Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM-18848 NMNM055953 ATS-14-1034

1a. Type of Work ☐ DRILL ☒ REENTER

6. If Indian, Allotee or Tribe Name

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

7. Unit or CA Agreement Name and No.

2. Name of Operator
XTO Energy Inc. (5380)

8. Lease Name and Well No.
Sand 18 Federal #1 - SWD

3a. Address
200 LORAINE STE. 800 MIDLAND, TX 79701

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

9. API Well No.
30-025-25017

4. Location of Well (*Report location clearly and in accordance with any State equirements*)*
HOBBS OCD

10. Field and Pool, or Exploratory
SWD; Devonian (96101)

At surface 1991 FNL & 657 FEL

At proposed prod. zone 1991 FNL & 657 FEL

MAY 26 2015

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 18, T23S, R32E

14. Distance in miles and direction from nearest town or post office*
21 Miles Northeast of Malaqa, NM RECEIVED

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
657'	1954.13	0 (Disposal Well)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
Approx. 3960'	18,000'	UTB000138
21. Elevations (Show whether DF, KDB, RT, GL, etc.	**22. Approximate date work will start***	**23. Estimated duration**
3602'	ASAP	75 Days

24. Attachments SWD-1481

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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 authorized officer.

25. Signuature	Name (*Printed/Typed*)	Date
Stephanie Rabadue	Stephanie Rabadue	05/28/2014

Title: Regulatory Analyst

Approved by (Signautre)	Name (*Printed/Typed*)	Date
Steve Caffey		MAY 18 2015
Title	**Office**	
FIELD MANAGER	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 knowlingly 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.

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ 05/26/15

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

MAY 27 2015

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

XTO Energy Inc.
Sand 18 Federal #1 SWD (Re-entry)
API #: 30-025-25017
Projected TD: 18000' MD / TVD
SHL: 1980' FNL & 660' FEL, SECTION 18, T23S, R32E
Lea County, NM

1. **GEOLOGIC NAME OF SURFACE FORMATION:**
   A. Quaternary

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

Formation	Well Depth (TVD)	Water / Oil / Gas
Rustler	1023'	Water
Top of Salt	1349'	Water
Base of Salt	4386'	Water
Delaware	4701'	Water/Oil/Gas
Bone Spring	8530'	Water/Oil/Gas
Wolfcamp	11824'	Water/Oil/Gas
Strawn	13633'	Water/Oil/Gas
Atoka	13773'	Water/Oil/Gas
Morrow	14534'	Water/Oil/Gas
Barnett	15515'	Water/Oil/Gas
Mississippian Lime	15947'	Water/Oil/Gas
Woodford	16500'	Water/Oil/Gas
Devonian	16700'	Water/Oil/Gas
Ellenburger	18052'	Water/Oil/Gas

*** Hydrocarbons @ Bone Spring
*** Groundwater depth 180'.

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands are protected by an existing 13-3/8" casing string set at 625' above the Rustler and circulating cement back to surface. Salt sections are isolated by an existing 10-3/4" casing string set at 4650' and circulating cement to surface. The Brushy Canyon / Bone Spring intervals are isolated by an existing 7-5/8" casing string set at 12720' with 3050 sacks of cement circulated. See COA

Proposed deepening operations are to clean out existing cement plugs, squeeze off all open perfs, and clean out existing open hole below 7-5/8" casing (original TD at 15500') with a 6-1/2" bit. The existing 6-1/2" hole will then be deepened to 16690' at the top of the Devonian. The existing 7-5/8" casing and open formations will be protected by running a string of 5-1/2" casing set at 16690' and cemented up to 6000'. A 4-5/8" hole will be drilled to MD/TD of 18000' and a 3-1/2" tubing string with injection packer will be run for completion.

