

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

HOBBS OCD

ATS-15-549

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

OCT 13 2015

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator XTO Energy, Inc

3a. Address 500 W. Illinois St. Ste 100  
Midland, Texas 79701

3b. Phone No. (include area code)  
432-620-6714

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface 100'FNL & 2005'FWL, C-28-T24S-R32E

At proposed prod. zone 200'FNL & 2005'FWL, C-21-BHL  
N-21-T24S-R32E

14. Distance in miles and direction from nearest town or post office\*

15. Distance from proposed\* location to nearest property or lease line, ft.  
(Also to nearest drig. unit line, if any)

2005'

16. No. of acres in lease  
1720

17. Spacing Unit dedicated to this well  
160

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.

200'

19. Proposed Depth  
MD: 15746'  
TVD: 10813'

20. BLM/BIA Bond No. on file  
UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3539'

22. Approximate date work will start\*  
08/01/2015

23. Estimated duration  
45 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature

Stephanie Rabadue

Name (Printed/Typed)

Stephanie Rabadue

Date

03/19/2015

Title

Regulatory Analyst

Approved by (Signature)

Steve Caffey

Name (Printed/Typed)

Steve Caffey

Date

OCT - 8 2015

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

Carlsbad Controlled Water Basin

K2  
10/13/15

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

OCT 15 2015

DRILLING PLAN: BLM COMPLIANCE  
(Supplement to BLM 3160-3)

HOBBS OCD

OCT 13 2015

RECEIVED

XTO Energy Inc.  
Cazador Federal 2H  
Projected TD: 15746' MD / 10813' TVD  
SHL: 100' FNL & 2005' FWL, SECTION 28, T24S, R32E  
BHL: 200' FNL & 2005' FWL, SECTION 21, T24S, R32E  
Lea County, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Permian

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

| Formation                      | Well Depth (TVD) | Water / Oil / Gas |
|--------------------------------|------------------|-------------------|
| Rustler                        | 858'             | Water             |
| Top of Salt                    | 1165'            |                   |
| Base of Salt                   | 4477'            |                   |
| Delaware                       | 4707'            | Water             |
| Brushy Canyon                  | 7221'            | Water/Oil/Gas     |
| Bone Spring                    | 8620'            | Water/Oil/Gas     |
| 1 <sup>st</sup> Bone Spring Ss | 9770'            | Water/Oil/Gas     |
| 2 <sup>nd</sup> Bone Spring Ss | 10349'           | Water/Oil/Gas     |
| Target/Land Curve              | 10813'           | Water/Oil/Gas     |
| 3 <sup>rd</sup> Bone Spring Ss | 11618'           | Water/Oil/Gas     |
| Wolfcamp                       | 12053'           | Water/Oil/Gas     |
| Pilot Hole TD                  | 12300'           | Water/Oil/Gas     |

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 200' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8" casing @ 925' above the salt and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 4700' and circulating cement to surface. An 8-3/4" pilot hole will be drilled into the Wolfcamp. It will then be plugged back. An 8-3/4" curve and lateral hole will be drilled to MD/TD and 5-1/2" casing with sliding frac sleeves will be set at TD and cemented back 500' into the 9-5/8" casing shoe.

3. CASING PROGRAM:

See COA

| Hole Size | Depth             | OD Csg  | Weight | Collar | Grade | New/Used | SF Burst | SF Collapse | SF Tension |
|-----------|-------------------|---------|--------|--------|-------|----------|----------|-------------|------------|
| 17-1/2"   | 0' - 925'<br>960' | 13-3/8" | 48#    | STC    | H-40  | New      | 4.33     | 1.75        | 7.25       |
| 12-1/4"   | 0' - 3500'        | 9-5/8"  | 36#    | LTC    | J-55  | New      | 1.72     | 1.19        | 2.68       |
|           | 3500' - 4700'     | 9-5/8"  | 40#    | LTC    | J-55  | New      | 1.93     | 1.41        | 10.83      |
| 8-3/4"    | 0' - 15746'       | 5-1/2"  | 17#    | BTC    | P-110 | New      | 1.12     | 1.48        | 2.12       |

## WELLHEAD:

- A. Starting Head: 13-5/8" 3000 psi top flange x 13-3/8" SOW bottom
- B. 'B' Section/ Drilling Spool: 13-5/8" 3000psi bottom flange x 11" 5M top flange
- C. Tubing Head: 11" 5000psi bottom flange x 7-1/16" 10,000psi top flange

## 4. CEMENT PROGRAM:

- A. **Surface Casing:** 13-3/8", 48#, NEW H-40, STC casing to be set at  $\pm 925'$ .

Lead: 20 bbls FW, then 510 sx ExtendaCem-CZ (mixed at 13.7 ppg, 1.68 ft<sup>3</sup>/sk, 8.72 gal/sx wtr)

Tail: 300 sx HalCem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sk, 6.39 gal/sx wtr)  
\*\*\*All volumes 100% excess in open hole. Cement to surface.

- B. **Intermediate Casing:** 9-5/8", 36#/40#, NEW J-55, LTC casing to be set at  $\pm 4700'$ .

Lead: 20 bbls FW, then 1390 sx EconoCem-HLC + 5% salt + 5 lbm/sk Kol-Seal (mixed at 12.9 ppg, 1.88 ft<sup>3</sup>/sk, 9.61 gal/sx wtr)

Tail: 250 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sk, 6.34 gal/sx wtr)  
\*\*\*All volumes 100% excess in open hole. Cement to surface.

- C. **Pilot Hole Plugs:** 8-3/4" open hole

Plug 1: 12300' – 11700'

350 sx HalCem-H (mixed at 16.4 ppg, 1.08 ft<sup>3</sup>/sk, 4.52 gal/sx wtr)

Plug 2: 10350' – 9850'

335 sx HalCem-H + 0.5% CFR-3 + 0.2 HR-601 (mixed at 17.5 ppg, 0.95 ft<sup>3</sup>/sk, 3.52 gal/sx wtr)  
\*\*\*All volumes 50% excess in open hole.

- D. **Production Casing:** 5-1/2", 17#, NEW P-110, BTC casing to be set at  $\pm 15746'$ . Casing will be cemented and will include sliding sleeves for the completion.

Lead: 20 bbls FW, then 615 sx Tuned Light + 0.5 lbm/sk CFR-3 + 1.5 lbm/sk salt + 0.1% HR601 (mixed at 10.5 ppg, 2.69 ft<sup>3</sup>/sk, 12.26 gal/sx wtr)

Tail: 1290 sx VersaCem PBHS2 + 0.5% LAP-1 + 0.25 lbm/sk D-air 5000 + 0.2% HR 601 + 0.4% CFR-3 + 1 pps Salt (mixed at 13.2 ppg, 1.61 ft<sup>3</sup>/sk, 8.38 gal/sx wtr)  
\*\*\*All volumes 30% excess in open hole. Planned top of cement 500' into intermediate casing shoe

## **7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:**

- See  
CCMA*
- A. A Kelly cock will be in the drill string at all times.
  - B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
  - C. H2S monitors will be on location when drilling below the 13-3/8" casing.

## **8. LOGGING, CORING AND TESTING PROGRAM:**

Mud Logger: Mud Logging Unit (2 man) on @ 4700'.  
Catch 20' samples from 4700' to TD

Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from pilot hole TD to intermediate casing shoe.

