09	253.68	4,900.57	57.18	Pathfinder
6/2/2014	4,998.00	0.18	178.18	4,997.57	57.37	Pathfinder
6/2/2014	5,093.00	1.58	251.48	5,092.55	58.73	Pathfinder
6/2/2014	5,188.00	2.29	258.16	5,187.50	61.93	Pathfinder
6/2/2014	5,283.00	2.99	270.20	5,282.40	66.29	Pathfinder
6/2/2014	5,377.00	3.61	267.92	5,376.24	71.70	Pathfinder
6/2/2014	5,472.00	4.48	265.37	5,471.00	78.39	Pathfinder
6/2/2014	5,567.00	4.04	266.16	5,565.74	85.45	Pathfinder
6/2/2014	5,662.00	4.13	262.38	5,660.50	92.22	Pathfinder
6/2/2014	5,756.00	4.92	270.47	5,754.21	99.61	Pathfinder
6/2/2014	5,851.00	4.57	276.97	5,848.88	107.46	Pathfinder
6/2/2014	5,946.00	2.99	274.77	5,943.67	113.72	Pathfinder
6/2/2014	6,040.00	3.17	270.12	6,037.54	118.77	Pathfinder
6/2/2014	6,135.00	3.52	264.32	6,132.38	124.30	Pathfinder
6/2/2014	6,230.00	3.52	261.42	6,227.20	130.13	Pathfinder
6/2/2014	6,324.00	3.17	272.67	6,321.04	135.59	Pathfinder
6/2/2014	6,419.00	3.17	291.30	6,415.89	140.78	Pathfinder
6/2/2014	6,514.00	4.75	268.18	6,510.67	147.21	Pathfinder
6/2/2014	6,609.00	4.92	268.89	6,605.33	155.22	Pathfinder
6/2/2014	6,703.00	5.19	258.43	6,698.97	163.46	Pathfinder
6/2/2014	6,798.00	4.66	260.01	6,793.62	171.62	Pathfinder
6/2/2014	6,893.00	5.01	265.02	6,888.28	179.62	Pathfinder
6/2/2014	6,987.00	4.31	264.76	6,981.97	187.26	Pathfinder
6/2/2014	7,082.00	3.25	259.75	7,076.76	193.51	Pathfinder
6/2/2014	7,177.00	3.87	261.33	7,171.58	199.41	Pathfinder
6/2/2014	7,271.00	3.25	268.10	7,265.40	205.24	Pathfinder
6/2/2014	7,366.00	3.61	258.96	7,360.23	210.90	Pathfinder
6/2/2014	7,461.00	4.84	261.86	7,454.97	217.90	Pathfinder
6/2/2014	7,556.00	5.80	264.67	7,549.56	226.71	Pathfinder
6/5/2014	7,650.00	5.01	264.76	7,643.14	235.56	Pathfinder
6/5/2014	7,665.00	4.66	265.02	7,658.08	236.82	Pathfinder
6/5/2014	7,747.00	3.61	260.17	7,739.87	242.73	Pathfinder
6/5/2014	7,779.00	3.62	246.16	7,771.81	244.73	Pathfinder
6/5/2014	7,810.00	4.05	226.04	7,802.74	246.78	Pathfinder
6/5/2014	7,905.00	4.58	201.18	7,897.48	253.76	Pathfinder
6/5/2014	7,936.00	4.10	213.62	7,928.39	256.09	Pathfinder
6/5/2014	7,968.00	4.55	231.15	7,960.30	258.48	Pathfinder
6/5/2014	8,000.00	5.76	231.43	7,992.17	261.35	Pathfinder
6/5/2014	8,031.00	8.29	230.89	8,022.93	265.14	Pathfinder
6/5/2014	8,063.00	11.38	227.36	8,054.46	270.60	Pathfinder
6/5/2014	8,094.00	14.62	220.64	8,084.66	277.57	Pathfinder
6/6/2014	8,126.00	17.68	207.45	8,115.41	286.41	Pathfinder
6/6/2014	8,158.00	19.58	198.17	8,145.74	296.60	Pathfinder
6/6/2014	8,189.00	19.89	187.68	8,174.92	307.03	Pathfinder
6/6/2014	8,221.00	20.42	178.67	8,204.97	318.02	Pathfinder
