

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

<b>UNIVERSITY 3-67 PU 1H</b>						
API/UWI 42-461-40228-0000		Property Sub 934677-001		Operator PIONEER NATURAL RESRC USA, INC		State TEXAS
County UPTON		Field Name SPRABERRY (TREND AREA) R 40 EXC				
Surface Legal Location 529' FSL / 2271' FEL; BLK: 3; SEC: 7; SVY: UNIVERSITY LANDS						
Spud Date 12/4/2015		TD Date 12/17/2015		Drilling Rig Release Date 12/21/2015		Frac Date
On Production Date		Initial Potential Date				
Ground Elevation (ft) 2,677.00	Original KB Elevation (ft) 2,703.00	PBDT (All) (ftKB)		Total Depth (All) (ftKB) Original - 18,758.0		Total Depth All (TVD) (ftKB) Original - 8,618.1
<b>Report #: 1 Daily Operation: 12/4/2015 09:00 - 12/5/2015 06:00</b>						
Job Category ORIG DRILLING				Primary Job Type ODR		AFE Number 036710
Days From Spud (days) 0	Days on Location (days) 1	End Depth (ftKB) 661.0	End Depth (TVD) (ftKB) 661.0	Dens Last Mud (lb/gal) 8.40	Rig H & P, 641	
Operations Summary Skid Rig T/University 3-67 PU #1H, Drill surface to 661', TOO H, R/U and run 13 3/8" csg T/339'						
Remarks Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.						
Wellbore Percent complete: Surface: 100%, Intermediate: 0%, Curve: 0%, Lateral: 0%.						
Rig accepted on 12/4/2015 @18:00 hrs						
Skid to spud time 12 hrs.						
<b>Time Log Summary</b>						
Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/4/2015 09:00	12/4/2015 12:00	3		RIG DOWN	RD	Prep rig to skid from University 3-67 PU #2H To University 3-67 PU # 1H
12/4/2015 12:00	12/4/2015 13:30	1.5		SKID	SKID	Skid from University 3-67 PU #2H To University 3-67 PU # 1H.
12/4/2015 13:30	12/4/2015 17:30	4		RIG UP	RU	Prep Rig to drill Move oil leaking hoist from driller side to off driller side. hook up stand pipe hose from mud pumps, installing hand rails, putting cellar pumps in, filling pits with fresh water.
12/4/2015 17:30	12/4/2015 18:00	0.5		RIG INSPECTION	RIG_INS P	Do a pre spud inspection and accept rig.  **Rig accepted on 12/4/2015 @1800 hrs**
12/4/2015 18:00	12/4/2015 18:15	0.25		SAFETY	SFTY	Held Safety Meeting for P/U BHA
12/4/2015 18:15	12/4/2015 20:45	2.5		P/U BHA	PU_BHA	P/U directional BHA and Security 17 1/2" SF65. Surface test good
12/4/2015 20:45	12/4/2015 21:00	0.25		TIH - ELEVATOR	TIH_ELEV	TIH with 5" HWDP F/102' T/126'
12/4/2015 21:00	12/5/2015 01:45	4.75		DRILL	DRL	Drill surface f/ 126' t/ 661'. 600 gpm, 186 spm, 800 spp, 50 rpm, 149 mmrpp, 15k trq.  ** Spud well @ 21:00 on 12-4-15. **
12/5/2015 01:45	12/5/2015 02:30	0.75		CIRCULATE	CIRC	Circulate 2 x 50 bbl high vis sweeps around while working string.
12/5/2015 02:30	12/5/2015 03:15	0.75		TOOH - ELEVATOR	TOOH_ELEV	TOOH f/ 661' t/ 102'. Filling backside with kill line
12/5/2015 03:15	12/5/2015 03:45	0.5		TOOH - ELEVATOR	TOOH_ELEV	Pull MWD. Drain motor and break bit. Rack back directional BHA.  Bit graded 1-1-NO-N-X-O-NO-TD
12/5/2015 03:45	12/5/2015 04:00	0.25		SAFETY	SFTY	PJSM w/ Express, H&P, & Pioneer over rigging up casing crew.
12/5/2015 04:00	12/5/2015 04:30	0.5		RIG UP	RU	R/U casing crew.
12/5/2015 04:30	12/5/2015 04:45	0.25		SAFETY	SFTY	PJSM w/ Express, H&P, & Pioneer over running casing.
12/5/2015 04:45	12/5/2015 06:00	1.25		RUN CSG W/O WASH	CSG_W/OWASH	Make up shoe and float collar on 1 joint shoe track thread lock same. Run 13 3/8" casing f/ surface t/ 44'. Check floats - good. Pick up and run 13 3/8" 54.5# J-55 BTC casing, f/ 40' t/ 376', Torque @ 13,000 ft/lbs. Full returns while running casing.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

Report #: 2 Daily Operation: 12/5/2015 06:00 - 12/6/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 036710
Days From Spud (days) 1	Days on Location (days) 2	End Depth (ftKB) 884.0	End Depth (TVD) (ftKB) 884.0	Dens Last Mud (lb/gal) 8.60	Rig H & P, 641

### Operations Summary

Land 13 3/8" csg, cement, N/U BOP, slip and cut, M/U BHA and drill out shoe track and drill intermediate t/884'

### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 3%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/5/2015 06:00	12/5/2015 08:00	2		RUN CSG W/O WASH	CSG_W/ OWASH	Run 13 3/8" casing 54.5# J-55 BTC F/376' to 641' Torque @ 13,000 ft/lbs. Full returns while running casing.
12/5/2015 08:00	12/5/2015 09:00	1		RUN CSG WITH WASH	CSG_W WASH	Pick up well head and wash casing down F/640' to 651' Casing landed At 651' Shoe @ 651' Float @ 610'
12/5/2015 09:00	12/5/2015 11:15	2.25		CIRCULATE	CIRC	Circulate 2 casing volume. and rig down Express casing running equipment
12/5/2015 11:15	12/5/2015 11:30	0.25		CEMENT	CMT	Hold PJSM on rigging up cementer equipment and rig up
12/5/2015 11:30	12/5/2015 13:00	1.5		CEMENT	CMT	Test lines to 3,000 psi. Pump 20 bbl's fresh water to reserve pit to ensure clean & clear lines. Pump 20 bbl's of water spacer.  Mix and pump 535 sks, 160 bbls "tail" cement. Class C Cement 94 lb/sk WBOB, D020 Extender 2.0% BWOB, S001 CaCl2 2.0% BWOB, D079 Extender 0.4 @ 13.6 ppg, yield 1.69 mix water 8.824 gal/sk.  Pumped 95 bbls of fresh water displacement @ 6 bpm, slowed to 3 bpm for last 11 bbls, Bumped plug with 900 psi over final circulating rate @ 250 psi. Pressure held 5 min, Bled back 1/2 bbl. Floats holding, Monitor 15 minutes.  Lift Pressures: 20 bbls - 6 bpm @ 145 psi, 40 bbls - 6 bpm @ 200 psi, 60 bbls - 5 bpm @ 250 psi, 80 bbls - 4.5 bpm @ 250 psi, Bumped plug @ 95 bbls. w/ 900 Psi. Full Returns during entire cement job, 1/2 bbls back to surface.  Note: 70 bbl's cement back to surface.  ** Bumped Plug @ 12:30 on 12/5/2015 **
12/5/2015 13:00	12/5/2015 13:15	0.25		CEMENT	CMT	Hold PJSM with Schlumberger cementer on rigging down there cementing equipment.
12/5/2015 13:15	12/5/2015 15:15	2		WELLHEAD	WH	L/D landing joint dress Well-head with valves.  Note: Confined work space permit filled out.
12/5/2015 15:15	12/5/2015 15:30	0.25		SAFETY	SFTY	Hold PJSM for N/U BOP
12/5/2015 15:30	12/5/2015 17:30	2		N/U BOPE	NU_BOP E	Nipple up BOP's, flow line, choke line.
12/5/2015 17:30	12/5/2015 17:45	0.25		SAFETY	SFTY	Hold Safety Meeting with Battle Tester and H & P crew.
12/5/2015 17:45	12/5/2015 22:00	4.25		TEST BOPE	TEST_B OPE	Test BOP, TIW, IBOP and choke 5,000 psi high / 250 low, Annular 3,500 high / 250 low, choke manifold 5,000 high / 250 low. Test orbit valve 200 psi. Test stand pipe back to pumps 6,500 high / 250 low.
12/5/2015 22:00	12/5/2015 22:30	0.5		CSG TEST	CSG_TE ST	Test casing @ 1,000 psi for 30 minutes - good.
12/5/2015 22:30	12/5/2015 22:45	0.25		WELLHEAD	WH	Install wear bushing.

