



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/14/2019  
**Report #:** 1.0  
**DFS:** -6.00  
**DFS(TL):**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 0.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b>	<b>Activity:</b> RDMO
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Target Formation	Wolfcamp A
Surface Casing Flange Elevation (ft) 0.00			

Safety Checks		
Date	Type	Com
8/13/2019	Pre Job Safety Meeting	HOLD PRE-JOB SAFETY MEETING WITH LIGHTNING TRUCKINF & PLAN FORWARD
8/13/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.
8/14/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.

**Daily Contacts**  
 Daily Contacts  
 DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		27,914.86	27,914.86

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 RELEASED RIG OFF THE KRITI #2403H @ 6AM ON 8/13/2019. WE ARE CURRENTLY 75% RIGGED DOWN, 50% MOVED, 15% SET IN ON THE NEW LOCATION.

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 209 DAYS SINCE LAST LTI: 209 DAYS SINCE LAST HURT: 209 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019

**BOP TEST:** LAST BOP TEST: 7/28/2019 @ 23:00HRS; NEXT BOP TEST: 8/18/2019, TRRC LINDA OPERATOR#8

**DIRECTIONAL:** LAST SURVEY: DEPTH: \_\_\_\_, INC. \_\_\_\_, AZM. \_\_\_\_, TVD \_\_\_\_, VS. \_\_\_\_'

**WELL SEP:** 105H: \_\_\_\_, 304H: \_\_\_\_, 504H: \_\_\_\_, TBD: \_\_\_\_'

**AGITATOR:**

**LITHOLOGY:** SAMPLE:DEPTH \_\_\_\_, \_\_\_\_% SHALE

**MUD:** TOTAL OBM ON LOCATION: 2,317 BBLS.

**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/TONY PACK  
 NABORS F-23: 11 CREW, 1 MUD ENG (VALENCE DRILLING FLUIDS)

**XTO SHE:** GENERALIST: DEARL LAYMON

**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, SPUD WELL \_\_\_\_ HRS AUG \_\_\_\_, 2019 ,  
 RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800

Avg Background Gas (%)	Avg Connection Gas (%)	Avg Trip Gas (%)	Max Drill Gas (%)
0.00	0.00	0.00	0.00

Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	06:00	24.0	24.0	RU	Move Rig	Mob, Move Rig	121.0	121.0		HOLD PJSM WITH LIGHNING TRUCKING & RDMO AS FOLLOWS:  WE ARE CURRENTLY 75% R/D, 50% MOVED, & 15% SET IN. WE ARE 24HRS SINCE RIG RELEASE. HAD A TOTAL OF 42 HAUL TRUCKS YESTERDAY. HAD TO REPLACE SUB RAISING CYLINDER.

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLMUD	135.00	135.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	22,079.86
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,350.00	2,350.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	3,000.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	350.00



### XTO Daily Drilling Report

Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 8/15/2019  
Report #: 2.0  
DFS: -5.00  
DFS(TL):

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 0.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b>	<b>Activity:</b> RDMO
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Target Formation	Wolfcamp A
		Surface Casing Flange Elevation (ft)	0.00

Safety Checks		
Date	Type	Com
8/14/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.
8/15/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.

Daily Contacts	
DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		45,227.31	73,142.17

Daily Operations Summary and Mud Gas	
Operation Summary #1 MOVE RIG. GOT ALL OF BACK YARD SET IN & ABOUT 30% OF IT RIGGED UP ON NEW LOCATION, ON THE OLD LOCATION GOT MAST LOWERED @ 17:00HRS & SLPIT SUBSTRUCTURE. 100% R/D, 80% MOVED, 65% SET IN, 15% RIGGED UP. 48HRS SINCE RIG RELEASE	
Operation Summary #2 SAFETY: NO INCIDENTS OR NO SPILLS REPORTED 210 DAYS SINCE LAST LTI: 210 DAYS SINCE LAST HURT: 210 DAYS SINCE LAST SPILL H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019 BOP TEST: LAST BOP TEST: 7/28/2019 @ 23:00HRS; NEXT BOP TEST: 8/18/2019, TRRC LINDA OPERATOR#8 DIRECTIONAL: LAST SURVEY: DEPTH: ____, INC. ____, AZM. ____, TVD ____, VS. ____ WELL SEP: 105H: ____, 304H: ____, 504H: ____, TBD: ____ AGITATOR: LITHOLOGY: SAMPLE:DEPTH ____, % SHALE MUD: TOTAL OBM ON LOCATION: 2,497 BBLs. SENT __ BBLs OF OBM TO NABORS M7504 PERSONNEL: DSM ON LOCATION: JUSTIN WATTS/TONY PACK NABORS F-23: 16 CREW, XTO SHE: GENERALIST: DEARL LAYMON VISITORS:  NOTES: START WELL @ 06:00HRS 8/13/2019, SPUD WELL ____ HRS AUG ____, 2019 , RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800	

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	06:00	24.0 0	24.0 0	RU	Move Rig	Mob, Move Rig	121.0	121.0		BLEED MRC'S & LOWER MAST. FINISH SETTING IN MUD TANKS. SET MUD PUMPS, FLOWLINE MANIFOLD, CENTERFUGE, VFD HOUSE, FESTOON HOUSE, HOPPER HOUSE, BULK TANKS, CREW HOUSING, RM HOUSE, ALL 4 GENS, FESTOON, DEISEL TANKS, WATER TANKS. CRANES SHUT DOWN @ 17:00HRS DUE TO LIGHTNING.

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,FUEL,PURCH_OTHR	16,812.45	16,812.45
EX,V,GD,PART_DRILLMUD	75.00	210.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	44,159.72
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,350.00	4,700.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	6,000.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	500.00	500.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	700.00
	60.00	60.00

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	3,290.0	0.0	0.0	3,290.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/16/2019  
**Report #:** 3.0  
**DFS:** -4.00  
**DFS(TL):**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 0.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b>	<b>Activity:</b> RDMO/MIRU
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)	0.00
		Target Formation	Wolfcamp A

Safety Checks		
Date	Type	Com
8/15/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.
8/15/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.
8/16/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.

Daily Contacts	
Daily Contacts DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		31,529.35	104,671.52

Daily Operations Summary and Mud Gas	
<p>Operation Summary #1  MOVE RIG. WE ARE CURRENTLY 100% R/D, 90 % MOVED (ALL LOADS LOADED LAST FEW TRUCKS LEAVING OLD LOCATION THIS MORNING), 65% SET IN, 20% R/U. GOT GEN SET WIRED UP &amp; RAN ELECTRICAL, AIR, WATER LINES IN BACK YARD. GOT MASTS MOVED TO THE NEW LOCATION.</p> <p>Operation Summary #2  <b>SAFETY:</b> NO INCIDENTS OR NO SPILLS REPORTED  211 DAYS SINCE LAST LTI: 211 DAYS SINCE LAST HURT: 211 DAYS SINCE LAST SPILL  H2S SENSORS &amp; MONITORS BUMP TESTED: FULL TEST &amp; CALIBRATION 7/28/2019  <b>BOP TEST:</b> LAST BOP TEST: 7/28/2019 @ 23:00HRS; NEXT BOP TEST: 8/18/2019, TRRC LINDA OPERATOR#8  <b>DIRECTIONAL:</b> LAST SURVEY: DEPTH: __, INC. __°, AZM. __°, TVD __', VS. __'  <b>WELL SEP:</b> 105H: __', 304H: ____, 504H: ____, TBD: __'  <b>AGITATOR:</b>  <b>LITHOLOGY:</b> SAMPLE:DEPTH __' __% SHALE  <b>MUD:</b> TOTAL OBM ON LOCATION: 2,257 BBLs. SENT 240BBLs OF OBM TO NABORS M7504  <b>PERSONNEL:</b> DSM ON LOCATION: JUSTIN WATTS/TONY PACK  NABORS F-23: 16 CREW,  XTO SHE: GENERALIST: DEARL LAYMON  <b>VISITORS:</b></p> <p><b>NOTES:</b> START WELL @ 06:00HRS 8/13/2019, SPUD WELL __ HRS AUG __, 2019 ,  RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800</p>	

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	06:00	24.0	24.0	RU	Move Rig	Mob, Move Rig	121.0	121.0		MOVE RIG. WE ARE CURRENTLY 100% R/D, 90 % MOVED (ALL LOADS LOADED LAST FEW TRUCKS LEAVING OLD LOCATION THIS MORNING), 65% SET IN, 20% R/U. GOT GEN SET WIRED UP & RAN ELECTRICAL, AIR, WATER LINES IN BACK YARD. GOT MASTS MOVED TO THE NEW LOCATION.

Cum Daily Cost Summary		
Cost Des	Rpt Fid Est (Cost)	Cum Fid Est (Cost)
Ex,V,ContractLabor,Technical	1,200.00	1,200.00
EX,V,GD,PART_DRILLMUD	135.00	345.00
Ex,V,Gd,Suppl,Misc,NonWellwork	2,414.49	2,414.49
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	66,239.58
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,350.00	7,050.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	9,000.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	1,050.00

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	14,701.0	0.0	0.0	17,991.0
Diesel Fuel - Rig	gal	0.0	0.0	0.0	17,991.0
Well Water	gal	364,800.0	364,800.0	364,800.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/17/2019  
**Report #:** 4.0  
**DFS:** -3.00  
**DFS(TL):**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 0.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b>	<b>Activity:</b> RDMO/MIRU
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Target Formation	Wolfcamp A
		Surface Casing Flange Elevation (ft)	0.00

Safety Checks		
Date	Type	Com
8/16/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.
8/16/2019	Pre Job Safety Meeting	HOLD PRE-TOUR SAFETY MEETING WITH CREW & ADDITIONAL PERSONNEL ON LOCATION.
8/17/2019	Pre Job Safety Meeting	HOLD PRE-TOUR SAFETY MEETING WITH CREW & ADDITIONAL PERSONNEL ON LOCATION.

Daily Contacts	
Daily Contacts DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		30,339.86	135,011.38

Daily Operations Summary and Mud Gas	
Operation Summary #1 MOVE RIG: WE GOT 100% MOVED OFF OLD LOCATION, FINISH CLEANING FRAC TANKS & SENT IN, GOT SUBS & DERRICK SET IN PLACE. GOT STRUNG UP TO 8 LINE, DRESSED OUT MASTS & HOOKED UP ALL HYDRAULICS TO RIG, BLEED MRC'S & PINNED TO MASTS  WE ARE 100% R/D, 100% MOVED, 85% SET IN, 45% R/U. (96HRS SINCE RIG RELEASE)  PIPE INSPECTION- 509 INSPECTED 423 READY FOR USE 86 NEEDS REPAIRS OR HB	

Operation Summary #2	
SAFETY: NO INCIDENTS OR NO SPILLS REPORTED 212 DAYS SINCE LAST LTI: 212 DAYS SINCE LAST HURT: 212 DAYS SINCE LAST SPILL H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019	
BOP TEST: LAST BOP TEST: 7/28/2019 @ 23:00HRS; NEXT BOP TEST: 8/18/2019, TRRC LINDA OPERATOR#8	
DIRECTIONAL: LAST SURVEY: DEPTH: ____, INC. ____, AZM. ____, TVD ____, VS. ____	
WELL SEP: 105H: ____, 304H: ____, 504H: ____, TBD: ____	
AGITATOR:	
LITHOLOGY: SAMPLE:DEPTH ____, % SHALE	
MUD: TOTAL OBM ON LOCATION: 2,257 BBLs. SENT 240BBLs OF OBM TO NABORS M7504	
PERSONNEL: DSM ON LOCATION: JUSTIN WATTS/TONY PACK NABORS F-23: 16 CREW, XTO SHE: GENERALIST: DEARL LAYMON, XTO RIG MOVE SPECIALIST	
VISITORS:	
NOTES: START WELL @ 06:00HRS 8/13/2019, SPUD WELL ____ HRS AUG ____, 2019 , RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800	

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	18:00	12.0 0	12.0 0	RU	Move Rig	Mob, Move Rig	121.0	121.0		INSPECT & LUBRICATE CROWN SECTION, DRESS OUT DERRICK BOARD WITH NEW ROPES, & RIG UP MISC WHILE AWAITING SUBSTRUCTURE ON NEW LOCATION, SET SUBS, CENTERSTEEL, A-MAST SECTION, B MAST SECTION, CROWN SECTION, DRAWWORKS. SET BACK YARD EQUIPMENT. MAKE MODIFICATION TO CENTERFUGE STAND FOR BIG BOWL CENTERFUGE. SERVICE GENS & CLEAN RADIATORS, SET HPU ON SUBSTRUCTURE. REPAIR BAD GIRT IN CROWN SECTION DUE TO AIR HOIST RUBBING & INSPECT. INSTALL NEW PADEYES FOR AIR HOIST SHEAVES & INSPECT.
18:00	06:00	12.0 0	24.0 0	RU	Move Rig	Mob, Move Rig	121.0	121.0		DRESS OUT DERRICK. RUN ALL CABLING. C/O AIR HOIST LINE ON DRILLERS SIDE, STRING UP DRILL LINE TO 8 LINE, TOP DRIVE TECH WORKED ON SERVICE LOOP ISSUES. RAN HYDRAULIC LINES TO RIG. BLEED MRC'S & PINNED TO MASTS.

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
Ex,V,ContractLabor,Technical	1,875.00	3,075.00
EX,V,GD,PART_DRILLMUD	135.00	480.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	88,319.44
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,350.00	9,400.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	12,000.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	550.00	1,050.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	1,400.00

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	0.0	0.0	17,991.0
Well Water	gal	177,301.0	177,301.0	542,101.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/18/2019  
**Report #:** 5.0  
**DFS:** -2.00  
**DFS(TL):**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 0.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b>	<b>Activity:</b> RDMO/MIRU
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Target Formation	Wolfcamp A
		Surface Casing Flange Elevation (ft)	0.00

Safety Checks		
Date	Type	Com
8/17/2019	Pre Job Safety Meeting	HOLD PJSM W/ LIGHTNING TRUCKING, & ALL 3RD PARTY PERSONNEL ALONG WITH XTO PERSONNEL ON LOCATION. DISCUSS OVERHEAD EQUIPMENT & LSA OVER LINE OF FIRE.
8/17/2019	Tourly Safety Meeting	DISCUSS LSA OVE LIFTING & RIGGING. DISCUSSED WORKING IN DIM AREAS.
8/18/2019	Tourly Safety Meeting	DISCUSS PROPER HAND PLACEMENT & HYDRATION.

Daily Contacts	
Daily Contacts DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		29,764.86	164,776.24

Daily Operations Summary and Mud Gas	
Operation Summary #1 MIRU: GOT MASTS & SUBSTRUCTURE RAISED, SET ALL RIG EQUIPMENT AROUND THE SUBSTRUCTURE. HOOK UP ELECT AND HYD TO FLOOR AND TOP DRIVE , RIG UP FLOOR	
WE ARE 100% MOVED, 100% SET IN, 60% R/U. (120HRS SINCE RIG RELEASE)	
PIPE INSPECTION- 800 INSPECTED 686 READY FOR USE 85 NEEDS REPAIRS & 127 NEEDS HB	
Operation Summary #2 SAFETY: NO INCIDENTS OR NO SPILLS REPORTED 213 DAYS SINCE LAST LTI: 213 DAYS SINCE LAST HURT: 213 DAYS SINCE LAST SPILL H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019 BOP TEST: LAST BOP TEST: _____ NEXT BOP TEST: _____, TRRC _____ DIRECTIONAL: LAST SURVEY: DEPTH: _____, INC. _____°, AZM: _____°, TVD _____', VS. _____' WELL SEP: 105H: _____', 304H: _____', 504H: _____', TBD: _____' AGITATOR: LITHOLOGY: SAMPLE:DEPTH _____' _____% SHALE MUD: TOTAL OBM ON LOCATION: 2,257 BBLs. SENT 240BBLs OF OBM TO NABORS M7504 PERSONNEL: DSM ON LOCATION: JUSTIN WATTS/TONY PACK NABORS F-23: 16 CREW, XTO SHE: GENERALIST: DEARL LAYMON, XTO RIG MOVE SPECIALIST VISITORS:  NOTES: START WELL @ 06:00HRS 8/13/2019, SPUD WELL _____ HRS AUG _____, 2019 , TRRC SPUD & SURF OPERATOR #2 AUDREY RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800	

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	18:00	12.0	12.0	RU	Move Rig	Mob, Move Rig	121.0	121.0		SET IN & RIG UP: GOT MASTS RAISED, RETRACTED MRC CYLINDERS PREPARED SUBSTRUCTURE & HOOKED UP HYDRAULICS. RAISED SUBSTRUCTURE, MOUNT KOOMEY SKID, FLOWLINE, SET LIGHT TOWERS ON FLOOR, SET BOP WINCHES.
18:00	06:00	12.0	24.0	RU	Move Rig	Mob, Move Rig	121.0	121.0		SET BACK WALKING FEET & EXTEND ARMS, SET BOP WINCHES, MISC ON THE RIG FLOOR.ELECT ,LIGHT,AND HYD LINES TO TOP DRIVE

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLMUD	135.00	615.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	110,399.30
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,350.00	11,750.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	15,000.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	1,850.00	2,900.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	1,750.00

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	1,235.0	1,235.0	16,756.0
Well Water	gal	0.0	0.0	542,101.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/19/2019  
**Report #:** 6.0  
**DFS:** -1.00  
**DFS(TL):**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 0.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b>	<b>Activity:</b> RDMO/MIRU
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Target Formation	Wolfcamp A
		Surface Casing Flange Elevation (ft)	0.00

Safety Checks		
Date	Type	Com
8/18/2019	Tourly Safety Meeting	HOLD PTSM & DISCUSSED LIFTING & RIGGING LSA
8/19/2019	Tourly Safety Meeting	HOLD PTSM & DISCUSSED LIFTING & RIGGING LSA

**Daily Contacts**  
Daily Contacts  
DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		39,884.86	204,661.10

**Daily Operations Summary and Mud Gas**  
Operation Summary #1  
RIGGING UP. RIG UP HYDRAULICS TO RIG FLOOR, ADDITIONAL LIGHTING, BACK YARD PVC AND TRASH PUMPS, PANIC LINE/FLARE LINE , TROUBLE SHOOT HYD AND TOP DRIVE TECHS ON LOCATION . CONTINUE RIGGING UP MISC WHILE TROUBLESHOOTING.

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
214 DAYS SINCE LAST LTI: 214 DAYS SINCE LAST HURT: 214 DAYS SINCE LAST SPILL  
H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019

**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
**DIRECTIONAL:** LAST SURVEY: DEPTH: \_\_, INC. \_\_°, AZM: \_\_°, TVD \_\_', VS. \_\_' \_\_\_\_\_'  
**WELL SEP:**  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_' \_\_\_\_\_% SHALE  
**MUD:** TOTAL OBM ON LOCATION: 2,257 BBLs. SENT 240BBLs OF OBM TO NABORS M7504  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/TONY PACK  
NABORS F-23: 16 CREW,  
XTO SHE: GENERALIST: DEARL LAYMON,  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL \_\_\_\_\_ HRS AUG \_\_\_\_, 2019 ,  
TRRC SPUD & SURF OPERATOR #2 AUDREY.  
RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800  
PIPE INSPECTION- 800 INSPECTED 686 READY FOR USE 85 NEEDS REPAIRS & 127 NEEDS HB

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	18:00	12.0 0	12.0 0	RU	Move Rig	Mob, Move Rig	121.0	121.0		RIG UP: HOOK UP ALL HYDRAULICS TO RIG FLOOR, RIG UP TONGS, & MISC RIG FLOOR EQUIPMENT. TROUBLESHOOT DRAWWORK & TOP DRIVE ISSUES, SET FRAC WATER TANKS, RUN 4" WATER LINES FOR TRANSFER PUMPS, SPOOL UP DRILL LINE ON DRAWWORKS & REMOVE SHIPPING PINS ON TOP DRIVE & TRAVELING BLOCKS.
18:00	04:00	10.0 0	22.0 0	RU	Move Rig	Mob, Move Rig	121.0	121.0		RIG UP : BACK YARD PVC AND TRASH PUMPS, PANIC LINE/FLARE LINE WITH METHENA & ROUTABOUTS. ,RIG CREW - RIG FLOOR ,TROUBLE SHOOT HYD TO RIG FLOOR AND TOP DRIVE TECHS ON LOCATION , REPOSITION SERVICE LOOP IN DERRICK, HANG TONGS,
04:00	06:00	2.00 0	24.0 0	RU	Move Rig	Mob, Move Rig	121.0	121.0		RIG ACCEPTED @ 04:00HRS. WELD ON 20" CONDUCTOR.

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
Ex,V,ContractLabor,Technical	1,550.00	4,625.00
EX,V,GD,PART_DRILLMUD	6,645.00	7,260.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	132,479.16
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	3,660.00	15,410.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	18,000.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	2,600.00	5,500.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	2,100.00

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	372.0	1,607.0	16,384.0
Well Water	gal	62,263.0	62,263.0	604,364.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/20/2019  
**Report #:** 7.0  
**DFS:** 0.00  
**DFS(TL):**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 121.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 0.00	<b>Activity:</b> TAG BOTTOM @ 121'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft) 31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft) 0.00
		Target Formation Wolfcamp A

Safety Checks		
Date	Type	Com
8/19/2019	Tourly Safety Meeting	HOLD PRE-TOUR SAFETY MEETING WITH CREW & ADDITIONAL PERSONNEL ON LOCATION.
8/20/2019	Tourly Safety Meeting	HOLD PRE-TOUR SAFETY MEETING WITH CREW & ADDITIONAL PERSONNEL ON LOCATION.