See COA

3. CASING PROGRAM:

Existing Casing									
Hole Size	Depth	OD Csg	Weight	Connection	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 625'	13-3/8"	54.5#	STC	J-55	New	8.40	3.70	15.09
12-1/4"	0' – 4650'	10-3/4"	40.5# / 45.5# / 51#	STC	N-80 / K-55	New	1.56 (min)	1.30 (min)	2.02 (min)
9-1/2"	0' – 12720'	7-5/8"	33.7# / 37.9#	LTC	P-110 / S-95	New	1.44 (min)	1.16 (min)	2.03 (min)
Proposed Casing									
6-1/2"	0' – 6300'	5-1/2"	17#	Ultra-SF	HCP-110	New	1.12	2.11	1.67
	6300' – 11500'	5-1/2"	17#	Ultra-FJ	HCP-110	New	1.12	1.15	1.74
	11500' – 16690'	5-1/2"	20#	Ultra-FJ	HCP-110	New	1.33	1.13	3.9

WELLHEAD:

A. Starting head: 11" 5000 psi top flange x 10-3/4" SOW bottom
B. 'B' Section/ Drilling Spool: 11" 5000psi top flange x 11" 5000psi bottom flange
C. Tubing Head: 11" 5000psi bottom flange x 7-1/16" 5,000psi top flange

4. CEMENT PROGRAM:

A. **Surface Casing (Existing):** 13-3/8", 54.5#, NEW J-55, STC casing set at 625'.

Lead: 500 sx light weight cement + 0.25lbm/sk flocele + 10lbm/sk gelsonite + 2% CaCl

Tail: 200 sx Class C + 2% CaCl

Circulated to Surface

B. **1st Interm. Casing (Existing):** 10-3/4", 40.5# / 45.5# / 51#, NEW N-80 / K-55, STC casing set at 4650'.

Lead: 2000 sx 50/50 poz-mix + 4% gel + 11.4lbm/sk salt + 10lbm/sk gelsonite + 0.25lbm/sk flocele + 2% CaCl

Tail: 200 sx Class C + 2% CaCl

Circulated to Surface

C. **2nd Interm. Casing (Existing):** 7-5/8", 33.7# / 37.9#, NEW P-110 / S-95, LTC casing set at 12720' – DV tool at 8,079'.

1st Stage

Lead: 600 sx light weight cement + 0.6% Halide 22 + 3lbm/sk gelsonite + 3lbm/sk KCl + 0.25lbm/sk flocele

Tail: 250 sx Class H + 0.8% Halide 22 + 2lbm/sk KCl + 0.25lbm/sk flocele

2nd Stage

Lead: 2100 sx light weight cement + 0.6% Halide 22 + 5lbm/sk gelsonite + 3lbm/sk KCl + 0.25lbm/sk flocele

Tail: 100 sx Class H + 0.8% Halide 22 + 3 lbm/sk KCl + 0.25lbm/sk flocele

D. **Perf Squeezes:** Squeeze off existing Brushy Canyon perfs followed by squeezing off existing Bone Springs perfs prior to drilling into open hole with the following cement plan. Will WOC and pressure test each squeeze to 1000 psi prior to continuing operations.

See COA

Lead: 20 bbls FW, 500 gallons Super Flush 101, then 100 sx HalCem-H + 0.5% Halad-322 + 0.1% HR-800 (mixed at 15.6 ppg, 1.19 ft^3/sk, 5.36 gal/sx wtr)
Compr Strengths 12 hr – 1508 psi 24 hr – 2438 psi

Tail: 50 sx HalCem-H + 0.1% HR-800 (mixed at 15.6 ppg, 1.19 ft^3/sk, 5.39 gal/sx wtr)
Compr Strengths: 12 hr – 1496 psi 24 hr – 2060 psi

See COA For CBL

E. **Production Casing:** 5-1/2", 17# / 20#, NEW HCP-110, Ultra FJ / Ultra SF casing set at 16690'.

See COA

Lead: 20 bbls FW, then 305 sx Econocem - H + 0.7% HR-601 (mixed at 12.7 ppg, 1.87 ft^3/sk, 10.17 gal/sx wtr) Compr Strengths 24 hr – 225 psi 45 hr – 500 psi