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### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/5/2015 22:45	12/5/2015 23:15	0.5		TEST BOPE	TEST_BOPE	Perform accumulator draw down test.
12/5/2015 23:15	12/5/2015 23:30	0.25		SAFETY	SFTY	Hold Safety Meeting for Slip and cut drill line.  **99' cut**
12/5/2015 23:30	12/6/2015 01:00	1.5		SLIP & CUT	SLIP_CUT	Dock TDS and Slip and Cut Drill line. Recalibrate DW and test all stop and set points check crown saver .
12/6/2015 01:00	12/6/2015 01:15	0.25		SAFETY	SFTY	Held Safety Meeting for BHA handling.
12/6/2015 01:15	12/6/2015 03:00	1.75		P/U BHA	PU_BHA	Grab directional from derrick. M/U bit, Shock sub, 12" stabilizer, Scribe, Install MWD. Test same good.
12/6/2015 03:00	12/6/2015 04:00	1		P/U BHA	PU_BHA	P/U 8" drill collars & 8" drilling jars.  ** Tagged Float Collar @ 610' **
12/6/2015 04:00	12/6/2015 05:00	1		DRILL OUT	DRL_OUT	Drill out shoe track f/ 610' t/ 661'. 400 gpm, 125 spm, 800 spp, 30 rpm, 66 mrpm, 3k tq.
12/6/2015 05:00	12/6/2015 06:00	1		DRILL	DRL	Drill intermediate f/ 661' t/ 884'. 650 gpm, 201 spm, 1,750 spp, 600 diff, 60 rpm, 112 mrpm, 12.5k tq.

Report #: 3 Daily Operation: 12/6/2015 06:00 - 12/7/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 036710
Days From Spud (days) 2	Days on Location (days) 3	End Depth (ftKB) 2,300.0	End Depth (TVD) (ftKB) 2,298.2	Dens Last Mud (lb/gal) 9.00	Rig H & P, 641	

#### Operations Summary

Drill f/884' t/1,923', round trip for MWD, H2s alarm circulate, drill f/1,923' t/2,300'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 24%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/6/2015 06:00	12/6/2015 15:00	9		DRILL	DRL	Drill intermediate Rotate And Slide Drtill 1039' @ 115 ft/hr, 35K WOB, 700 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 201.6 mrpm, 10K k tq.start Building angle up to 6°
12/6/2015 15:00	12/6/2015 15:15	0.25		CIRCULATE	CIRC	Trouble shoot MWD no success.
12/6/2015 15:15	12/6/2015 15:45	0.5		CIRCULATE	CIRC	Circulate 2- high vis sweeps @ 660 gpm, 1,322 spp, 20rpm reciprocating string
12/6/2015 15:45	12/6/2015 18:00	2.25		TOOH - ELEVATOR	TOOH_ELEV	Flow Check Well static TOOH with 5" DP f/1,923' t/75'. Well taking correct fill.  **TOOH Due to MWD failure**
12/6/2015 18:00	12/6/2015 18:15	0.25		SAFETY	SFTY	Held Saftey Meeting for handling BHA.
12/6/2015 18:15	12/6/2015 19:00	0.75		L/D BHA	L/D BHA	Rackback 8" dc and L/D down directional tools and bit. Well taking correct fill.  Note: Bit Graded 1-1-NO-S-X-O-NO-DTF
12/6/2015 19:00	12/6/2015 20:30	1.5		P/U BHA	PU_BHA	P/U Directional BHA scribe motor and dial to 1.83°, Surface test good. M/U bit TD 607X serial # 7157698.
12/6/2015 20:30	12/6/2015 21:45	1.25		TIH - ELEVATOR	TIH_ELEV	TIH with F/113' T/ 1,923'. Hole giving correct displacement.
12/6/2015 21:45	12/6/2015 22:15	0.5		N/U BOPE	NU_BOP E	Remove trip nipple and install rotating element.

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### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/6/2015 22:15	12/7/2015 00:00	1.75		WELL CONTROL	WELL_CTRL	Broke Circulation to prepare to drill. H2s alarm went off on rig floor driller shut well in and all rig personal evacuated the rig to muster point. All personal on rig location were woke up and did a head count. Superintendent, Midland Safety, HSE were notified. Midland Safety showed up to location @ 23:30 and checked location for H2s. Found faulty rig floor sensor bump test rig crews H2s monitors.  Note: Had wind out of south away from living quarters.
12/7/2015 00:00	12/7/2015 01:00	1		CIRCULATE	CIRC	Circulated as a Precautionary threw panci line to reserve with 60 spm, 350 spp using orbit valve and working drill pipe.
12/7/2015 01:00	12/7/2015 02:30	1.5		DRILL	DRL	Drill/slide 12.25" intermediate 189' @ 126' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K k tq.start Building angle up to 6°
12/7/2015 02:30	12/7/2015 03:30	1		3RD PARTY REPAIR	3RD_PT Y	MWD not working correctly troubleshoot problem. Changed out transducer and check surface equipment. Re-sync at different gpm ranging from 700-500 no success. Final attempt Re sync with 350 gpm mwd working correct.
12/7/2015 03:30	12/7/2015 06:00	2.5		DRILL	DRL	Drill/slide 12.25" intermediate 188' @ 75' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K k tq.start Building angle up to 6°

Report #: 4 Daily Operation: 12/7/2015 06:00 - 12/8/2015 06:00

Job Category	Primary Job Type				AFE Number
ORIG DRILLING	ODR				036710
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)	End Depth (TVD) (ftKB)	Dens Last Mud (lb/gal)	Rig
3	4	4,103.0	4,089.7	9.10	H & P, 641

#### Operations Summary

Troubleshoot MWD, Drill Intermediate T/3840', shut well in raised mw to 9.1 ppg , Continue to drill Intermediate t/4,103'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 48%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/7/2015 06:00	12/7/2015 07:15	1.25		3RD PARTY REPAIR	3RD_PT Y	MWD not working correctly troubleshoot problem. Check surface equipment. Re-sync at different gpm ranging from 700-500 no success. Final attempt Re sync with 350 gpm mwd working correct.
12/7/2015 07:15	12/7/2015 11:30	4.25		DRILL	DRL	Drill/slide 12.25" intermediate 571' @ 126' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K k tq.start Building angle up to 6°
12/7/2015 11:30	12/7/2015 12:00	0.5		PLANNED RIG SERVICE	RIG_SVC	Service rig grease Top Drive, Block, Draw-works ECT.
12/7/2015 12:00	12/7/2015 23:45	11.75		DRILL	DRL	Drill/slide 12.25" intermediate 973' @ 82' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K tq. Hold tangent of 6°. 8.7 mw 60 vis  Note: Displaced hole with gel mud of 8.7 mw vis 60 @ 3,500'. Hole wash out 40%.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/7/2015 23:45	12/8/2015 02:30	2.75		WELL CONTROL	WELL_CTRL	Noticed pit gain while drilling. Flow check well flowing at 1 bbl/min. Shut well in had 40 psi casing pressure. Raised MW to 9.1 ppg and circulated through choke.  Note: Chlorides in new mud 12000, Chlorides in B/U mud 28,000.
12/8/2015 02:30	12/8/2015 06:00	3.5		DRILL	DRL	Drill/slide 12.25" intermediate 259' @ 74' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K tq. Hold tangent of 6°. 9.2 mw  Note: Have small flow on connection closeing orbit valve during connection dusting mw to 9.3 ppg.