**Daily Contacts**  
Daily Contacts  
DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
		56,887.55	261,548.65

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft <sup>2</sup> )	Gel 10m (lb/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
11:30	121.0	8.40	28	1.0	1	7.0						1	1	0/100			0	0	1.0	0.0	0.9

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1 Packed Hole
Drill String Name	1 Packed Hole

Drilling Parameters and Hydraulics									
Nozzles (1/32")	TFA (in <sup>2</sup> )	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)
13/13/13/13/13/13/13/13	1.04	500	500.0						
Bit HP (hp)	Bit HPSI (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)				

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg

Mud Motors								
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75

**Comment**  
9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5\* ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'

**Daily Operations Summary and Mud Gas**  
Operation Summary #1  
COMPLETED RIGGING UP 3RD PARTY EQUIPMENT- TRASH PUMPS ETC. PRESSURE TESTED MUD LINES, WELD ON CONDUCTOR & N/U FLOWLINE, TURNBUCKLES, ETC. PICK UP HALLIBURTON DIRECTIONAL, (OCCURED 2HRS DT WIWTH TONG PULL LOAD CELL ISSUES) CONTINUE PICKING UP DIRECTIONAL,BREAK CIRC AND WASH TO BTM 121'  
Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
215 DAYS SINCE LAST LTI: 215 DAYS SINCE LAST HURT: 215 DAYS SINCE LAST SPILL  
H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019  
**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
**DIRECTIONAL:** LAST SURVEY: DEPTH: \_\_\_\_\_, INC. \_\_\_\_\_°, AZM. \_\_\_\_\_°, TVD \_\_\_\_\_', VS. \_\_\_\_\_'  
**WELL SEP:**  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_\_\_' \_\_\_\_\_% SHALE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/TONY PACK  
NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
GENERALIST: DEARL LAYMON,  
**XTO SHE:** XTO DRLG SUPT. GREG GILLESPIE, XTO DRLG ENG KEVIN FORT  
**VISITORS:**  
**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL \_\_\_\_\_ HRS AUG \_\_\_\_\_, 2019 , TRRC SPUD & SURF OPERATOR #2 AUDREY.  
RIG MOVE BIDS, LIGHTNING \$196,000, AVEDA \$236,500, TRI STATE \$197,800  
PIPE INSPECTION- 800 INSPECTED 686 READY FOR USE 114 NEEDS REPAIRS OR HB. SENT REPIARS TO MACHINE SHOP

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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XTO Daily Drilling Report

Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 8/20/2019  
 Report #: 7.0  
 DFS: 0.00  
 DFS(TL):

Activity Last 24 Hours

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	00:00	18.00	18.00	RU	Move Rig	Mob, Move Rig	121.0	121.0		COMPLETE WELDING ON 20" CONDUCTOR. HOOK UP TURN BUCKLES, FLOW LINE, ETC. RIG UP TRANSFER PUMPS FROM RESERVE TO ACTIVE TANKS, HOOK UP SHAKER TROUGH & WASHOUT LINES, CHANGE OUT SAVER SUB & INSTALL CORROSION RING , LOAD RACK WITH BHA AND STRAP , INSTALL MOUSE HOLE , INSTALL FLOW NIPPLE , CHANGE OUT LINERS AND SWABS ON MP
00:00	02:00	2.00	20.00	BH	Drill Surface Hole	Mob, Move Rig	121.0	121.0		MAKE UP BHA 17 1/2 VAREL R813DGX / 9 5/8 SPERRY MTR 6/7-5.0 STG DIRECTIONAL ASSY / RR / 8"DC TAG UP @ 121' /
02:00	04:00	2.00	22.00	RR	Drill Surface Hole	Mob, Move Rig	121.0	121.0		HAVE ISSUE WITH TONG PULL ON TONG WHEN MAKE UP BHA. CHANGE OUT VALVE ON LOAD CELL & BLEED SYSTEM.
04:00	05:30	1.50	23.50	BH	Drill Surface Hole	Mob, Move Rig	121.0	121.0		CONTINUE MAKE UP BHA / MWD
05:30	06:00	0.50	24.00	WA	Drill Surface Hole	Mob, Move Rig	121.0	121.0		BREAK CIRC AND WASH DOWN TO 121'

Cum Daily Cost Summary

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,ContractLabor,Technical	1,275.00	5,900.00
EX,V,GD,PART_DRILLMUD	6,927.69	14,187.69
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	154,559.02
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSUBSURFWITHOPER	19,675.00	19,675.00
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	3,200.00	18,610.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	21,000.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	380.00	5,880.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	2,450.00

Supplies & Fuel Daily Amt

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	765.0	2,372.0	15,619.0
Well Water	gal	0.0	0.0	604,364.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/21/2019  
**Report #:** 8.0  
**DFS:** 1.00  
**DFS(TL):** 1.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 820.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 699.00	<b>Activity:</b> DRILLING 17.5" SURFACE @ 820'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 20.50	<b>Cum Percent Problem Time (%):</b> 0.00
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 34.1	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
8/20/2019	Tourly Safety Meeting	HOLD PJSM OVER ENERGY ISOLATION, PROPER LOTO & TRY OUR MACHINERY GUARD, & REVIEWED RECENT INCIDENTS @ XTO
8/21/2019	Tourly Safety Meeting	HOLD PJSM OVER ENERGY ISOLATION, PROPER LOTO & TRY OUR MACHINERY GUARD, & REVIEWED RECENT INCIDENTS @ XTO

Daily Contacts	
Daily Contacts DSM, Justin Watts, 918-839-5744; DSM, Tony Pack, 325-665-7326; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
3,241.34	3,241.34	41,827.40	303,376.05

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft <sup>2</sup> )	Gel 10m (lb/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
10:30	250.0	8.40	28	1.0	1	7.0						1	1	0/100			0	0	1.0	0.0	0.9

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1 Packed Hole

Drilling Parameters and Hydraulics									
Nozzles (1/32")	TFA (in <sup>2</sup> )	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)
13/13/13/13/13/13/13	1.04	750	2,200.0	20	60	12,000.0	100	125	90
Bit HP (hp)	Bit HPSI (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)				

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75	
Comment 9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5* ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'									

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NS Tie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
380.00	2.15	221.99	379.90	5.09	-6.61	-3.69	0.55		
472.00	2.63	214.26	471.82	7.22	-9.64	-6.03	0.63		
564.00	3.22	202.06	563.70	10.46	-13.78	-8.19	0.93		
661.00	3.83	184.56	660.52	15.51	-19.53	-9.47	1.27		
755.00	3.79	175.74	754.31	21.40	-25.76	-9.49	0.62		



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/21/2019**  
**Report #: 8.0**  
**DFS: 1.00**  
**DFS(TL): 1.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 SPUD IN WELL DRILL 17.5" SURFACE SECTION F/121' T/820'

TOTAL ROT 636, HR 18.5, AVG 34  
 TOTAL SLD 63, HR 2, AVG 32

Operation Summary #2

**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 216 DAYS SINCE LAST LTI: 216 DAYS SINCE LAST HURT: 216 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019  
**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 661.0, INC. 3.83°, AZM. 184.56°, TVD 660.52', VS. 15'  
**WELL SEP:**  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_\_\_' \_\_\_\_\_%  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/TONY PACK  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
**XTO SHE:** GENERALIST: DEARL LAYMON,  
**VISITORS:** XTO DRLG SUPT. GREG GILLESPIE, XTO DRLG ENG KEVIN FORT

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TRRC SPUD & SURF OPERATOR #2 AUDREY.

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	10:00	4.00	4.00	DR	Drill Surface Hole	Drilling, Drill Surface Hole	121.0	250.0		SPUD WELL: DRILL ROTATE 17.5" SURFACE SECTION F/121' T/250'_. MADE 129' @ 32FPR. WOB/10K, RPM/40, SPP/650, GPM/300, DIFF/25, CONTROL DRILLED WHILE BHA IN CONDUCTOR
10:00	12:00	2.00	6.00	SU	Drill Surface Hole	Drilling, Drill Surface Hole	250.0	250.0		HAD ISSUES GETTING SURVEY PUMPED UP. ONLY TO INCREASE FLOW RATE & TROUBLESHOOT.
12:00	20:15	8.25	14.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	250.0	440.0		DRILL ROTATE 17.5" SURFACE SECTION F/250' T/440'. MADE 190' @ 23 FPR. WOB/10K, RPM/40-50, SPP/750-1500, GPM/400-650, DIFF/25, CONTROL DRILLED WHILE BHA IN CONDUCTOR
20:15	20:45	0.50	14.75	DS	Drill Surface Hole	Drilling, Drill Surface Hole	440.0	450.0		DRILL SLIDE F/440' T/450'. MADE 10' @ 20 FPR. WOB/10K, SPP/1500, GPM/650, DIFF/250, TF 140M
20:45	22:45	2.00	16.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	450.0	561.0		DRILL ROTATE F/450' T/561'. MADE 111' @ 56 FPR. WOB/20K, RPM/50, SPP/1800, GPM/650, DIFF/280,
22:45	23:15	0.50	17.25	SR	Drill Surface Hole	Drilling, Drill Surface Hole	561.0	561.0		SERVICE RIG & COMPONENTS
23:15	23:45	0.50	17.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	561.0	597.0		DRILL ROTATE F/561' T/597'. MADE 36' @ 72 FPR. WOB/20K, RPM/50, SPP/1800, GPM/650, DIFF/280,
23:45	00:00	0.25	18.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	597.0	612.0		DRILL SLIDE F/597' T/612'. MADE 15' @ 60 FPR. WOB/10K, SPP1500, GPM/650, DIFF/250, TF 120M
00:00	00:45	0.75	18.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	612.0	644.0		DRILL ROTATE F/612' T/644'. MADE 32' @ 43 FPR. WOB/20K, RPM/50, SPP/1800, GPM/650, DIFF/280,
00:45	01:15	0.50	19.25	DS	Drill Surface Hole	Drilling, Drill Surface Hole	644.0	658.0		DRILL SLIDE F/644' T/658'. MADE 14' @ 28 FPR. WOB/10K, SPP 2000, GPM/700, DIFF/250, TF 120M
01:15	02:15	1.00	20.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	658.0	693.0		DRILL ROTATE F/658' T/693'. MADE 35' @ 35 FPR. WOB/20K, RPM/50, SPP/2000, GPM/700, DIFF/280,
02:15	03:15	1.00	21.25	OT	Drill Surface Hole	Drilling, Drill Surface Hole	693.0	693.0		REMOVE FLOW NIPPLE & INSTALL ROTATING HEAD
03:15	04:00	0.75	22.00	DR	Drill Surface Hole	Drilling, Drill Surface Hole	693.0	722.0		DRILL ROTATE F/693' T/722'. MADE 29' @ 39 FPR. WOB/20K, RPM/60, SPP/2000, GPM/700, DIFF/280,
04:00	05:15	1.25	23.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	731.0	805.0		DRILL ROTATE F/731' T/805'. MADE 74' @ 59 FPR. WOB/20K, RPM/60, SPP/2000, GPM/700, DIFF/280,
05:15	05:45	0.50	23.75	DS	Drill Surface Hole	Drilling, Drill Surface Hole	805.0	820.0		DRILL SLIDE F/805' T/820'. MADE 15' @ 30 FPR. WOB/10K, SPP 2000, GPM/700, DIFF/250, TF 120M
05:45	06:00	0.25	24.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	722.0	731.0		DRILL SLIDE F/722' T/731'. MADE 9' @ 36 FPR. WOB/10K, SPP 2000, GPM/700, DIFF/250, TF 120M

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	ALUMINUM STEARATE	Defoamer		sacks	79.10	
Permian Fluids	BARITE	Weighting Agent		sacks	12.48	
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	CALCIUM CARBONATE	LCM		sacks	7.38	
Permian Fluids	CALCIUM CHLORIDE	Salinity Control		sacks	16.11	
Permian Fluids	CEDAR FIBER	LCM		sacks	5.95	
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	FRESH GEL		17.0	lbs	9.36	159.12
Permian Fluids	IN- TROL	Emulsifier		sacks	39.87	
Permian Fluids	Intone RM	Shale Stabilizer		sacks	76.56	
Permian Fluids	LCF BLEND			each	14.77	
Permian Fluids	MF 55	Flocculant	4.0	gal	93.00	372.00
Permian Fluids	PALLETS	Other	6.0	each	17.00	102.00
Permian Fluids	PF CLAYTONE	Viscosifier		sacks	73.46	
Permian Fluids	PF-1	Emulsifier		sacks	9.90	
Permian Fluids	SALT GEL			sacks	12.21	



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/21/2019**  
**Report #: 8.0**  
**DFS: 1.00**  
**DFS(TL): 1.00**

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	SAPP			sacks	87.88	
Permian Fluids	SHRINK WRAP	Other	6.0	each	20.00	120.00
Permian Fluids	SODA ASH	Alkalinity Control		sacks	11.67	
Permian Fluids	STC			gal	73.68	
Permian Fluids	SWELL STAR	LCM		lbs	61.15	
Permian Fluids	TAXES	Other	308.22	each	1.00	308.22
Permian Fluids	TRUCKING FLATBED		1.0	each	1,800.00	1,800.00
Permian Fluids	VISMASTER			pail	74.19	
Permian Fluids	VX VIS	Viscosifier		sacks	89.91	
Permian Fluids	WALNUT SHELL	LCM		sacks	12.94	
Permian Fluids	WONDER NUTS	Viscosifier		lbs	6.51	
Permian Fluids	YELLOW STARCH	Fluid Loss Control		lbs	18.00	

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLMUD	2,897.54	17,085.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	176,638.88
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,450.00	21,060.00
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	24,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	11,050.00	11,050.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	2,800.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
2	No	90	2,150.0	95
3	No	90	2,150.0	95

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	2,004.0	4,376.0	13,615.0
Well Water	gal	25,801.0	25,801.0	630,165.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/22/2019  
**Report #:** 9.0  
**DFS:** 2.00  
**DFS(TL):** 2.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 1,967.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 1,147.00	<b>Activity:</b> DRILLING 17.5" SURFACE @ 1,967'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 17.50	<b>Cum Percent Problem Time (%):</b> 2.78
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 65.5	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
8/21/2019	Tourly Safety Meeting	HOLD PJSM OVER ENERGY ISOLATION, PROPER LOTO & TRY OUR MACHINERY GUARD, & REVIEWED RECENT INCIDENTS @ XTO, STAYING HYDRATED, DISCUSSED POTENTIAL AIR POCKETS WHILE DRILLING SURFACE AND HAZARDS ASSOCIATED WITH THEM
8/22/2019	Tourly Safety Meeting	HOLD PJSM OVER ENERGY ISOLATION, PROPER LOTO, OFFLOADING CASING, SPOTTING ALL TRUCKS

Daily Contacts	
DSM, Justin Watts, 918-839-5744; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	3,736.00	Mud Additive Field Est To Date (Cost)	6,977.34
Daily Field Est Total (Cost)	57,213.04		Cum Field Est To Date (Cost)
			360,589.09

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft <sup>2</sup> )	Gel 10m (lb/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
13:30	888.0	8.40	28	1.0	1	7.0	3200		0	100.0		1	1	0/100			0	0	1.0	0.0	0.8

Bit Run Information												
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull	
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD	

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1 Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in <sup>2</sup> )	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13	1.04	900	2,725.0	30	65	12,000.0	150	145	137	
Bit HP (hp)	Bit HPSI (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defin	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75	

Comment  
 9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5\* ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
1,506.00	2.22	164.93	1,504.23	59.39	-59.63	8.98	0.16		
1,600.00	2.21	166.45	1,598.16	63.01	-63.15	9.87	0.06		
1,694.00	2.06	153.04	1,692.09	66.49	-66.42	11.06	0.55		
1,789.00	1.80	143.00	1,787.04	69.59	-69.13	12.74	0.45		
1,884.00	1.96	136.18	1,881.99	72.48	-71.49	14.76	0.29		

Interval Problems					
Event #	Start Date	End Date	SubTyp	Name	Com
1	8/21/2019	8/21/2019	Other	NABORS DRILLING USA LP	GEN'S KICKING OFFLINE. CALLED TECHS OUT TO TBLSHOOT & REPAIR LOAD SHARING ISSUE.



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/22/2019**  
**Report #: 9.0**  
**DFS: 2.00**  
**DFS(TL): 2.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 6.5HRS DT WITH GENERATOR LOAD SHARING ISSUES & TRIPPING OFFLINE DRILL 17.5" SURFACE SECTION F/820' T/1,967'

ROTATE FOOTAGE=1,074 IN 14.75 HRS @73 FPH  
 SLIDE FOOTAGE=73' IN 2.75 HRS @26.54 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 217 DAYS SINCE LAST LTI: 217 DAYS SINCE LAST HURT: 217 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019  
**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 1694 , INC. 2.06°, AZM. 153.04°, TVD 1692.09', VS. 9.76 '  
**WELL SEP:** 52.03' F/WELL PLAN#1, 1,673' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_\_\_ %  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TRRC SPUD & SURF OPERATOR #2 AUDREY.

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	06:30	0.50	0.50	SR	Drill Surface Hole	Drilling, Drill Surface Hole	820.0	820.0		SERVICE RIG & COMPONENTS
06:30	12:30	6.00	6.50	RR	Drill Surface Hole	Drilling, Drill Surface Hole	820.0	820.0	1	OCCURED ISSUES WITH LOAD SHARING ON GENS SETS & TRIPPING OFFLINE, DISPATCH TECHNICIANS OUT TO LOCATION.
12:30	13:45	1.25	7.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	820.0	900.0		DRILL ROTATE F/820' T/900'. MADE 80' @ 64 FPR. WOB/20K, RPM/60, SPP/2000, GPM/850, DIFF/210,
13:45	14:00	0.25	8.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	900.0	915.0		DRILL SLIDE F/900' T/915'. MADE 15' @ 60 FPR. WOB/18K, SPP 2000, GPM/500, DIFF/250, TF 30M
14:00	17:15	3.25	11.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	915.0	1,050.0		DRILL ROTATE F/915' T/1,050'. MADE 135' @ 41.5 FPR. WOB/18K, RPM/60, SPP/2,269, GPM/850, DIFF/210,
17:15	18:00	0.75	12.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	1,050.0	1,060.0		DRILL SLIDE F/1,050' T/1,060'. MADE 15' @ 60 FPR. WOB/18K, SPP 2000, GPM/500, DIFF/250, TF 30M
18:00	20:45	2.75	14.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	1,060.0	1,218.0		DRILL ROTATE F/1,060' T/1,218". MADE 158' @ 57.45 FPR. WOB/18K, RPM/60, SPP/2,269, GPM/850, DIFF/210,
20:45	21:15	0.50	15.25	DS	Drill Surface Hole	Drilling, Drill Surface Hole	1,218.0	1,236.0		DRILL SLIDE F/1,218" T/1,236'. MADE 18' @ 36 FPR. WOB/35-40K, SPP 2500, GPM/500, DIFF/380, TF 280M
21:15	22:30	1.25	16.50	DR	Drill Surface Hole	Drilling, Drill Surface Hole	1,236.0	1,330.0		DRILL ROTATE F/1,236" T/1,330'. MADE 94' @ 75.2 FPR. WOB/30K, RPM/65, SPP/2,587, GPM/900, DIFF/250,
22:30	23:00	0.50	17.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	1,330.0	1,345.0		DRILL SLIDE F/1,330" T/1,345'. MADE 15' @ 30 FPR. WOB/35-40K, SPP 2500, GPM/900, DIFF/380, TF 280M
23:00	03:00	4.00	21.00	DR	Drill Surface Hole	Drilling, Drill Surface Hole	1,345.0	1,690.0		DRILL ROTATE F/1,345' T/1,690'. MADE 345' @ 86.25 FPR. WOB/30K, RPM/65, SPP/2,987, GPM/925, DIFF/325,
03:00	03:45	0.75	21.75	DS	Drill Surface Hole	Drilling, Drill Surface Hole	1,690.0	1,705.0		DRILL SLIDE F/1,690' T/1,705'. MADE 15' @ 30 FPR. WOB/35-40K, SPP 2650, GPM/900, DIFF/160, TF 30R
03:45	06:00	2.25	24.00	DR	Drill Surface Hole	Drilling, Drill Surface Hole	1,705.0	1,967.0		DRILL ROTATE F/1,705' T/1,967'. MADE 262' @ 116.44 FPR. WOB/30K, RPM/65, SPP/2,787, GPM/900, DIFF/255,

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	MF 55	Flocculant	3.0	gal	93.00	279.00
Permian Fluids	PALLETS	Other	21.0	each	17.00	357.00
Permian Fluids	SHRINK WRAP	Other	21.0	each	20.00	420.00
Permian Fluids	TRUCKING BULK	Other	1.0	each	2,300.00	2,300.00

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,FUEL,PURCH_OTHR	15,708.96	32,521.41
EX,V,GD,PART_DRILLMUD	135.00	17,220.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	198,718.74
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	8,039.22	29,099.22
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	27,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	18,550.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	400.00	6,280.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	3,150.00



XTO Daily Drilling Report

Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 8/22/2019  
Report #: 9.0  
DFS: 2.00  
DFS(TL): 2.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
2	No	112	2,925.0	95
3	No	112	2,925.0	95

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	7,200.0	2,327.0	6,703.0	18,488.0
Well Water	gal	32,168.0	32,168.0	662,333.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/23/2019  
**Report #:** 10.0  
**DFS:** 3.00  
**DFS(TL):** 3.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 3,225.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 1,258.00	<b>Activity:</b> DRILLING 17.5" SURFACE @ 3,225'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 21.50	<b>Cum Percent Problem Time (%):</b> 2.92
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 58.5	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft) 31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft) 0.00
		Target Formation Wolfcamp A

Safety Checks		
Date	Type	Com
8/22/2019	Tourly Safety Meeting	LMRA, STAYING HYDRATED, HOUSE KEEPING
8/23/2019	Tourly Safety Meeting	LMRA, ESCAPE ROUTES, STAYING HYDRATED, CHECKING DP SLIPS, DC SLIPS/CLAMPS PREPARING FOR TRIP, HOUSE KEEPING

**Daily Contacts**  
Daily Contacts  
DSM, Justin Watts, 918-839-5744; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	2,512.40	Mud Additive Field Est To Date (Cost)	9,489.74
Daily Field Est Total (Cost)	40,314.38		Cum Field Est To Date (Cost)
			400,903.47

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft²)	Gel 10m (lb/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
09:30	2,262.0	8.40	28	1.0	1	7.0	3700		0	100.0		1	1	0/100			0	0	1.0	0.0	0.8

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1
Drill String Name	Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13/13	1.04	900	3,639.0	30	65	13,000.0	157	150	146	
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components							
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections	
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF	
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH	
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH	
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56	
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56	
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg	
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg	
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg	
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg	
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg	
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg	
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg	
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg	

Mud Motors								
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75

**Comment**  
9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5\* ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'

Survey Information								
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVDTie In (ftKB)	NSTie In (ft)	EWTie In (ft)	
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00	
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
2,827.00	2.04	144.37	2,824.40	102.33	-95.46	37.16	0.36	
2,922.00	2.01	144.75	2,919.34	105.54	-98.20	39.10	0.03	
3,016.00	1.55	146.63	3,013.30	108.35	-100.61	40.75	0.49	
3,110.00	1.06	147.63	3,107.27	110.42	-102.40	41.92	0.52	
3,205.00	1.50	143.00	3,202.25	112.45	-104.14	43.14	0.48	

Interval Problems				
Event #	Start Date	End Date	SubTyp	Name
2	8/23/2019	8/23/2019	Other rig or unit problem	NABORS DRILLING USA LP
REPAIR LEAK IN WEIGHT INDICATOR LINE HAD TO CONDUCT FULL BLOCK CALIBRATION				



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/23/2019**  
**Report #: 10.0**  
**DFS: 3.00**  
**DFS(TL): 3.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 DRILL 17.5" SURFACE SECTION F/1,967' T/3,225.  
 ROTATE FOOTAGE=1,208 IN 20 HRS @60.4 FPH  
 SLIDE FOOTAGE=50' IN 1.5 HRS @33.33 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 218 DAYS SINCE LAST LTI: 218 DAYS SINCE LAST HURT: 218 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019  
**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 3,110 , INC. 1.59°, AZM. 147.63°, TVD 3,107.26', VS. -8.74 '  
**WELL SEP:** 98.41' F/WELL PLAN#1, 1,720.79' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_' \_\_\_%  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TRRC SPUD & SURF OPERATOR #2 AUDREY.

