

University 18-12A No. 1
Drilling Report

Location 550' FSL & 750' FEL of Section 12, Block 18, University Lands Survey, Ward County.
Ground elev. 2,751'. Permit Number 794371, API Number 42-475-36835.
RRC numbers (432) 684-5581 phone, (432) 684-6005 fax.

Date		Days
10-20-14	Location surveyed, One Call made, advised ULS personnel of well. Paid damages. Daily Costs \$ 25,000	0
	Cum. Costs \$ 25,000	
10-21-14	Met George Acosta with 3G Construction. Daily Costs \$ 1,000	0
	Cum. Costs \$ 26,000	
10-22-14	Waiting on 3G Construction. Daily Costs \$ 1,000	0
	Cum. Costs \$ 27,000	
10-23-14	Discussed location with Mike Taylor, Energy Representative for the ULS. Prep to start location. Daily Costs \$ 1,000	0
	Cum. Costs \$ 28,000	
10-24-14	No report. Should start location work today. Daily Costs \$ 1,000	0
	Cum. Costs \$ 29,000	
10-25-14	Started location. Daily Costs \$ 5,000	0
	Cum. Costs \$ 34,000	
10-26-14	Continue building location. Daily Costs \$ 5,000	0
	Cum. Costs \$ 39,000	
10-27-14	SDFWE.	0
10-28-14	Continue building location. Daily Costs \$ 5,000	0
	Cum. Costs \$ 44,000	
10-29-14	Continue building location. Daily Costs \$ 5,000	0
	Cum. Costs \$ 49,000	
10-30-14	Finish building location. Daily Costs \$ 5,000	0
	Cum. Costs \$ 54,000	
10-31-14	Waiting on Rod Ric Rig 4. Daily Costs \$ 1,000	0
	Cum. Costs \$ 55,000	
11-01-14	Waiting on Rod Ric Rig 4. B&L equipment lined reserve pits. Daily Costs \$ 6,000	0
	Cum. Costs \$ 61,000	
11-02-14	Waiting on Rod Ric Rig 4. Daily Costs \$ 0	0
	Cum. Costs \$ 61,000	
11-03-14	Waiting on Rod Ric Rig 4. Daily Costs \$ 0	0
	Cum. Costs \$ 61,000	
11-04-14	Waiting on Rod Ric Rig 4. Daily Costs \$ 0	0
	Cum. Costs \$ 61,000	
11-05-14	Waiting on Rod Ric Rig #4. Daily Costs \$ 0	0
	Cum. Costs \$ 61,000	
11-06-14	Waiting on Rod Ric Rig #4. Hauled 6 loads of fresh water to inside reserve. Daily Cost \$ 2,000	0
	Cum. Costs \$ 63,000	
11-07-14	Waiting on Rod Ric Rig #4. Hauled 6 fresh & 11 brine water. Daily Cost \$ 9,000	0
	Cum. Costs \$ 72,000	
11-08-14	Start moving Rod Ric Rig #4. Daily Cost \$ 10,000	0
	Cum. Costs \$ 82,000	
11-09-14	Start moving Rod Ric Rig #4. Daily Cost \$ 10,000	0
	Cum. Costs \$ 92,000	
11-10-14	Start moving Rod Ric Rig #4.	0

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Date	Days
Cemented (O-Tex Pumping) with 350 sx Class "C" 80:20:3 with 2% CaCl ₂ & 1/8# cello-flake mixed 13.05 ppg & yield of 1.65 ft ³ /sk followed by 150 sx Class "C" with 2% CaCl ₂ & 18# cello-flake mixed 14.8 ppg & yield of 1.34 ft ³ /sk. Plug down @ 6:56 a.m. 11-13-14. Circulated 47 sx to surface (cement did not fall back).	
11-15-14 Depth 2,584'. Prog. 1,124'. Present oper.drilling.	4
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 1,508' in 29 hours.	
Oper. - 5-10 M lbs., 80-85 rpm, 900 psig.	
Mud - 10 ppg, 29 sec., 10 pH	
Dev. - 3/4° @ 1,563', 3/4° @ 1,848', 1/4° @ 2,037', 1° @ 2,132', 3/4° @ 2,227',	
1° @ 2,323', 1 1/4° @ 2,418', 1 1/4° @ 2,513'	
20.00 Drilling	4.00 WLS
Daily Costs \$ 35,490	Cum. Costs \$ 286,190
11-16-14 Depth 2,879'. Prog. 294'. Present oper.drilling.	5
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 1,802' in 44.5 hours.	
Oper. - 5 M lbs., 80-85 rpm, 900 psig.	
Mud - 10 ppg, 29 sec., 10 pH	
Dev. - 4° @ 2,608', 4° @ 2,639', MR @ 2,734', MR @ 2,766', 4° @ 2,797',	
4° @ 2,829'	
15.50 Drilling	3.00 WLS
5.50 Trip for BHA (LD tri-collar)	
Daily Costs \$ 24,840	Cum. Costs \$ 311,030
11-17-14 Depth 2,929'. Prog. 50'. Present oper.drilling.	6
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 1,853' in 53.5 hours.	
Oper. - 10 M lbs., 55 rpm, 1,200 psig.	
Mud - 10 ppg, 29 sec., 10 pH	
Dev. - 5° @ 2,910'	
9.00 Drilling	0.50 WLS
5.50 Trip for directional tools	
Daily Costs \$ 25,890	Cum. Costs \$ 336,920
11-18-14 Depth 3,384'. Prog. 455'. Present oper.drilling.	7
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 2,308' in 75.5 hours.	
Oper. - 15 M lbs., 50 rpm, 1,200 psig.	
Mud - 10 ppg, 29 sec., 10 pH	
Dev. - 3.6° @ 2,965', 1.7° @ 3,060', 0.4° @ 3,186', 0.7° @ 3,281'	
22.00 Drilling	2.00 WLS
Daily Costs \$ 37,790	Cum. Costs \$ 374,710
11-19-14 Depth 3,840'. Prog. 456'. Present oper.drilling.	8
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 2,764' in 96.5 hours.	
Oper. - 10-12 M lbs., 55 rpm, 1,400 psig.	
Mud - 10 ppg, 29 sec., 10 pH	
Dev. - 0.8° @ 3,376', 0.5° @ 3,471', 0.7° @ 3,566', 0.8° @ 3,660',	