Report #: 5 Daily Operation: 12/8/2015 06:00 - 12/9/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 036710
Days From Spud (days) 4	Days on Location (days) 5	End Depth (ftKB) 4,766.0	End Depth (TVD) (ftKB) 4,749.1	Dens Last Mud (lb/gal) 9.60	Rig H & P, 641	

#### Operations Summary

Drill intermediate t/4,292', TOO H due to MWD failure, TIH with new directional assy t/ 4,292'. Drill intermediate f/4,292' t/4,766'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 56%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/8/2015 06:00	12/8/2015 06:45	0.75		3RD PARTY REPAIR	3RD_PT_Y	Troubleshoot MWD re sync.
12/8/2015 06:45	12/8/2015 07:30	0.75		DRILL	DRL	Drill/slide 12.25" intermediate 82' @ 109' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K tq. Hold tangent of 6°. 9.2 mw  Note: Have small flow on connection closeing orbit valve during connection. Dusting up mw to a 9.3 ppg
12/8/2015 07:30	12/8/2015 08:00	0.5		CIRCULATE	CIRC	Circulate to watch monitor pit volume. No increase
12/8/2015 08:00	12/8/2015 09:00	1		DRILL	DRL	Drill/slide 12.25" intermediate 20' @ 20' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 10K tq. Hold tangent of 6°. 9.3 mw  Note: Have small flow on connection closeing orbit valve during connection. Dusting up mw to a 9.4 ppg
12/8/2015 09:00	12/8/2015 10:45	1.75		WELL CONTROL	WELL_CTRL	Close orbit valve monitor pressure. Due to gain while drilling & circulate to raise mud f/ 9.4 ppg to 9.5 ppg due to flow.  Note: No shut in casing pressure 0.
12/8/2015 10:45	12/8/2015 11:45	1		DRILL	DRL	Drill/slide 12.25" intermediate 74' @ 74' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K tq. Hold tangent of 6°. 9.5 mw
12/8/2015 11:45	12/8/2015 12:45	1		3RD PARTY REPAIR	3RD_PT_Y	Troubleshoot MWD re sync.
12/8/2015 12:45	12/8/2015 13:45	1		CIRCULATE	CIRC	Circulate pump two 40 bbls sweep around. Shakers clean
12/8/2015 13:45	12/8/2015 14:45	1		TOOH - ELEVATOR	TOOH_ELEV	Flow check well static. Pump slug & TOOH f/4292' t/ 2500'. Well taking correct displacement.  Note: TOOH due to MWD failure.
12/8/2015 14:45	12/8/2015 15:15	0.5		CIRCULATE	CIRC	Flow check well static. Spot a 50 bbl 11 ppg mud cap as precautionary.
12/8/2015 15:15	12/8/2015 16:00	0.75		TOOH - ELEVATOR	TOOH_ELEV	Flow check well static TOOH f/2500 t/1900. Well taking correct displacement.
12/8/2015 16:00	12/8/2015 16:45	0.75		CIRCULATE	CIRC	Flow check well static. Spot a 70 bbl 11 ppg mud cap as precautionary.

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Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/8/2015 16:45	12/8/2015 19:00	2.25		TOOH - ELEVATOR	TOOH_ELEV	Flow check well static TOOH f/1,900 t/0'. Well taking correct displacement.
12/8/2015 19:00	12/8/2015 19:45	0.75		L/D BHA	L/D BHA	Flow check OK.Lay down motor & bit. Note: Bit Graded 1-1-Ct-N-X-O-NO-DTF
12/8/2015 19:45	12/8/2015 20:45	1		P/U BHA	PU_BHA	Pick up new motor 1.83 deg motor & Baker TD607X serial # 7158562. Surface test good.
12/8/2015 20:45	12/8/2015 22:45	2		TIH - ELEVATOR	TIH_ELEV	Flow check OK.TIH tof/103 t/4292'. Well giving correct displacement.
12/8/2015 22:45	12/8/2015 23:00	0.25		TIH - ELEVATOR	TIH_ELEV	Install rotating head element.
12/8/2015 23:00	12/8/2015 23:45	0.75		CIRCULATE	CIRC	Circulate out and dump 11 ppg mud cap pills. Flow check good.
12/8/2015 23:45	12/9/2015 06:00	6.25		DRILL	DRL	Drill/slide 12.25" intermediate 474' @ 75' ft/hr, 35K WOB, 678 gpm, 211 spm, 1847 spp, 475 diff, 55 rpm, 112 mrpm, 10K tq. 9.6 ppg mw 48 vis. No flow on connections

Report #: 6 Daily Operation: 12/9/2015 06:00 - 12/10/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 036710
Days From Spud (days) 5	Days on Location (days) 6	End Depth (ftKB) 6,944.0	End Depth (TVD) (ftKB) 6,922.4	Dens Last Mud (lb/gal) 9.40	Rig H & P, 641	

#### Operations Summary

Drill intermediate f/4,766' t/6,944'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 86%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/9/2015 06:00	12/10/2015 06:00	24		DRILL	DRL	Drill/slide 12.25" intermediate 2,178' @ 90 ft/hr, 40K WOB, 678 gpm, 211 spm, 2172 spp, 700 diff, 60 rpm, 112 mrpm, 19K tq.9.3+ ppg mw 47 vis. No flow on connections Note: Pumping 20 bbl hi-vis sweeps with 15 lb/bbl of lcm every other connection.

Report #: 7 Daily Operation: 12/10/2015 06:00 - 12/11/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 036710
Days From Spud (days) 6	Days on Location (days) 7	End Depth (ftKB) 7,860.0	End Depth (TVD) (ftKB) 7,838.4	Dens Last Mud (lb/gal) 9.40	Rig H & P, 641	

#### Operations Summary

Drill intermediate f/ 6,944' t/ 7,860'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 98%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.



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Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/10/2015 06:00	12/10/2015 17:30	11.5		DRILL	DRL	Drill intermediate 379' @ 32 ft/hr. 25-50k wob, 600 gpm, 185 spm, 1,800 spp, 600 diff, 55 rpm, 100 mrpm, 16k tq.  ** Attempt to drop mud weight before drilling into Sprayberry. Dropped MW f/ 9.5 t/ 9.4 - No flow, Dropped weight t/ 9.3 - Well began flowing. Brought MW up to 9.4 - Slight flow. Brought MW up to 9.5 - No flow. Performed all while drilling. **  ** Pumping 20 bbl high vis LCM sweeps every other connection as precaution. 10# Drill seal, 5# mica, 5# First strike. **
12/10/2015 17:30	12/10/2015 18:00	0.5		PLANNED RIG SERVICE	RIG_SVC	Rig Service grease and check fluid levels on TDS and st-80.
12/10/2015 18:00	12/11/2015 06:00	12		DRILL	DRL	Drill intermediate 537' @ 44 ft/hr. 25-50k wob, 600 gpm, 185 spm, 1,800 spp, 600 diff, 55 rpm, 100 mrpm, 16k tq. 9.5 ppg mw 45 vis. Flow on connections.  ** Pumping 20 bbl high vis LCM sweeps every other connection as 10# Drill seal, 5# mica, 5# First strike**  **Seepage seen @ 7,469' with a 9.4 ppg.**  ** Started Closing orbit valve on connections due to flow @ 7,710'. Zero csg pressure reading monitored during connection 9.5 ppg mw.**

Report #: 8 Daily Operation: 12/11/2015 06:00 - 12/12/2015 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 036710
Days From Spud (days) 7	Days on Location (days) 8	End Depth (ftKB) 7,940.0
		End Depth (TVD) (ftKB) 7,918.4
		Dens Last Mud (lb/gal) 9.50
		Rig H & P, 641

#### Operations Summary

Drill intermediate f/ 7,860' t/ 7,940', Circ, TOOH f/ 7,940' t/ 3,000', Flow check, TOOH f/ 3,000' t/ 976', L/D BHA, R/U & Run 9 5/8" casing t/ 4,108'.

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/11/2015 06:00	12/11/2015 09:00	3		DRILL	DRL	Drill intermediate 80' @ 27 ft/hr. 30k wob, 600 gpm, 185 spm, 1,800 spp, 600 diff, 55 rpm, 100 mrpm, 16k tq.  ** Dust MW up t/ 9.6. Flow stopped while drilling. **
12/11/2015 09:00	12/11/2015 11:30	2.5		CIRCULATE	CIRC	Circulate 3 x 30 bbl Hi vis sweeps out of the hole. Sweep back on surface @ 15,000 strokes. Circulate until shakers clean.  ** MW 9.6 in / 9.5 out. **
12/11/2015 11:30	12/11/2015 11:45	0.25		FLOW CHECK	FLOW_C HK	Check Flow - well flowing 36 bbls / hour. Shut orbit valve.
12/11/2015 11:45	12/11/2015 14:15	2.5		TOOH - ELEVATOR	TOOH_E LEV	Strip out of hole f/ 7,940' t/ 4,407'. Pumping 2.5 bbls per stand down kill line.  ** Pulled tight @ 4,407'. **
12/11/2015 14:15	12/11/2015 14:45	0.5		TOOH - NON-ELEVATOR	TOOH_N ONELEV	Back ream f/ 4,407' t/ 4,322'. 600 gpm, 185 spm, 50 rpm, 1,600 spp. Worked through twice, didn't see anything on second pass.
12/11/2015 14:45	12/11/2015 15:30	0.75		TOOH - ELEVATOR	TOOH_E LEV	Strip out of hole f/ 4,322' t/ 3,000'. Pumping 2.5 bbls per stand down kill line. Minimal drag.
12/11/2015 15:30	12/11/2015 16:00	0.5		FLOW CHECK	FLOW_C HK	Flow check - well static.
12/11/2015 16:00	12/11/2015 18:30	2.5		TOOH - ELEVATOR	TOOH_E LEV	TOOH f/ 3,000' t/ 976'. Monitor well through trip tank, hole taking proper displacement.  ** Pulled tight @ 2,500'. **