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	09:30	3.50	3.50	DR	Drill Surface Hole	Drilling, Drill Surface Hole	1,967.0	2,275.0		DRILL ROTATE F/1,967' T/2,275'. MADE 308' @ 88 FPR. WOB/30K, RPM/65, SPP/2,787, GPM/900, DIFF/255,
09:30	10:00	0.50	4.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	2,275.0	2,292.0		DRILL SLIDE F/2,275' T/2,292'. MADE 17' @ 34 FPR. WOB/35-40K, SPP 2650, GPM/900, DIFF/160, TF 235M
10:00	13:30	3.50	7.50	DR	Drill Surface Hole	Drilling, Drill Surface Hole	2,292.0	2,490.0		DRILL ROTATE F/2,292' T/2,490'. MADE 198' @ 56.5 FPR. WOB/30K, RPM/65, SPP/2,787, GPM/900, DIFF/255,
13:30	13:45	0.25	7.75	DS	Drill Surface Hole	Drilling, Drill Surface Hole	2,490.0	2,506.0		DRILL SLIDE F/2,490' T/2,506'. MADE 16' @ 64 FPR. WOB/35-40K, SPP 2650, GPM/900, DIFF/160, TF 245M
13:45	17:30	3.75	11.50	DR	Drill Surface Hole	Drilling, Drill Surface Hole	2,506.0	2,751.0		DRILL ROTATE F/2,506' T/2,751'. MADE 245' @65.33 FPR. WOB/30K, RPM/65, SPP/2,787, GPM/900, DIFF/255,
17:30	18:00	0.50	12.00	SR	Drill Surface Hole	Drilling, Drill Surface Hole	2,751.0	2,751.0		RIG SERVICE
18:00	22:45	4.75	16.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	2,751.0	2,907.0		DRILL ROTATE F/2,751' T/2,907'. MADE 156' @34.36 FPR. WOB/30K, RPM/65, SPP/3,163, GPM/900, DIFF/213,
22:45	23:30	0.75	17.50	WW	Drill Surface Hole	Drilling, Drill Surface Hole	2,907.0	2,907.0		WAITING ON WEATHER
23:30	00:15	0.75	18.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	2,907.0	2,955.0		DRILL ROTATE F/2,907' T/2,955". MADE 48' @64 FPR. WOB/30K, RPM/65, SPP/3,463, GPM/900, DIFF/413,
00:15	01:00	0.75	19.00	DS	Drill Surface Hole	Drilling, Drill Surface Hole	2,955.0	2,972.0		DRILL SLIDE F/2,955' T/2,972'. MADE 17' @ 22.66 FPR. WOB/25K, SPP 3250, GPM/900, DIFF/160, TF 280M
01:00	01:15	0.25	19.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	2,972.0	3,005.0		DRILL ROTATE F/2,972' T/3,005'. MADE 33' @132 FPR. WOB/30K, RPM/65, SPP/3,463, GPM/900, DIFF/413,
01:15	02:15	1.00	20.25	RR	Drill Surface Hole	Drilling, Drill Surface Hole	3,005.0	3,005.0	2	RIG REPAIR, REPAIR LEAK IN WEIGHT INDICATOR LINE
02:15	06:00	3.75	24.00	DR	Drill Surface Hole	Drilling, Drill Surface Hole	3,005.0	3,225.0		DRILL ROTATE F/3,005' T/3,225'. MADE 220' @ FPR. WOB/30K, RPM/65, SPP/3,477, GPM/900, DIFF/483, TQ-13K

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	MF 55	Flocculant	11.0	gal	93.00	1,023.00
Permian Fluids	TAXES	Other	203.6	each	1.00	203.60
Permian Fluids	WALNUT SHELL	LCM	70.0	sacks	12.94	905.80

**Cum Daily Cost Summary**

Cost Des	Rpt Fid Est (Cost)	Cum Fid Est (Cost)
EX,V,GD,PART_DRILLMUD	135.00	17,355.23
Ex,V,Gd,Suppl,Misc,NonWellwork	2,228.00	4,642.49
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	220,798.60
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	5,021.52	34,120.74
EX,V,SERV,ENG_O&GWELLDRIILL	3,000.00	30,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	26,050.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	3,500.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
2	No	107	3,639.0	95
3	No	107	3,639.0	95



XTO Daily Drilling Report

Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 8/23/2019  
Report #: 10.0  
DFS: 3.00  
DFS(TL): 3.00

Supplies & Fuel Daily Amt

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	3,657.0	10,360.0	14,831.0
Well Water	gal	0.0	0.0	662,333.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/24/2019**  
**Report #: 11.0**  
**DFS: 4.00**  
**DFS(TL): 4.00**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 4,085.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 860.00	<b>Activity:</b> DRILLING 17.5" SURFACE @ 4,085'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 23.50	<b>Cum Percent Problem Time (%):</b> 2.65
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 36.6	<b>Last Casing String:</b> Conductor, 121.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Date	Type	Com
8/23/2019	Safety, Health, & Environment Summary	H2S DRILL. EVERYONE INCLUDING 3RD PARTY PERSONNEL MUSTERED UP ON SIDE OF LOCATION IN APPROPRIATE TIME.
8/23/2019	Tourly Safety Meeting	LMRA, CONTINUALLY BEING PRO-ACTIVE AND STAYING FOCUSED TO OPERATION AT PRESENT AS WELL AS NEXT PHASE. STAYING HYDRATED. MONITORING MUD PITS WITH CLOSED LOOP SYSTEM
8/24/2019	Tourly Safety Meeting	LMRA, MONITORING MUD PITS WITH CLOSED LOOP SYSTEM, BEING PRO-ACTIVE PREPARING FOR NEXT PHASE OF OPERATION TO REDUCE FLAT TIMES

Daily Contacts	
Daily Contacts	DSM, Justin Watts, 918-839-5744; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	3,297.24	Mud Additive Field Est To Date (Cost)	12,786.98
Daily Field Est Total (Cost)	53,823.10	Cum Field Est To Date (Cost)	454,726.57

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lbf/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lbf/100ft²)	Gel 10m (lbf/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
12:30	3,426.0	9.70	28	1.0	1	7.0	146000		0	100.0		1	1	0/100			0	0	8.0	0.0	0.8

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1 Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13	1.04	900	3,690.0	30	65	13,500.0	173	165	155	
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75	
Comment									
9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5" ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'									

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NS Tie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
3,677.00	2.25	169.03	3,673.99	127.67	-119.48	45.28	0.38		
3,772.00	2.42	161.66	3,768.91	131.53	-123.21	46.27	0.36		
3,866.00	2.04	162.91	3,862.84	135.19	-126.69	47.39	0.41		
3,961.00	1.89	154.99	3,957.78	138.43	-129.73	48.55	0.33		
4,055.00	1.86	155.02	4,051.73	141.49	-132.52	49.84	0.03		



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/24/2019**  
**Report #: 11.0**  
**DFS: 4.00**  
**DFS(TL): 4.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 DRILL 17.5" SURFACE SECTION F/3,225' T/4,085'.

ROTATE FOOTAGE= 830'IN 21.75 HRS @38.16 FPH  
 SLIDE FOOTAGE=30' IN 1.75 HRS @17 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 219 DAYS SINCE LAST LTI: 219 DAYS SINCE LAST HURT: 219 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 7/28/2019  
**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 3,961' , INC. 1.89°, AZM. 154.99°, TVD 3,957.76', VS. -6.81'  
**WELL SEP:** 125.46' F/WELL PLAN#1, 1749.59' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_' \_\_\_%  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:** XTO SAFETY SUPERINTENDENT KELLY HARTMAN

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TRRC SPUD & SURF OPERATOR #2 AUDREY.

Avg Background Gas (%)	Avg Connection Gas (%)	Avg Trip Gas (%)	Max Drill Gas (%)
0.00	0.00	0.00	0.00

**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	07:45	1.75	1.75	DR	Drill Surface Hole	Drilling, Drill Surface Hole	3,225.0	3,300.0		DRILL ROTATE F/3,225' T/3,300'. MADE 75' @ 42.8FPR. WOB/30K, RPM/65, SPP/3,477, GPM/900, DIFF/483, TQ-13K
07:45	08:30	0.75	2.50	DS	Drill Surface Hole	Drilling, Drill Surface Hole	3,300.0	3,315.0		DRILL SLIDE F/3,300' T/3,315'. MADE 15' @ 20 FPR. WOB/25K, SPP 3250, GPM/900, DIFF/160, TF 230M
08:30	10:15	1.75	4.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	3,315.0	3,383.0		DRILL ROTATE F/3,315' T/3,383'. MADE 68' @ 38.8FPR. WOB/30K, RPM/65, SPP/3,477, GPM/900, DIFF/483, TQ-13K
10:15	10:45	0.50	4.75	SR	Drill Surface Hole	Drilling, Drill Surface Hole	3,383.0	3,383.0		SERVICE RIG & COMPONENTS. INSPECT BLOWER MOTOR ON TOP DRIVE & C/O GRIPPER DIES
10:45	22:30	11.75	16.50	DR	Drill Surface Hole	Drilling, Drill Surface Hole	3,383.0	3,860.0		DRILL ROTATE F/3,383' T/3,860'. MADE 477' @ 40.6FPR. WOB/30K, RPM/65, SPP/3,177, GPM/810, DIFF/288, TQ-13K
22:30	23:30	1.00	17.50	DS	Drill Surface Hole	Drilling, Drill Surface Hole	3,860.0	3,875.0		DRILL SLIDE F/3,860' T/3,875'. MADE 15' @ 15 FPR. WOB/25K, SPP 3250, GPM/900, DIFF/160, TF 320M
23:30	06:00	6.50	24.00	DR	Drill Surface Hole	Drilling, Drill Surface Hole	3,875.0	4,085.0		DRILL ROTATE F/3,875' T/4,085'. MADE 210' @ 32.30FPR. WOB/30K, RPM/65, SPP/3,777, GPM/900, DIFF/298, TQ-13K

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	FRESH GEL		16.0	lbs	9.36	149.76
Permian Fluids	MF 55	Flocculant	19.0	gal	93.00	1,767.00
Permian Fluids	SALT GEL		55.0	sacks	12.21	671.55
Permian Fluids	TAXES	Other	251.29	each	1.00	251.29
Permian Fluids	WALNUT SHELL	LCM	6.0	sacks	12.94	77.64

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
Ex,V,ContractLabor,Technical	3,705.00	3,705.00
EX,V,GD,PART_DRILLMUD	135.00	17,490.23
Ex,V,Gd,Suppl,Misc,NonWellwork	400.00	5,042.49
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	242,878.46
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	5,647.24	39,767.98
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	33,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	33,550.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	11,006.00	17,286.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	3,850.00

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Rig	gal	0.0	3,514.0	13,874.0	11,317.0
Well Water	gal	0.0	0.0	662,333.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/25/2019  
**Report #:** 12.0  
**DFS:** 5.00  
**DFS(TL):** 5.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 4,610.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 525.00	<b>Activity:</b> DRILLING 17.5" SURFACE @4,610'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 23.50	<b>Cum Percent Problem Time (%):</b> 2.43
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 22.3	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft) 31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft) 0.00
		Target Formation Wolfcamp A

Safety Checks		
Date	Type	Com
8/24/2019	Tourly Safety Meeting	LMRA,WELL CONTROL, PREPARING FOR NEXT PHASE. MONITORING TRUCK TRAFFIC. STAYING HYDRATED
8/25/2019	Tourly Safety Meeting	LMRA, FOCUS ON DROPPED OBJECTS PETAINING TO OPERATING EQUIPMENT WHILE USING A SPOTTER & NOT HAVING FULL VISION OF THE TASKS.

Daily Contacts	
Daily Contacts DSM, Justin Watts, 918-839-5744; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	5,667.24	Mud Additive Field Est To Date (Cost)	18,454.22
Daily Field Est Total (Cost)	97,738.43		Cum Field Est To Date (Cost)
		552,465.00	

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft²)	Gel 10m (lb/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
11:30	4,222.0	10.20	29	1.0	2	7.0	172500		0	95.0		1	2	0/100			0	0	9.5	0.0	1.5

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1
Drill String Name	Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13	1.04	900	4,080.0	35	65	13,500.0	180	170	158	
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg

Mud Motors								
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defin	Circ Time (hr)	Drilling Time (hr)
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75

Comment  
 9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5\* ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'

Survey Information								
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)	
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00	
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
4,242.00	2.04	159.99	4,238.62	147.81	-138.33	52.37	0.20	
4,335.00	1.92	159.62	4,331.57	151.02	-141.35	53.48	0.13	
4,429.00	2.21	156.43	4,425.51	154.40	-144.49	54.76	0.33	
4,522.00	2.50	156.47	4,518.43	158.21	-147.99	56.28	0.31	
4,597.00	2.64	156.38	4,593.35	161.56	-151.07	57.63	0.19	



# XTO Daily Drilling Report

## Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 8/25/2019  
 Report #: 12.0  
 DFS: 5.00  
 DFS(TL): 5.00

### Daily Operations Summary and Mud Gas

Operation Summary #1

DRILL 17.5" SURFACE SECTION F/4,085' T/4,610'.

ROTATE FOOTAGE= 525' IN 23.5 HRS @22.34 FPH  
 SLIDE FOOTAGE= 0' IN 0 HRS @ 0 FPH

Operation Summary #2

SAFETY: NO INCIDENTS OR NO SPILLS REPORTED  
 220 DAYS SINCE LAST LTI: 220 DAYS SINCE LAST HURT: 220 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 9/24/2019  
 BOP TEST: LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_  
 DIRECTIONAL: LAST SURVEY: DEPTH: 4,429' , INC. 2.21°, AZM. 156.43°, TVD 4,425.48', VS. -8.22 '  
 WELL SEP: 141.56' F/WELL PLAN#1, 1765.55' F/TOP CORNER  
 AGITATOR:  
 LITHOLOGY: SAMPLE:DEPTH \_\_\_' \_\_\_%  
 MUD: TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
 PERSONNEL: DSM ON LOCATION: JUSTIN WATTS/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
 XTO SHE: GENERALIST: JAMES ROGERS  
 VISITORS:

NOTES: START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TRRC SPUD & SURF OPERATOR #2 AUDREY.

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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### Activity Last 24 Hours

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	11:30	5.50	5.50	DR	Drill Surface Hole	Drilling, Drill Surface Hole	4,085.0	4,231.0		DRILL ROTATE F/4,085' T/4,231'. MADE 146' @ 26.6FPR. WOB/30K, RPM/65, SPP/4,007, GPM/900, DIFF/298, TQ-13K
11:30	12:00	0.50	6.00	SR	Drill Surface Hole	Drilling, Drill Surface Hole	4,231.0	4,231.0		SERVICE RIG
12:00	06:00	18.0 0	24.0 0	DR	Drill Surface Hole	Drilling, Drill Surface Hole	4,231.0	4,610.0		DRILL ROTATE F/4,231' T/4,610'. MADE 379' @ 21.05FPR. WOB/30K, RPM/65, SPP/4,117, GPM/900, DIFF/238, TQ-13K

### Mud Additives

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	MF 55	Flocculant	2.0	gal	93.00	186.00
Permian Fluids	SALT GEL		375.0	sacks	12.21	4,578.75
Permian Fluids	TAXES	Other	431.91	each	1.00	431.91
Permian Fluids	WALNUT SHELL	LCM	7.0	sacks	12.94	90.58

### Cum Daily Cost Summary

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,FUEL,PURCH_OTHR	16,204.98	48,726.39
EX,V,GD,PART_DRILLMUD	135.00	17,625.23
Ex,V,Gd,Part_Wellhead,Drilling	29,445.35	29,445.35
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	264,958.32
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	8,017.24	47,785.22
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	36,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	41,050.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	11,006.00	28,292.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	4,200.00

### Pump Checks

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	No	107	4,176.0	95
3	No	107	4,173.0	95

### Supplies & Fuel Daily Amt

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	7,500.0	4,387.0	18,261.0	14,430.0
Well Water	gal	0.0	0.0	662,333.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/26/2019  
**Report #:** 13.0  
**DFS:** 6.00  
**DFS(TL):** 6.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 4,680.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 70.00	<b>Activity:</b> RUN 13 3/8" CASING @ 248'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 3.25	<b>Cum Percent Problem Time (%):</b> 2.24
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 21.5	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs			
Spud Date	8/20/2019	Rig Release Date	
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)	31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)	0.00
		Target Formation	Wolfcamp A

Safety Checks		
Date	Type	Com
8/25/2019	Tourly Safety Meeting	MAN DOWN SCENAREO WITH HEAT EXHAUSTION, LMRA, TRIPPING, HANDLING 17-1/2" BHA, RUN 13-3/8" CASING
8/26/2019	Tourly Safety Meeting	LMRA, RUNNING 13-3/8" CASING. MAINTAINING SUFFICIENT BUFFER ZONE AROUND THE PRAGMA. WORKING IN EXTREME HEAT CONDITIONS, UTILIZING HYDRATION CHART & BUDDY SYSTEM.