Tail: 320 sx VersaCem - H + 0.5% Halad-344 + 0.4% CFR-3 + 1% salt + 0.2% HR-601 (mixed at 14.5 ppg, 1.23 ft^3/sk, 5.51 gal/sx wtr) Compr Strengths: 19 hr – 500 psi 24 hr – 796 psi 38 hr – 936 psi

***All volumes 50% excess. Cement to 6000' (above previous perfs).

5. PRESSURE CONTROL EQUIPMENT:

See COA

The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 10M Hydril and a 13-5/8" minimum 10M Double Ram BOP with an additional 10M Ram. Max bottom hole pressure should not exceed 7865 psi.

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 7-5/8" casing, the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

See COA

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

6. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
12720' to 15500'	6-1/2"	Brine/Gel Sweeps	11.5-12.5	38-50	< 12
15500' to 16690' +/-	6-1/2"	Brine/Gel Sweeps	12.5-12.8	45-55	< 8
16690' to 18000' +/-	4-3/4"	WBM	8.3-8.4	28	NC – 30

The necessary mud products for weight addition and fluid loss control will be on location at all times.

See COA

Re-enter well with fresh water / cut brine. Clean out existing plugs and squeeze perfs down to the final plug. Displace with 11.5-12 ppg brine. Drill out from under 7-5/8" intermediate casing with brine solution. Clean out existing open hole and deepen to top of the Devonian +/-. Drill out from under 5-1/2" production casing with freshwater and drill disposal interval to proposed TD. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

See COA

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

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 out the 7-5/8" plugs.

8. LOGGING, CORING AND TESTING PROGRAM:

See COA Special Requirements

Mud Logger: Mud Logging Unit (2 man) on @ 12720'.
Catch 10' samples from 12720' to TD
Send 1 set of dry samples to Midland Sample Library.

9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

None anticipated. BHT of 225 F is anticipated. H2S may be present from 12720' – TD. 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:

A. Road and location construction will begin after Santa Fe & BLM has approved APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take 40 days. An additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well in operation.

11. SPECIAL INSTRUCTIONS:

A. Reports should be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.

B. WOC a minimum of 24 hours before drilling out shoe joint on production casing string. Use minimal WOB and RPM until drill collars are below the shoe joints.

C. Function test BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.

D. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.

E. The reserve pits should be lined with a plastic liner in order to contain the drill cuttings and drilling fluids. At the conclusion of the drilling operations, all re-usable drilling fluid should be moved to the next well in the drilling order.

F. The Ellenburger is not expected to be encountered and is not permitted by the NMOCD for disposal. Using mud logs, XTO will halt operations prior to encountering the Ellenburger formation. A mudlog will be provided to the NMOCD prior to commencing disposal operations and a copy of the permit will be provided to the BLM for approval and review.