6/6/2014	8,252.00	22.96	181.30	8,233.78	329.48	Pathfinder
6/6/2014	8,284.00	24.51	186.03	8,263.07	342.35	Pathfinder
6/6/2014	8,315.00	26.57	192.20	8,291.04	355.69	Pathfinder
6/6/2014	8,347.00	30.44	195.16	8,319.16	370.96	Pathfinder
6/6/2014	8,379.00	33.69	195.06	8,346.28	387.94	Pathfinder
6/6/2014	8,410.00	35.48	192.73	8,371.80	405.54	Pathfinder
6/6/2014	8,442.00	38.17	190.02	8,397.41	424.71	Pathfinder

### Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/6/2014	8,473.00	41.42	187.68	8,421.23	444.55	Pathfinder
6/6/2014	8,505.00	45.20	186.79	8,444.51	466.49	Pathfinder
6/6/2014	8,536.00	48.46	185.81	8,465.72	489.10	Pathfinder
6/6/2014	8,568.00	51.42	185.87	8,486.31	513.59	Pathfinder
6/6/2014	8,600.00	54.67	187.09	8,505.55	539.15	Pathfinder
6/6/2014	8,631.00	58.12	187.39	8,522.70	564.97	Pathfinder
6/6/2014	8,663.00	60.55	187.48	8,539.02	592.49	Pathfinder
6/6/2014	8,694.00	62.93	187.27	8,553.70	619.80	Pathfinder
6/6/2014	8,726.00	65.79	187.47	8,567.54	648.64	Pathfinder
6/6/2014	8,757.00	69.45	187.08	8,579.34	677.30	Pathfinder
6/6/2014	8,789.00	72.36	187.03	8,589.81	707.54	Pathfinder
6/6/2014	8,820.00	74.63	188.51	8,598.62	737.26	Pathfinder
6/6/2014	8,852.00	75.75	187.70	8,606.80	768.19	Pathfinder
6/6/2014	8,884.00	76.41	187.83	8,614.49	799.25	Pathfinder
6/6/2014	8,915.00	78.25	186.47	8,621.29	829.50	Pathfinder
6/6/2014	8,947.00	81.51	185.54	8,626.92	860.99	Pathfinder
6/6/2014	8,978.00	83.63	183.20	8,630.93	891.73	Pathfinder
6/6/2014	9,041.00	92.27	181.84	8,633.18	954.63	Pathfinder
6/6/2014	9,136.00	90.76	181.64	8,630.67	1,049.59	Pathfinder
6/6/2014	9,231.00	88.83	182.10	8,631.01	1,144.59	Pathfinder
6/6/2014	9,326.00	90.69	181.27	8,631.40	1,239.58	Pathfinder
6/6/2014	9,420.00	88.35	184.52	8,632.19	1,333.56	Pathfinder
6/6/2014	9,515.00	88.73	181.98	8,634.61	1,428.52	Pathfinder
6/6/2014	9,610.00	91.72	182.40	8,634.24	1,523.51	Pathfinder
6/6/2014	9,705.00	90.10	183.76	8,632.73	1,618.49	Pathfinder
6/6/2014	9,799.00	90.24	182.76	8,632.45	1,712.49	Pathfinder
6/6/2014	9,894.00	91.38	182.52	8,631.11	1,807.48	Pathfinder
6/6/2014	9,989.00	88.62	179.16	8,631.11	1,902.46	Pathfinder
6/6/2014	10,084.00	90.96	180.02	8,631.46	1,997.45	Pathfinder
6/6/2014	10,178.00	89.52	178.36	8,631.06	2,091.44	Pathfinder
6/6/2014	10,273.00	89.38	174.36	8,631.97	2,186.42	Pathfinder
6/6/2014	10,368.00	90.58	176.91	8,632.01	2,281.41	Pathfinder
6/6/2014	10,462.00	90.52	179.88	8,631.11	2,375.39	Pathfinder
6/6/2014	10,557.00	90.41	181.47	8,630.33	2,470.39	Pathfinder
6/6/2014	10,652.00	91.44	182.77	8,628.80	2,565.37	Pathfinder
6/6/2014	10,747.00	89.97	179.21	8,627.63	2,660.35	Pathfinder