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/11/2015 18:30	12/11/2015 19:00	0.5		L/D BHA	L/D BHA	L/D HWDP f/ 976' t/ 520'. Monitor well through trip tank, hole taking proper displacement.
12/11/2015 19:00	12/11/2015 20:00	1		L/D BHA	L/D BHA	L/D 8" collars f/ 520' t/ 116'. Monitor well through trip tank, hole taking proper displacement.
12/11/2015 20:00	12/11/2015 21:30	1.5		L/D BHA	L/D BHA	L/D directional BHA. Monitor well through trip tank, hole taking proper displacement.  Note: Bit Graded 2-2-CT-N-X-O-CT-TD
12/11/2015 21:30	12/11/2015 22:00	0.5		N/U BOPE	NU_BOP E	Pull wear bushing and jet wellhead.
12/11/2015 22:00	12/11/2015 22:30	0.5		SAFETY	SFTY	Clean and Clear Rig Floor
12/11/2015 22:30	12/11/2015 23:30	1		RIG UP	RU	PJSM - Rig up casing crew.  ** Stop points for DW set with CRT verified by Rig Manager. **
12/11/2015 23:30	12/11/2015 23:45	0.25		SAFETY	SFTY	Held PJSM with Rig Crew and Tesco for running 9 5/8" csg.
12/11/2015 23:45	12/12/2015 00:30	0.75		RUN CSG W/O WASH	CSG_W/ OWASH	Run Casing with shoe track t/ 140'. 9 5/8" 40# L-80 IC BTC PDC drillable down jet single valve float shoe. 2 jts 9 5/8" 40# L-80 BTC casing. 9 5/8" 40# L-80 IC BTC PDC drillable float collar. Thread lock all. Test floats - good.  ** Flow check prior to running csg well static. **
12/12/2015 00:30	12/12/2015 04:30	4		RUN CSG W/O WASH	CSG_W/ OWASH	Run 9 5/8" intermediate casing f/ 140' t/ 3,251' @ 80 ft/min. Verified torque @ 9.5k ft/lbs as per diamond on string. Check every 10 joints to verify proper torque. Monitor well through trip tank, hole giving proper displacement. Filling casing on fly break circulation every 40 joints.  ** Midland Safety on location. **
12/12/2015 04:30	12/12/2015 05:00	0.5		CIRCULATE	CIRC	Circulate Bottoms up with 6 bbls/min, 75 spm, 230 spp.
12/12/2015 05:00	12/12/2015 06:00	1		RUN CSG W/O WASH	CSG_W/ OWASH	Run 9 5/8" intermediate casing f/ 3,251' t/ 4,108' @ 80 ft/min. Verified torque @ 9.5k ft/lbs as per diamond on string. Check every 10 joints to verify proper torque. Monitor well through trip tank, hole giving proper displacement. Filling casing on fly break circulation every 40 joints.  ** Midland Safety on location. **

Report #: 9 Daily Operation: 12/12/2015 06:00 - 12/13/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 036710
Days From Spud (days) 8	Days on Location (days) 9	End Depth (ftKB) 7,940.0	End Depth (TVD) (ftKB) 7,918.4	Dens Last Mud (lb/gal) 9.50	Rig H & P, 641	

#### Operations Summary

Run 9 5/8" casing f/ 4,108' t/ 7,929', R/D CRT, R/U cementers, Cement 9 5/8" casing, Install Pack off, TIH with Mill tooth assy t/6,500'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 0%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/12/2015 06:00	12/12/2015 07:00	1		RUN CSG W/O WASH	CSG_W/ OWASH	Run 9 5/8" intermediate casing f/ 4,108' t/ 5,000' @ 80 ft/min. Verified torque @ 9.5k ft/lbs as per diamond on string. Check every 10 joints to verify proper torque. Monitor well through trip tank, hole giving proper displacement.  ** Midland Safety on location. **
12/12/2015 07:00	12/12/2015 07:30	0.5		CIRCULATE	CIRC	At 5,000' noticed displacement falling off. Shut down fill pipe and attempt to break circulation. Hole full but no returns. Pumped away 40 bbls. Decision was made to continue TIH. **