See COA
Special Requirements

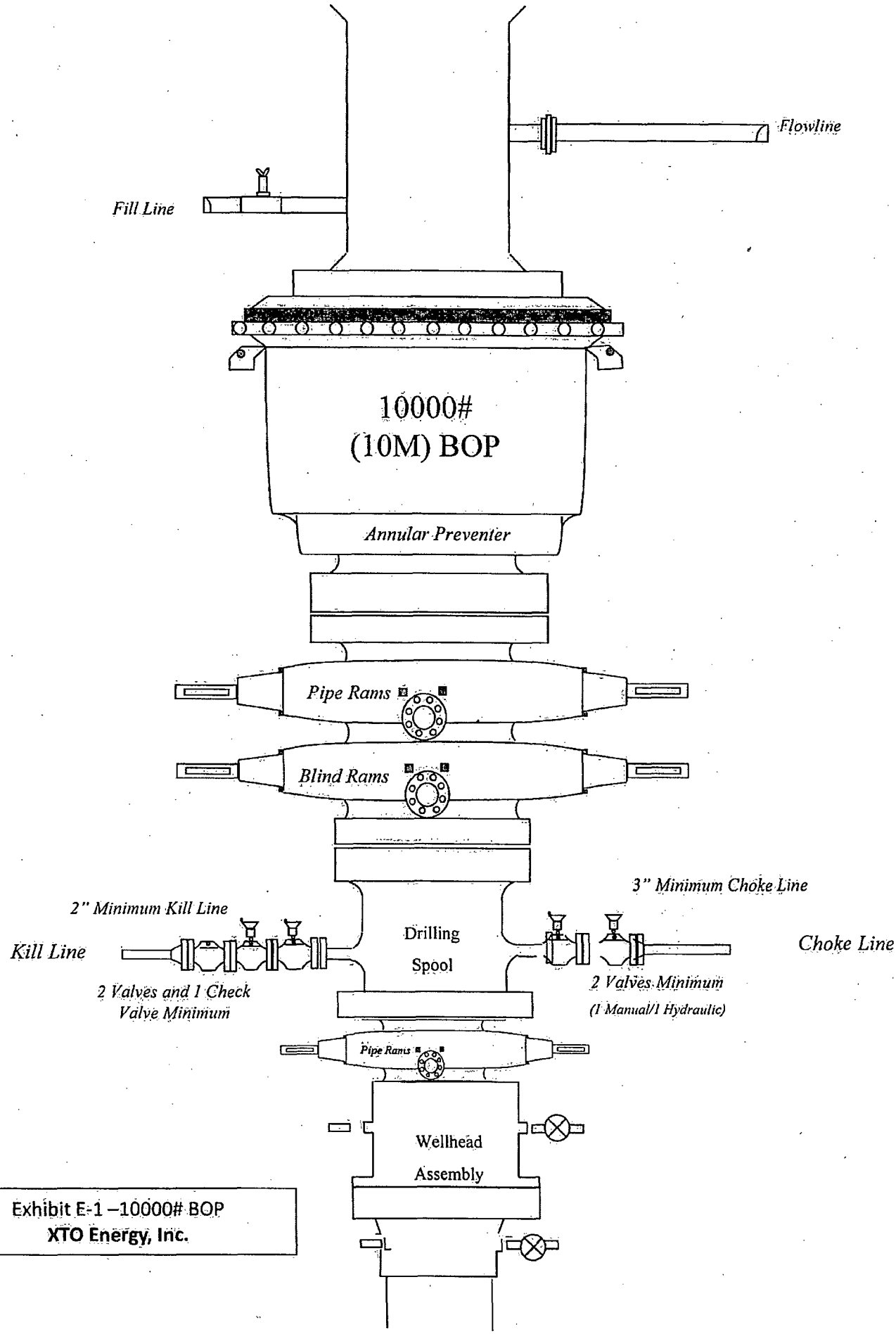