Daily Contacts	
Daily Contacts DSM, Justin Watts, 918-839-5744; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	Mud Additive Field Est To Date (Cost)	Daily Field Est Total (Cost)	Cum Field Est To Date (Cost)
3,736.40	22,190.62	81,456.76	633,921.76

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lbf/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lbf/100ft²)	Gel 10m (lbf/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
10:00	4,680.0	10.60	30	3.0	4	7.0	184000		0	92.0		3	6	0/100			0	0	11.0	0.0	1.9

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
1	17 1/2	Varel	R813DGX	4011533	413	121.0	4,680.0	4,559.00	109.75	41.5	3-4-BT-A-5-0-LT-TD

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	1 Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13	1.04	900	4,100.0	35	65	13,500.0	180	170	158	
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
128	Drill Pipe	5	4.276	4,030.41	4,680.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	649.59	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	646.99	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	371.75	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	368.16	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	100.43	6.63NC 56x6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	7.16	98.53	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	91.37	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	85.10	6.63Regx6.63Reg
1	Reamer - 3 Pt	17 3/8	3.125	6.50	54.51	6.63Regx6.63Reg
1	Shock Sub	8	3.000	11.54	48.01	6.63Regx6.63Reg
1	Float Sub	8	2.750	2.45	36.47	6.63Regx6.63Reg
1	Motor with Stabilizer	9 5/8	6.135	32.32	34.02	6.63Regx7.63Reg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	9 5/8	11117461	Adjustable	1.5	5.00	109.75	

Comment  
 9 5/8 SPERRYDRILL-6/7-5.0 STG MOTOR- 1.5\* ADJ HOUSING, MAX DIFFERENTIAL: 1125 PSI,MAX WOB: 70K,REV/GAL: 0.13,MAX TORQUE:23,738, BIT T/BEND (W/BIT) 9.4', KICK PAD OD:10", FLOW:600-1200 GPM, SVY:83'

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
4,242.00	2.04	159.99	4,238.62	147.81	-138.33	52.37	0.20		
4,335.00	1.92	159.62	4,331.57	151.02	-141.35	53.48	0.13		
4,429.00	2.21	156.43	4,425.51	154.40	-144.49	54.76	0.33		
4,522.00	2.50	156.47	4,518.43	158.21	-147.99	56.28	0.31		
4,597.00	2.64	156.38	4,593.35	161.56	-151.07	57.63	0.19		



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/26/2019**  
**Report #: 13.0**  
**DFS: 6.00**  
**DFS(TL): 6.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1

DRILL 17.5" SURFACE SECTION F/4,610' T/4,680' (TD SURFACE). C&C WELL (2BTMS UP) PUMP HIGH VIS SWEEPS. PERFORM FLOW CHECK (WELL STATIC) TOOH (WIPER TRIP) F/4,860' T/745', TRIP BACK IN F/745' T/4,680', C&C WELL PUMP 2 HIGH VIS SWEEPS & SPOT STARCH PILL ON BOTTOM, POOH L/D HALIBURTON/SPERRY BHA. R/U EXPRESS 13-3/8" CASING TOOLS AND RUN 13-3/8" CASING T/166'. RIG REPAIR @ 04:30HRS PRAGMA BROKE DOWN.

ROTATE FOOTAGE= 70' IN 3.25 HRS @21.5 FPH  
 SLIDE FOOTAGE= 0' IN 0 HRS @ 0 FPH

Operation Summary #2

**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 221 DAYS SINCE LAST LTI: 221 DAYS SINCE LAST HURT: 221 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 9/24/2019

**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC \_\_\_\_\_

**DIRECTIONAL:** LAST SURVEY: DEPTH: 4,597', INC. 2.64°, AZM. 156.38°, TVD 4,593.33', VS. -8.94'

**WELL SEP:** 149.02' FWELL PLAN#1, 1,772.89' F/TOP CORNER

**AGITATOR:**

**LITHOLOGY:** SAMPLE:DEPTH \_\_\_\_\_' \_\_\_\_\_%

**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.

**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
 XTO SHE: GENERALIST: JAMES ROGERS  
 VISITORS:

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TRRC SPUD OPERATOR #2 AUDREY, SURF CSG & CEMENT LINDA OPERATOR#8

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	09:15	3.25	3.25	DR	Drill Surface Hole	Drilling, Drill Surface Hole	4,610.0	4,680.0		DRILL ROTATE F/4,610' T/4,680'. MADE 70' @ 21.5FPR. WOB/30K, RPM/65, SPP/4,117, GPM/900, DIFF/238, TQ-13K. CALLED TD OF SURFACE LOST 200PSI OF DIFF & ROP FELL 50%
09:15	11:30	2.25	5.50	CA	Drill Surface Hole	Drilling, Drill Surface Hole	4,680.0	4,680.0		CIRC & COND WELL 2BTMS UP. PUMP 2 HIGH VIS SWEEPS. FLOW CHECK (WELL STATIC)
11:30	13:15	1.75	7.25	TR	Drill Surface Hole	Drilling, Drill Surface Hole	4,680.0	4,680.0		PULL 5 STANDS (WET) FLOW CHECK (WELL STATIC) PUMP SLUG & TOOH (WIPER TRIP) F/4,680' T/745'
13:15	14:45	1.50	8.75	TR	Drill Surface Hole	Drilling, Drill Surface Hole	4,680.0	4,680.0		TIH W/5" D.P. F/745' T/4,680'
14:45	16:45	2.00	10.75	CA	Drill Surface Hole	Drilling, Drill Surface Hole	4,680.0	4,680.0		CIRC & COND. WELL 2 BTMS UP. PUMP 2-30BBL HISH VIS SWEEPS. SPOT 100BBL STARCH PILL ON BOTTOM.
16:45	20:45	4.00	14.75	TR	Drill Surface Hole	Drilling, Drill Surface Hole	4,680.0	4,680.0		FLOW CHECK, POOH F/4,680' T/BHA 649'
20:45	00:45	4.00	18.75	BH	Drill Surface Hole	Drilling, Drill Surface Hole	4,680.0	4,680.0		RACK BACK 6-1/2" AND 8" DC, L/D MONELS/MUD MOTOR AND BIT. SHOCK SUB BOX THREAD GAULDED THREADS ON TOP OF THRUSTER AND 17-1/2" ROLLER REAMER PIN
00:45	01:15	0.50	19.25	OT	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		CLEAN AND CLEAR RIG FLOOR
01:15	03:15	2.00	21.25	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HELD PJSM, STAGE CENTRALIZERS, FC, SHOE AND DVT TO FLOOR, R/U EXPRESS 13-3/8" CASING EQUIPMENT
03:15	04:30	1.25	22.50	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HOLD PJSM WITH EXPRESS CASING CREW & RUN CASING AS FOLLOWS: BAKER LOCKING SHOE, 2 JOINT SHOE TRACK AND FC CIRCULATED THRU ASSY & RUN CASING AS FOLLOWS:  13 3/8" CASING SHOE (1.78'), 2-JOINT 13 3/8" 68# J-55 CASING (81.77'), 13 3/8" FLOAT SHOE (1.40'), 2-JOINTS 13 3/8" 68# J-55 CASING (81.48'),  TOTAL DEPTH=166.43'
04:30	05:30	1.00	23.50	RR	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		RIG REPAIR: PRAGMA TROUGH CABLE UNSPOOLED & BIRDNESTED ON SPOOL. TBLSHOOT ISSUE
05:30	06:00	0.50	24.00	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		RUN CASING AS FOLLOWS: BAKER LOCKING SHOE, 2 JOINT SHOE TRACK AND FC CIRCULATED THRU ASSY & RUN CASING AS FOLLOWS:  4-JOINTS 13 3/8" 68# J-55 CASING (163.25'),  TOTAL DEPTH=248.20"

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/26/2019**  
**Report #: 13.0**  
**DFS: 6.00**  
**DFS(TL): 6.00**

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	MF 55	Flocculant	7.0	gal	93.00	651.00
Permian Fluids	SALT GEL		170.0	sacks	12.21	2,075.70
Permian Fluids	SODA ASH	Alkalinity Control	20.0	sacks	11.67	233.40
Permian Fluids	TAXES	Other	305.72	each	1.00	305.72
Permian Fluids	WALNUT SHELL	LCM	7.0	sacks	12.94	90.58

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,FUEL,PURCH_OTHR	16,204.98	64,931.37
EX,V,GD,PART_DRILLMUD	60.00	17,685.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	287,038.18
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSUBSURFWITHOPER	15,799.00	35,474.00
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	4,506.92	52,292.14
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	39,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	48,550.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	11,956.00	40,248.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	4,550.00

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	7,500.0	1,881.0	20,142.0	20,049.0
Well Water	gal	0.0	0.0	662,333.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/27/2019  
**Report #:** 14.0  
**DFS:** 7.00  
**DFS(TL):** 7.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 4,680.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 0.00	<b>Activity:</b> WELDING ON 13-3/8" GE SOW
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 2.08
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft) 31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft) 0.00
		Target Formation Wolfcamp A

Date	Type	Com
8/26/2019	Tourly Safety Meeting	HOLD PJSM & DISCUSS COMMUNICATION WITH 3RD PARTY & REDZONES, REVIEWED LSA OVER LINE OF FIRE & MAINATINING PROPER BUFFER ZONES.
8/27/2019	Tourly Safety Meeting	HOLD PJSM & DISCUSS COMMUNICATION WITH 3RD PARTY & REDZONES, REVIEWED LSA OVER LINE OF FIRE & MAINATINING PROPER BUFFER ZONES.

Daily Contacts	
Daily Contacts	DSM, Justin Watts, 918-839-5744; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	2,056.92	Mud Additive Field Est To Date (Cost)	24,247.54
Daily Field Est Total (Cost)	428,147.77	Cum Field Est To Date (Cost)	1,062,069.53

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lbf/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lbf/100ft <sup>2</sup> )	Gel 10m (lbf/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
09:30	4,680.0	10.60	30	3.0	4	7.0	183000		0	92.0		3	6	0/100			0	0	11.0	0.0	1.9

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
4,242.00	2.04	159.99	4,238.62	147.81	-138.33	52.37	0.20		
4,335.00	1.92	159.62	4,331.57	151.02	-141.35	53.48	0.13		
4,429.00	2.21	156.43	4,425.51	154.40	-144.49	54.76	0.33		
4,522.00	2.50	156.47	4,518.43	158.21	-147.99	56.28	0.31		
4,597.00	2.64	156.38	4,593.35	161.56	-151.07	57.63	0.19		

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 RUN 13 3/8" CASING F/248' T/4,680' C&C WELL 1X CASING CAPACITY WHILE RIGGING UP CEMENTERS, PUMP 1ST STAGE OF CEMENT GOT RETURNS TO SURFACE 400BBL INTO DISPLACEMENT. DROP CANCELLATION PLUG, R/D CEMENTERS & FLUSH THROUGH SURFACE EQUIPMENT. R/D CMT HEAD AND LINES, N/D FLOW LINE & ACCESSORIES. CUT AND L/D 20" & 13-3/8". MAKE FINAL CUT ON 20" & 13-3/8"

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 222 DAYS SINCE LAST LT: 222 DAYS SINCE LAST HURT: 222 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 9/24/2019  
**BOP TEST:** LAST BOP TEST: \_\_\_\_\_ NEXT BOP TEST: \_\_\_\_\_, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 4,597', INC. 2.64°, AZM. 156.38°, TVD 4,593.33', VS. -8.94'  
**WELL SEP:** 149.02' F/WELL PLAN#1, 1,772.89' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_' \_\_\_%  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: JUSTIN WATTS/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
 XTO SHE: GENERALIST: JAMES ROGERS  
 VISITORS:

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	10:00	4.00	4.00	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HOLD PJSM WITH EXPRESS CASING CREW & RUN CASING AS FOLLOWS: BAKER LOCKING SHOE, 2 JOINT SHOE TRACK AND FC CIRCULATED THRU ASSY & RUN CASING AS FOLLOWS:  13 3/8" CASING SHOE (1.78'), 2-JOINT 13 3/8" 68# J-55 CASING (81.77'), 13 3/8" FLOAT SHOE (1.40'), 66-JOINTS 13 3/8" 68# J-55 CASING (2,763.36'),  TOTAL DEPTH= 2,848.31'
10:00	10:45	0.75	4.75	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		RIG UP CRT FOR 54.5# CASING



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/27/2019**  
**Report #: 14.0**  
**DFS: 7.00**  
**DFS(TL): 7.00**

Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
10:45	15:15	4.50	9.25	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HOLD PJSM WITH EXPRESS CASING CREW & RUN CASING AS FOLLOWS: BAKER LOCKING SHOE, 2 JOINT SHOE TRACK AND FC CIRCULATED THRU ASSY & RUN CASING AS FOLLOWS:  13 3/8" CASING SHOE (1.78'), 2-JOINT 13 3/8" 68# J-55 CASING (81.77'), 13 3/8" FLOAT SHOE (1.40'), 66-JOINTS 13 3/8" 68# J-55 CASING (2,673.36'), 17JOINTS OF 13 3/8" 54.5# BTC CASING (686.86'), 1-13 3/8" BTC DV TOOL (2.67'), 31 JOINTS OF 13 3/8" 54.5# BTC CASING (1,237.47')  TOTAL DEPTH= 4,680' WITH A 5.3' STICK UP
15:15	16:15	1.00	10.25	RC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		R/D CEMENTERS & FILL CASING.
16:15	18:15	2.00	12.25	CA	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		CIRC & COND WELL @ 9BPM. SPOT IN 4 CEMENT PUMP TRUCKS & RIG UP CEMENTERS.
18:15	23:00	4.75	17.00	CM	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HOLD PJSM WITH C&J CEMENTERS & CEMENT 13 3/8" CASING AS FOLLOWS:  TEST LINES TO 6000 PSI  PUMP 20 BBLS DYED FRESH WATER SPACER, 5,330 SX @ 12.8PPG, 1.94 YIELD, 10.82 GPS WITH 94 LB/SX CJ031, 0.5% BWOC CJ031, 0.7% BWOC CJ210K 0.25 PPB CJ600 (LEAD), 1020 SX @ 14.8PPG, 1.33 YIELD, 6.33 GPS WITH 94 LB/SX CJ210, 0.1% BWOC CJ600 ,0.25 PPB (TAIL), DROP PLUG AND COMMENCE DISPLACEMENT AS FOLLOWS DISPLACED WITH 710 BBLS CUT BRINE BUMPED PLUG TO 1782 #, 500OVER TO 1300 CP. FLOATS HELD BLEED BACK 4 BBLS TO TRUCK (CEMENT TO SURFACE 295 BBLS 853 SXS) FULL RETURNS THROUGHOUT FIRST STAGE WITH 900 PSI LIFT PRESSURE..  RETURNED 853SX/295BBLS TO SURACE, 400 BBLS INTO DISPLACEMENT
23:00	00:30	1.50	18.50	CM	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		DROP CANCELLATION PLATE AND TOOL LET GRAVITATE TO DV TOOL, SEAT AND TEST SAME T/1000 PSI 5 MINS, BLEED BACK 4 BBLS. FLUSH FLOW LINE AND ALL SURFACE EQUIPMENT AND 20" TO CELLER WITH SUGAR WATER
00:30	01:30	1.00	19.50	CM	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		REMOVE CEMENT HEAD AND RIG DOWN LINES
01:30	03:00	1.50	21.00	OT	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		N/D FLOW LINE AND ADAPTOR, FILLUP LINE, TURN BUCKLES
03:00	04:30	1.50	22.50	OT	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		MAKE ROUGH CUT ON 20" CONDUCTOR AND RAISE UP FOR ACCESS TO 13-3/8" CASING. CUT DRAIN HOLE IN 13-3/8" AND DRAIN CASING, MAKE ROUGH CUT ON 13-3/8" CASING RAISE TO FLOOR, L/D 20" CONDUCTOR AND 13-3/8" CASING
04:30	06:00	1.50	24.00	NC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		MAKE FINAL CUT ON 20" AND 13-3/8" CASING. STAB 13-3/8" GE SOW AND WELDING SAME  NOTE: 13-3/8" GE SOW 16" BELOW GROUND LEVEL

Mud Additives						
Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BARITE	Weighting Agent	67.0	sacks	12.48	836.16
Permian Fluids	BARITE (BULK)	Weighting Agent	0.0	tons	205.00	
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	TAXES	Other	156.76	each	1.00	156.76
Permian Fluids	YELLOW STARCH	Fluid Loss Control	38.0	lbs	18.00	684.00

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
Ex,V,ContractLabor,Technical	1,900.00	5,605.00
EX,V,GD,PART_DRILLMUD	60.00	17,745.23
EX,V,GD,PART_WELLCASING,SURFACE	228,967.14	228,967.14
Ex,V,Gd,Part_Wellhead,Drilling	1,351.00	30,796.35
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	309,118.04
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	4,406.92	56,699.06
EX,V,SERV,ENG_O&GWELLDRIILL	3,000.00	42,000.00



XTO Daily Drilling Report

Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 8/27/2019  
Report #: 14.0  
DFS: 7.00  
DFS(TL): 7.00

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	4,000.00	52,550.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	11,081.00	51,329.00
EX,V,SRV,O&GWELL,CASING,SURF INT	15,950.00	15,950.00
EX,V,SRV,O&GWELL,CEMENTING,SURF INTERMED	135,001.85	135,001.85
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	4,900.00

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	796.0	20,938.0	19,253.0
Well Water	gal	15,916.0	15,916.0	678,249.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/28/2019**  
**Report #: 15.0**  
**DFS: 8.00**  
**DFS(TL): 8.00**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 4,680.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 0.00	<b>Activity:</b> P/U 12-1/4" BHA
<b>County:</b> Ward	<b>Drilling Hours (hr):</b>	<b>Cum Percent Problem Time (%):</b> 1.94
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b>	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
8/27/2019	Tourly Safety Meeting	HYDRATION, REVIEWED JSA ON NIPPLING UP ORBIT VALVE IDENTIFY HAZARDS ASSOCIATED WITH TASK, COMMUNICATIONS, LMRA
8/28/2019	Tourly Safety Meeting	LMRA, WELL CONTROL, HYDRATION, COMMUNICATIONS. REVIEWING JSA AND IDENTIFYING HAZARDS

**Daily Contacts**  
Daily Contacts  
DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	462.91	Mud Additive Field Est To Date (Cost)	24,710.45
Daily Field Est Total (Cost)	40,421.77	Cum Field Est To Date (Cost)	1,102,491.30

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft²)	Gel 10m (lb/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
00:29	45,680.0	10.60	30	3.0	4	0.0	183000	0	0	0.0	0.0	3	6		0.0	0			11.0	0.0	1.9

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
4,242.00	2.04	159.99	4,238.62	147.81	-138.33	52.37	0.20		
4,335.00	1.92	159.62	4,331.57	151.02	-141.35	53.48	0.13		
4,429.00	2.21	156.43	4,425.51	154.40	-144.49	54.76	0.33		
4,522.00	2.50	156.47	4,518.43	158.21	-147.99	56.28	0.31		
4,597.00	2.64	156.38	4,593.35	161.56	-151.07	57.63	0.19		

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
WELD ON 13 3/8" 10M WELLHEAD & TEST TO 900PSI FOR 15MIN. N/U BOPE, TEST BOPE & CHOKE MANIFOLD, HPML. N/U ORBIT VALVE T/FLOW LINE, ATTACH CONTROL LINES, HOOKUP KILL LINE, FILLUP LINE, INSTALL WEAR BUSHING, P/U 12-1/4" BHA TIH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
223 DAYS SINCE LAST LTI: 223 DAYS SINCE LAST HURT: 223 DAYS SINCE LAST SPILL  
H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 4,597' , INC. 2.64°, AZM. 156.38°, TVD 4,593.33', VS. -8.94'  
**WELL SEP:** 149.02' F/WELL PLAN#1, 1,772.89' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH \_\_\_' \_\_\_%  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRRY/JAY WATSON  
NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'

Avg Background Gas (%)	0.00	Avg Connection Gas (%)	0.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	07:00	1.00	1.00	NC	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		COMPLETE WELDING ON 13 3/8" SOW 10M. LET COOL & TEST TO 900PSI FOR 15MIN AS GE PROCEDURE.
07:00	13:00	6.00	7.00	NU	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HOLD PJSM WITH ONE SOURCE ENERGY & N/U BOPE AS FOLLOWS:  SET 54" SPACER SPOOL ON WELLHEAD, SET BOP STACK ON WELLHEAD INSTALL & TQ ALL BOLTS, INSTALL CHOKE HOSE, TQ NEW HALLIBURTON SPACER SPOOL & ROTATING HEAD ON TOP OF ANNULAR,
13:00	19:00	6.00	13.00	TB	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		HOLD PJSM W/ONE SOURCE PSI TESTING & TEST BOPE AS FOLLOWS:  MUD LINES @ 250LOW/6,000HIGH. TEST CHOKE MANIFOLD @ 250LOW/10,000HIGH. UPPER, LOWER 250 LOW AND 10,000 HIGH TEST ANNULAR 250 LOW AND 3500 PSI HIGH, TEST BLIND RAMS 250 LOW AND 10,000 HIGH. TEST HPML BACK TO PUMPS 250 LOW 6000 HIGH. PERFORMED ACCUMULATOR DRAW DOWN TEST. R/D TEST PLUG AND EQUIPMENT



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/28/2019**  
**Report #: 15.0**  
**DFS: 8.00**  
**DFS(TL): 8.00**

**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
19:00	20:00	1.00	14.00	OT	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		N/U ORBIT VALVE AND SPACER TO FLOW LINE
20:00	21:15	1.25	15.25	WW	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		WAITING ON INCLEMENT WEATHER, LIGHTNING/HAIL STORM
21:15	03:15	6.00	21.25	OT	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		FINISH NIPPLING UP ORBIT VALVE TO FLOW LINE, HOOKUP CONTROL LINES TO ORBIT VALVE AND HYDRAULIC CLAMP FUNTION TEST CLAMP AND ORBIT VALVE, HOOKUP KILL LINE, FILLUP LINE
03:15	04:00	0.75	22.00	TR	Run & Cement Surface Csg	Casing & Cement, Run & Cement Surface Csg	4,680.0	4,680.0		M/U SETTING TOOL AND INSTALL WEAR BUSHING
04:00	06:00	2.00	24.00	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		HELD PJSM, P/U 12-1/4" BHA

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	TAXES	Other	82.91	each	1.00	82.91

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
Ex,V,ContractLabor,Technical	4,250.00	9,855.00
EX,V,GD,PART_DRILLMUD	60.00	17,805.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	331,197.90
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	3,266.91	59,965.97
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	45,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	4,000.00	56,550.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	1,100.00
Ex,V,Serv,Safety&OIMS	40.00	40.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	2,275.00	53,604.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	5,250.00

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal		605.0	21,543.0	18,648.0
Well Water	gal	0.0	0.0	678,249.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/29/2019**  
**Report #: 16.0**  
**DFS: 9.00**  
**DFS(TL): 9.00**