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/12/2015 07:30	12/12/2015 08:45	1.25		RUN CSG W/O WASH	CSG_W/OWASH	Run 9 5/8" intermediate casing f/ 5,000' t/ 6,000' @ 50 ft/min. Verified torque @ 9.5k ft/lbs as per diamond on string. Check every 10 joints to verify proper torque. Filling casing on the fly. Filling backside with trip tank to ensure hole full
12/12/2015 08:45	12/12/2015 11:00	2.25		RUN CSG W/O WASH	CSG_W/OWASH	Run 9 5/8" intermediate casing f/ 6,000' t/ 7,895' @ 50 ft/min. Verified torque @ 9.5k ft/lbs as per diamond on string. Check every 10 joints to verify proper torque. Filling casing on the fly. Began getting partial returns @ 6,000'.
12/12/2015 11:00	12/12/2015 11:30	0.5		RUN CSG WITH WASH	CSG_W/WASH	P/U casing hanger and landing joint per Cactus Rep. Torque to 9.5k. Wash down and land out @ 7,929'. Verify hanger landed through port on wellhead.  ** Confined space permit in place. **  Float Shoe - 7,929' Float Collar - 7,833' Packer - 4,790' DV Tool - 4,781'
12/12/2015 11:30	12/12/2015 12:00	0.5		RIG DOWN	RD	JSA - R/D casing crew & CRT.
12/12/2015 12:00	12/12/2015 12:30	0.5		RIG UP	RU	JSA - Rig up cement head. Rig up 2" line from rig standpipe to circulate.
12/12/2015 12:30	12/12/2015 14:00	1.5		CIRCULATE	CIRC	Circulate 1.5 times casing volume. 900 bbls. 11,720 strokes. 8 bpm, 104 spm, 300 spp. Full returns.  ** Midland Health & Safety on location for H2S standby. **  ** Schlumberger rigging up while circulating. **
12/12/2015 14:00	12/12/2015 14:30	0.5		RIG UP	RU	JSA - R/U Schlumberger washup line & stand pipe iron.
12/12/2015 14:30	12/12/2015 17:30	3		CEMENT	CMT	Held JSA - Pumped 5 bbls fresh water, tested lines to 5,000 psi, Pumped 20 bbls to reserve pit, before job.  Mix & pump 50 bbls of mud push @ 10.0 lb/gal, with 0.80 lb/bbl B389 - Mud push, 0.1 gal/bbl D047 - anti foam, 2809.2 lb/mgal D035 - extender.  Lead cement TXI 815 sks 331 bbls @ 11.5 lb/gal, yield 2.28 ft3/sk, mix water 12.938 gal/sk, pumped @ 6 bbls/min. With 0.5% D238 - Fluid loss, 0.1% D065 - Dispersant, 0.7% D013 - Retarder, 0.1% D208 - Viscosifier, 7.0% D154 - Extender, 5 lb/sk D042 - Extender, .02 gal/sk D047 - Anti Foam, 3.0% D174 Expanding Agent.  Tail cement class H 358 sks, 68 bbls @ 16.40 lb/gal, yield 1.07 ft3/sk, mix water 4.362 gal/sk, pumped @ 6 bbls/min. With .02 gal/sk D047 - anti foam, 0.2% D800 - retarder, 0.1% D065 - Dispersant.  Release top plug witness by Company Man, Weatherford service hand. Pumped 240 bbls of fresh water @ 8.4 lb/gal @ 8 bpm. Pumped 357 bbls 9.3 Fresh water gel. Slowed pump down to 4 bpm 215 psi prior to plug passing through DV tool & packer for 20 bbls. Continue pumping rest of displacement @ 8 bpm. Slowed pumps down to 4 bbl/min 1,194 psi prior to bumping plug to 1,800 psi held for 5 minutes 598 bbls total.  Lift pressures - 100 bbls @ 180 Psi, 200 bbls @ 188 Psi, 300 bbls @ 224 Psi, 320 bbls @ 261 Psi, 400 bbl's @ 475 Psi, 500 bbl's @ 718 Psi, 550 bbl's @ 902 psi, 594 bbls @ 908 Psi.  Bumped plug @ 17:30 hrs w/ 1,450 psi.  Had partial returns until 213 bbls into displacement. 213 bbl is when we caught pressure. Had full returns remainder of displacement.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/12/2015 17:30	12/12/2015 18:15	0.75		CEMENT	CMT	Brought pressure up from 1,450 to 3,200 psi. Pressure broke over @ 2,900 psi. Pressured t/ 3,500 psi test packer bleed pressure back to 1,450 psi. ACP packer held 3.75 bbls confirmed packer inflated as per Weatherford Rep. Volume bled back 3.5 bbls. Indicating packer open.
12/12/2015 18:15	12/12/2015 18:45	0.5		CEMENT	CMT	Drop DV bomb, wait 30 minutes for bomb to fall. Drop was witnessed by Pioneer & Weatherford rep
12/12/2015 18:45	12/12/2015 19:00	0.25		CEMENT	CMT	Pressure up on cement truck 707 psi. Pressure dropped to 300 psi. Pump 50 bbls through DV tool staged @ 6 bpm 385 psi. Turned over to rig pumps.
12/12/2015 19:00	12/12/2015 20:00	1		CIRCULATE	CIRC	Circulate bottoms up @ 7 bpm. Monitoring pressure. Received 50 bbls of mudpush at bottoms up.
12/12/2015 20:00	12/12/2015 22:30	2.5		CEMENT	CMT	JSA - 2nd Stage Cement: Pumped 5 bbls fresh water, tested lines to 5,000 psi, Pumped 20 bbls to reserve pit, before job.  Mix & pump 50 bbls of mud push @ 10 lb/gal, with 0.8 lb/bbl B389 - Mud push, 0.1 gal/bbl D047 - Anti foam, 2809.2 lb/mgal D035 - Extender.  Lead cement TXI 552 sks 225 bbls @ 11.5 lb/gal, yield 2.28 ft3/sk, mix water 12.938 gal/sk, pumped @ 6 bbls/min. With 0.5% D238 - Fluid loss, 0.1% D065 - Dispersant, 0.7% D013 - Retarder, 0.1% D208 - Viscosifier, 7.0% D154 - Extender, 5 lb/sk D042 - Extender, .02 gal/sk D047 - Anti Foam, 3.0% D174 Expanding Agent.  Tail cement Class H 245 sks, 46 bbls @ 16.40 lb/gal, yield 1.07 ft3/sk, mix water 4.362 gal/sk, pumped @ 6.0 bbls/min. With .02 gal/sk D047 - anti foam, 0.2% D800 - retarder, 0.1% D065 - Dispersant.  Release plug witnessed by company man, Weatherford service hand.  Lift pressures - 100 bbls @ 180 Psi, 200 bbls @ 387 Psi, 250 bbls @ 549 Psi, 300 bbls @ 795 Psi, 362 bbls @ 890 Psi. Bumped plug @ 12/12/15 22:20 hrs with 2,412 held 5 min bleed back. Full returns during 2nd stage cement job. 30 bbls mudpush back to surface.
12/12/2015 22:30	12/12/2015 23:00	0.5		RIG DOWN	RD	JSA - Rig down cement equipment.  **Cleaning Mud pits for Polymer mud**
12/12/2015 23:00	12/12/2015 23:45	0.75		RIG UP	RU	Install stabbing guides on TDS.
12/12/2015 23:45	12/13/2015 01:30	1.75		WELLHEAD	WH	Back out landing joint wash well-head run, set pack-off and test to 5000 PSI and hold for 15 min (test OK)  ** Confined space permit in place. **
12/13/2015 01:30	12/13/2015 02:00	0.5		WELLHEAD	WH	Install wear bushing, clean and clear rig floor.
12/13/2015 02:00	12/13/2015 04:00	2		TIH - ELEVATOR	TIH_ELEV	Make up 2 junk baskets, X/O, Bit sub, Bit. TIH f/ 17' t/ 4,781'. Monitor well through trip tank, hole giving proper displacement.  ** Tagged DV Tool @ 4,781'. **
12/13/2015 04:00	12/13/2015 04:15	0.25		CSG TEST	CSG_TEST	Set 50k down on plug. Test casing 2,500 psi for 10 minutes. Test good.
12/13/2015 04:15	12/13/2015 05:00	0.75		DRILL OUT	DRL_OUT	Drill out DV Tool.
12/13/2015 05:00	12/13/2015 05:15	0.25		TIH - ELEVATOR	TIH_ELEV	TIH T/5,322'. Correct displacement given to trip tank.
12/13/2015 05:15	12/13/2015 05:45	0.5		CSG TEST	CSG_TEST	Test Casing to 2,500 psi for 30 min test good.
12/13/2015 05:45	12/13/2015 06:00	0.25		TIH - ELEVATOR	TIH_ELEV	Continue to TIH F/ 5,322' T/6,500'. Correct displacement given to trip tank.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

Report #: 10 Daily Operation: 12/13/2015 06:00 - 12/14/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 036710
Days From Spud (days) 9	Days on Location (days) 10	End Depth (ftKB) 8,478.0	End Depth (TVD) (ftKB) 8,395.3	Dens Last Mud (lb/gal) 9.80	Rig H & P, 641

### Operations Summary

TIH with Mill tooth assy f/ 6,500' t/ 7,833', Drill out float equipment t/ 7,950', FIT, TOO, P/U curve BHA, TIH, Drill curve t/ 8,478'

### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 50%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/13/2015 06:00	12/13/2015 07:00	1		TIH - ELEVATOR	TIH_ELEV	Continue to TIH f/ 6,500' t/ 7,833'. Correct displacement given to trip tank.  ** Tagged float collar @ 7,833'. **
12/13/2015 07:00	12/13/2015 09:15	2.25		DRILL OUT	DRL_OUT	Drill shoe track f/ 7,833' t/ 7,940'. 500 gpm, 155 spm, 1,000 spp, 50 rpm, 8k tq.  ** Tagged float shoe @ 7,928'. **  ** Displace from 8.5 fresh t/ 9.5 polymer mud while drilling float equipment. Polymer back on surface @ 7,111 strokes. **
12/13/2015 09:15	12/13/2015 09:45	0.5		DRILL	DRL	Drill f/ 7,940' t/ 7,950'. 40 wob, 550 gpm, 170 spm, 50 rpm, 1,100 spp, 9k tq.
12/13/2015 09:45	12/13/2015 10:15	0.5		CIRCULATE	CIRC	Circulate bottoms up. 600 gpm, 185 spm, 1,300 spp, working drill string. 5,300 strokes.
12/13/2015 10:15	12/13/2015 10:45	0.5		FIT / LOT	FIT/LOT	Performed FIT 11# EMW. Test good. 9.7 mw in hole held 545 psi. Pump slug.
12/13/2015 10:45	12/13/2015 13:15	2.5		TOOH - ELEVATOR	TOOH_ELEV	TOOH f/ 7,950' t/ 17'. Monitor well through trip tank, hole taking proper displacement.
12/13/2015 13:15	12/13/2015 13:30	0.25		L/D BHA	L/D BHA	Break & L/D bit, 2 x Junk baskets, Bit sub, X/O.  **Bit Graded a 1-1-NO-A-1-O-NO-BHA**
12/13/2015 13:30	12/13/2015 15:00	1.5		P/U BHA	PU_BHA	P/U directional BHA. Security 8.75 MMD55DM, 7:8.5.0 motor ABH @ 2.12° .288 RPG, UBHO, NMDC, NM Flow sleeve, NMDC, Float sub. Surface test – test good.
12/13/2015 15:00	12/13/2015 18:30	3.5		TIH - ELEVATOR	TIH_ELEV	TIH f/ 95' t/ 7,950'. Monitor well through trip tank, hole giving proper displacement.
12/13/2015 18:30	12/14/2015 06:00	11.5		DRILL	DRL	Drill curve 528' @ 46 ft/hr. 30k wob, 524 gpm, 162 spm, 1,800 spp, 300 diff, 20 rpm, 44 mrpm, 14k tq.  Note: KOP 8,021' on 12/13/2015 @ 20:15