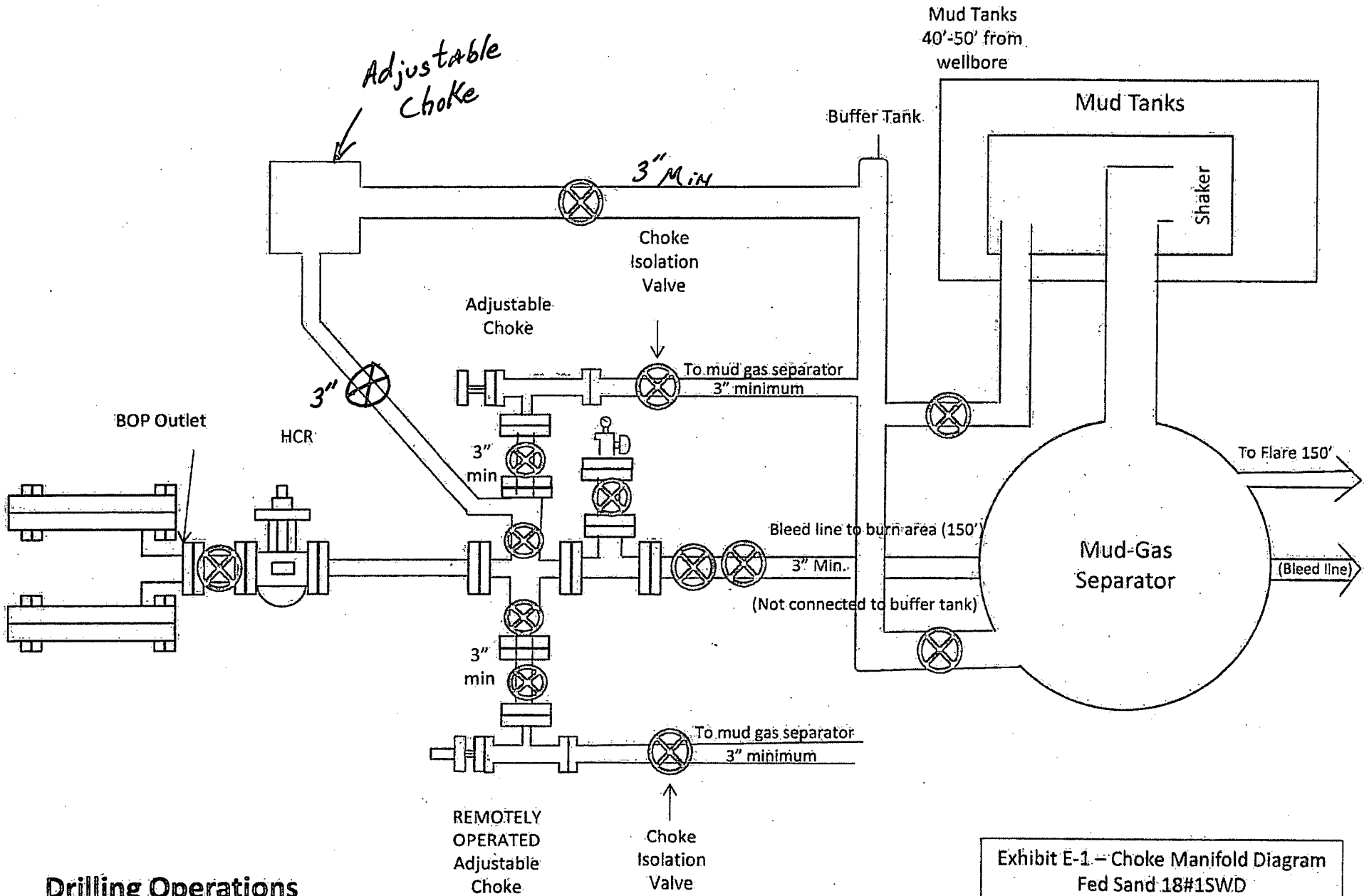