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Date	Days
1.1° @ 3,755'	
21.00 Drilling	2.50 WLS
0.50 Rig repair pump # 1 pop-off	
Daily Costs \$ 32,410	Cum. Costs \$ 407,120
11-20-14 Depth 4,380'. Prog. 540'. Present oper.drilling.	9
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 3,304' in 117.5 hours.	
Oper. – 22 M lbs., 50-55 rpm, 1,400 psig.	
Mud – 10 ppg, 29 sec., 10 pH	
Dev. – 1.1° @ 3,840', 1.5° @ 3,945', 0.8° @ 4,040', 0.5° @ 4,134',	
0.6° @ 4,229', 0.4° @ 4,324'	
21.00 Drilling	3.00 WLS
Daily Costs \$ 32,660	Cum. Costs \$ 439,780
11-21-14 Depth 4,902'. Prog. 522'. Present oper.drilling.	10
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 3,826' in 139 hours.	
Oper. – 22 M lbs., 50-55 rpm, 1,400 psig.	
Mud – 10.1 ppg, 32 sec., 10 pH, 14 cc WL	
Dev. – 0.4° @ 4,419', 0.5° @ 4,514', 0.4° @ 4,604', 0.8° @ 4,707',	
0.4° @ 4,799'	
21.50 Drilling	2.50 WLS
Daily Costs \$ 38,060	Cum. Costs \$ 477,840
11-22-14 Depth 5,127'. Prog. 225'. Present oper. building mud volume.	11
Bit No. 2 -7 7/8" Ulterra U616M. In at 1,076'. Made 4,051' in 149 hours.	
Oper. – 20 M lbs., 75 rpm, 1,000 psig.	
Mud – 10.1 ppg, 29 sec., 10 pH, N/C cc WL	
Dev. – 0.8° @ 4,894', 0.8° @ 4,989'	
10.50 Drilling	1.50 WLS
7.50 Trip and LD directional tools	1.50 Wash 90' to bottom
0.50 Lost returns – build volume	2.50 Pull 2 stands and build volume
Daily Costs \$ 47,000	Cum. Costs \$ 524,840
11-23-14 Depth 5,130'. Prog. 3'. Present oper. laying down DCs.	12
Bit No. 2 -7 7/8" Ulterra U616M. Out at 5,130'. Made 4,054' in 149.5 hours.	
Oper. – 20 M lbs., 75 rpm, 1,000 psig.	
Mud – 10.1 ppg, 31 sec., 10 pH, 28 cc WL	
Dev. – 0.5° @ 5,108'	
0.50 Drilling	0.50 Drop TOTCO
1.00 Mix and pump LCM pill	0.50 Run 2 stands to bottom
4.00 Circulate for logs	3.50 Trip for logs
4.50 RU and log well	3.50 Trip in hole
1.50 Circulate and spot LCM pill	4.50 LD DP and DCs
Daily Costs \$ 67,325	Cum. Costs \$ 592,165
11-23-14 Depth 5,130'. Prog. 0'. Present oper. rig released.	13

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Date			Days
	4.00 Run casing	1.00 Circulate	
	3.00 RU and cement	1.50 RD cementers	
	4.00 ND BOPE, set slips, cut casing	3.50 Jet pits	
	7.00 Rig down		
	Daily Costs \$126,095	Cum. Costs \$ 718,260	

11-24-14 Depth 5,130'. Prog. 0'. Present oper. rig released. 13

Long string detail:

Joints	Description	Footage	Depth
	KB Correction	0.00	0.00
114	5.5",17#,J-55,8rd,LT&C	5,123.31	5,123.31
1	5.5" FC	1.20	5,124.51
1	5.5",17#,J-55,8rd,LT&C	45.20	5,169.71
1	5.5" FS	0.80	5,170.51
	Setting Depth		5,130.00

(20) 5 1/2" Centralizers: One in the middle of shoe joint, one on 1st collar above float collar, then one every other casing collar thereafter.

