XTO ENERGY INC.

Anderson 3-5H
APD Data
March 30, 2015

Surface Location: 155' FSL x 172' FEL, Sec 5, T32N, R06W **County:** La Plata **State:** Colorado

OBJECTIVE: Fruitland Coal Est KB ELEV: 6443' (17' AGL)
APPROX GR ELEV: 6426'

1. MUD PROGRAM:

	Surface	Intermediate	Lower Lateral	Middle Lateral	Upper Lateral
INTERVAL	0' to 225'	225' to 3401'	3025' to TD	2955' to TD	2885' to TD
HOLE SIZE	12.25"	8.75"	6.125"	6.125"	6.125"
MUD TYPE	FW/Spud Mud	FW/Polymer	FW/ Polymer	FW/ Polymer	FW/ Polymer
WEIGHT	8.6-9.0	8.4-9.2	8.4-8.6	8.4-8.6	8.4-8.6
VISCOSITY	28-32	28-36	28-36	28-36	28-36
WATER LOSS	NC	NC	NC	NC	NC

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning.

2. CASING PROGRAM:

Surface Casing: 9.625" casing to be pre-set at ± 225' in a 12.25" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll[1]	SF Burst[2]	SF Ten[3]
0'-225'	225'	36.0#	J-55	ST&C	2020	3520	394	8.921	8.765	12.44	6.12	3.68

[1]Collapse SF is based on full evacuated casing and 15.8 ppg cement from TVD to surface.
[2]Burst SF is based on gas to surface, FW mud, and 500 psi max surface pressure.
[3]Tensile SF is based on buoyed casing string weight in FW at measured depth and 100 k-lbs overpull.

Intermediate Casing: 7" casing to be set at ±3401' MD, 3018' TVD in 8.75" hole filled with 9.20 ppg mud.
Bottomhole Location: 917' FSL x 887' FEL, Sec 5, T32N, R06W

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll[1]	SF Burst[2]	SF Ten[3]
0'-3401'	3401'	23.0#	J-55	ST&C	3270	4360	284	6.366	6.151	1.80	2.66	1.69

[1]Collapse SF is based on full evacuated casing and 13.5 ppg cement from TVD to surface.
[2]Burst SF is based on gas to surface, 9.2 ppg mud, and 500 psi max surface pressure.
[3]Tensile SF is based on buoyed casing string weight in FW at TVD and 100 k-lbs overpull.

Lower Lateral Production Casing: 4.5" pre-perforated casing to be set at ±6971' MD, 2923' TVD in 6.125" hole filled with 8.4 ppg FW + additives.
Bottomhole Location: 837' FSL x 710' FWL, Sec 5, T32N, R06W

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll[1]	SF Burst[2]	SF Ten[3]
3025'-6971'	3946'	10.5	J-55	ST&C	4010	4790	132	4.052	3.927	4.11	3.16	1.34

Middle Lateral Production Casing: 4.5" pre-perforated casing to be set at ±6937' MD, 2879' TVD in 6.125" hole filled with 8.4 ppg FW + additives.
Bottomhole Location: 763' FSL x 710' FWL, Sec 5, T32N, R06W

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll[1]	SF Burst[2]	SF Ten[3]
2955'-6937'	3982'	10.5	J-55	ST&C	4010	4790	132	4.052	3.927	4.11	3.16	1.34

Upper Lateral Production Casing: 4.5" pre-perforated casing to be set at ±6916' MD, 2849' TVD in 6.125" hole filled with 8.4 ppg FW + additives.
Bottomhole Location: 710' FNL x 710' FWL, Sec 5, T32N, R06W

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll[1]	SF Burst[2]	SF Ten[3]
2885'-6916'	4031'	10.5	J-55	ST&C	4010	4790	132	4.052	3.927	4.11	3.16	1.30

[1]Collapse SF is based on full evacuated casing and FW external gradient from 2,933' TVD to surface.
[2]Burst SF is based on evacuated casing annulus, 8.6 ppg mud, and 500 psi max surface pressure.
[3]Tensile SF is based on buoyed hanging weight of liner at measured with 8.6 ppg mud and 65 k-lbs overpull.
[4]2,923' TVD used for both upper, middle, and lower laterals for worst case scenarios.
*60k overpull goes to 1.36... 65k overpull with 11.6# goes to 1.59...