6/6/2014	10,841.00	90.89	181.04	8,626.93	2,754.34	Pathfinder
6/6/2014	10,936.00	89.55	186.29	8,626.56	2,849.30	Pathfinder
6/6/2014	11,031.00	90.14	183.11	8,626.82	2,944.29	Pathfinder
6/6/2014	11,126.00	90.24	184.33	8,626.50	3,039.29	Pathfinder
6/6/2014	11,220.00	90.48	184.80	8,625.91	3,133.28	Pathfinder
6/6/2014	11,315.00	90.83	183.45	8,624.83	3,228.28	Pathfinder
6/6/2014	11,410.00	87.80	181.49	8,625.96	3,323.25	Pathfinder
6/6/2014	11,504.00	89.52	183.93	8,628.16	3,417.22	Pathfinder
6/6/2014	11,599.00	90.96	187.29	8,627.76	3,512.20	Pathfinder
6/6/2014	11,694.00	91.89	184.01	8,625.40	3,607.16	Pathfinder
6/6/2014	11,789.00	91.00	182.97	8,623.00	3,702.12	Pathfinder
6/6/2014	11,883.00	88.76	179.74	8,623.20	3,796.11	Pathfinder
6/6/2014	11,978.00	89.17	181.31	8,624.92	3,891.09	Pathfinder
6/6/2014	12,081.00	87.97	181.67	8,627.49	3,994.05	Pathfinder
6/6/2014	12,175.00	91.27	181.29	8,628.11	4,088.04	Pathfinder
6/6/2014	12,270.00	91.45	180.92	8,625.86	4,183.01	Pathfinder
6/6/2014	12,365.00	91.27	180.38	8,623.60	4,277.98	Pathfinder
6/6/2014	12,460.00	91.51	180.41	8,621.30	4,372.96	Pathfinder
6/6/2014	12,554.00	91.17	179.30	8,619.10	4,466.93	Pathfinder
6/6/2014	12,649.00	91.55	179.76	8,616.84	4,561.90	Pathfinder

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-19 47H

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/6/2014	12,744.00	90.76	178.60	8,614.93	4,656.88	Pathfinder
6/6/2014	12,838.00	91.48	178.82	8,613.09	4,750.86	Pathfinder
6/6/2014	12,933.00	91.03	178.64	8,611.01	4,845.84	Pathfinder
6/6/2014	13,028.00	91.38	179.03	8,609.01	4,940.82	Pathfinder
6/6/2014	13,123.00	90.79	179.38	8,607.21	5,035.80	Pathfinder
6/6/2014	13,217.00	91.58	181.76	8,605.27	5,129.77	Pathfinder
6/6/2014	13,312.00	90.86	181.70	8,603.25	5,224.75	Pathfinder
6/6/2014	13,407.00	90.31	181.02	8,602.28	5,319.74	Pathfinder
6/6/2014	13,501.00	90.55	180.88	8,601.57	5,413.74	Pathfinder
6/6/2014	13,596.00	91.00	181.63	8,600.29	5,508.73	Pathfinder
6/13/2014	13,691.00	91.03	182.14	8,598.60	5,603.72	Pathfinder
6/13/2014	13,785.00	90.28	183.06	8,597.53	5,697.71	Pathfinder
6/13/2014	13,880.00	89.45	182.50	8,597.75	5,792.71	Pathfinder
6/13/2014	13,975.00	89.76	182.62	8,598.41	5,887.70	Pathfinder
6/13/2014	14,069.00	90.00	182.49	8,598.60	5,981.70	Pathfinder
6/13/2014	14,164.00	89.59	180.73	8,598.94	6,076.70	Pathfinder
6/13/2014	14,259.00	89.62	179.95	8,599.60	6,171.70	Pathfinder
6/13/2014	14,354.00	90.52	180.76	8,599.48	6,266.69	Pathfinder
6/13/2014	14,448.00	90.93	181.26	8,598.29	6,360.69	Pathfinder
6/13/2014	14,543.00	90.48	181.43	8,597.12	6,455.68	Pathfinder