## **9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:**

*See  
CCMA*

None anticipated. BHT of 180 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

## **10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:**

Road and location construction will begin after Santa Fe and BLM have approved the APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



## SECTION DETAILS

| Sec | MD       | Inc   | Azi    | TVD      | +N-S    | +E-W   | Diag  | TFace  | VISect  | Target             | Annotation                   |
|-----|----------|-------|--------|----------|---------|--------|-------|--------|---------|--------------------|------------------------------|
| 1   | 0.00     | 0.00  | 0.00   | 0.00     | 0.00    | 0.00   | 0.00  | 0.00   | 0.00    |                    | KOP, Start 10.00°/100' Build |
| 2   | 10240.04 | 0.00  | 0.00   | 10240.04 | 0.00    | 0.00   | 0.00  | 0.00   | 0.00    |                    | LP, Hold 90.00° Inc          |
| 3   | 11140.04 | 90.00 | 358.55 | 10813.00 | 572.94  | -4.52  | 10.00 | 359.55 | 572.96  |                    | TD at 15735.75               |
| 4   | 15735.75 | 90.00 | 359.55 | 10813.00 | 5168.50 | -40.80 | 0.00  | 0.00   | 5168.66 | BHL Cazador Fed 2H |                              |

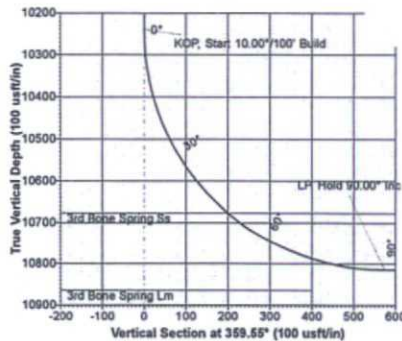
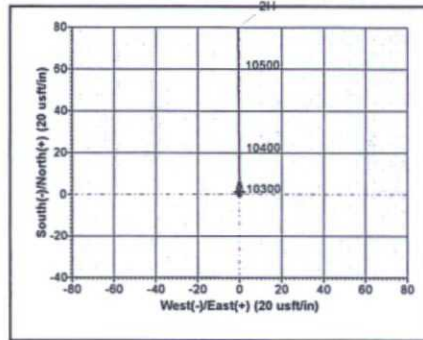
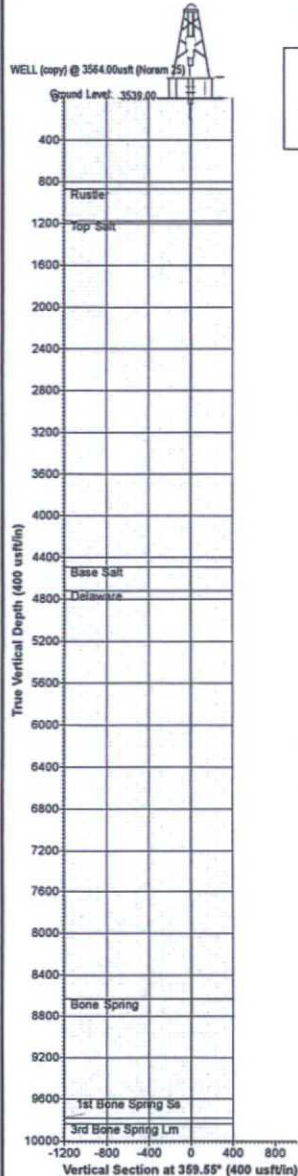
## DESIGN TARGET DETAILS

| Name               | TVD      | +N-S    | +E-W   | Northing  | Easting   | Latitude           | Longitude           | Shape |
|--------------------|----------|---------|--------|-----------|-----------|--------------------|---------------------|-------|
| BHL Cazador Fed 2H | 10813.00 | 5168.50 | -40.80 | 440571.50 | 701684.20 | 32° 12' 34.43916 N | 103° 40' 52.48794 W | Point |
| TP1 Cazador Fed 2H | 10813.00 | 799.80  | -6.30  | 436202.80 | 701718.70 | 32° 11' 51.20543 N | 103° 40' 52.39473 W | Point |
| TP2 Cazador Fed 2H | 10813.00 | 5049.19 | -39.80 | 440453.10 | 701685.20 | 32° 12' 33.22765 N | 103° 40' 52.48463 W | Point |

- plan hits target center  
 - plan misses target center by 0.01usft at 11366.91usft MD (10813.00 TVD, 799.80 N, -6.31 E)  
 - plan misses target center by 0.06usft at 15616.34usft MD (10813.00 TVD, 5049.19 N, -39.86 E)

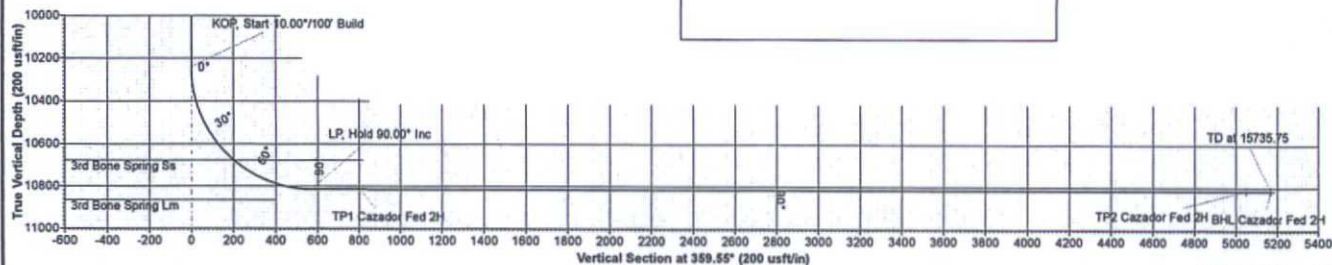
## WELL DETAILS

| +N-S | +E-W | Northing  | Easting   | Latitude           | Longitude           |
|------|------|-----------|-----------|--------------------|---------------------|
| 0.00 | 0.00 | 435403.00 | 701725.00 | 32° 11' 43.29041 N | 103° 40' 52.37786 W |



## FORMATION TOP DETAILS

| TVDPath  | MDPath   | Formation          | DipAngle | DpDr |
|----------|----------|--------------------|----------|------|
| 865.00   | 865.00   | Rustle             | 0.00     |      |
| 1172.00  | 1172.00  | Top Salt           | 0.00     |      |
| 4484.00  | 4484.00  | Base Salt          | 0.00     |      |
| 4714.00  | 4714.00  | Delaware           | 0.00     |      |
| 8627.00  | 8627.00  | Bone Spring        | 0.00     |      |
| 9777.00  | 9777.00  | 1st Bone Spring Ss | 0.00     |      |
| 9831.00  | 9831.00  | 3rd Bone Spring Lm | 0.00     |      |
| 10676.00 | 10735.47 | 3rd Bone Spring Ss | 0.00     |      |



# XTOENERGY

## **XTO Energy Inc**

Lea County, NM (NAD27)

Cazador Federal

2H

WB#1

Plan: Plan#1 020915

## **Standard Planning Report**

09 February, 2015



# Phoenix Planning Report



XTOENERGY

Database: Compass 5000 GCR  
Company: XTO Energy Inc  
Project: Lea County, NM (NAD27)  
Site: Cazador Federal  
Well: 2H  
Wellbore: WB#1  
Design: Plan#1 020915

Local Co-ordinate Reference: Well 2H  
TVD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
MD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Lea County, NM (NAD27)               |               |                |
| Map System: | US State Plane 1927 (Exact solution) | System Datum: | Mean Sea Level |
| Geo Datum:  | NAD 1927 (NADCON CONUS)              |               |                |
| Map Zone:   | New Mexico East 3001                 |               |                |

|                       |                 |              |                 |                   |                     |
|-----------------------|-----------------|--------------|-----------------|-------------------|---------------------|
| Site                  | Cazador Federal |              |                 |                   |                     |
| Site Position:        |                 | Northing:    | 435,385.50 usft | Latitude:         | 32° 11' 43.21493 N  |
| From: Map             |                 | Easting:     | 700,090.40 usft | Longitude:        | 103° 41' 11.40108 W |
| Position Uncertainty: | 0.00 usft       | Slot Radius: | 13-3/16 "       | Grid Convergence: | 0.34 °              |