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 5,190.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 510.0	<b>Activity:</b> DRILLING 12 1/4" INTERMEDIATE @5,1
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 10.25	<b>Cum Percent Problem Time (%):</b> 1.82
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 49.8	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
		Surface Casing Flange Elevation (ft)
		0.00
Proposed TD (MD) (ftKB)	21,490.0	Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
8/28/2019	Tourly Safety Meeting	LMRA, WHAT TO DO IN CASE OF A TORNADO, DRILLING /WELL CONTROL, HYDRATION
8/29/2019	Tourly Safety Meeting	LMRA, PROPER HARD HATS, WELL CONTROL, HYDRATION

**Daily Contacts**  
 Daily Contacts  
 DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465

Total Costs To Date			
Daily Mud Field Est (Cost)	411.35	Mud Additive Field Est To Date (Cost)	25,121.80
Daily Field Est Total (Cost)	55,575.33	Cum Field Est To Date (Cost)	1,158,066.63

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft <sup>2</sup> )	Gel 10m (lb/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
12:30	4,680.0	9.90	28	3.0	4	7.0	182500	0	0	92.0	0.0	3	6		0.0	0	0	0	11.0	0.0	2.0

Bit Run Information												
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull	
2	12 1/4	Varel	FY616P-F	4011878	432Z	4,680.0	6,361.0	1,681.00	26.25	64.0	1-1-CT-A-X-0-CT-DTF	

**BHA Information for BHA#: <Drill String - BHA #>**  
 BHA # 2  
 Drill String Name Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in <sup>2</sup> )	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13/13	1.16	860	3,848.0	35	70	8,178.0	185	175	169	
Bit HP (hp)	Bit HPSI (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
181	Drill Pipe	5	4.276	5,700.77	6,361.00	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	660.23	4.5IFx4.5XH
9	Drill Collar	6 1/2	1.500	275.24	657.63	4.5XHx4.5XH
1	XO Sub	8	2.750	3.59	382.39	4.5XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	378.80	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	111.07	6.63NC 56x6.63Reg
1	Stabilizer	8	2.875	7.44	109.17	6.63Regx6.63Reg
	Drill Collar - Pony	8	3.250	13.54	101.73	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	88.19	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	81.92	6.63Regx6.63Reg
1	Stabilizer	8	2.875	7.79	51.33	6.63Regx6.63Reg
1	Shock Sub	8	2.875	13.17	43.54	6.63Regx6.63Reg
1	Motor with Stabilizer	8	5.250	28.97	30.37	6.63Regx6.63Reg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	8	10509064	Fixed	1.75	5.00	26.25	
Comment									
8" SPERRYDRILL LOBE 6/7-4.0STG W/FLOAT VALVE									

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVDTie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
4,727.00	2.71	151.69	4,723.21	167.57	-156.52	60.29	0.18		
4,821.00	3.19	157.65	4,817.08	172.37	-160.90	62.33	0.61		
4,913.00	4.29	162.73	4,908.89	178.36	-166.55	64.33	1.25		
5,007.00	4.67	162.68	5,002.60	185.70	-173.56	66.51	0.40		
5,101.00	5.77	164.02	5,096.21	194.25	-181.76	68.95	1.18		



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/29/2019**  
**Report #: 16.0**  
**DFS: 9.00**  
**DFS(TL): 9.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 MU DIRECTIONAL BHA SCRIBE AND TEST, MU BIT, TIH TO DVT, DRILL OUT, TEST CSG TO 1,500# FOR 30 MIN, TIH TO TOP OF FC, DRILL OUT SHOE TRACK, DRILL FORMATION F/4,680' - T/5,190'

ROTATE 476' IN 8.25 HRS 58 FPH  
 SLIDE 34' IN 2 HRS 17 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 224 DAYS SINCE LAST LTI: 224 DAYS SINCE LAST HURT: 224 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 5,007', INC. 4.67°, AZM. 162.68°, TVD 5,002.57', VS. -10.60'  
**WELL SEP:** 160.44' F/WELL PLAN#1, 1,783.26' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH 5,060' 40% ANAHYDRATE 60% SHALE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'

Avg Background Gas (%)	6.00	Avg Connection Gas (%)	11.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	11.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	08:00	2.00	2.00	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		PU DIRECTIONAL SCRIBE AND TEST, MU BIT
08:00	10:45	2.75	4.75	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		TIH TO TOP OF DVT
10:45	13:00	2.25	7.00	DC	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		DRILL DVT F/1,232' - T/1,235'. WOB 6-10, RPM 45, GPM 460, MTR RPM 83, PSI 860, DIFF 45, TQ 6K.
13:00	13:30	0.50	7.50	TC	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		TEST CASING 1,500# FOR 30 MINUTES, TEST GOOD.
13:30	16:30	3.00	10.50	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		TIH TO TOP OF FC
16:30	18:30	2.00	12.50	DC	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,680.0		DRILL FC, SHOE TRACK AND SHOE F/4,591' - T/4,680'. WOB 10K, RPM 40, GPM 460, MTR RPM 83, PSI 800, DIFF 20, TQ 4K
18:30	21:00	2.50	15.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,680.0	4,773.0		DRILL ROTATE 12-1/4" VERTICAL SECTION F/4,680' T/4,773', (93' (@37.2FPH) GPM-620, PP-2296, RPM-45, TQ-10K, WOB-30, DIFF-360
21:00	21:30	0.50	15.50	CR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,773.0	4,773.0		PULL TRIP NIPPLE AND INSTALL ROTATING HEAD
21:30	22:30	1.00	16.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,773.0	4,807.0		DRILL ROTATE 12-1/4" VERTICAL SECTION F/4,773' T/4,807', (27' (@34FPH) GPM-620, PP-2296, RPM-45, TQ-10K, WOB-30, DIFF-360
22:30	23:15	0.75	17.25	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,807.0	4,817.0		DRILL SLIDE 12-1/4" VERTICAL SECTION F/4,807' T/4,817", (10' (@13.33FPH) GPM-720, PP-2896, WOB-25, DIFF-300 TF-180M
23:15	01:30	2.25	19.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,817.0	4,894.0		DRILL ROTATE 12-1/4" VERTICAL SECTION F/4,817 T/4,894', (77' (@34.22FPH) GPM-860, PP-3960, RPM-45, TQ-11.5K, WOB-40, DIFF-560
01:30	02:00	0.50	20.00	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,894.0	4,894.0		SERVICE RIG, REMOVE AIR HOIST CABLE FROM BEHIND TD TRACK
02:00	02:15	0.25	20.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,894.0	4,900.0		DRILL ROTATE 12-1/4" VERTICAL SECTION F/4,894 T/4,900', (6' (@24FPH) GPM-860, PP-3960, RPM-45, TQ-11.5K, WOB-40, DIFF-560
02:15	03:00	0.75	21.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,900.0	4,912.0		DRILL SLIDE 12-1/4" VERTICAL SECTION F/4,900' T/4,912", (12' (@16FPH) GPM-860, PP-3605, WOB-25, DIFF-286 TF-180M
03:00	04:15	1.25	22.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	4,912.0	5,030.0		DRILL ROTATE 12-1/4" VERTICAL SECTION F/4,912 T/5,030', (118' (@94.4FPH) GPM-860, PP-3960, RPM-45, TQ-11.5K, WOB-40, DIFF-560
04:15	04:45	0.50	22.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,030.0	5,042.0		DRILL SLIDE 12-1/4" VERTICAL SECTION F/5,030' T/5,042", (12' (@16FPH) GPM-860, PP-3605, WOB-25, DIFF-286 TF-160R
04:45	06:00	1.25	24.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,042.0	5,190.0		DRILL ROTATE 12-1/4" VERTICAL SECTION F/5,042 T/5,190', (148' (@118.4FPH) GPM-860, PP-3960, RPM-45, TQ-11.5K, WOB-40, DIFF-560

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	1.0	each	50.00	50.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	TAXES	Other	31.35	each	1.00	31.35



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/29/2019**  
**Report #: 16.0**  
**DFS: 9.00**  
**DFS(TL): 9.00**

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLBIT	14,855.12	14,855.12
EX,V,GD,PART_DRILLMUD	60.00	17,865.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	353,277.76
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	2,965.35	62,931.32
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	48,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	11,050.00	67,600.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	2,200.00
Ex,V,Serv,Safety&OIMS	40.00	80.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	75.00	53,679.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	5,600.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	No	103	4,021.0	95
2	No	103	4,108.0	95
3	No	103	4,121.0	95

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	1,528.0	23,071.0	17,120.0
Well Water	gal	0.0	0.0	678,249.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/30/2019  
**Report #:** 17.0  
**DFS:** 10.00  
**DFS(TL):** 10.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 6,361.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 1,171.00	<b>Activity:</b> P/U NEW MUD MOTOR AND BIT
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 16.00	<b>Cum Percent Problem Time (%):</b> 1.72
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 73.2	<b>Last Casing String:</b> Surface, 4,680.0ftKB

<b>Jobs</b>	
Spud Date 8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft) 2,701.00	KB-Ground Distance (ft) 31.00
Proposed TD (MD) (ftKB) 21,490.0	Surface Casing Flange Elevation (ft) 0.00
Target Formation Wolfcamp A	

Safety Checks		
Date	Type	Com
8/29/2019	Tourly Safety Meeting	PROPER HARDHAT, MINIMIZING SLIP TIME, ELIMINATING FLAT SPOTS BECOMING MORE EFFECIENT AS A TEAM, HYDRATION
8/30/2019	Tourly Safety Meeting	PROPER EYE PROTECTION, LMRA, MINIMIZING FLAT SPOTS BECOMING MORE EFFECIENT AS A TEAM

Daily Contacts	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost) 6,431.61	Mud Additive Field Est To Date (Cost) 31,553.41	Daily Field Est Total (Cost) 58,045.59	Cum Field Est To Date (Cost) 1,216,112.22

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lbf/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lbf/100ft²)	Gel 10m (lbf/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
13:00	5,826.0	9.70	29	3.0	1	9.6	142000	0	1	100.0	0.0	1	1	0/100	0.0	0	1	2	8.0	0.0	1.0

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
2	12 1/4	Varel	FY616P-F	4011878	432Z	4,680.0	6,361.0	1,681.00	26.25	64.0	1-1-CT-A-X-0-CT-DTF

BHA Information for BHA#: <Drill String - BHA #>	
BHA # 2	Drill String Name Packed Hole

Drilling Parameters and Hydraulics									
Nozzles (1/32") 13/13/13/13/13/13/13/13	TFA (in²) 1.16	Flow Rate (gpm) 620	SPP (psi) 3,848.0	WOB (1000lbf) 35	RPM (rpm) 40	Drilling Torque 13,500.0	PU Str Wt (1000lbf) 210	Drill Str Wt (1000lbf) 185	SO Str Wt (1000lbf) 175
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)				

Drill String Components							
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections	
181	Drill Pipe	5	4.276	5,700.77	6,361.00	4.5IFx4.5IF	
1	XO Sub	6 1/2	2.500	2.60	660.23	4.5IFx4.5XH	
9	Drill Collar	6 1/2	1.500	275.24	657.63	4.5XHx4.5XH	
1	XO Sub	8	2.750	3.59	382.39	4.5XHx6.63NC 56	
9	Drill Collar	8	2.813	267.73	378.80	6.63NC 56x6.63NC 56	
1	XO Sub	7 7/8	2.750	1.90	111.07	6.63NC 56x6.63Reg	
1	Stabilizer	8	2.875	7.44	109.17	6.63Regx6.63Reg	
	Drill Collar - Pony	8	3.250	13.54	101.73	6.63Regx6.63Reg	
1	UBHO Sub	8	3.250	6.27	88.19	6.63Regx6.63Reg	
1	NMDC	8	3.250	30.59	81.92	6.63Regx6.63Reg	
1	Stabilizer	8	2.875	7.79	51.33	6.63Regx6.63Reg	
1	Shock Sub	8	2.875	13.17	43.54	6.63Regx6.63Reg	
1	Motor with Stabilizer	8	5.250	28.97	30.37	6.63Regx6.63Reg	

Mud Motors								
Make Halliburton / Sperry	Model SPERRYDRILL	Directional Company Sperry	OD (in) 8	Serial Number 10509064	Deflection Type Fixed	Defln 1.75	Circ Time (hr) 5.00	Drilling Time (hr) 26.25
Comment 8" SPERRYDRILL LOBE 6/7-4.0STG W/FLOAT VALVE								

Survey Information								
Date 8/20/2019	Description MWD	MD Tie In (ftKB) 0.00	Inclination Tie In (°) 0.0	Azimuth Tie In (°) 0.0	TVD Tie In (ftKB) 0.00	NSTie In (ft) 0.00	EW Tie In (ft) 0.00	
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
5,940.00	8.85	162.56	5,926.36	314.23	-295.19	108.05	0.12	
6,034.00	9.22	161.41	6,019.20	328.99	-309.23	112.62	0.44	
6,128.00	9.39	160.46	6,111.96	344.19	-323.59	117.59	0.24	
6,221.00	9.65	159.33	6,203.68	359.56	-338.04	122.88	0.34	
6,314.00	9.73	160.63	6,295.35	375.21	-352.74	128.23	0.25	



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/30/2019**  
**Report #: 17.0**  
**DFS: 10.00**  
**DFS(TL): 10.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
**DRILL FORMATION F/5,190' - T/6,361', PRESSURE SPIKING AND DIFFERENTIAL SPIKING, POOH TO BIT, FOUND 7 JETS OUT OF 9 PLUGGED WITH MUD MOTOR STATOR RUBBER, BIT HAD 5 CHIPPED TEETH AND 1 CHIPPED BUTTON**

ROTATE 1109' IN 12.75 HRS 87 FPH  
 SLIDE 75' IN 3.25 HRS 23 FPH

Operation Summary #2  
**SAFETY: NO INCIDENTS OR NO SPILLS REPORTED**  
 225 DAYS SINCE LAST LTI: 225 DAYS SINCE LAST HURT: 225 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST: LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT**  
**DIRECTIONAL: LAST SURVEY: DEPTH: 6,221', INC. 9.65°, AZM. 159.33°, TVD 6,203.65', VS. -14.05'**  
**WELL SEP: 352.14' F/WELL PLAN#1, 1,975.81' F/TOP CORNER**  
**AGITATOR:**  
**LITHOLOGY: SAMPLE:DEPTH 6,360' 70% SANDSTONE 20% SHALE 10% LIME STONE**  
**MUD: TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.**  
**PERSONNEL: DSM ON LOCATION: CLARK DEBERRY/JAY WATSON**  
**NABORS F-23: 16 CREW, 2 HALLIBURTON DD'S & 2 MWD'S,**  
**XTO SHE: GENERALIST: JAMES ROGERS**  
**VISITORS:**

**NOTES: START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS**  
**TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'**  
**TD 12 1/4" INTERMEDIATE**  
**START 8 3/4" CURVE**  
**LANDED 8 3/4" CURVE**  
**TD 8 1/2" LATERAL**

Avg Background Gas (%)	20.00	Avg Connection Gas (%)	20.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	0.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	07:00	1.00	1.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,190.0	5,271.0		ROTATE F/5,190' - T/5,271' (81' @81 FPH). WOB 36, RPM 70, MTR RPM 140, GPM 777, PSI 3,820, DIFF 733, TQ 16K.
07:00	07:30	0.50	1.50	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,271.0	5,271.0		SERVICE TOP DRIVE, REMOVE AIR HOIST LINE HUNG IN TOP DRIVE TRACK
07:30	08:00	0.50	2.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,271.0	5,290.0		ROTATE F/5,271' - T/5,290' (19' @38 FPH). WOB 36, RPM 70, MTR RPM 140, GPM 777, PSI 3,789, DIFF 735, TQ 16K.
08:00	08:30	0.50	2.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,290.0	5,302.0		SLIDE F/5,290' - T/5,302' (12' @24 FPH). WOB 23, MTR RPM 140, GPM 777, PSI 3,200, DIFF 200, TF HS.
08:30	09:15	0.75	3.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,302.0	5,390.0		ROTATE F/5,302' - T/5,390' (88' @117 FPH). WOB 30, RPM 70, MTR RPM 140, GPM 777, PSI 3,676, DIFF 670, TQ 11K.
09:15	09:45	0.50	3.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,390.0	5,405.0		SLIDE F/5,390' - T/5,405' (15' @30 FPH). WOB 32, MTR RPM 140, GPM 777, PSI 3,300, DIFF 300, TF 90R.
09:45	12:45	3.00	6.75	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,405.0	5,775.0		ROTATE F/5,405' - T/5,775' (370' @123 FPH). WOB 30, RPM 70, MTR RPM 140, GPM 777, PSI 3,730, DIFF 700, TQ 17K.
12:45	13:15	0.50	7.25	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,775.0	5,790.0		SLIDE F/5,775' - T/5,790' (15' @30 FPH). WOB 32, MTR RPM 140, GPM 777, PSI 3,200, DIFF 200, TF 90R.
13:15	14:00	0.75	8.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,790.0	5,843.0		ROTATE F/5,790' - T/5,843' (53' @70.6 FPH). WOB 30, RPM 70, MTR RPM 140, GPM 777, PSI 3,730, DIFF 700, TQ 17K. PUMP PRESUURE INCREASED TO 5,000#
14:00	15:00	1.00	9.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,843.0	5,922.0		SWEPT HOLE, ADJUSTED VARIABLES ATTEMPTED TO ALEVIAATE PRESSURE INCREASE. ROTATE F/5,843' - T/5,922' (79' @79 FPH). WOB 10-30, RPM 70, MTR RPM 140, GPM 777, PSI 5,247, DIFF 251, TQ 11K. PRESSURE REMAINING, REDUCED PUMP RATE TO MAINTAIN MAXIMUM PRESSURE BELOW LINER RATING.
15:00	19:15	4.25	13.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	5,922.0	6,230.0		ROTATE F/5,843' - T/6,230 (387' @ 91FPH). WOB 30, RPM 40, MTR RPM 117, GPM 650, PSI 3,799, DIFF 300, TQ 11K.
19:15	19:45	0.50	13.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,230.0	6,240.0		SLIDE F/6,230' - T/6,240" (10' @ 20FPH). WOB 32, MTR RPM 140, GPM 777, PSI 3,200, DIFF 200, TF 120R LOST TF WORK PIPE, TIGHT HOLE, CLEAN UP TIGHT SPOT 6,210 TO 6,240' PUMPED SWEEP
19:45	21:15	1.50	15.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,240.0	6,330.0		ROTATE F/6,240' - T/6,330 (90' @ 60FPH). WOB 30, RPM 40, MTR RPM 117, GPM 610, PSI 3,499, DIFF 720, TQ 11K.
21:15	21:45	0.50	15.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,330.0	6,340.0		SLIDE F/6,330' - T/6,340" (10' @ 20FPH). WOB 32, MTR RPM 140, GPM 620, PSI 3,600, DIFF 200, TF 120R
21:45	22:00	0.25	16.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,340.0	6,361.0		ROTATE F/6,340' - T/6,361' (21' @ 28FPH). WOB 30, RPM 40, MTR RPM 117, GPM 650, PSI 3,799, DIFF 700, TQ 11K. ATTEMPT TO DRILL DIFFERENTIAL SPIKING CAN'T DRILL WITHOUT EXCEDING PREESSURE LIMITS
22:00	22:30	0.50	16.50	CA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		CIRC SWEEP OUT, PREPARE TO POOH



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/30/2019**  
**Report #: 17.0**  
**DFS: 10.00**  
**DFS(TL): 10.00**

**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
22:30	00:15	1.75	18.25	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		FLOW CHECK, STATIC, POOH F/6,361' T/4,612' WET
00:15	00:45	0.50	18.75	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		FLOW CHECK,
00:45	02:30	1.75	20.50	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		POOH T/4,045' ,PUMP SLUG, CONTINUE POOH T/ BHA 636'
02:30	05:30	3.00	23.50	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		HANDLING BHA F/636' T/BIT, BREAK AND L/D BIT FOUND 5 CHIPPED TEETH, 1 CHIPPED BUTTON AND 7 JETS OUT OF 9 PLUGGED WITH MUD MOTOR STATOR RUBBER, L/D MUD MOTOR.
05:30	06:00	0.50	24.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		P/U NEW MUD MOTOR AND NEW BIT

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	LIME	pH Control	20.0	sacks	6.97	139.40
Permian Fluids	MF 55	Flocculant	7.0	gal	93.00	651.00
Permian Fluids	PALLETS	Other	13.0	each	17.00	221.00
Permian Fluids	SHRINK WRAP	Other	13.0	each	20.00	260.00
Permian Fluids	SODA ASH	Alkalinity Control	12.0	sacks	11.67	140.04
Permian Fluids	TAXES	Other	490.17	each	1.00	490.17
Permian Fluids	TRUCKING BULK	Other	1.0	each	2,300.00	2,300.00
Permian Fluids	TRUCKING SACK	Other	1.0	each	1,800.00	1,800.00

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLBIT	14,855.12	29,710.24
EX,V,GD,PART_DRILLMUD	60.00	17,925.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	375,357.62
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	8,985.61	71,916.93
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	51,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	75,100.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	3,300.00
EX,V,Serv,Safety&OIMS	40.00	120.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	75.00	53,754.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	5,950.00