Report #: 11 Daily Operation: 12/14/2015 06:00 - 12/15/2015 06:00

Job Category ORIG DRILLING			Primary Job Type ODR		AFE Number 036710
Days From Spud (days) 10	Days on Location (days) 11	End Depth (ftKB) 9,063.0	End Depth (TVD) (ftKB) 8,566.5	Dens Last Mud (lb/gal) 9.50	Rig H & P, 641

### Operations Summary

Drill curve f/ 8,478', t/ 8,952', Drill lateral f/ 8,952' t/ 9,063', Circ, TOO, P/U lateral bha TIH t/7,862', slip and cut continue TIH t/9,000'

### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 0%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/14/2015 06:00	12/14/2015 15:30	9.5		DRILL	DRL	Drill curve 474' @ 50 ft/hr. 50k wob, 524 gpm, 162 spm, 1,850 spp, 400 diff, 20 rpm, 44 mrpm, 14k tq.  **Curve Landed @ 8,952' on 12/14/2015 **

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/14/2015 15:30	12/14/2015 17:45	2.25		DRILL	DRL	Drill production lateral 111' @ 50 ft/hr 35 wob, 524 gpm, 162 spm, 1900 spp, 450 diff, 20 rpm, 44 mrpm, 15k tq. 9.5 ppg mw vis 45
12/14/2015 17:45	12/14/2015 19:00	1.25		CIRCULATE	CIRC	Circulate with 524 gpm, 162 spm, 20 rpm 6k tq. Reciprocating string 90' up and 90 down.  **Pumped 2- 50 bbl sweeps**
12/14/2015 19:00	12/14/2015 22:15	3.25		TOOH - ELEVATOR	TOOH_ELEV	Flow check well static. TOOH with 5" DP F/9,063' T/95'. Taking correct displacement.  **Pumped 30 bbl slug above curve**
12/14/2015 22:15	12/14/2015 23:00	0.75		L/D BHA	L/D BHA	L/D curve bha and bit.  **Bit Graded 1-1-WT-N-X-0-NO-BHA**
12/14/2015 23:00	12/14/2015 23:30	0.5		SAFETY	SFTY	Clean rig floor.
12/14/2015 23:30	12/15/2015 00:45	1.25		P/U BHA	PU_BHA	Pick up lateral BHA and surface test MWD.(test good)
12/15/2015 00:45	12/15/2015 03:30	2.75		TIH - ELEVATOR	TIH_ELEV	TIH with 5" Dp f/94' t/7,862'. Correct displacement given to trip tank. Filling every 30 stands.
12/15/2015 03:30	12/15/2015 03:45	0.25		SAFETY	SFTY	Hold PJSM for slip and cut drill line
12/15/2015 03:45	12/15/2015 04:45	1		SLIP & CUT	SLIP_CUT	Dock TDS and slip and cut drill line. Recalibrate draw works and check all set points test crown saver
12/15/2015 04:45	12/15/2015 05:15	0.5		N/U BOPE	NU_BOPE	Install Rotating element.
12/15/2015 05:15	12/15/2015 06:00	0.75		TIH - ELEVATOR	TIH_ELEV	TIH with 5" DP f/7,862' t/9,000'. Correct displacement given to trip tank.

Report #: 12 Daily Operation: 12/15/2015 06:00 - 12/16/2015 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	036710
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
11	12	14,350.0
		End Depth (TVD) (ftKB)
		8,599.6
		Dens Last Mud (lb/gal)
		9.50
		Rig
		H & P, 641

#### Operations Summary

Relog gamma, Drill lateral f/ 9,063' t/ 14,350'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 55%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/15/2015 06:00	12/15/2015 07:00	1		CIRCULATE	CIRC	Relog gamma ray f/ 9,000' t/ 9,063'. Downlink RSS
12/15/2015 07:00	12/16/2015 06:00	23		DRILL	DRL	Drill lateral 5,287' @ 230 ft/hr. 45k wob, 600 gpm, 186 spm, 3200 spp, 700 diff, 110 rpm, 173 mrpm, 25k tq.

Report #: 13 Daily Operation: 12/16/2015 06:00 - 12/17/2015 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	036710
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
12	13	17,714.0
		End Depth (TVD) (ftKB)
		8,614.0
		Dens Last Mud (lb/gal)
		9.60
		Rig
		H & P, 641

#### Operations Summary

Drill lateral f/ 14,350' t/ 17,714'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 89%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/16/2015 06:00	12/16/2015 06:15	0.25		DRILL	DRL	Drill lateral 48' @ 192 ft/hr. 45k wob, 600 gpm, 186 spm, 3200 spp, 700 diff, 110 rpm, 173 mrpm, 25k tq.
12/16/2015 06:15	12/16/2015 08:00	1.75		CIRCULATE	CIRC	Circulate with 600 gpm, 186 spm, 3,281 spp, 16k tq. Reciprocating drill string 90' up at 80 rpm and 120 rpm down. Reduced off bottom torque f/ 18k t/ 12k.
12/16/2015 08:00	12/16/2015 08:30	0.5		PLANNED RIG SERVICE	RIG_SVC	Lubricate rig and service top drive.
12/16/2015 08:30	12/17/2015 06:00	21.5		DRILL	DRL	Drill lateral 3,316' @ 154 ft/hr. 45k wob, 600 gpm, 186 spm, 3200 spp, 700 diff, 110 rpm, 173 mrpm, 27k tq.

Report #: 14 Daily Operation: 12/17/2015 06:00 - 12/18/2015 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 036710
Days From Spud (days) 13	Days on Location (days) 14	End Depth (ftKB) 18,758.0
	End Depth (TVD) (ftKB) 8,618.1	Dens Last Mud (lb/gal) 9.65
	Rig H & P, 641	

#### Operations Summary

Drill lateral f/ 17,714' t/ 18,758', Circ, TOO, L/D drill pipe t/ 4,600'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 100%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

0' Above/Below 1' Right of Rev 0

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/17/2015 06:00	12/17/2015 14:45	8.75		DRILL	DRL	Drill lateral 1,044' @ 119 ft/hr. 45k wob, 600 gpm, 186 spm, 3200 spp, 700 diff, 110 rpm, 173 mrpm, 27k tq.  ** TD well @ 1445 on 12-17-2015. **  ** 12.74 days spud to TD. **
12/17/2015 14:45	12/17/2015 22:30	7.75		CIRCULATE	CIRC	Circulate K&M clean up cycles. 600 gpm, 187 spm, 3,000 spp, 80 rpm up, 120 rpm down, 20k trq at beginning, 14k trq at end. Shakers clean.
12/17/2015 22:30	12/17/2015 22:45	0.25		FLOW CHECK	FLOW_C HK	Flow check - well is static.
12/17/2015 22:45	12/18/2015 03:15	4.5		TOOH - ELEVATOR	TOOH_E LEV	TOOH 15 stands wet f/ 18,758' t/ 17,335'. Pulling slick. Pump slug and TOOH f/ 17,335' t/ 7,925'. Monitor well to trip tank. Hole taking proper fill.
12/18/2015 03:15	12/18/2015 06:00	2.75		TOOH - ELEVATOR	TOOH_E LEV	Lay down drill pipe f/ 7,925' t/ 4,600'. Monitor well to trip tank. Hole taking proper fill.