|                      |           |               |                     |                 |               |                     |
|----------------------|-----------|---------------|---------------------|-----------------|---------------|---------------------|
| Well                 | 2H        |               |                     |                 |               |                     |
| Well Position        | +N/-S     | 17.50 usft    | Northing:           | 435,403.00 usft | Latitude:     | 32° 11' 43.29041 N  |
|                      | +E/-W     | 1,634.60 usft | Easting:            | 701,725.00 usft | Longitude:    | 103° 40' 52.37786 W |
| Position Uncertainty | 0.00 usft |               | Wellhead Elevation: | 0.00 usft       | Ground Level: | 3,539.00 usft       |

|           |            |             |                 |               |                     |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| Wellbore  | WB#1       |             |                 |               |                     |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|           | IGRF2015   | 2/9/2015    | 7.26            | 60.05         | 48,150              |

|                   |                            |                 |                 |                  |  |
|-------------------|----------------------------|-----------------|-----------------|------------------|--|
| Design            | Plan#1 020915              |                 |                 |                  |  |
| Audit Notes:      |                            |                 |                 |                  |  |
| Version:          | Phase:                     | PROTOTYPE       | Tie On Depth:   | 0.00             |  |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |  |
|                   | 0.00                       | 0.00            | 0.00            | 359.55           |  |

| Plan Sections         |                 |             |                       |              |              |                         |                        |                       |         |                    |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|--------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target             |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 10,240.04             | 0.00            | 0.00        | 10,240.04             | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 11,140.04             | 90.00           | 359.55      | 10,813.00             | 572.94       | -4.52        | 10.00                   | 10.00                  | 0.00                  | 359.55  |                    |
| 15,735.75             | 90.00           | 359.55      | 10,813.00             | 5,168.50     | -40.80       | 0.00                    | 0.00                   | 0.00                  | 0.00    | BHL Cazador Fed 2H |

Database: Compass 5000 GCR  
 Company: XTO Energy Inc  
 Project: Lea County, NM (NAD27)  
 Site: Cazador Federal  
 Well: 2H  
 Wellbore: WB#1  
 Design: Plan#1 020915

Local Co-ordinate Reference: Well 2H  
 TVD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
 MD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.00                        | 0.00               | 0.00           | 0.00                        | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 100.00                      | 0.00               | 0.00           | 100.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 200.00                      | 0.00               | 0.00           | 200.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 300.00                      | 0.00               | 0.00           | 300.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 400.00                      | 0.00               | 0.00           | 400.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 500.00                      | 0.00               | 0.00           | 500.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 600.00                      | 0.00               | 0.00           | 600.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 700.00                      | 0.00               | 0.00           | 700.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 800.00                      | 0.00               | 0.00           | 800.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 865.00                      | 0.00               | 0.00           | 865.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>Rustler</b>              |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 900.00                      | 0.00               | 0.00           | 900.00                      | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,000.00                    | 0.00               | 0.00           | 1,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,100.00                    | 0.00               | 0.00           | 1,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,172.00                    | 0.00               | 0.00           | 1,172.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>Top Salt</b>             |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 1,200.00                    | 0.00               | 0.00           | 1,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,300.00                    | 0.00               | 0.00           | 1,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,400.00                    | 0.00               | 0.00           | 1,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,500.00                    | 0.00               | 0.00           | 1,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,600.00                    | 0.00               | 0.00           | 1,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,700.00                    | 0.00               | 0.00           | 1,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,800.00                    | 0.00               | 0.00           | 1,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 1,900.00                    | 0.00               | 0.00           | 1,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,000.00                    | 0.00               | 0.00           | 2,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,100.00                    | 0.00               | 0.00           | 2,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,200.00                    | 0.00               | 0.00           | 2,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,300.00                    | 0.00               | 0.00           | 2,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,400.00                    | 0.00               | 0.00           | 2,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,500.00                    | 0.00               | 0.00           | 2,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,600.00                    | 0.00               | 0.00           | 2,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,700.00                    | 0.00               | 0.00           | 2,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,800.00                    | 0.00               | 0.00           | 2,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 2,900.00                    | 0.00               | 0.00           | 2,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,000.00                    | 0.00               | 0.00           | 3,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,100.00                    | 0.00               | 0.00           | 3,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,200.00                    | 0.00               | 0.00           | 3,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,300.00                    | 0.00               | 0.00           | 3,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,400.00                    | 0.00               | 0.00           | 3,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,500.00                    | 0.00               | 0.00           | 3,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,600.00                    | 0.00               | 0.00           | 3,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,700.00                    | 0.00               | 0.00           | 3,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,800.00                    | 0.00               | 0.00           | 3,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 3,900.00                    | 0.00               | 0.00           | 3,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,000.00                    | 0.00               | 0.00           | 4,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,100.00                    | 0.00               | 0.00           | 4,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,200.00                    | 0.00               | 0.00           | 4,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,300.00                    | 0.00               | 0.00           | 4,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,400.00                    | 0.00               | 0.00           | 4,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,484.00                    | 0.00               | 0.00           | 4,484.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>Base Salt</b>            |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,500.00                    | 0.00               | 0.00           | 4,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,600.00                    | 0.00               | 0.00           | 4,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |

# Phoenix Planning Report



XTOENERGY

Database: Compass 5000 GCR  
Company: XTO Energy Inc  
Project: Lea County, NM (NAD27)  
Site: Cazador Federal  
Well: 2H  
Wellbore: WB#1  
Design: Plan#1 020915

Local Co-ordinate Reference:  
TVD Reference:  
MD Reference:  
North Reference:  
Survey Calculation Method:

Well 2H  
WELL (copy) @ 3564.00usft (Noram 25)  
WELL (copy) @ 3564.00usft (Noram 25)  
Grid  
Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 4,700.00                    | 0.00               | 0.00           | 4,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,714.00                    | 0.00               | 0.00           | 4,714.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| Delaware                    |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,800.00                    | 0.00               | 0.00           | 4,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 4,900.00                    | 0.00               | 0.00           | 4,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,000.00                    | 0.00               | 0.00           | 5,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,100.00                    | 0.00               | 0.00           | 5,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,200.00                    | 0.00               | 0.00           | 5,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,300.00                    | 0.00               | 0.00           | 5,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,400.00                    | 0.00               | 0.00           | 5,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,500.00                    | 0.00               | 0.00           | 5,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,600.00                    | 0.00               | 0.00           | 5,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,700.00                    | 0.00               | 0.00           | 5,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,800.00                    | 0.00               | 0.00           | 5,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 5,900.00                    | 0.00               | 0.00           | 5,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,000.00                    | 0.00               | 0.00           | 6,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,100.00                    | 0.00               | 0.00           | 6,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,200.00                    | 0.00               | 0.00           | 6,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,300.00                    | 0.00               | 0.00           | 6,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,400.00                    | 0.00               | 0.00           | 6,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,500.00                    | 0.00               | 0.00           | 6,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,600.00                    | 0.00               | 0.00           | 6,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,700.00                    | 0.00               | 0.00           | 6,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,800.00                    | 0.00               | 0.00           | 6,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 6,900.00                    | 0.00               | 0.00           | 6,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,000.00                    | 0.00               | 0.00           | 7,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,100.00                    | 0.00               | 0.00           | 7,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,200.00                    | 0.00               | 0.00           | 7,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,300.00                    | 0.00               | 0.00           | 7,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,400.00                    | 0.00               | 0.00           | 7,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,500.00                    | 0.00               | 0.00           | 7,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,600.00                    | 0.00               | 0.00           | 7,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,700.00                    | 0.00               | 0.00           | 7,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,800.00                    | 0.00               | 0.00           | 7,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 7,900.00                    | 0.00               | 0.00           | 7,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,000.00                    | 0.00               | 0.00           | 8,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,100.00                    | 0.00               | 0.00           | 8,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,200.00                    | 0.00               | 0.00           | 8,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,300.00                    | 0.00               | 0.00           | 8,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,400.00                    | 0.00               | 0.00           | 8,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,500.00                    | 0.00               | 0.00           | 8,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,600.00                    | 0.00               | 0.00           | 8,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,627.00                    | 0.00               | 0.00           | 8,627.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| Bone Spring                 |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 8,700.00                    | 0.00               | 0.00           | 8,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,800.00                    | 0.00               | 0.00           | 8,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 8,900.00                    | 0.00               | 0.00           | 8,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,000.00                    | 0.00               | 0.00           | 9,000.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,100.00                    | 0.00               | 0.00           | 9,100.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,200.00                    | 0.00               | 0.00           | 9,200.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,300.00                    | 0.00               | 0.00           | 9,300.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,400.00                    | 0.00               | 0.00           | 9,400.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,500.00                    | 0.00               | 0.00           | 9,500.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,600.00                    | 0.00               | 0.00           | 9,600.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |

**Database:** Compass 5000 GCR  
**Company:** XTO Energy Inc  
**Project:** Lea County, NM (NAD27)  
**Site:** Cazador Federal  
**Well:** 2H  
**Wellbore:** WB#1  
**Design:** Plan#1 020915

**Local Co-ordinate Reference:** Well 2H  
**TVD Reference:** WELL (copy) @ 3564.00usft (Noram 25)  
**MD Reference:** WELL (copy) @ 3564.00usft (Noram 25)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)         | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 9,700.00                            | 0.00               | 0.00           | 9,700.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,777.00                            | 0.00               | 0.00           | 9,777.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>1st Bone Spring Ss</b>           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,800.00                            | 0.00               | 0.00           | 9,800.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 9,831.00                            | 0.00               | 0.00           | 9,831.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>3rd Bone Spring Lm</b>           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,900.00                            | 0.00               | 0.00           | 9,900.00                    | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 10,000.00                           | 0.00               | 0.00           | 10,000.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 10,100.00                           | 0.00               | 0.00           | 10,100.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 10,200.00                           | 0.00               | 0.00           | 10,200.00                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| 10,240.04                           | 0.00               | 0.00           | 10,240.04                   | 0.00            | 0.00            | 0.00                          | 0.00                          | 0.00                         | 0.00                        |
| <b>KOP, Start 10.00°/100° Build</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 10,300.00                           | 6.00               | 359.55         | 10,299.89                   | 3.13            | -0.02           | 3.13                          | 10.00                         | 10.00                        | 0.00                        |
| 10,400.00                           | 16.00              | 359.55         | 10,397.93                   | 22.18           | -0.18           | 22.18                         | 10.00                         | 10.00                        | 0.00                        |
| 10,500.00                           | 26.00              | 359.55         | 10,491.17                   | 57.97           | -0.46           | 57.97                         | 10.00                         | 10.00                        | 0.00                        |
| 10,600.00                           | 36.00              | 359.55         | 10,576.78                   | 109.40          | -0.86           | 109.40                        | 10.00                         | 10.00                        | 0.00                        |
| 10,700.00                           | 46.00              | 359.55         | 10,652.16                   | 174.91          | -1.38           | 174.92                        | 10.00                         | 10.00                        | 0.00                        |
| 10,735.47                           | 49.54              | 359.55         | 10,676.00                   | 201.17          | -1.59           | 201.18                        | 10.00                         | 10.00                        | 0.00                        |
| <b>3rd Bone Spring Ss</b>           |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 10,800.00                           | 56.00              | 359.55         | 10,715.02                   | 252.52          | -1.99           | 252.53                        | 10.00                         | 10.00                        | 0.00                        |
| 10,900.00                           | 66.00              | 359.55         | 10,763.45                   | 339.87          | -2.68           | 339.88                        | 10.00                         | 10.00                        | 0.00                        |
| 11,000.00                           | 76.00              | 359.55         | 10,795.97                   | 434.29          | -3.43           | 434.31                        | 10.00                         | 10.00                        | 0.00                        |
| 11,100.00                           | 86.00              | 359.55         | 10,811.60                   | 532.93          | -4.21           | 532.95                        | 10.00                         | 10.00                        | 0.00                        |
| 11,140.04                           | 90.00              | 359.55         | 10,813.00                   | 572.94          | -4.52           | 572.96                        | 10.00                         | 10.00                        | 0.00                        |
| <b>LP, Hold 90.00° Inc</b>          |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 11,200.00                           | 90.00              | 359.55         | 10,813.00                   | 632.90          | -5.00           | 632.92                        | 0.00                          | 0.00                         | 0.00                        |
| 11,300.00                           | 90.00              | 359.55         | 10,813.00                   | 732.89          | -5.79           | 732.92                        | 0.00                          | 0.00                         | 0.00                        |
| 11,400.00                           | 90.00              | 359.55         | 10,813.00                   | 832.89          | -6.57           | 832.92                        | 0.00                          | 0.00                         | 0.00                        |
| 11,500.00                           | 90.00              | 359.55         | 10,813.00                   | 932.89          | -7.36           | 932.92                        | 0.00                          | 0.00                         | 0.00                        |
| 11,600.00                           | 90.00              | 359.55         | 10,813.00                   | 1,032.88        | -8.15           | 1,032.92                      | 0.00                          | 0.00                         | 0.00                        |
| 11,700.00                           | 90.00              | 359.55         | 10,813.00                   | 1,132.88        | -8.94           | 1,132.92                      | 0.00                          | 0.00                         | 0.00                        |
| 11,800.00                           | 90.00              | 359.55         | 10,813.00                   | 1,232.88        | -9.73           | 1,232.92                      | 0.00                          | 0.00                         | 0.00                        |
| 11,900.00                           | 90.00              | 359.55         | 10,813.00                   | 1,332.87        | -10.52          | 1,332.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,000.00                           | 90.00              | 359.55         | 10,813.00                   | 1,432.87        | -11.31          | 1,432.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,100.00                           | 90.00              | 359.55         | 10,813.00                   | 1,532.87        | -12.10          | 1,532.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,200.00                           | 90.00              | 359.55         | 10,813.00                   | 1,632.86        | -12.89          | 1,632.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,300.00                           | 90.00              | 359.55         | 10,813.00                   | 1,732.86        | -13.68          | 1,732.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,400.00                           | 90.00              | 359.55         | 10,813.00                   | 1,832.86        | -14.47          | 1,832.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,500.00                           | 90.00              | 359.55         | 10,813.00                   | 1,932.86        | -15.26          | 1,932.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,600.00                           | 90.00              | 359.55         | 10,813.00                   | 2,032.85        | -16.05          | 2,032.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,700.00                           | 90.00              | 359.55         | 10,813.00                   | 2,132.85        | -16.84          | 2,132.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,800.00                           | 90.00              | 359.55         | 10,813.00                   | 2,232.85        | -17.63          | 2,232.92                      | 0.00                          | 0.00                         | 0.00                        |
| 12,900.00                           | 90.00              | 359.55         | 10,813.00                   | 2,332.84        | -18.42          | 2,332.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,000.00                           | 90.00              | 359.55         | 10,813.00                   | 2,432.84        | -19.20          | 2,432.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,100.00                           | 90.00              | 359.55         | 10,813.00                   | 2,532.84        | -19.99          | 2,532.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,200.00                           | 90.00              | 359.55         | 10,813.00                   | 2,632.83        | -20.78          | 2,632.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,300.00                           | 90.00              | 359.55         | 10,813.00                   | 2,732.83        | -21.57          | 2,732.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,400.00                           | 90.00              | 359.55         | 10,813.00                   | 2,832.83        | -22.36          | 2,832.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,500.00                           | 90.00              | 359.55         | 10,813.00                   | 2,932.82        | -23.15          | 2,932.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,600.00                           | 90.00              | 359.55         | 10,813.00                   | 3,032.82        | -23.94          | 3,032.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,700.00                           | 90.00              | 359.55         | 10,813.00                   | 3,132.82        | -24.73          | 3,132.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,800.00                           | 90.00              | 359.55         | 10,813.00                   | 3,232.81        | -25.52          | 3,232.92                      | 0.00                          | 0.00                         | 0.00                        |
| 13,900.00                           | 90.00              | 359.55         | 10,813.00                   | 3,332.81        | -26.31          | 3,332.92                      | 0.00                          | 0.00                         | 0.00                        |