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	2,892.0	25,963.0	14,228.0
Well Water	gal	0.0	0.0	678,249.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 8/31/2019  
**Report #:** 18.0  
**DFS:** 11.00  
**DFS(TL):** 11.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 7,335.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 974.00	<b>Activity:</b> DRILLING 12 1/4" INTERMEDIATE @7,3
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 19.00	<b>Cum Percent Problem Time (%):</b> 1.62
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 51.3	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
8/30/2019	Tourly Safety Meeting	PROPER EYE PROTECTION, LMRA PROPER ENERGY ISOLATION, HYDRATION, WELL CONTROL
8/31/2019	Tourly Safety Meeting	SPIDER BITS, LMRA, WELL CONTROL, HYDRATION

Daily Contacts	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	10,128.35	Mud Additive Field Est To Date (Cost)	41,681.76
Daily Field Est Total (Cost)	256,379.13	Cum Field Est To Date (Cost)	1,472,491.35

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft²)	Gel 10m (lb/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
17:00	6,361.0	9.76	29	1.0	1	9.2	149000	0	0	100.0	0.0	1	1	0/100	0.0	0	0	0	8.5	0.0	1.1

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
3	12 1/4	Varel	FY616P-F	4011823	432	6,361.0	8,068.0	1,707.00	41.25	41.4	8-2-RO-N-X-1-WT-PR

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	3 Packed Hole
Drill String Name	3 Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
13/13/13/13/13/13/13/13	1.16	753	3,249.0	40	60	14,685.0	230	178	168	
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
236	Drill Pipe	5	4.276	7,399.64	8,068.00	IFIF
1	XO Sub	6 1/2	2.500	2.60	668.36	IFXH
9	Drill Collar	6 1/2	1.500	275.24	665.76	XHXH
1	XO Sub	8	2.750	3.59	390.52	XHNC 56
9	Drill Collar	8	2.813	267.73	386.93	NC 56NC 56
1	XO Sub	7 7/8	2.750	1.90	119.20	NC 56Reg
1	Stabilizer	8	2.875	7.44	117.30	RegReg
	Drill Collar - Pony	8	3.250	13.54	109.86	RegReg
1	UBHO Sub	8	3.250	6.27	96.32	RegReg
1	NMDC	8	3.250	30.59	90.05	RegReg
1	Stabilizer	8	2.875	7.79	59.46	RegReg
1	Shock Sub	8	2.875	13.17	51.67	RegReg
1	Motor with Stabilizer	8	5.250	37.10	38.50	RegReg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	8	10437349	Fixed	1.75	5.00	41.25	
Comment 8" SPERRYDRILL LOBE 6/7-3.4STG W/FLOAT VALVE									

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVDTie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
6,875.00	10.14	162.66	6,847.38	475.01	-447.55	159.40	1.25		
6,969.00	9.02	170.18	6,940.07	490.57	-462.71	163.13	1.78		
7,063.00	8.62	170.82	7,032.96	504.80	-476.93	165.51	0.44		
7,157.00	9.11	171.69	7,125.84	519.07	-491.24	167.71	0.54		
7,252.00	8.68	169.63	7,219.70	533.57	-505.74	170.08	0.56		



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/31/2019**  
**Report #: 18.0**  
**DFS: 11.00**  
**DFS(TL): 11.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 PU NEW BHA, SCRIBE AND TEST, MU BIT, TIH T/6,000' SAFETY REAM LAST 3 STANDS TO BOTTOM, DRILL F/6,361' - T/7,335'

ROTATE FOOTAGE- 876 IN 11 HRS @ 80 FPH  
 SLIDE FOOTAGE-98' IN 7 HRS @14 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 226 DAYS SINCE LAST LTI: 226 DAYS SINCE LAST HURT: 226 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 7,157' , INC. 9.11°, AZM. 171.69°, TVD 7,125.81', VS. -9.95'  
**WELL SEP:** 510.17' F/WELL PLAN#1, 2,119.84' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH 7,170' 70% SANDSTONE 20%SHALE 10% LIME STONE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 11 CREW, 2 HALLIBURTON DD'S & 2 MWD'S, 2 MUD LOGGERS (IMPAC), 1 MUD ENGINEER (VALENCE)  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'  
 TD 12 1/4" INTERMEDIATE  
 START 8 3/4" CURVE  
 LANDED 8 3/4" CURVE  
 TD 8 1/2" LATERAL

Avg Background Gas (%)	18.00	Avg Connection Gas (%)	25.00	Avg Trip Gas (%)	5.00	Max Drill Gas (%)	33.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	08:30	2.50	2.50	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		FINISH P/U NEW MUD MOTOR, SCRIBE, TEST MWD AND M/U BIT, TIH W/BHA T/660'
08:30	10:45	2.25	4.75	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		TIH W/BHA #3 ON 5" DRILL PIPE F/660' T/6,024' FILLING PIPE EVERY 30 STANDS
10:45	11:15	0.50	5.25	CR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		PULL TRIP NIPPLE AND INSTALL ROTATING HEAD, FILL PIPE
11:15	12:00	0.75	6.00	WA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,361.0		SAFETY WASH AND REAM F/6,024' T/6,361'
12:00	13:00	1.00	7.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,361.0	6,430.0		DRILL ROTATE F/6,361' T/6,430 (69' (69'FPH) GPM-775,DIFF-500 PP-3480, WOB-30, RPM-46,TQ-13K
13:00	13:30	0.50	7.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,430.0	6,445.0		DRILL SLIDE F/6,430' T/6,445 (15'(30 FPH)GPM-780, WOB-25, DIFF-80, TF-120R
13:30	15:00	1.50	9.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,445.0	6,615.0		DRILL ROTATE F/6,445' T/6,615' (170' (113'FPH) GPM-775,DIFF-500 PP-3480, WOB-30, RPM-46,TQ-13K
15:00	16:00	1.00	10.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,615.0	6,627.0		DRILL SLIDE F/6,615' T/6,627 (12' (12 FPH)GPM-780, WOB-25, DIFF-112, TF-150R
16:00	16:45	0.75	10.75	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,627.0	6,695.0		DRILL ROTATE F/6,627" T/6,695' (68' (90.66'FPH) GPM-775,DIFF-500 PP-3480, WOB-30, RPM-46,TQ-13K
16:45	17:45	1.00	11.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,695.0	6,707.0		DRILL SLIDE F/6,695' T/6,707 (12' (12 FPH)GPM-780, WOB-25, DIFF-112, TF-150R
17:45	18:30	0.75	12.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,707.0	6,790.0		DRILL ROTATE F/6,707' T/6,790' (110' (83'FPH) GPM-775,DIFF-500 PP-3480, WOB-30, RPM-46,TQ-13K
18:30	19:15	0.75	13.25	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,790.0	6,799.0		DRILL SLIDE F/6,790' T/6,799 (9' (12 FPH)GPM-780, WOB-25, DIFF-112, TF-150R
19:15	19:30	0.25	13.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,799.0	6,830.0		DRILL ROTATE F/6,799 T/6,830' (31' (124'FPH) GPM-775,DIFF-500 PP-3480, WOB-30, RPM-46,TQ-13K
19:30	21:00	1.50	15.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,830.0	6,850.0		DRILL SLIDE F/6,830' T/6,850' (20' (13.3 FPH) GPM-845, PP- 3645,WOB-25, DIFF-80, TF-150R
21:00	21:30	0.50	15.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,850.0	6,885.0		DRILL ROTATE F/6,850' T/6,885' (35' (70'FPH) GPM-842,DIFF-258, PP-3875, WOB-30, RPM-46,TQ-13K
21:30	22:30	1.00	16.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,885.0	6,895.0		DRILL SLIDE F/6,885' T/6,895' (10' (10 FPH) GPM-845, PP- 3645,WOB-25, DIFF-80, TF-150R
22:30	23:00	0.50	17.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,895.0	6,920.0		DRILL ROTATE F/6,895' T/6,920' (25' (50'FPH) GPM-842,DIFF-258, PP-3875, WOB-30, RPM-46,TQ-13K
23:00	23:45	0.75	17.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,920.0	6,930.0		DRILL SLIDE F/6,920' T/6,930' (10' (13.3 FPH) GPM-845, PP- 3645,WOB-25, DIFF-80, TF-150R
23:45	00:30	0.75	18.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,930.0	6,990.0		DRILL ROTATE F/6,930' T/6,990' (60' (60FPH) GPM-842,DIFF-258, PP-3875, WOB-30, RPM-55,TQ-13K



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 8/31/2019**  
**Report #: 18.0**  
**DFS: 11.00**  
**DFS(TL): 11.00**

**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
00:30	01:00	0.50	19.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	6,990.0	7,000.0		DRILL SLIDE F/6,990' T/7,000' (10' ( FPH) GPM-845, PP - 3645,WOB-25, DIFF-80, TF-150R
01:00	06:00	5.00	24.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,000.0	7,335.0		DRILL ROTATE F/7,000' T/7,335' (335' (67FPH) GPM-752,DIFF-258, PP-3275, WOB-35, RPM-55,TQ-12K

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BARITE (BULK)	Weighting Agent	39.0	tons	205.00	7,995.00
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00
Permian Fluids	ENGINEER	Other	1.0	each	900.00	900.00
Permian Fluids	SODA ASH	Alkalinity Control	8.0	sacks	11.67	93.36
Permian Fluids	TAXES	Other	210.74	each	1.00	210.74
Permian Fluids	VX VIS	Viscosifier	5.0	sacks	89.91	449.55
Permian Fluids	WALNUT SHELL	LCM	10.0	sacks	12.94	129.40
Permian Fluids	WONDER NUTS	Viscosifier	30.0	lbs	6.51	195.30

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLMUD	4,260.00	22,185.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	218,079.86	593,437.48
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	20,274.27	92,191.20
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	54,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	9,200.00	84,300.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	4,400.00
Ex,V,Serv,Safety&OIMS	40.00	160.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	75.00	53,829.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	6,300.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	No	100	3,940.0	95
1	Yes	30	140.0	95
2	No	100	3,940.0	95
2	No	30	140.0	95

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	2,700.0	28,663.0	11,528.0
Well Water	gal	0.0	0.0	678,249.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/1/2019  
**Report #:** 19.0  
**DFS:** 12.00  
**DFS(TL):** 12.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 8,068.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 733.00	<b>Activity:</b> DRILLING 12 1/4" @8,068'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 22.25	<b>Cum Percent Problem Time (%):</b> 1.54
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 32.9	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
8/31/2019	Tourly Safety Meeting	SPIDER BITES, HOT WORK PERMITS
9/1/2019	Tourly Safety Meeting	FIRST AID,LMRA, REVIEWING JSA's, WELL CONTROL

Daily Contacts	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	2,782.19	Mud Additive Field Est To Date (Cost)	44,463.95
Daily Field Est Total (Cost)	254,696.17	Cum Field Est To Date (Cost)	1,727,187.52

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lbf/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lbf/100ft²)	Gel 10m (lbf/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
06:00	7,491.0	9.75	29	1.0	1	9.3	152000	0	1	100.0	0.0	1	1	0/100	0.0	0	1	1	8.5	0.0	1.0

Bit Run Information												
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull	
3	12 1/4	Varel	FY616P-F	4011823	432	6,361.0	8,068.0	1,707.00	41.25	41.4	8-2-RO-N-X-1-WT-PR	

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	3
Drill String Name	Packed Hole

Drilling Parameters and Hydraulics									
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)
13/13/13/13/13/13/13/13	1.16	753	3,950.0	40	60	14,685.0	235	180	170
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)				

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
236	Drill Pipe	5	4.276	7,399.64	8,068.00	IFIF
1	XO Sub	6 1/2	2.500	2.60	668.36	IFXH
9	Drill Collar	6 1/2	1.500	275.24	665.76	XHXH
1	XO Sub	8	2.750	3.59	390.52	XHNC 56
9	Drill Collar	8	2.813	267.73	386.93	NC 56NC 56
1	XO Sub	7 7/8	2.750	1.90	119.20	NC 56Reg
1	Stabilizer	8	2.875	7.44	117.30	RegReg
	Drill Collar - Pony	8	3.250	13.54	109.86	RegReg
1	UBHO Sub	8	3.250	6.27	96.32	RegReg
1	NMDC	8	3.250	30.59	90.05	RegReg
1	Stabilizer	8	2.875	7.79	59.46	RegReg
1	Shock Sub	8	2.875	13.17	51.67	RegReg
1	Motor with Stabilizer	8	5.250	37.10	38.50	RegReg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defin	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	8	10437349	Fixed	1.75	5.00	41.25	
Comment 8" SPERRYDRILL LOBE 6/7-3.4STG W/FLOAT VALVE									

Survey Information									
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)		
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00		
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
7,623.00	9.59	166.07	7,586.31	590.08	-561.34	182.02	0.94		
7,717.00	9.19	165.18	7,679.05	605.38	-576.20	185.82	0.45		
7,811.00	9.62	163.36	7,771.78	620.72	-590.98	189.99	0.56		
7,904.00	10.07	161.89	7,863.41	636.62	-606.15	194.74	0.55		
7,996.00	10.67	160.43	7,953.91	653.17	-621.82	200.10	0.71		



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 9/1/2019**  
**Report #: 19.0**  
**DFS: 12.00**  
**DFS(TL): 12.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 DRILL 12-1/4" VERTICAL SECTION F/7,335' - T/8,068

ROTATE FOOTAGE- 685 IN 16.75 HRS @ 41 FPH  
 SLIDE FOOTAGE- 48' IN 5.5 HRS @9 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 227 DAYS SINCE LAST LTI: 227 DAYS SINCE LAST HURT: 227 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 7,904' , INC. 10.07° , AZM. 161.89° , TVD 7,863.38' , VS. -0.61'  
**WELL SEP:** 628.16' F/WELL PLAN#1, 2253.46' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH 8,040' 60% SANDSTONE 30%SHALE 10% LIMESTONE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 11 CREW, 2 HALLIBURTON DD'S & 2 MWD'S, 2 MUD LOGGERS (IMPAC), 1 MUD ENGINEER (VALENCE)  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'  
 TD 12 1/4" INTERMEDIATE  
 START 8 3/4" CURVE  
 LANDED 8 3/4" CURVE  
 TD 8 1/2" LATERAL

Avg Background Gas (%)	19.00	Avg Connection Gas (%)	26.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	26.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	13:00	7.00	7.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,335.0	7,614.0		DRILL ROTATE F/7,335' - T/7,614' (279' @39FPH) WOB 40, RPM 45, GPM 755, MTR RPM 136, PSI 3,390, DIFF 290, TQ 15K
13:00	13:30	0.50	7.50	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,614.0	7,614.0		SERVICE RIG
13:30	15:30	2.00	9.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,614.0	7,720.0		DRILL ROTATE F/7,614' - T/7,720' (106' @53FPH) WOB 40, RPM 45, GPM 755, MTR RPM 67.5, PSI 3,390, DIFF 290, TQ 15K
15:30	16:30	1.00	10.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,720.0	7,730.0		DRILL SLIDE F/7,720' - T/7,730' (10' @10FPH) WOB 36, GPM 755, MTR RPM 136, PSI 3,200, DIFF 100, TF 180.
16:30	21:00	4.50	15.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,730.0	7,910.0		DRILL ROTATE F/7,730' - T/7,910' (180' @40FPH) WOB 40, RPM 50, GPM 846, MTR RPM 76.5, PSI 4,053, DIFF 290, TQ 15K
21:00	21:45	0.75	15.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,910.0	7,913.0		DRILL SLIDE F/7,910' - T/7,913' (3' @3FPH) WOB 36, GPM 755, MTR RPM 136, PSI 3,200, DIFF 100, TF 180. COULD NOT HOLD TOOL FACE
21:45	22:15	0.50	16.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,913.0	7,935.0		DRILL ROTATE F/7,913' - T/7,935' (22' @88FPH) WOB 40, RPM 50, GPM 846, MTR RPM 76.5, PSI 4,053, DIFF 290, TQ 15K
22:15	23:15	1.00	17.25	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,935.0	7,950.0		DRILL SLIDE F/7,935' - T/7,950' (15' @15FPH) WOB 36, GPM 755, MTR RPM 136, PSI 3,200, DIFF 100, TF 180
23:15	00:45	1.50	18.75	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	7,950.0	8,015.0		DRILL ROTATE F/7,950' - T/8015' (65' @43.33FPH) WOB 40, RPM 50, GPM 846, MTR RPM 76.5, PSI 4,053, DIFF 290, TQ 15K
00:45	01:45	1.00	19.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,015.0	8,020.0		DRILL SLIDE F/8,015' - T/8,020' (5' @5FPH) WOB 36, GPM 755, MTR RPM 136, PSI 3,200, DIFF 100, TF 180
01:45	02:15	0.50	20.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,020.0	8,040.0		DRILL ROTATE F/8,020' - T/8,040' (20' @40FPH) WOB 40, RPM 50, GPM 755, MTR RPM 76.5, PSI 3452, DIFF 211, TQ 13K
02:15	04:00	1.75	22.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,020.0	8,055.0		DRILL SLIDE F/8,040' - T/8,055' (15' @8.57FPH) WOB 36, GPM 755, MTR RPM 136, PSI 3,200, DIFF 100, TF 180
04:00	05:00	1.00	23.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,055.0	8,068.0		DRILL ROTATE F/8,055' - T/8,068' (13' @13FPH) WOB 40, RPM 50, GPM 755, MTR RPM 76.5, PSI 3452, DIFF 211, TQ 13K
05:00	06:00	1.00	24.00	CA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		CIRCULATE SWEEP OUT

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	LIME	pH Control	8.0	sacks	6.97	55.76
Permian Fluids	MF 55	Flocculant	11.0	gal	93.00	1,023.00
Permian Fluids	SALT GEL		50.0	sacks	12.21	610.50
Permian Fluids	TAXES	Other	212.04	each	1.00	212.04
Permian Fluids	VX VIS	Viscosifier	3.0	sacks	89.91	269.73
Permian Fluids	WALNUT SHELL	LCM	14.0	sacks	12.94	181.16



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 9/1/2019**  
**Report #: 19.0**  
**DFS: 12.00**  
**DFS(TL): 12.00**

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLMUD	4,260.00	26,445.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	218,079.86	811,517.34
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	20,291.31	112,482.51
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	57,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	91,800.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	5,500.00
Ex,V,Serv,Safety&OIMS	40.00	200.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	75.00	53,904.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	6,650.00

Pump Checks				
Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	Yes	30	140.0	95
1	No	102	3,966.0	95
2	Yes	30	140.0	95
2	No	102	3,999.0	95

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	3,581.0	32,244.0	7,947.0
Well Water	gal	15,563.0	15,563.0	693,812.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/2/2019  
**Report #:** 20.0  
**DFS:** 13.00  
**DFS(TL):** 13.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 8,300.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 232.00	<b>Activity:</b> DRILLING 12 1/4" @8,300'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 8.00	<b>Cum Percent Problem Time (%):</b> 1.46
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 29.0	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
9/1/2019	Tourly Safety Meeting	FIRST AID, LMRA, TIH, WELL CONTROL
9/2/2019	Tourly Safety Meeting	HEAT RELATED, HYDRATION, LMRA, WELL CONTROL, HOUSE KEEPING

Daily Contacts	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	3,562.71	Mud Additive Field Est To Date (Cost)	48,026.66
Daily Field Est Total (Cost)	58,561.24	Cum Field Est To Date (Cost)	1,785,748.76

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft <sup>2</sup> )	Gel 10m (lb/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
07:30	8,068.0	9.80	29	1.0	1	9.1	154000	0	1	100.0	0.0	1	1	0/100	0.0	0	1	1	9.0	0.0	1.4

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
4	12 1/4	Varel	R713PDUX	4011215		8,068.0	8,745.0	677.00	36.25	18.7	8-7-CR-A-X-1-CT-PR

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	4 Packed Hole
	Drill String Name
	4 Packed Hole

Drilling Parameters and Hydraulics										
Nozzles (1/32")	TFA (in <sup>2</sup> )	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)	
14/14/14/14/14/14/14	1.05	750	3,733.0	30	50	13,000.0	280	245	220	
Bit HP (hp)	Bit HPSI (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
255	Drill Pipe	5	4.276	8,024.38	8,693.00	IFIF
1	XO Sub	6 1/2	2.500	2.60	668.62	IFXH
9	Drill Collar	6 1/2	1.500	275.24	666.02	XHXH
1	XO Sub	8	2.750	3.59	390.78	XHNC 56
9	Drill Collar	8	2.813	267.73	387.19	NC 56NC 56
1	XO Sub	7 7/8	2.750	1.90	119.46	NC 56Reg
1	Stabilizer	8	2.875	7.44	117.56	RegReg
	Drill Collar - Pony	8	3.250	13.54	110.12	RegReg
1	UBHO Sub	8	3.250	6.27	96.58	RegReg
1	NMDC	8	3.250	30.59	90.31	RegReg
1	Stabilizer	8	2.875	7.79	59.72	RegReg
1	Shock Sub	8	2.875	13.17	51.93	RegReg
1	Motor with Stabilizer	8	5.250	37.36	38.76	RegReg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry	8	ST5D800-140	Fixed	1.75	3.50	36.25	
Comment 8" SPERRYDRILL LOBE 7/8--3.4STG 1.75° FB 0.09 REV/GAL, MAX DIFF-765, MAX TQ-21,428, FLOW-450-900 GPM BTS-82', BTG-85, W/FLOAT VALVE									

Survey Information								
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NS Tie In (ft)	EW Tie In (ft)	
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00	
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
7,904.00	10.07	161.89	7,863.41	636.62	-606.15	194.74	0.55	
7,996.00	10.67	160.43	7,953.91	653.17	-621.82	200.10	0.71	
8,090.00	10.19	158.17	8,046.36	670.18	-637.74	206.10	0.67	
8,186.00	8.85	158.35	8,141.03	686.03	-652.49	211.99	1.40	
8,279.00	7.89	156.28	8,233.04	699.53	-664.98	217.19	1.08	