Cemented (O-Tex Pumping) with 150 bbls of 9.2# Mud/Spacer & 150 sxs Class "C" 65:35:4 with 5% salt & 1/8# cello-flake mixed 12.8 ppg & yield of 1.89 ft³/sk. Disp. 5 1/2" csg 118 bbls. Plug down @ 1:43 p.m. 11-23-14. Float held okay.

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11-26-14 Rigged down Rod-Ric rig 4. Moving rig to Gaines County. As soon as rig is gone, will fill holes and ditches, back drag location and install anchors.

12-02-14 Back drag location & set anchors.

Daily Cost \$ 3,000

Cum Cost \$ 721,260

12-05-14 Will MI&RU Great Basin Rig on Monday (12-8-14).

12-09-14 MI&RU Great Basin Pulling Unit (Efin). Hinton Enterprise Reverse Unit. PU & RIH with 4 3/4" bit, 6- 3 1/2" DCs, & 2 7/8" tbg. Tag top rubber plug @ 5,078'. PUH 1 stand. SI & SDFD.

Daily Cost \$ 6,500

Cum Cost \$ 727,760

12-10-14 RIH & Tag @ 5,078' & start drilling thru top rubber plug, float collar & cement in shoe joint to 5,122'. Circulate clean with 1% KCL. POOH with BHA & tbg. LD bit & DCs. RD & MO reverse unit. SI & SDFD.

Daily Cost \$ 7,400

Cum Cost \$ 735,160

12-11-14 MI & RU Renegade Wire Line. Run CBL (TOC = 4,197' with good bond). Perf 20 holes from 5,061' to 5,080'. POOH with wire line, RD & MO Renegade. PU SN, 1 jnt. of 2 7/8" tbg for tail pipe & 5 1/2" PKR. RIH with 2 7/8" tbg to 5,000'. SI & SDFD.

Daily Cost \$ 14,600

Cum Cost \$ 749,760

12-12-14 RIH with 2 7/8" tbg to 5,080' (tail pipe). RU Acid Tech & spot 250 gal 7 1/2% HCl acid (WTG Delaware sand formulation). PUH with tailpipe (4,984'), reverse excess acid in to tubing & set PKR (4,952'). Pressure back side to 500 psig & put acid away. Break down press = 700 psig. Rate = .7 bpm @ 600 psig. ISIP = 475 psig. Well on a vacuum in 4 minutes. LWTR = 37 bbls. RD Acid Tech, RU sand line & swab. IFL = 200'. Made 28 runs & recovered approx. 40 bbls fluid. Last four runs had 10-15% oil cut. EFL = 2,800'. SI & SDFD.

Daily Cost \$ 10,200

Cum Cost \$ 759,960

12-13-14 SITP = 250 psig. Bled press off (all gas & oil). IFL = 2,000. Made a total of 30 runs with swab & recovered approx. 16 BO & 174 BW. EFL = 3,000'.

Daily Cost \$ 6,000

Cum Cost \$ 765,960

12-14-15 SDFWE.

12-15-14 SDFWE.

12-16-14 SITP = 350 psig. Bled press off (all gas & oil). IFL = 1,000'. Pulled from 2,000' & recovered 90% oil. Made a total of 29 runs with swab & recovered 199 bbls fluid. EFL = 4,000'. Oil cut the last run = 15% approx.

Daily Cost \$5,500

Cum Cost \$ 771,460

12-17-14 SITP = 370 psig. Bled well down all gas with oil mist. IFL = 1,200', pulled from 2,200' & recovered 100% oil. Cut test tank (before 1st run this AM) showed yesterday flowing & swabbing to be approximately 30 BO & 169 BW. Made a total of 31 runs with swab & recovered 187 bbls of fluid. EFL=4,100'.

Daily Cost \$ 6,500

Cum Cost \$ 777,960

12-18-14 SITP = 380 psig. Bled well down all gas with oil mist. IFL 2,000', pulled from 3,000' & recovered 100% oil (emulsified). Cut test tank before run and showed yesterday flowing & swabbing to be approximately 14 BO & 180 BW (cut showed thick emulsified area below free

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oil). Unset PKR, POOH & LD PKR. PU & RIH with 3 1/2" mud anchor, 2 3/8" super perf sub, SN,
2 jnts of 2 7/8" tbg, TAC & the rest of 2 7/8" tubing. SI & SDFD.

Daily Cost \$ 8,300

Cum Cost \$ 786,260

12-19-14 set TAC @ 4,966', ND BOP & NU well head. RD & MO Great basin pulling unit.

Daily Cost \$ 3,500

Cum Cost \$ 789,760

12-20-14 Set Lufkin C228-246-86 pumping unit.

Daily Cost \$ 49,000

Cum Cost \$ 838,760

12-21-14 SDFWE.

12-22-14 SDFWE.

12-23-14 MI & set tank battery (2-300 bbl oil stock tanks, 1-300 bbl FG open top water tank &
4' X 20' heater treater).

Daily Cost \$ 21,000

Cum Cost \$ 859,760