Database: Compass 5000 GCR  
 Company: XTO Energy Inc  
 Project: Lea County, NM (NAD27)  
 Site: Cazador Federal  
 Well: 2H  
 Wellbore: WB#1  
 Design: Plan#1 020915

Local Co-ordinate Reference: Well 2H  
 TVD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
 MD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 14,000.00             | 90.00           | 359.55      | 10,813.00             | 3,432.81     | -27.10       | 3,432.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,100.00             | 90.00           | 359.55      | 10,813.00             | 3,532.81     | -27.89       | 3,532.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,200.00             | 90.00           | 359.55      | 10,813.00             | 3,632.80     | -28.68       | 3,632.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,300.00             | 90.00           | 359.55      | 10,813.00             | 3,732.80     | -29.47       | 3,732.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,400.00             | 90.00           | 359.55      | 10,813.00             | 3,832.80     | -30.26       | 3,832.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,500.00             | 90.00           | 359.55      | 10,813.00             | 3,932.79     | -31.05       | 3,932.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,600.00             | 90.00           | 359.55      | 10,813.00             | 4,032.79     | -31.83       | 4,032.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,700.00             | 90.00           | 359.55      | 10,813.00             | 4,132.79     | -32.62       | 4,132.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,800.00             | 90.00           | 359.55      | 10,813.00             | 4,232.78     | -33.41       | 4,232.92                | 0.00                    | 0.00                   | 0.00                  |
| 14,900.00             | 90.00           | 359.55      | 10,813.00             | 4,332.78     | -34.20       | 4,332.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,000.00             | 90.00           | 359.55      | 10,813.00             | 4,432.78     | -34.99       | 4,432.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,100.00             | 90.00           | 359.55      | 10,813.00             | 4,532.77     | -35.78       | 4,532.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,200.00             | 90.00           | 359.55      | 10,813.00             | 4,632.77     | -36.57       | 4,632.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,300.00             | 90.00           | 359.55      | 10,813.00             | 4,732.77     | -37.36       | 4,732.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,400.00             | 90.00           | 359.55      | 10,813.00             | 4,832.77     | -38.15       | 4,832.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,500.00             | 90.00           | 359.55      | 10,813.00             | 4,932.76     | -38.94       | 4,932.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,600.00             | 90.00           | 359.55      | 10,813.00             | 5,032.76     | -39.73       | 5,032.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,700.00             | 90.00           | 359.55      | 10,813.00             | 5,132.76     | -40.52       | 5,132.92                | 0.00                    | 0.00                   | 0.00                  |
| 15,735.75             | 90.00           | 359.55      | 10,813.00             | 5,168.50     | -40.80       | 5,168.66                | 0.00                    | 0.00                   | 0.00                  |
| TD at 15735.75        |                 |             |                       |              |              |                         |                         |                        |                       |

## Design Targets

| Target Name<br>- hit/miss target<br>- Shape                                                                                     | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude           | Longitude           |
|---------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|--------------------|---------------------|
| TP1 Cazador Fed 2H<br>- plan misses target center by 0.01usft at 11366.91usft MD (10813.00 TVD, 799.80 N, -6.31 E)<br>- Point   | 0.00          | 0.00         | 10,813.00  | 799.80       | -6.30        | 436,202.80      | 701,718.70     | 32° 11' 51.20543 N | 103° 40' 52.39473 W |
| BHL Cazador Fed 2H<br>- plan hits target center<br>- Point                                                                      | 0.00          | 0.00         | 10,813.00  | 5,168.50     | -40.80       | 440,571.50      | 701,684.20     | 32° 12' 34.43917 N | 103° 40' 52.48784 W |
| TP2 Cazador Fed 2H<br>- plan misses target center by 0.06usft at 15616.34usft MD (10813.00 TVD, 5049.10 N, -39.86 E)<br>- Point | 0.00          | 0.00         | 10,813.00  | 5,049.10     | -39.80       | 440,452.10      | 701,685.20     | 32° 12' 33.25755 N | 103° 40' 52.48463 W |

## Formations

| Measured Depth (usft) | Vertical Depth (usft) | Name               | Lithology | Dip (°) | Dip Direction (°) |
|-----------------------|-----------------------|--------------------|-----------|---------|-------------------|
| 865.00                | 865.00                | Rustler            |           | 0.00    |                   |
| 1,172.00              | 1,172.00              | Top Salt           |           | 0.00    |                   |
| 4,484.00              | 4,484.00              | Base Salt          |           | 0.00    |                   |
| 4,714.00              | 4,714.00              | Delaware           |           | 0.00    |                   |
| 8,627.00              | 8,627.00              | Bone Spring        |           | 0.00    |                   |
| 9,777.00              | 9,777.00              | 1st Bone Spring Ss |           | 0.00    |                   |
| 9,831.00              | 9,831.00              | 3rd Bone Spring Lm |           | 0.00    |                   |
| 10,735.47             | 10,676.00             | 3rd Bone Spring Ss |           | 0.00    |                   |

XTOENERGY

Database: Compass 5000 GCR  
Company: XTO Energy Inc  
Project: Lea County, NM (NAD27)  
Site: Cazador Federal  
Well: 2H  
Wellbore: WB#1  
Design: Plan#1 020915

Local Co-ordinate Reference: Well 2H  
TVD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
MD Reference: WELL (copy) @ 3564.00usft (Noram 25)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

Plan Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                      |
|-----------------------------|-----------------------------|-------------------|-----------------|------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                              |
| 10,240.04                   | 10,240.04                   | 0.00              | 0.00            | KOP, Start 10.00°/100' Build |
| 11,140.04                   | 10,813.00                   | 572.94            | -4.52           | LP, Hold 90.00° Inc          |
| 15,735.75                   | 10,813.00                   | 5,168.50          | -40.80          | TD at 15735.75               |