Report #: 15 Daily Operation: 12/18/2015 06:00 - 12/19/2015 06:00

Job Category ORIG DRILLING	Primary Job Type ODR	AFE Number 036710
Days From Spud (days) 14	Days on Location (days) 15	End Depth (ftKB) 18,758.0
	End Depth (TVD) (ftKB) 8,618.1	Dens Last Mud (lb/gal) 9.75
	Rig H & P, 641	

#### Operations Summary

L/D drill pipe f/ 4,600', t/ 95', L/D BHA, TIH t/ 5,800', L/D same, TIH t/ 5,200', L/D same, R/U & run 5.5" casing t/ 1,500'

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 100%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

0' Above/Below 1' Right of Rev 0

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/18/2015 06:00	12/18/2015 10:00	4		L/D BHA	L/D BHA	L/D drill pipe f/ 4,600' t/ 95'. Monitor well through trip tank, hole taking proper displacement.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/18/2015 10:00	12/18/2015 11:30	1.5		L/D BHA	L/D BHA	PJSM, L/D directional BHA. Clean and clear rig floor.
12/18/2015 11:30	12/18/2015 13:30	2		TIH - ELEVATOR	TIH_ELEV	TIH w/ 60 stands out of derrick t/ 5,800'. Monitor well through trip tank, hole giving proper displacement.
12/18/2015 13:30	12/18/2015 17:45	4.25		L/D BHA	L/D BHA	L/D drill pipe f/ 5,800' t/ surface. Monitor well through trip tank, hole taking proper displacement.
12/18/2015 17:45	12/18/2015 19:30	1.75		TIH - ELEVATOR	TIH_ELEV	TIH w/ 55 stands out of derrick t/ 5,200'. Monitor well through trip tank, hole giving proper displacement.
12/18/2015 19:30	12/19/2015 00:00	4.5		L/D BHA	L/D BHA	L/D drill pipe f/ 5,200' t/ surface. Monitor well through trip tank, hole taking proper displacement.
12/19/2015 00:00	12/19/2015 02:00	2		N/U BOPE	NU_BOPE	Pull wear bushing, and jet well head. Clean and clear rig floor.
12/19/2015 02:00	12/19/2015 03:15	1.25		RIG UP	RU	PJSM - R/U casing crew.
12/19/2015 03:15	12/19/2015 06:00	2.75		RUN CSG W/O WASH	CSG_W/OWASH	M/U shoe track f/ 0' t/ 100', Float shoe, Latch-in collar, Toe sleeve - thread lock all. Run 5 1/2" csg to 1,500'.  **Float test good**  **Toe sleeve serial # 3812**

Report #: 16 Daily Operation: 12/19/2015 06:00 - 12/20/2015 06:00

Job Category	Primary Job Type	AFE Number
ORIG DRILLING	ODR	036710
Days From Spud (days)	Days on Location (days)	End Depth (ftKB)
15	16	18,758.0
		End Depth (TVD) (ftKB)
		8,618.1
		Dens Last Mud (lb/gal)
		9.90
		Rig
		H & P, 641

### Operations Summary

Run 5.5" casing f/ 1,500' t/ 18,743', Circ.

### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 100%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

0' Above/Below 1' Right of Rev 0

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/19/2015 06:00	12/19/2015 23:30	17.5		RUN CSG W/O WASH	CSG_W/OWASH	Run 5.5" production casing f/ 1,500' t/ 9,732', install air-lock, run 2 joints f/ 9,734' t/ 9,816', fill pipe and test air lock-test good, cont. f/ 9,816' t/ 18,743' filling pipe every 30 joints(un-stung) 12,500k m/u trq, check every 10 joints. Monitor well through trip tank, hole giving proper displacement.  **Landed on 12/19/2015 @ 23:30**  Shoe - 18,743' Latch collar - 18,683.5' Toe Sleeve -18,627.7' Air lock - 9,009.4' Marker #1 - 7,961.0' Marker #2 -7,814.8'
12/19/2015 23:30	12/20/2015 00:15	0.75		RUN CSG W/O WASH	CSG_W/OWASH	PJSM - R/D Tesco CRT
12/20/2015 00:15	12/20/2015 01:15	1		RIG UP	RU	PJSM - R/U Cement head and steel lines from standpipe to top of choke. Allow air to come up through string instead of long way.
12/20/2015 01:15	12/20/2015 02:45	1.5		CIRCULATE	CIRC	Rupture air lock. Pressured up to 1,350 psi then broke over. With choke opened to separator wait 30 minutes for air to swap with mud. Pump 215 bbls to make up for void in casing for flotation purposes. While pumping downhole have choke open to separator to allow air to escape casing string. Wait 30 minutes to allow air and mud to swap through separator. Pump @ 40 spm, 130 gpm, 3 bpm.



## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/20/2015 02:45	12/20/2015 06:00	3.25		CIRCULATE	CIRC	Circulate air out of casing. 90 spm, 970 psi, 7 bpm. Controlled gain with open / closing choke. Had no flare while circulating. After bottoms up gas readings dropped to 80. Once gas was gone began getting air on surface. Had max 0.8# mud cut, max gas reading 1700.

Report #: 17 Daily Operation: 12/20/2015 06:00 - 12/21/2015 00:00

Job Category ORIG DRILLING			Primary Job Type ODR			AFE Number 036710
Days From Spud (days) 16	Days on Location (days) 17	End Depth (ftKB) 18,758.0	End Depth (TVD) (ftKB) 8,618.1	Dens Last Mud (lb/gal)	Rig H & P, 641	

#### Operations Summary

R/U cementers, Cement 5.5" casing, R/D, Install packoff, N/D, Install abandonment cap. Rig Released @ 00:00 on 12/21/2015

#### Remarks

Rig NPT: 0.00 hours for previous 24 hours, 0.00 hours for the current month.

Wellbore Percent complete: Surface: 100%, Intermediate: 100%, Curve: 100%, Lateral: 100%.

Rig accepted on 12/4/2015 @18:00 hrs

Skid to spud time 12 hrs.

Rig released 12/21/2015 @ 00:00

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/20/2015 06:00	12/20/2015 06:45	0.75		RIG UP	RU	PJSM - rig up Schlumberger cementers.
12/20/2015 06:45	12/20/2015 10:30	3.75		CEMENT	CMT	<p>Pump 20 bbl's water to reserve pit. Pressure test both pumps @ 5,000 psi.</p> <p>Mix and Pump @ 6.5 bpm. Mud Push Express: 60 bbl's @ 10.5 ppg, 1.0 lb/bbl of MUD PUSH Express B389, 2.0 gal/bbl of B220 Surfactant, 0.2 gal/bbl of D175A Antifoam, 3649.0 lb/mgal of D035 Extender. Drop Bottom Plug.</p> <p>Mix and Pump @ 6.5 bpm Lead Slurry: 186 bbls @ 11.5 ppg. yield 2.20 cu.ft/sk w/ 475 sacks TXI, D238 Fluid Loss 0.6% BWOB, D800 Retarder 0.9% BWOB, D174 Expanding agent 3.0% BWOB, D154 Extender 5.0% BWOB, D208 Viscosifier 0.1% BWOB, D175A Anti Foam 0.2% VBWOB</p> <p>Mix and Pump @ 6.5 bpm Tail Slurry: 488 bbls @ 12.5 ppg TXI Cement. 1,696 sks 75 lb/sk. w/ Mix Fluid 8.647 gal/sk. Yield 1.61, D800 Retarder 0.6% BWOB, D175A Anti Foam 0.02% BWOB, D065 Dispersant 0.2% BWOB, D238 Fluid Loss 0.7% BWOB, D174 Expanding Agent 3.0% BWOB, D208 Viscosifier 0.1% BWOB. Dropped Top Plug.</p> <p>Displace with 10 bbl sugar water, 405 bbls biocide water. Full Returns throughout job. Received 0 bbls mud push &amp; 0 bbls cement to surface.</p> <p>Lift pressures - 100 bbls @ 1,853 Psi 8.4 BPM, 150 bbls @ 2,250 Psi, 200 bbls @ 2,667 Psi, 250 bbls @ 2,732 Psi, 300 bbls @ 2,800 Psi 8.4 BPM. 350 bbls @ 2,541 Psi. 4 bpm 400 bbls 2,226 Psi, 415 bbls 2,350 Psi</p> <p>Bump pug with 3,310 psi held for 5min bleed back 5 bbls. Floats holding. Bump on 12/20/2015 @ 10:15.</p>
12/20/2015 10:30	12/20/2015 11:15	0.75		RIG DOWN	RD	PJSM - R/D cement head and lines.
12/20/2015 11:15	12/20/2015 11:45	0.5		RIG DOWN	RD	Flush stack and choke. Lay down landing joint . Wash well head
12/20/2015 11:45	12/20/2015 12:15	0.5		WELLHEAD	WH	Install pack off assembly and test to 5,000 psi for 10 min test good. Pull test 40k test good.