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/2/2019  
**Report #:** 20.0  
**DFS:** 13.00  
**DFS(TL):** 13.00

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 POOH L/D BIT AND MUD MOTOR, P/U NEW BIT AND MUD MOTOR SCRIBE, M/U BIT , TIH 7,800'. SAFETY WASH & REAM F/7,800' TO 8068'. DRILL 12-1/4" VERTICAL SECTION F/8,068 - T/8,300'

ROTATE FOOTAGE- 186 IN 4.5 HRS @41 FPH  
 SLIDE FOOTAGE- 46' IN 3.5 HRS @13FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 228 DAYS SINCE LAST LTI: 228 DAYS SINCE LAST HURT: 228 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 8,186' , INC. 8.85° , AZM. 158.35° , TVD 7,8141.0' , VS. -2.88 '  
**WELL SEP:** 676.58' F/WELL PLAN#1, 2,301.38' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH 8,190' 80% SANDSTONE 20%SHALE 0% LIMESTONE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 11 CREW, 2 HALLIBURTON DD'S & 2 MWD'S, 2 MUD LOGGERS (IMPAC), 1 MUD ENGINEER (VALENCE)  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:**

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'  
 TD 12 1/4" INTERMEDIATE  
 START 8 3/4" CURVE  
 LANDED 8 3/4" CURVE  
 TD 8 1/2" LATERAL

Avg Background Gas (%)	22.00	Avg Connection Gas (%)	44.00	Avg Trip Gas (%)	21.00	Max Drill Gas (%)	44.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	07:00	1.00	1.00	CA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		CIRCULATE BU AND BUILD SLUG
07:00	07:15	0.25	1.25	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		FLOW CHECK WELL, WELL STATIC
07:15	07:30	0.25	1.50	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		TOH F/8,068' - T/7,146'
07:30	07:45	0.25	1.75	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		FLOW CHECK WELL, WELL STATIC, SLUG PIPE
07:45	09:15	1.50	3.25	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		TOH F/7,146' - T/2,955'
09:15	09:30	0.25	3.50	OT	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		FILL TRIP TANK
09:30	10:00	0.50	4.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		TOH F/2,955' - T/1,000'
10:00	10:30	0.50	4.50	CR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		PULL ROTATING HEAD AND INSTALL TRIP NIPPLE
10:30	10:45	0.25	4.75	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		TOH F/1,000' - T/660'
10:45	11:30	0.75	5.50	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		TOH WITH BHA
11:30	13:30	2.00	7.50	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		LD BIT MOTOR AND TOOL, PU NEW MOTOR AND TOOL.
13:30	13:45	0.25	7.75	SU	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		SURFACE TEST TOOLS
13:45	15:45	2.00	9.75	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		MU BIT AND TIH WITH BHA
15:45	16:00	0.25	10.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		TIH WITH DP T/1,876'
16:00	16:45	0.75	10.75	WW	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		SHUT DOWN DUE TO LIGHTNING PROXIMITY
16:45	18:30	1.75	12.50	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		CONTINUE TIH WITH DP F/1,876' - T/4,995'
18:30	19:00	0.50	13.00	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		SERVICE RIG, REPLACE HYDRAULIC HOSE ON ST-80
19:00	20:30	1.50	14.50	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		CONTINUE TIH F/4,995' T/7,1.5' FILLING PIPE EVERY 3,000'



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/2/2019  
**Report #:** 20.0  
**DFS:** 13.00  
**DFS(TL):** 13.00

Activity Last 24 Hours										
Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
20:30	21:00	0.50	15.00	CR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		PULL TRIP NIPPLE AND INSTALL ROTATING HEAD
21:00	22:00	1.00	16.00	WA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,068.0		SAFETY WASH AND REAM F/7,700' TO 8,068'
22:00	22:45	0.75	16.75	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,068.0	8,096.0		DRILL ROTATE F/8,068' T/8,096, (28' (56 FPH) WOB-20-35, GPM-750-850, DIFF-213-350, RPM-50, PP-3523, TQ-12.5
22:45	00:00	1.25	18.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,096.0	8,113.0		DRILL SLIDE F/8,096' T/8,113', (16'(10.66FPH) WOB-20-35, GPM-750-850, DIFF-213-350, TF-180
00:00	01:45	1.75	19.75	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,113.0	8,190.0		DRILL ROTATE F/8,113' T/8,190, (77' (44 FPH) WOB-20-35, GPM-750-850, DIFF-213-350, RPM-50, PP-3523, TQ-12.5
01:45	03:15	1.50	21.25	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,190.0	8,204.0		DRILL SLIDE F/8,190' T/8,204', (14'(9.33FPH) WOB-20-35, GPM-750-850, DIFF-213-350, TF-180
03:15	05:15	2.00	23.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,204.0	8,285.0		DRILL ROTATE F/8,204' T/8,285', (' (XXX FPH) WOB-20-35, GPM-750-850, DIFF-213-350, RPM-50, PP-3523, TQ-12.5
05:15	06:00	0.75	24.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,285.0	8,300.0		DRILL SLIDE F/8,285' T/8,300', (15'(15FPH) WOB-20-35, GPM-750-850, DIFF-213-350, TF-180

Mud Additives							
Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)	
Permian Fluids	BARITE (BULK)	Weighting Agent	6.0	tons	205.00	1,230.00	
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00	
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00	
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00	
Permian Fluids	MF 55	Flocculant	7.0	gal	93.00	651.00	
Permian Fluids	SODA ASH	Alkalinity Control	8.0	sacks	11.67	93.36	
Permian Fluids	TAXES	Other	271.52	each	1.00	271.52	
Permian Fluids	VX VIS	Viscosifier	9.0	sacks	89.91	809.19	
Permian Fluids	WALNUT SHELL	LCM	6.0	sacks	12.94	77.64	

Cum Daily Cost Summary		
Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,FUEL,PURCH_OTHR	15,689.67	80,621.04
EX,V,GD,PART_DRILLMUD	60.00	26,505.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	833,597.20
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	6,116.71	118,599.22
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	60,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	9,200.00	101,000.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	6,600.00
EX,V,Serv,Safety&OIMS	40.00	240.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	925.00	54,829.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	7,000.00

Pump Checks				
Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	No	90	3,688.0	95
2	No	90	3,688.0	95

Supplies & Fuel Daily Amt					
Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	7,200.0	2,152.0	34,396.0	12,995.0
Well Water	gal	0.0	0.0	693,812.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/3/2019  
**Report #:** 21.0  
**DFS:** 14.00  
**DFS(TL):** 14.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 8,693.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 393.00	<b>Activity:</b> DRILLING 12 1/4" @8,693'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 22.25	<b>Cum Percent Problem Time (%):</b> 1.39
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 17.7	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
9/2/2019	Tourly Safety Meeting	HEAT RELATED, SNAKES BITS, LMRA, STAYING FOCUSED LAST NIGHT
9/3/2019	Tourly Safety Meeting	HEAT ILLNESS, WORKING FOCUSED FIRST DAY BACK, WELL CONTROL,HOUSE KEEPING

Daily Contacts	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	1,278.80	Mud Additive Field Est To Date (Cost)	49,305.46
Daily Field Est Total (Cost)	61,846.16	Cum Field Est To Date (Cost)	1,847,594.92

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft²)	Gel 10m (lb/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
08:00	8,338.0	9.80	29	1.0	1	9.3	162000	0	1	100.0	0.0	1	1	0/100	0.0	0	1	1	9.0	0.0	1.0

Bit Run Information											
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull
4	12 1/4	Varel	R713PDUX	4011215		8,068.0	8,745.0	677.00	36.25	18.7	8-7-CR-A-X-1-CT-PR

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	4
Drill String Name	Packed Hole

Drilling Parameters and Hydraulics									
Nozzles (1/32")	TFA (in²)	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)
14/14/14/14/14/14/14	1.05	798	4,024.0	40	60	13,000.0	290	250	238
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)				

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
255	Drill Pipe	5	4.276	8,024.38	8,693.00	IFIF
1	XO Sub	6 1/2	2.500	2.60	668.62	IFXH
9	Drill Collar	6 1/2	1.500	275.24	666.02	XHXH
1	XO Sub	8	2.750	3.59	390.78	XHNC 56
9	Drill Collar	8	2.813	267.73	387.19	NC 56NC 56
1	XO Sub	7 7/8	2.750	1.90	119.46	NC 56Reg
1	Stabilizer	8	2.875	7.44	117.56	RegReg
	Drill Collar - Pony	8	3.250	13.54	110.12	RegReg
1	UBHO Sub	8	3.250	6.27	96.58	RegReg
1	NMDC	8	3.250	30.59	90.31	RegReg
1	Stabilizer	8	2.875	7.79	59.72	RegReg
1	Shock Sub	8	2.875	13.17	51.93	RegReg
1	Motor with Stabilizer	8	5.250	37.36	38.76	RegReg

Mud Motors								
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defln	Circ Time (hr)	Drilling Time (hr)
Halliburton / Sperry	SPERRYDRILL	Sperry	8	ST5D800-140	Fixed	1.75	3.50	36.25

Comment  
 8" SPERRYDRILL LOBE 7/8--3.4STG 1.75° FB 0.09 REV/GAL, MAX DIFF-765, MAX TQ-21,428, FLOW-450-900 GPM BTS-82', BTG-85, W/FLOAT VALVE

Survey Information							
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NS Tie In (ft)	EW Tie In (ft)
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
8,279.00	7.89	156.28	8,233.04	699.53	-664.98	217.19	1.08
8,374.00	7.32	154.43	8,327.20	712.03	-676.41	222.43	0.65
8,469.00	7.32	154.82	8,421.43	724.05	-687.35	227.62	0.05
8,563.00	6.82	154.87	8,514.72	735.54	-697.82	232.53	0.53
8,658.00	5.89	151.70	8,609.13	745.95	-707.22	237.24	1.05



# XTO Daily Drilling Report

## Well Name: UNIVERSITY 18-3-14 WA4 1204H

Date: 9/3/2019  
 Report #: 21.0  
 DFS: 14.00  
 DFS(TL): 14.00

### Daily Operations Summary and Mud Gas

Operation Summary #1  
 DRILL 12-1/4" VERTICAL SECTION F/8,300' - T/8,693'

ROTATE FOOTAGE- 314' IN 9.75 HRS @32 FPH  
 SLIDE FOOTAGE- 79 IN 12.5 HRS @6 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 229 DAYS SINCE LAST LTI: 229 DAYS SINCE LAST HURT: 229 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 8,563' , INC. 6.82°, AZM. 154.87°, TVD 8,514.68', VS. -8.60'  
**WELL SEP:** 724.55' F/WELL PLAN#1, 2,348.46' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH 8,670' 90% LIMESTONE 10% SHALE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 11 CREW, 2 HALLIBURTON DD'S & 2 MWD'S, 2 MUD LOGGERS (IMPAC), 1 MUD ENGINEER (VALENCE)  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:** (4) DIVERSE CASING CLEANERS, (12) CASING TRUCKING, (1) GE TECH

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'  
 TD 12 1/4" INTERMEDIATE  
 START 8 3/4" CURVE  
 LANDED 8 3/4" CURVE  
 TD 8 1/2" LATERAL

Avg Background Gas (%)	18.00	Avg Connection Gas (%)	26.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	51.00
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### Activity Last 24 Hours

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	08:45	2.75	2.75	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,300.0	8,364.0		DRILL ROTATE F/8,300' T/8,364', (64' @23.2 FPH) WOB-35, GPM-750, DIFF-240, RPM-43, MTR RPM-67.5, PP-3,700, TQ-14.7
08:45	09:00	0.25	3.00	CA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,364.0	8,364.0		PERFORM SPR'S
09:00	09:15	0.25	3.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,364.0	8,380.0		DRILL ROTATE F/8,364' T/8,380', (50' @200 FPH) WOB-35, GPM-750, DIFF-240, RPM-43, MTR RPM-67.5, PP-3,700, TQ-14.7
09:15	11:00	1.75	5.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,380.0	8,396.0		DRILL SLIDE F/8,380' T/8,396', (16' @9.1 FPH) WOB-25, GPM-750, DIFF-10, MTR RPM-67.5, PP-3,580, TF-180
11:00	13:00	2.00	7.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,396.0	8,470.0		DRILL ROTATE F/8,396' T/8,470', (74' @37 FPH) WOB-35, GPM-750, DIFF-240, RPM-43, MTR RPM-67.5, PP-3,700, TQ-14.7
13:00	15:00	2.00	9.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,470.0	8,485.0		DRILL SLIDE F/8,470' T/8,485', (15' @7 FPH) WOB-25, GPM-750, DIFF-10, MTR RPM-67.5, PP-3,580, TF-180
15:00	16:30	1.50	10.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,485.0	8,551.0		DRILL ROTATE F/8,485' T/8,551', (66' @44 FPH) WOB-35, GPM-750, DIFF-180, RPM-43, MTR RPM-67.5, PP-3,655, TQ-11.7
16:30	17:00	0.50	11.00	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,551.0	8,551.0		SERVICE RIG
17:00	17:15	0.25	11.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,551.0	8,560.0		DRILL ROTATE F/8,551' T/8,560', (9' @36 FPH) WOB-35, GPM-750, DIFF-180, RPM-43, MTR RPM-67.5, PP-3,655, TQ-11.7
17:15	19:00	1.75	13.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,560.0	8,570.0		DRILL SLIDE F/8,560' T/8,570', (10' @5.71 FPH) WOB-25, GPM-750, DIFF-53, MTR RPM-67.5, PP-3,580, TF-180
19:00	20:15	1.25	14.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,570.0	8,608.0		DRILL ROTATE F/8,570' T/8,608', (38' @30 FPH) WOB-35, GPM-750, DIFF-180, RPM-43, MTR RPM-67.5, PP-3,655, TQ-11.7
20:15	23:15	3.00	17.25	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,608.0	8,623.0		DRILL SLIDE F/8,608' T/8,623', (17' @5.66FPH) WOB-25, GPM-792, DIFF-51, MTR RPM-67.5, PP-3,880, TF-180
23:15	00:15	1.00	18.25	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,623.0	8,650.0		DRILL ROTATE F/8,623' T/8,650', (27' @27FPH) WOB-40, GPM-793, DIFF-60, RPM-43, MTR RPM-71.3, PP-3,880, TQ-11.7
00:15	02:45	2.50	20.75	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,650.0	8,665.0		DRILL SLIDE F/8,650' T/8,665', (15' @6FPH) WOB-25, GPM-792, DIFF-63, MTR RPM-67.5, PP-3,880, TF-180
02:45	03:30	0.75	21.50	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,665.0	8,685.0		DRILL ROTATE F/8,665' T/8,685', (20' @FPH) WOB-40, GPM-793, DIFF-160, RPM-43, MTR RPM-71.3, PP-3,880, TQ-11.7
03:30	06:00	2.50	24.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,685.0	8,693.0		DRILL SLIDE F/8,685' T/8,693', (8' @3.2FPH) WOB-25, GPM-792, DIFF-75, MTR RPM-67.5, PP-3,880, TF-180

### Mud Additives

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	LIME	pH Control	6.0	sacks	6.97	41.82
Permian Fluids	MF 55	Flocculant	5.0	gal	93.00	465.00



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 9/3/2019**  
**Report #: 21.0**  
**DFS: 14.00**  
**DFS(TL): 14.00**

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	TAXES	Other	97.46	each	1.00	97.46
Permian Fluids	VX VIS	Viscosifier	2.0	sacks	89.91	179.82
Permian Fluids	WALNUT SHELL	LCM	5.0	sacks	12.94	64.70

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
Ex,V,ContractLabor,Technical	3,698.00	13,553.00
EX,V,GD,PART_DRILLMUD	9,933.00	36,438.23
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	855,677.06
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	3,832.80	122,432.02
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	63,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	7,500.00	108,500.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	7,700.00
Ex,V,Serv,Safety&OIMS	40.00	280.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	10,312.50	65,141.50
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	7,350.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	No	90	3,760.0	95
1	Yes	30	210.0	95
1	Yes	40	280.0	95
1	Yes	50	350.0	95
1	No	95	4,012.0	95
2	Yes	30	210.0	95
2	Yes	40	280.0	95
2	Yes	50	350.0	95
3	No	90	3,760.0	95
3	Yes	30	200.0	95
3	Yes	40	270.0	95
3	Yes	50	340.0	95
3	No	95	4,014.0	95

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	3,792.0	38,188.0	9,203.0
Well Water	gal	0.0	0.0	693,812.0	0.0

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**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/4/2019  
**Report #:** 22.0  
**DFS:** 15.00  
**DFS(TL):** 15.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 8,760.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 67.00	<b>Activity:</b> DRILLING 12 1/4" @8,760'
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 8.00	<b>Cum Percent Problem Time (%):</b> 1.33
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 8.4	<b>Last Casing String:</b> Surface, 4,680.0ftKB

<b>Jobs</b>	
Spud Date 8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft) 2,701.00	KB-Ground Distance (ft) 31.00
Proposed TD (MD) (ftKB) 21,490.0	Surface Casing Flange Elevation (ft) 0.00
Target Formation Wolfcamp A	

<b>Safety Checks</b>		
Date	Type	Com
9/3/2019	Tourly Safety Meeting	HANDLING BHA, TRIPPING PIPE, WELL CONTROL, LMRA
9/4/2019		
9/4/2019	Tourly Safety Meeting	WELL CONTROL , HOUSE KEEPING, HYDRATION

<b>Daily Contacts</b>	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

<b>Total Costs To Date</b>			
Daily Mud Field Est (Cost) 3,268.16	Mud Additive Field Est To Date (Cost) 52,573.62	Daily Field Est Total (Cost) 104,678.18	Cum Field Est To Date (Cost) 1,952,273.10

<b>Mud Checks</b>																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft²)	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft²)	Gel 10m (lb/100ft²)	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
06:00	8,686.0	9.75	29	1.0	1	9.5	151000	0	1	100.0	0.0	1	1	0/100	0.0	0	1	1	8.5	0.0	1.0

<b>Bit Run Information</b>												
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull	
4	12 1/4	Varel	R713PDUX	4011215		8,068.0	8,745.0	677.00	36.25	18.7	8-7-CR-A-X-1-CT-PR	
5	12 1/4	Varel	R713PDUX	4011206	432	8,745.0	8,855.0	110.00	10.50	10.5	8-7-CR-A-X-1-CT-PR	

<b>BHA Information for BHA#: &lt;Drill String - BHA #&gt;</b>	
BHA #	Drill String Name 5 Packed Hole

<b>Drilling Parameters and Hydraulics</b>										
Nozzles (1/32") 16/16/16/16/16/16	TFA (in²) 1.37	Flow Rate (gpm) 752	SPP (psi) 3,566.0	WOB (1000lbf) 25	RPM (rpm) 50	Drilling Torque 13.5	PU Str Wt (1000lbf) 275	Drill Str Wt (1000lbf) 250	SO Str Wt (1000lbf) 238	
Bit HP (hp)	Bit HPSI (hp/in²)	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)					

<b>Drill String Components</b>						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
255	Drill Pipe	5	4.276	8,185.00	8,855.14	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	670.14	4.5IFx6.63XH
9	Drill Collar	6 1/2	1.500	275.24	667.54	6.63XHx6.63XH
1	XO Sub	8	2.750	3.59	392.30	6.63XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	388.71	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	120.98	6.63NC 56x6.63Reg
1	Stabilizer	8	2.875	7.44	119.08	6.63Regx6.63Reg
	Drill Collar - Pony	8	3.250	13.54	111.64	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	98.10	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	91.83	6.63Regx6.63Reg
1	Stabilizer	8	2.875	7.79	61.24	6.63Regx6.63Reg
1	Shock Sub	8	2.875	13.17	53.45	6.63Regx6.63Reg
1	Mud Motor			38.78	40.28	6.63Regx6.63Reg

<b>Mud Motors</b>									
Make Halliburton / Sperry	Model SPERRYDRILL	Directional Company Sperry	OD (in) 8	Serial Number ST5D800-140	Deflection Type Fixed	Defln 1.75	Circ Time (hr) 3.50	Drilling Time (hr) 36.25	
Comment 8" SPERRYDRILL LOBE 7/8--3.4STG 1.75° FB 0.09 REV/GAL, MAX DIFF-765, MAX TQ-21,428, FLOW-450-900 GPM BTS-82', BTG-85, W/FLOAT VALVE									
Make Halliburton / Sperry	Model SPERRYDRILL	Directional Company Sperry	OD (in) 8	Serial Number 10442151	Deflection Type Fixed	Defln 1.75	Circ Time (hr) 0.75	Drilling Time (hr) 10.50	
Comment 8" SPERRY DRILL - 7/8 - 3.4 STG MOTOR 1.75° FXD HOUSING, MAX DIFF 765#, MAX WOB 70K, RPG 0.09, MAX TQ 21,428, BTB 7.60', KICK PAD 8.25", FLOW 450-900 GPM, BTS 83', BTG 86'.									