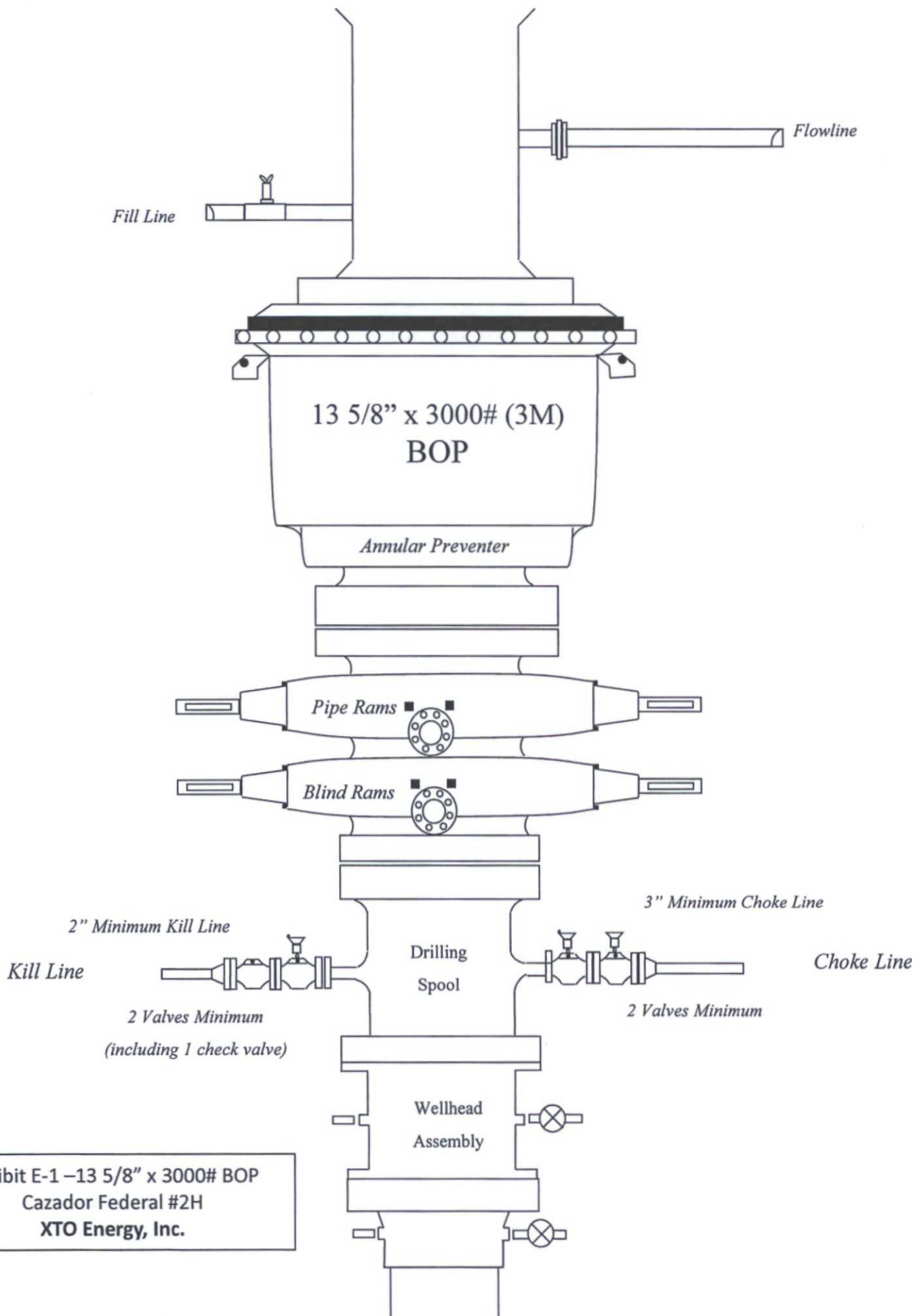


Exhibit E-1 – 13 5/8" x 3000# BOP  
Cazador Federal #2H  
XTO Energy, Inc.

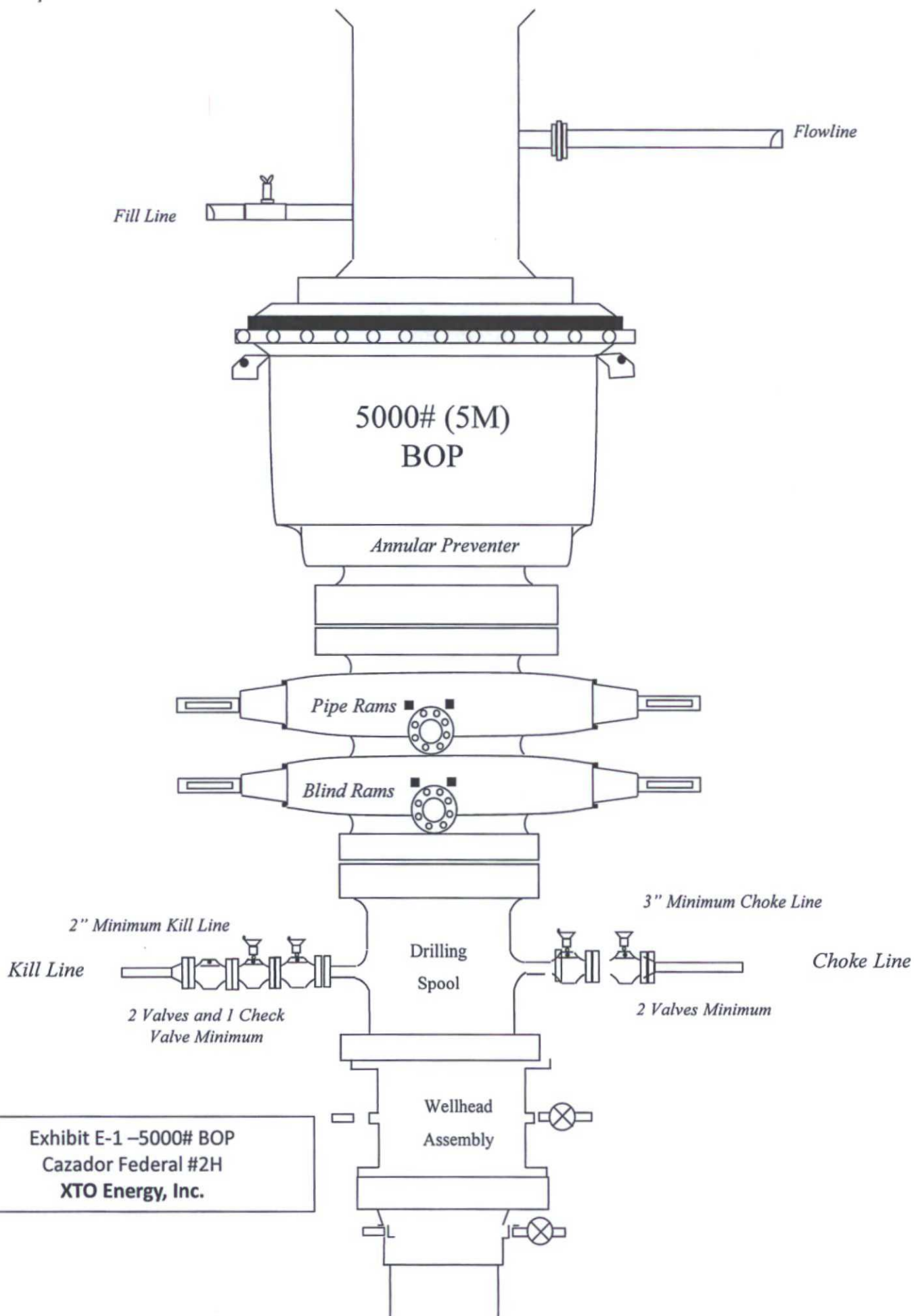
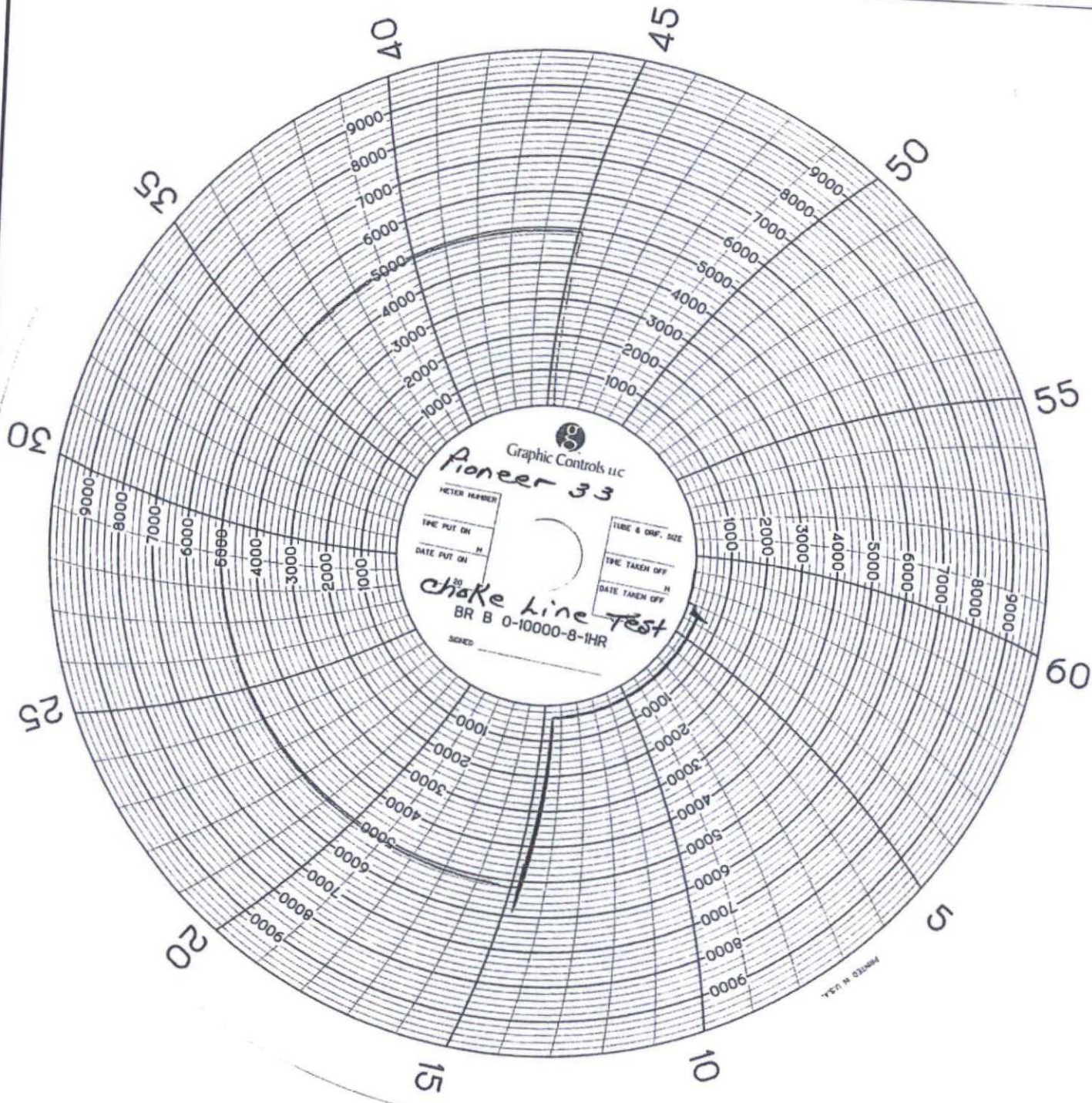