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Time Log Summary

Start Date	End Date	Dur (hr)	Activity	Activity Detail	Operation	Com
12/20/2015 12:15	12/20/2015 21:15	9		WELLHEAD	WH	After doing pull test, tried to back out of landing joint and it would not back out. By turning to the right 9.5 turns it should of backed out. Turned pipe 17 rounds never backed out. Went to retest packoff and would not test, indicating the packoff was not set low enough for pins to set in the non rotation groove. Tried to pull pack off would not come up, tried to slack off would not slack off. Decision was made to pull up 10k and pull with slow rotary. Packoff came free. After retrieving packoff from wellbore, it showed wear on outside of packer. Asked Cactus to pick up new packer, was told they did not have a backup on location. We then called the office and were out of stock on 5.5" packer assemblies.. Packer had to be hotshotted out of Oklahoma City. ETA for new packoff is 2300. After waiting until 1500 (cement set time) decision was made to nipple down drilling adaptor from wellhead and inspect ring gasket. No signs of wear and tear. Nipple BOP back up to well head and shut well in.  ** While working on packoff, Patterson Truck and Crane moved pits, pumps, barite silos, premix tank, shaker skid, backyard equipment, and front yard, TanMar moved thrid party and co man trailers, continue rigging down. **
12/20/2015 21:15	12/21/2015 00:00	2.75		WELLHEAD	WH	Install pack off assembly and test to 5000 psi for 10 min test good. Pull test 40k test good., nipple down BOPs, install well cap and test to 500 PSI for 15 mins. Test Good  Pack-off arrived @ 21:15  ** Release Rig 12/21/2015 @ 00:00 **  ** Final Report **

### WELL DETAILS

Well Name UNIVERSITY 3-67 PU 1H	API/UWI 42-461-40228-0000	Operator PIONEER NATURAL RESRC USA, INC
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### Wellbore Hole Size

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)	Start Date	End Date
Conductor	30	26.0	126.0	11/9/2015	11/10/2015
Surface	17 1/2	126.0	661.0	12/4/2015	12/5/2015
Intermediate	12 1/4	661.0	7,940.0	12/6/2015	12/11/2015
Production	8 1/2	7,940.0	18,758.0	12/13/2015	12/17/2015

### Conductor Casing

Run Date	Set Depth (ftKB) 100.0				Centralizers			
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	20	19.124	94.00	J-55	100.00	2	0.0	100.0
Run Date 11/11/2015	Set Depth (ftKB) 126.0				Centralizers			
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
CONDUCTOR	20	19.625	78.60	H-40	100.00	2	26.0	126.0

### Surface Casing

Set Depth (ftKB)	Run Date	Centralizers							
651.0	12/5/2015	4							
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
PUP JOINT	13 3/8	12.615			0.00	0	26.8	26.8	
CASING JOINTS	13 3/8	12.615	54.50	J-55	0.00	0	26.8	26.8	
LANDING JOINT	13 3/8	12.615			0.00	1	26.8	26.8	
PUP JOINT	13 3/8	12.615			8.60	3	26.8	35.4	
CASING JOINTS	13 3/8	12.615	54.50	J-55	575.02	16	35.4	610.4	
FLOAT COLLAR	13 3/8	12.615			1.56	1	610.4	612.0	
CASING JOINTS	13 3/8	12.615	54.50	J-55	37.02	1	612.0	649.0	
FLOAT SHOE	13 3/8	12.615			1.99	1	649.0	651.0	

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

### Surface Casing

Set Depth (ftKB) 700.0	Run Date	Centralizers							
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
Casing Joints	13 3/8	12.615	54.50	J-55	700.00	18	0.0	700.0	

### Surface Casing Cement

Type Casing	String Surface, 651.0ftKB	Cementing Start Date 12/5/2015	Cementing End Date 12/5/2015	Cementing Company SCHLUMBERGER	Top (ftKB) 26.8	Btm (ftKB) 661.0
Class CLASS C	Amount (sacks) 535	Yield (ft³/sack) 1.69	Density (lb/gal) 13.60			

### Intermediate Casing

Set Depth (ftKB) 5,250.0	Run Date	Centralizers						
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Casing Joints	9 5/8	8.835	40.00	L-80	5,250.00	131	0.0	5,250.0

Set Depth (ftKB) 7,929.0	Run Date 12/12/2015	Centralizers 38						
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
LANDING JOINT	9 5/8	8.835			0.00	0	29.5	29.5
CASING HANGER	9 5/8	8.835			3.95	1	29.5	33.4
MARKER JOINT	9 5/8	8.835			9.53	1	33.4	43.0
CASING JOINTS	9 5/8	8.835	40.00	L-80	4,738.63	103	43.0	4,781.6
STAGE COLLAR	9 5/8	8.835			2.70	1	4,781.6	4,784.3
EXTERNAL CASING PACKER	9 5/8	8.835			24.65	1	4,784.3	4,808.9
CASING JOINTS	9 5/8	8.835	40.00	L-80	3,024.63	66	4,808.9	7,833.6
FLOAT COLLAR	9 5/8	8.835	40.00	L-80	1.25	1	7,833.6	7,834.8
CASING JOINTS	9 5/8	8.835	40.00	L-80	92.54	2	7,834.8	7,927.4
FLOAT SHOE	9 5/8	8.835	40.00	L-80	1.65	1	7,927.4	7,929.0

### Intermediate Casing Cement

Type Casing	String Intermediate, 7,929.0ftKB	Cementing Start Date 12/12/2015	Cementing End Date 12/12/2015	Cementing Company SCHLUMBERGER	Top (ftKB) 4,781.0	Btm (ftKB) 7,940.0
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
Class TXI	790	2.28	11.50			
Class CLASS H	342	1.07	16.40			
Type Casing	String Intermediate, 7,929.0ftKB	Cementing Start Date 12/12/2015	Cementing End Date 12/12/2015	Cementing Company SCHLUMBERGER	Top (ftKB) 3,000.0	Btm (ftKB) 4,781.0
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
Class TXI	790	2.28	11.50			
Class CLASS H	342	1.07	16.40			

### Production Casing

Set Depth (ftKB) 18,450.0	Run Date	Centralizers							
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)	
Casing Joints	5 1/2	4.778	20.00	P-110	18,450.00	461	0.0	18,450.0	

Set Depth (ftKB) 18,743.0	Run Date	Centralizers						
Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
LANDING JOINT	5 1/2	4.778			0.00	0	29.2	29.2
CASING HANGER	5 1/2	4.778			5.21	1	29.2	34.4
MARKER JOINT	5 1/2	4.778	20.00	P-110	0.00	0	34.4	34.4
CASING JOINTS	5 1/2	4.778	20.00		7,780.42	186	34.4	7,814.8
MARKER JOINT	5 1/2	4.778			21.95	1	7,814.8	7,836.7
CASING JOINTS	5 1/2	4.778	20.00		124.24	3	7,836.7	7,961.0
MARKER JOINT	5 1/2	4.778			10.10	1	7,961.0	7,971.1
CASING JOINTS	5 1/2	4.778	20.00		1,038.27	25	7,971.1	9,009.4
COLLAR	5 1/2	4.778			1.00	1	9,009.4	9,010.4
CASING JOINTS	5 1/2	4.778	20.00		9,605.25	234	9,010.4	18,615.6
PUP JOINT	5 1/2	4.778			12.10	1	18,615.6	18,627.7

## Drilling & Completion Summary - Ascending

Well Name: UNIVERSITY 3-67 PU 1H

Item Des	OD (in)	ID (in)	Wt/Lgth (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
TOE SLEEVE	5 1/2	4.778			5.42	1	18,627.7	18,633.1
PUP JOINT	5 1/2	4.778			10.05	1	18,633.1	18,643.2
CASING JOINTS	5 1/2	4.778	20.00		40.35	1	18,643.2	18,683.5
FLOAT COLLAR	5 1/2	4.778			1.72	1	18,683.5	18,685.2
CASING JOINTS	5 1/2	4.778	20.00		40.43	1	18,685.2	18,725.7
PUP JOINT	5 1/2	4.778			15.13	1	18,725.7	18,740.8
FLOAT SHOE	5 1/2	4.778			2.20	1	18,740.8	18,743.0

### Production Casing Cement

Type Casing	String Production, 18,743.0ftKB	Cementing Start Date 12/20/2015	Cementing End Date 12/20/2015	Cementing Company SCHLUMBERGER	Top (ftKB) 4,500.0	Btm (ftKB) 18,758.0
Class	Amount (sacks)	Yield (ft³/sack)	Density (lb/gal)			
			10.50			
Class TXI LITEWEIGHT	Amount (sacks) 475	Yield (ft³/sack) 2.20	Density (lb/gal) 11.50			
Class TXI LITEWEIGHT	Amount (sacks) 1,696	Yield (ft³/sack) 1.61	Density (lb/gal) 12.50			

### 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)	Linked Zone	Shot Dens (shots/ft)	Entered Shot Total	Com

### Stimulations & Treatments (Actual)

<Interval Number?>, <Zone?>

Date	Type	Stim/Treat Company	Top Depth (ftKB)	Bottom Depth (ftKB)	Proppant Total (lb)	Total Clean Vol (bbl)
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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

### 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				
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	Unwrap Displace (ft)	Survey Company