<b>Survey Information</b>								
Date 8/20/2019	Description MWD	MD Tie In (ftKB) 0.00	Inclination Tie In (°) 0.0	Azimuth Tie In (°) 0.0	TVD Tie In (ftKB) 0.00	NSTie In (ft) 0.00	EW Tie In (ft) 0.00	
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
8,279.00	7.89	156.28	8,233.04	699.53	-664.98	217.19	1.08	
8,374.00	7.32	154.43	8,327.20	712.03	-676.41	222.43	0.65	
8,469.00	7.32	154.82	8,421.43	724.05	-687.35	227.62	0.05	
8,563.00	6.82	154.87	8,514.72	735.54	-697.82	232.53	0.53	
8,658.00	5.89	151.70	8,609.13	745.95	-707.22	237.24	1.05	



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/4/2019  
**Report #:** 22.0  
**DFS:** 15.00  
**DFS(TL):** 15.00

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 DRILL 12-1/4" VERTICAL SECTION F/8,693', POOH DUE TO P-RATE AND NO DIFF, L/D BIT AND MUD MOTOR, P/U NEW MUD MOTOR AND SHALLOW TEST, M/U BIT TIH T/8,557', SAFETY REAM/WASH F/8,557' T/8745'. DRILL 12-1/4" HOLE SECTION F/8,745' T/8,760

ROTATE FOOTAGE- 44' IN 2.75 HRS @16 FPH  
 SLIDE FOOTAGE- 23 IN 5.25 HRS @4 FPH

Operation Summary #2  
**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 230 DAYS SINCE LAST LTI: 230 DAYS SINCE LAST HURT: 230 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019

**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT

**DIRECTIONAL:** LAST SURVEY: DEPTH: 8,658', INC. 5.89°, AZM. 151.70°, TVD 8,609.09', VS. -10.21'

**WELL SEP:** 732.20' F/WELL PLAN#1, 2,357.87' F/TOP CORNER

**AGITATOR:**

**LITHOLOGY:** SAMPLE:DEPTH 8,745' 90% LIMESTONE 10% SHALE

**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.

**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 11 CREW, 2 HALLIBURTON DD'S & 2 MWD'S, 2 MUD LOGGERS (IMPAC), 1 MUD ENGINEER (VALENCE)

**XTO SHE:** GENERALIST: JAMES ROGERS

**VISITORS:** (4) DIVERSE CASING CLEANERS, (12) CASING TRUCKING, (1) GE TECH

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'  
 TD 12 1/4" INTERMEDIATE  
 START 8 3/4" CURVE  
 LANDED 8 3/4" CURVE  
 TD 8 1/2" LATERAL

Avg Background Gas (%)	11.00	Avg Connection Gas (%)	23.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	20.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	07:30	1.50	1.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,693.0	8,701.0		DRILL SLIDE F/8,693' T/8,701', (8' @5.3FPH) WOB-25, GPM-800, DIFF-100, MTR RPM-72, PP-3,900, TF-180
07:30	08:00	0.50	2.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,701.0	8,720.0		DRILL ROTATE F/8,701' T/8,720', (19' @38FPH) WOB-20, GPM-800, DIFF-150, RPM-60, MTR RPM-72, PP-3,900, TQ-19
08:00	10:30	2.50	4.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,720.0	8,730.0		DRILL SLIDE F/8,720' T/8,730', (10' @4FPH) WOB-25, GPM-800, DIFF-100, MTR RPM-72, PP-3,900, TF-180
10:30	12:00	1.50	6.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,730.0	8,745.0		DRILL ROTATE F/8,730' T/8,745', (15' @10FPH) WOB-40, GPM-800, DIFF-150, RPM-60, MTR RPM-72, PP-3,900, TQ-10
12:00	13:30	1.50	7.50	CA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		CIRCULATE HOLE, BUILD SLUG
13:30	13:45	0.25	7.75	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		FLOW CHECK WELL, WELL STATIC
13:45	14:00	0.25	8.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		TOH 10 STANDS WET 8,745' T/7,805'
14:00	14:30	0.50	8.50	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		FLOW CHECK WELL, WELL STATIC, SLUG PIPE
14:30	18:45	4.25	12.75	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		TOH F/7,805' T/1100', PULL ROTATING HEAD INSTALL TRIP NIPPLE, TOH TO BHA F/1,100' T/668'
18:45	21:15	2.50	15.25	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		HANDLE BHA DRAI MOTOR, NO SQUAT NOTICED MOTOR DRAINED GOOD, NO NOISE HEAD. L/D BIT, MUD MOTOR
21:15	22:30	1.25	16.50	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		P/U BHA T/96', CHANGE OUT MWD, SHALLOW TEST MWD, GOOD TEST
22:30	23:15	0.75	17.25	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		SCRIBE, M/U NEW BIT 12-1/4" VAREL R716P -,4011206.
23:15	23:45	0.50	17.75	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		RIG SERVICE, ADJUST LINK TILT CLAMPS
23:45	00:00	0.25	18.00	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		TIH WITH REMAING BHA T/668.62'. TIH WITH REMAINING BHA F/96' -670.04
00:00	01:00	1.00	19.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		TIH WITH BHA #5 F/670' T/2,829'
01:00	01:30	0.50	19.50	CR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		PULL TRIP NIPPLE AND INSTALL ROTATING HEAD
01:30	03:45	2.25	21.75	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		CONTINUE TIH F/2,829' T/8,577 FILLING PIPE EVERY 30 STANDS
03:45	04:15	0.50	22.25	WA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,745.0		WASH AND REAM F/8,557' T/8,745', DID NOT TAG ANY OUT OF GAGE HOLE



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 9/4/2019**  
**Report #: 22.0**  
**DFS: 15.00**  
**DFS(TL): 15.00**

**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
04:15	05:00	0.75	23.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,745.0	8,755.0		DRILL ROTATE F/8,745' T/8,755', (10' @20FPH) WOB-25, GPM-756, DIFF-216, RPM-50, MTR RPM-68, PP-3,677, TQ-13
05:00	06:00	1.00	24.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,755.0	8,760.0		DRILL SLIDE F/8,755' T/8,760', (5' @10FPH) WOB-25, GPM-800, DIFF-100, MTR RPM-68, PP-3,639, TF-180

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	LIME	pH Control	8.0	sacks	6.97	55.76
Permian Fluids	MF 55	Flocculant	9.0	gal	93.00	837.00
Permian Fluids	SODA ASH	Alkalinity Control	11.0	sacks	11.67	128.37
Permian Fluids	TAXES	Other	249.07	each	1.00	249.07
Permian Fluids	VX VIS	Viscosifier	16.0	sacks	89.91	1,438.56
Permian Fluids	WALNUT SHELL	LCM	10.0	sacks	12.94	129.40

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,GD,PART_DRILLBIT	30,376.16	60,086.40
EX,V,GD,PART_DRILLMUD	6,570.00	43,008.23
EX,V,GD,PART_WELLCASING,INTERMEDIATE	25,015.00	25,015.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	877,756.92
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	5,822.16	128,254.18
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	66,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	9,200.00	117,700.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	8,800.00
Ex,V,Serv,Safety&OIMS	40.00	320.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	1,125.00	66,266.50
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	7,700.00

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	0.0	2,489.0	40,677.0	6,714.0
Well Water	gal	0.0	0.0	693,812.0	0.0



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date:** 9/5/2019  
**Report #:** 23.0  
**DFS:** 16.00  
**DFS(TL):** 16.00

<b>Field Name:</b> Phantom (Wolfcamp)	<b>End Depth (ftKB):</b> 8,855.0	<b>AFE Number:</b> DD.2018.07749
<b>State/Province:</b> Texas	<b>Footage (ftKB):</b> 95.00	<b>Activity:</b> TIH
<b>County:</b> Ward	<b>Drilling Hours (hr):</b> 8.50	<b>Cum Percent Problem Time (%):</b> 1.27
<b>Rig (Names):</b> Nabors F23	<b>Avg ROP (ft/hr):</b> 11.2	<b>Last Casing String:</b> Surface, 4,680.0ftKB

Jobs		
Spud Date	8/20/2019	Rig Release Date
Ground/Corrected Ground Elevation (ft)	2,701.00	KB-Ground Distance (ft)
		31.00
Proposed TD (MD) (ftKB)	21,490.0	Surface Casing Flange Elevation (ft)
		0.00
		Target Formation
		Wolfcamp A

Safety Checks		
Date	Type	Com
9/4/2019	DROPS Inspection	PERFORM DROPS, NO HAZZARDS
9/4/2019	Safety Focus / LSA Discussion	BOP DRILL 1 MIN 9 SECONDS
9/4/2019	Tourly Safety Meeting	FORKLIFT SAFETY

Daily Contacts	
Daily Contacts DSM, Clark DeBerry, 469-525-0210; DSM, Jay Watson, 318-307-0508; Drilling Engineer, Kevin Fort, 281-627-8668; Superintendent, Greg Gillespie, 903-253-3465	

Total Costs To Date			
Daily Mud Field Est (Cost)	2,719.48	Mud Additive Field Est To Date (Cost)	55,293.10
Daily Field Est Total (Cost)	119,849.00	Cum Field Est To Date (Cost)	2,072,122.10

Mud Checks																					
Time	Depth (ftKB)	Dens (lb/gal)	Vis (s/qt)	PV (cP)	YP (lb/100ft <sup>2</sup> )	pH	Chlor (mg/L)	LCM	FC (1/32")	API FL (mL/30min)	HTHP FL (mL/30min)	Gel 10s (lb/100ft <sup>2</sup> )	Gel 10m (lb/100ft <sup>2</sup> )	OWR	ES (V)	WPS (ppm)	Vis 3rpm	Vis 6rpm	Solids (%)	Sand (%)	LGS (%)
06:00	8,765.0	9.80	29	1.0	1	9.3	156000	0	1	100.0	0.0	1	1	0/100	0.0	0	1	1	8.5	0.0	1.0

Bit Run Information												
Bit Run	Size (in)	Make	Model	SN	IADC Codes	Depth In (ftKB)	Depth Out (ftKB)	Drilled (ft)	Drill Time (hr)	BHA ROP (ft/hr)	Bit Dull	
5	12 1/4	Varel	R713PDUX	4011206	432	8,745.0	8,855.0	110.00	10.50	10.5	8-7-CR-A-X-1-CT-PR	

BHA Information for BHA#: <Drill String - BHA #>	
BHA #	5 Packed Hole

Drilling Parameters and Hydraulics									
Nozzles (1/32")	TFA (in <sup>2</sup> )	Flow Rate (gpm)	SPP (psi)	WOB (1000lbf)	RPM (rpm)	Drilling Torque	PU Str Wt (1000lbf)	Drill Str Wt (1000lbf)	SO Str Wt (1000lbf)
16/16/16/16/16/16	1.37	752	3,566.0	25	50	13.5	275	250	238
Bit HP (hp)	Bit HPSI (hp/in <sup>2</sup> )	Jet Vel (ft/s)	Bit PSI Drop (psi)	Min AV (ft/min)	Max AV (ft/min)				

Drill String Components						
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Connections
255	Drill Pipe	5	4.276	8,185.00	8,855.14	4.5IFx4.5IF
1	XO Sub	6 1/2	2.500	2.60	670.14	4.5IFx6.63XH
9	Drill Collar	6 1/2	1.500	275.24	667.54	6.63XHx6.63XH
1	XO Sub	8	2.750	3.59	392.30	6.63XHx6.63NC 56
9	Drill Collar	8	2.813	267.73	388.71	6.63NC 56x6.63NC 56
1	XO Sub	7 7/8	2.750	1.90	120.98	6.63NC 56x6.63Reg
1	Stabilizer	8	2.875	7.44	119.08	6.63Regx6.63Reg
	Drill Collar - Pony	8	3.250	13.54	111.64	6.63Regx6.63Reg
1	UBHO Sub	8	3.250	6.27	98.10	6.63Regx6.63Reg
1	NMDC	8	3.250	30.59	91.83	6.63Regx6.63Reg
1	Stabilizer	8	2.875	7.79	61.24	6.63Regx6.63Reg
1	Shock Sub	8	2.875	13.17	53.45	6.63Regx6.63Reg
1	Mud Motor			38.78	40.28	6.63Regx6.63Reg

Mud Motors									
Make	Model	Directional Company	OD (in)	Serial Number	Deflection Type	Defin	Circ Time (hr)	Drilling Time (hr)	
Halliburton / Sperry	SPERRYDRILL	Sperry		10442151	Fixed	1.75	0.75	10.50	
Comment 8" SPERRY DRILL - 7/8 - 3.4 STG MOTOR 1.75° FXD HOUSING, MAX DIFF 765#, MAX WOB 70K, RPG 0.09, MAX TQ 21,428, BTB 7.60', KICK PAD 8.25", FLOW 450-900 GPM, BTS 83', BTG 86'.									

Survey Information								
Date	Description	MD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	TVD Tie In (ftKB)	NSTie In (ft)	EW Tie In (ft)	
8/20/2019	MWD	0.00	0.0	0.0	0.00	0.00	0.00	
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
8,279.00	7.89	156.28	8,233.04	699.53	-664.98	217.19	1.08	
8,374.00	7.32	154.43	8,327.20	712.03	-676.41	222.43	0.65	
8,469.00	7.32	154.82	8,421.43	724.05	-687.35	227.62	0.05	
8,563.00	6.82	154.87	8,514.72	735.54	-697.82	232.53	0.53	
8,658.00	5.89	151.70	8,609.13	745.95	-707.22	237.24	1.05	



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 9/5/2019**  
**Report #: 23.0**  
**DFS: 16.00**  
**DFS(TL): 16.00**

**Daily Operations Summary and Mud Gas**

Operation Summary #1  
 DRILL 12-1/4" HOLE SECTION F/8,760' -8,855' /POOH DUE TO P-RATE AND NO DIFF, L/D BIT AND MUD MOTOR, P/U NEW MUD MOTOR AND SURFACE TEST, M/U BIT (BAKER HUGHES VG-38CH)/TIH T/900'

ROTATE FOOTAGE- 70' IN 4 HRS @18 FPH  
 SLIDE FOOTAGE- 25' IN 4.5 HRS @6 FPH

Operation Summary #2

**SAFETY:** NO INCIDENTS OR NO SPILLS REPORTED  
 231 DAYS SINCE LAST LTI: 231 DAYS SINCE LAST HURT: 231 DAYS SINCE LAST SPILL  
 H2S SENSORS & MONITORS BUMP TESTED: FULL TEST & CALIBRATION 8/24/2019  
**BOP TEST:** LAST BOP TEST: 8/27/2019 NEXT BOP TEST: 9/17/2019, TRRC LINDA OPERATOR #8 SURF CSG & CEMENT  
**DIRECTIONAL:** LAST SURVEY: DEPTH: 8,752', INC. 5.06°, AZM. 153.08°, TVD 8,702.67', VS. -11.75'  
**WELL SEP:** 742.44' F/WELL PLAN#1, 2,365.92' F/TOP CORNER  
**AGITATOR:**  
**LITHOLOGY:** SAMPLE:DEPTH 8,745' 90% LIMESTONE 10% SHALE  
**MUD:** TOTAL OBM ON LOCATION: 2,497 BBLs. NABORS M7504 RETURNED 240BBLs TO RIG.  
**PERSONNEL:** DSM ON LOCATION: CLARK DEBERRY/JAY WATSON  
 NABORS F-23: 11 CREW, 2 HALLIBURTON DD'S & 2 MWD'S, 2 MUD LOGGERS (IMPAC), 1 MUD ENGINEER (VALENCE)  
**XTO SHE:** GENERALIST: JAMES ROGERS  
**VISITORS:** (4) DIVERSE CASING CLEANERS, (12) CASING TRUCKING, (1) GE TECH

**NOTES:** START WELL @ 06:00HRS 8/13/2019, RIG ACCEPTED @ 04:00HRS 8/19/19, SPUD WELL 8/20/19 @ 06:00HRS  
 TD 17 1/2" SURFACE 8/25/19 - 09:15 @4,680'  
 TD 12 1/4" INTERMEDIATE  
 START 8 3/4" CURVE  
 LANDED 8 3/4" CURVE  
 TD 8 1/2" LATERAL

Avg Background Gas (%)	11.00	Avg Connection Gas (%)	23.00	Avg Trip Gas (%)	0.00	Max Drill Gas (%)	20.00
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**Activity Last 24 Hours**

Start Time	End Time	Dur (hr)	Cum Dur (hr)	Mjr Ops Code	Phase	Phase	Start Depth (ftKB)	End Depth (ftKB)	Prob Ref #	Com
06:00	08:00	2.00	2.00	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,760.0	8,771.0		DRILL SLIDE F/8,760' T/8,771', (11' @6FPH) WOB-25, GPM-800, DIFF-100, MTR RPM-68, PP-3,639, TF-180
08:00	09:00	1.00	3.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,771.0	8,801.0		DRILL ROTATE F/8,771' T/8,801', (30' @30FPH) WOB-25, GPM-756, DIFF-216, RPM-50, MTR RPM-68, PP-3,677, TQ-13
09:00	11:30	2.50	5.50	DS	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,801.0	8,815.0		DRILL SLIDE F/8,801' T/8,815', (14' @6FPH) WOB-25, GPM-800, DIFF-100, MTR RPM-68, PP-3,639, TF-180
11:30	12:00	0.50	6.00	SR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,815.0	8,815.0		SERVICE DRAW WORKS
12:00	15:00	3.00	9.00	DR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,815.0	8,855.0		DRILL ROTATE F/8,815' T/8,855', (40' @13FPH) WOB-35, GPM-756, DIFF-216, RPM-40, MTR RPM-68, PP-3,677, TQ-13
15:00	16:30	1.50	10.50	CA	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		CIRC BTM UP / BUILD SLUG
16:30	16:45	0.25	10.75	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		FLOW CHECK WELL STATIC
16:45	17:15	0.50	11.25	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		TOOH (DUE TO P-RATE) PULL 5 STD F/ 8855'-8458'
17:15	17:30	0.25	11.50	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		FLOW CHECK / WELL STATIC
17:30	18:45	1.25	12.75	OT	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		WORK PIPE AND MONITOR WELL ON TRIP TANK WHILE FINISH MIXING SLUG / PUMP SLUG
18:45	21:15	2.50	15.25	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		TOOH F/ 8458'-4680' (SHOE)
21:15	21:30	0.25	15.50	MD	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		CHECK FLOW / WELL STATIC
21:30	00:00	2.50	18.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		TOOH F/4680'-690'
00:00	02:30	2.50	20.50	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		HANDLE BHA DRAI MOTOR, NO SQUAT NOTICED MOTOR DRAINED GOOD, NO NOISE HEAD. L/D BIT, MUD MOTOR
02:30	04:30	2.00	22.50	BH	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		MAKE UP NEW MTR / SCRIBE AND SURFACE TEST MWD, M/U NEW BIT 12-1/4" BAKER HUGHES VG-38CH
04:30	06:00	1.50	24.00	TR	Drill Intermediate Hole 1	Drilling, Drill Intermediate Hole 1	8,855.0	8,855.0		TIH CURRENT DEPTH 900'

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	BARITE (BULK)	Weighting Agent	7.0	tons	205.00	1,435.00
Permian Fluids	BLOWER RENTAL	Other	1.0	each	55.00	55.00
Permian Fluids	BULK BIN RENTAL	Other	2.0	each	50.00	100.00
Permian Fluids	ENGINEERING DRIVE BY	Other	1.0	each	275.00	275.00
Permian Fluids	MF 55	Flocculant	2.0	gal	93.00	186.00



**XTO Daily Drilling Report**  
**Well Name: UNIVERSITY 18-3-14 WA4 1204H**

**Date: 9/5/2019**  
**Report #: 23.0**  
**DFS: 16.00**  
**DFS(TL): 16.00**

**Mud Additives**

Vendor	Des	Type	Consumed	Units	Field Est (Cost/unit)	Daily Field Est (Cost)
Permian Fluids	SODA ASH	Alkalinity Control	1.0	sacks	11.67	11.67
Permian Fluids	TAXES	Other	207.26	each	1.00	207.26
Permian Fluids	VX VIS	Viscosifier	5.0	sacks	89.91	449.55

**Cum Daily Cost Summary**

Cost Des	Rpt Fld Est (Cost)	Cum Fld Est (Cost)
EX,V,FUEL,PURCH_OTHR	15,097.00	95,718.04
EX,V,GD,PART_DRILLBIT	30,376.16	90,462.56
EX,V,GD,PART_DRILLMUD	6,570.00	49,578.23
EX,V,GD,PART_WELLCASING,INTERMEDIATE	25,015.00	50,030.00
EX,V,RNT&LSE,OP,EQ,DRILLEQP,EXMOBILI&DEMOB,MIRU	22,079.86	899,836.78
EX,V,RNT&LSE,OP,EQ,MISC_OTH,RENTSURFWITHOPER	5,273.48	133,527.66
EX,V,SERV,ENG_O&GWELLDRILL	3,000.00	69,000.00
EX,V,SERV,O&GWELL,DIRECTIONALDRILL	9,200.00	126,900.00
EX,V,SERV,O&GWELL,MUDLOGGING	1,100.00	9,900.00
Ex,V,Serv,Safety&OIMS	40.00	360.00
EX,V,SERV,TRANS,M&S&EQ,NONMAR_LAND&COUR	1,747.50	68,014.00
EX,V,SRV,WASTEMGMT_OTH,DRILLING FLUID	350.00	8,050.00

**Pump Checks**

Pump #	Slow Spd	Strokes (spm)	P (psi)	Eff (%)
1	No	95	4,012.0	95
3	No	95	4,014.0	95

**Supplies & Fuel Daily Amt**

Supply Item Des	Unit Label	Received	Consumed	Cum Consumed	Cum On Loc
Diesel Fuel - Mud	gal	0.0	0.0	0.0	0.0
Diesel Fuel - Rig	gal	7,200.0	2,386.0	43,063.0	11,528.0
Well Water	gal	0.0	0.0	693,812.0	0.0

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