Exhibit E-1 –5000# BOP  
Cazador Federal #2H  
XTO Energy, Inc.



Graphic Controls Inc  
**Pioneer 33**  
METER NUMBER  
TIME PUT ON  
DATE PUT ON  
TIME TAKEN OFF  
DATE TAKEN OFF  
**chake line Test**  
BR B 0-10000-8-1HR  
SIGNED

PRINTED IN U.S.A.



GATES E & S NORTH AMERICA, INC  
DU-TEX  
134 44TH STREET  
CORPUS CHRISTI, TEXAS 78405

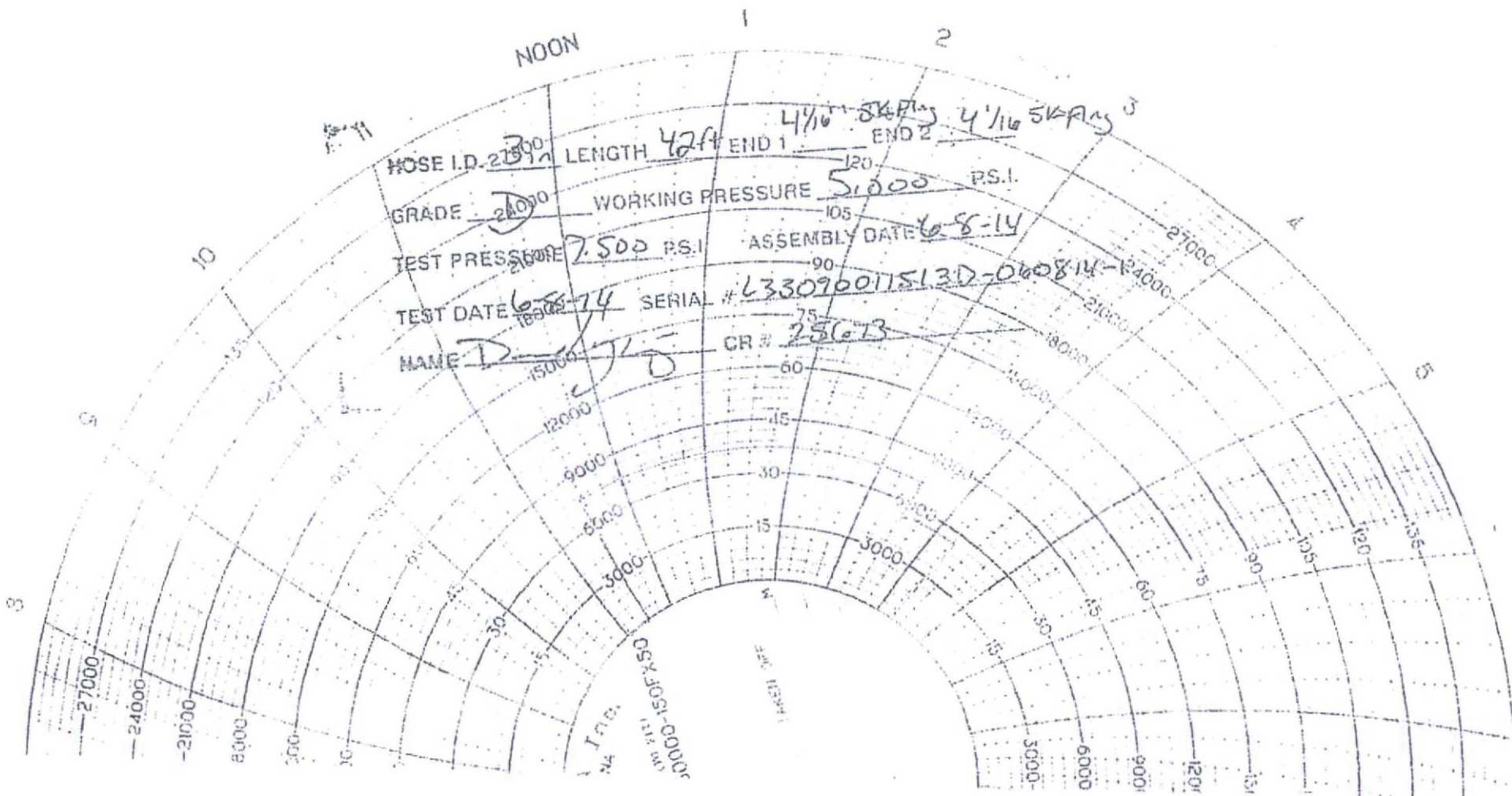
PHONE: 361-887-9807  
FAX: 361-887-0812  
EMAIL: crpe&s@gates.com  
WEB: www.gates.com