6/13/2014	14,638.00	91.69	181.69	8,595.33	6,550.66	Pathfinder
6/13/2014	14,732.00	91.62	181.66	8,592.61	6,644.62	Pathfinder
6/13/2014	14,827.00	91.17	179.09	8,590.30	6,739.58	Pathfinder
6/13/2014	14,922.00	91.58	178.00	8,588.02	6,834.56	Pathfinder
6/13/2014	15,017.00	91.41	178.39	8,585.54	6,929.52	Pathfinder
6/13/2014	15,111.00	91.89	179.49	8,582.83	7,023.48	Pathfinder
6/13/2014	15,206.00	92.20	180.42	8,579.44	7,118.42	Pathfinder
6/13/2014	15,300.00	91.75	181.16	8,576.20	7,212.36	Pathfinder
6/13/2014	15,395.00	91.89	181.60	8,573.19	7,307.32	Pathfinder
6/14/2014	15,490.00	92.41	182.09	8,569.62	7,402.25	Pathfinder
6/14/2014	15,584.00	91.14	181.02	8,566.71	7,496.20	Pathfinder
6/14/2014	15,679.00	90.21	179.80	8,565.59	7,591.19	Pathfinder
6/14/2014	15,774.00	91.48	179.78	8,564.19	7,686.18	Pathfinder
6/14/2014	15,868.00	92.03	179.65	8,561.31	7,780.13	Pathfinder
6/14/2014	15,868.00	92.03	179.65	8,561.31	7,780.13	Pathfinder
6/14/2014	15,963.00	91.75	179.85	8,558.18	7,875.08	Pathfinder
6/14/2014	16,058.00	91.86	180.03	8,555.19	7,970.03	Pathfinder
6/14/2014	16,153.00	91.89	180.76	8,552.08	8,064.98	Pathfinder
6/14/2014	16,247.00	90.41	178.97	8,550.19	8,158.96	Pathfinder
6/14/2014	16,342.00	91.82	180.16	8,548.34	8,253.94	Pathfinder
6/14/2014	16,437.00	91.72	181.29	8,545.41	8,348.89	Pathfinder
6/14/2014	16,531.00	91.62	182.64	8,542.67	8,442.85	Pathfinder
6/14/2014	16,626.00	91.38	182.89	8,540.18	8,537.81	Pathfinder
6/14/2014	16,720.00	91.65	183.38	8,537.70	8,631.78	Pathfinder
6/14/2014	16,815.00	90.96	181.57	8,535.53	8,726.75	Pathfinder
6/14/2014	16,910.00	91.27	180.78	8,533.68	8,821.73	Pathfinder
6/14/2014	17,004.00	91.51	180.63	8,531.40	8,915.70	Pathfinder
6/14/2014	17,099.00	91.55	180.37	8,528.87	9,010.67	Pathfinder
6/14/2014	17,194.00	91.31	180.27	8,526.50	9,105.64	Pathfinder
6/14/2014	17,289.00	91.24	180.43	8,524.38	9,200.62	Pathfinder
6/14/2014	17,383.00	91.17	180.02	8,522.41	9,294.60	Pathfinder
6/14/2014	17,478.00	91.41	180.99	8,520.27	9,389.57	Pathfinder
6/14/2014	17,573.00	91.79	180.86	8,517.61	9,484.53	Pathfinder
6/15/2014	17,667.00	91.24	180.13	8,515.13	9,578.50	Pathfinder
6/15/2014	17,762.00	91.41	179.68	8,512.93	9,673.47	Pathfinder
6/15/2014	17,857.00	91.27	179.77	8,510.71	9,768.45	Pathfinder

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Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company
6/15/2014	17,951.00	91.07	179.87	8,508.79	9,862.43	Pathfinder
6/15/2014	18,040.00	91.31	179.99	8,506.94	9,951.41	Pathfinder
6/15/2014	18,080.00	91.31	179.99	8,506.03	9,991.40	Pathfinder