3. WELLHEAD:

A. Casing Head: 9 5/8" S.O.W. x 11" 3,000 psig WP with two 2" LPO w/ Test port nipple, XH BLK SMLS 2" x 6" valve ball, 11" x 7" casing mandrel. Manufactured to API Spec 6A.
B. Tubing Head: 11" x 7 1/16" 3,000 psig WP with two 2-1/16" 3000# studded outlets. Manufactured to API Spec 6A.

4. CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both surface and intermediate casing strings):

A. Surface: 9.625", 36.0#, J-55, ST&C casing to be set at ± 225' in 12.25" hole.

± **125** sx Class G cement (or equivalent) typically containing accelerator and LCM, mixed at 15.8 ppg, 1.17 ft^3/sk, & 5.01 gal wtr/sk.

Total slurry volume is 141 ft^3, 100% excess of calculated annular volume to 225'.

B. Intermediate Casing: 7", 23#/ft, J-55, ST&C casing to be set at ± 3401'MD, 3018' TVD in 8.75" hole.

LEAD:
± **258** sx Class G (or equivalent) typically containing accelerator, LCM, dispersant, and fluid loss additives at 12.3 ppg, 2.36 ft^3/sk, & 12.95 gal wtr/sk.

TAIL:
± **126** sx Class G (or equivalent) cement typically containing accelerator, LCM, dispersant, and fluid loss additives at 13.5 ppg, 1.81 ft^3/sk, & 8.85 gal wtr/sk.

Total estimated slurry volume for the 7" production casing is 837 ft^3.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs (if available) plus 40%. It will be attempted to circulate cement to the surface.

C. Production Liners:

Lower Lateral: 4.5", 10.5#/ft, J-55, ST&C pre-perforated casing is to be set at 6971' MD, 2923' TVD in 6.125" hole.

Middle Lateral: 4.5", 10.5#/ft, J-55, ST&C pre-perforated casing is to be set at 6937' MD, 2879' TVD in 6.125" hole.

Upper Lateral: 4.5", 10.5#/ft, J-55, ST&C pre-perforated casing is to be set at 6916' MD, 2849' TVD in 6.125" hole.

Note: The production liners will be left uncemented using drop-off pre-perforated liners.

5. LOGGING PROGRAM:

A. Mud Logger: The mud logger will come on after setting surface casing and will remain on the hole until TD.

B. Run Compensated Neutron and Gamma Ray cased hole logs from Intermediate TD (3401') to the bottom of the surface csg. MWD Gamma Ray will be run in the Laterals.

C. Coring and Drill stem Testing: No operations are planned for this site.

6. FORMATION TOPS:

Est. KB Elevation: 6443'

FORMATION	Sub-Sea	Well Depth-TVD'
Nacimiento Formation	Surface	
Animas Formation		
Ojo Alamo SS	4738	1705
Kirtland Shale	4585	1858
Farmington SS		
Fruitland Formation	3932	2511
Upper Fruitland Coal***	3664	2779
Middle Fruitland Coal**	3568	2875
Pictured Cliffs Tongue		
Lower Fruitland Coal*	3524	2919
Pictured Cliffs SS	3475	2968
*Primary Target **Secondary Target ***Tertiary Target		

**** Maximum anticipated BHP should be <1,500 psig *****

7. ANTICIPATED OIL, GAS, & WATER ZONES:

A.

Formation	Expected Fluids	Well Depth-TVD'
Nacimiento Formation	Water	
Animas Formation	Water	
Ojo Alamo SS	Water	1705
Kirtland Shale	Water	1858
Farmington SS	Water	
Fruitland Formation	Water	2511
Upper Fruitland Coal	Gas	2779
Middle Fruitland Coal	Gas	2875
Pictured Cliffs Tongue	Gas	
Lower Fruitland Coal	Gas	2919
Pictured Cliffs SS	Gas	2968

B. All anticipated Water Zones will be covered by surface casing.
C. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.
D. H_2S is not anticipated at this site.

8. COMPANY PERSONNEL:

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By: Alex Jones
Date: 3/30/2015

Drilling Manager Reviewed:
Date: 3/30/15