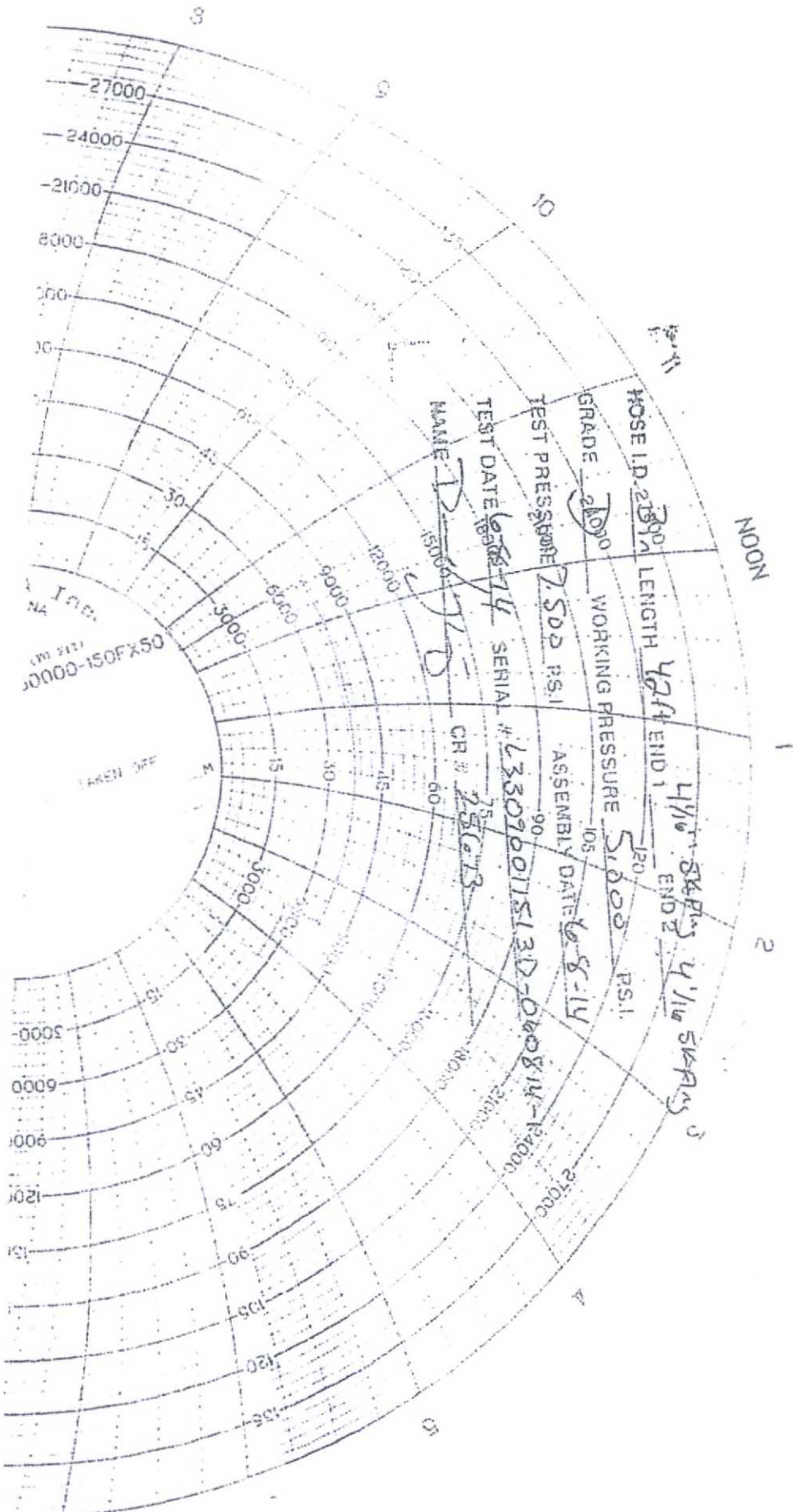
### GRADE D PRESSURE TEST CERTIFICATE

|                      |                             |                  |                        |
|----------------------|-----------------------------|------------------|------------------------|
| Customer :           | AUSTIN DISTRIBUTING         | Test Date:       | 6/8/2014               |
| Customer Ref. :      | PENDING                     | Hose Serial No.: | D-060814-1             |
| Invoice No. :        | 201709                      | Created By:      | NORMA                  |
| Product Description: | FD3.042.0R41/16.5KFLGE/E LE |                  |                        |
| End Fitting 1 :      | 4 1/16 in.5K FLG            | End Fitting 2 :  | 4 1/16 in.5K FLG       |
| Gates Part No. :     | 4774-6001                   | Assembly Code :  | L33090011513D-060814-1 |
| Working Pressure :   | 5,000 PSI                   | Test Pressure :  | 7,500 PSI              |

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

|             |          |                        |            |
|-------------|----------|------------------------|------------|
| Quality:    | QUALITY  | Technical Supervisor : | PRODUCTION |
| Date :      | 6/8/2014 | Date :                 | 6/8/2014   |
| Signature : |          | Signature :            |            |





HOSE I.D. 2 1/2 IN. LENGTH 424 END 1 4 1/2 STEEL END 2 4 1/2 STEEL

GRADE 200 WORKING PRESSURE 5000 PSI.

TEST PRESSURE 7500 PSI. ASSEMBLY DATE 6-8-14

TEST DATE 6-8-14 SERIAL # 633076011513D-040814-134000

NAME D. J. D. CR # 25013

NA Inc.  
(700 112)  
00000-150FX50

TAKEN OFF

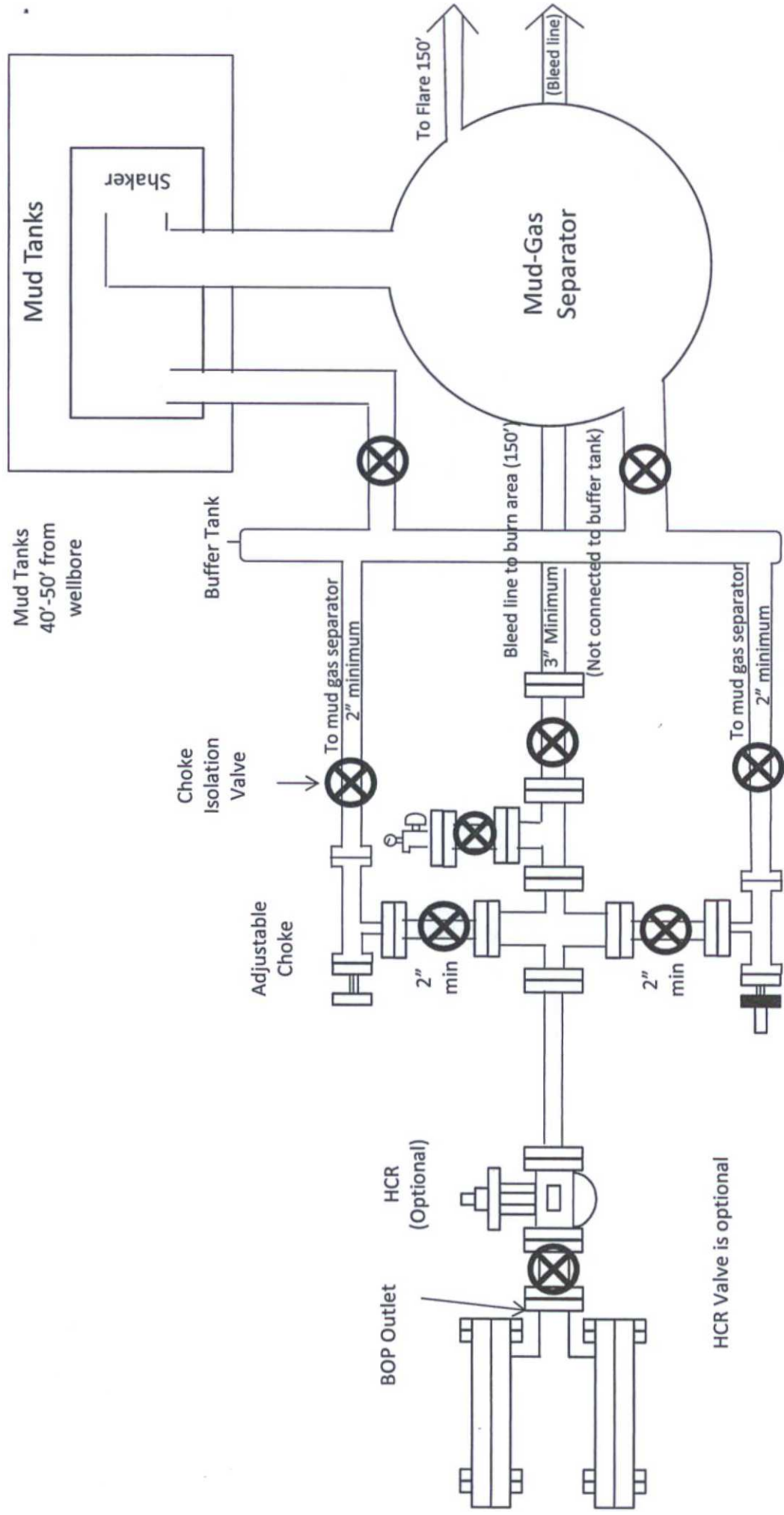


Exhibit E-1 – Choke Manifold Diagram  
 Cazador Federal #2H  
 XTO Energy, Inc..

## Drilling Operations Choke Manifold

EXHIBIT D F.2

Rig Plat Diagram Only – Dual Well Pad Layout

Outrider Federal #2H  
V-Door West

Outrider Federal #2H Dual Pad