Exhibit E-1 –10000# BOP
XTO Energy, Inc.



Drilling Operations
Choke Manifold

Exhibit E-1 – Choke Manifold Diagram
Fed Sand 18#1SWD
XTO Energy, Inc.

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

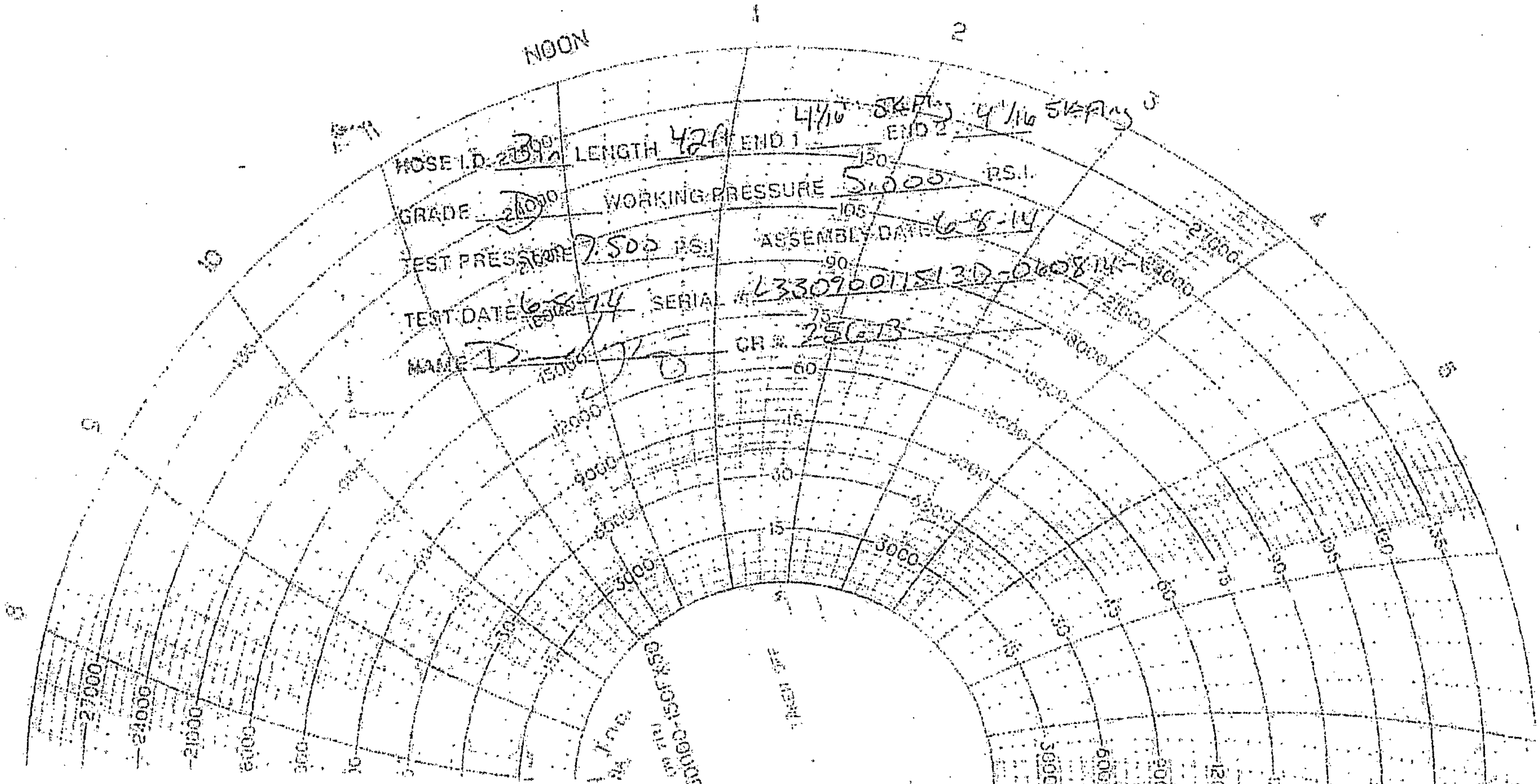
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

Product Description:	FD3.0-12.0R41/16.5KFLGE/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 :	L33090011S13D-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 :	


NOON
HOSE I.D. 3" LENGTH 42ft END 1 4 1/16 5K END 2 4 1/16 5K
WORKING PRESSURE 5,000 P.S.I.
GRADE
TEST PRESSURE 7,500 P.S.I.
ASSEMBLY DATE 6-8-14
TEST DATE 6-8-14
SERIAL # L33090011513D-060814-1
NAME
CR # 25613

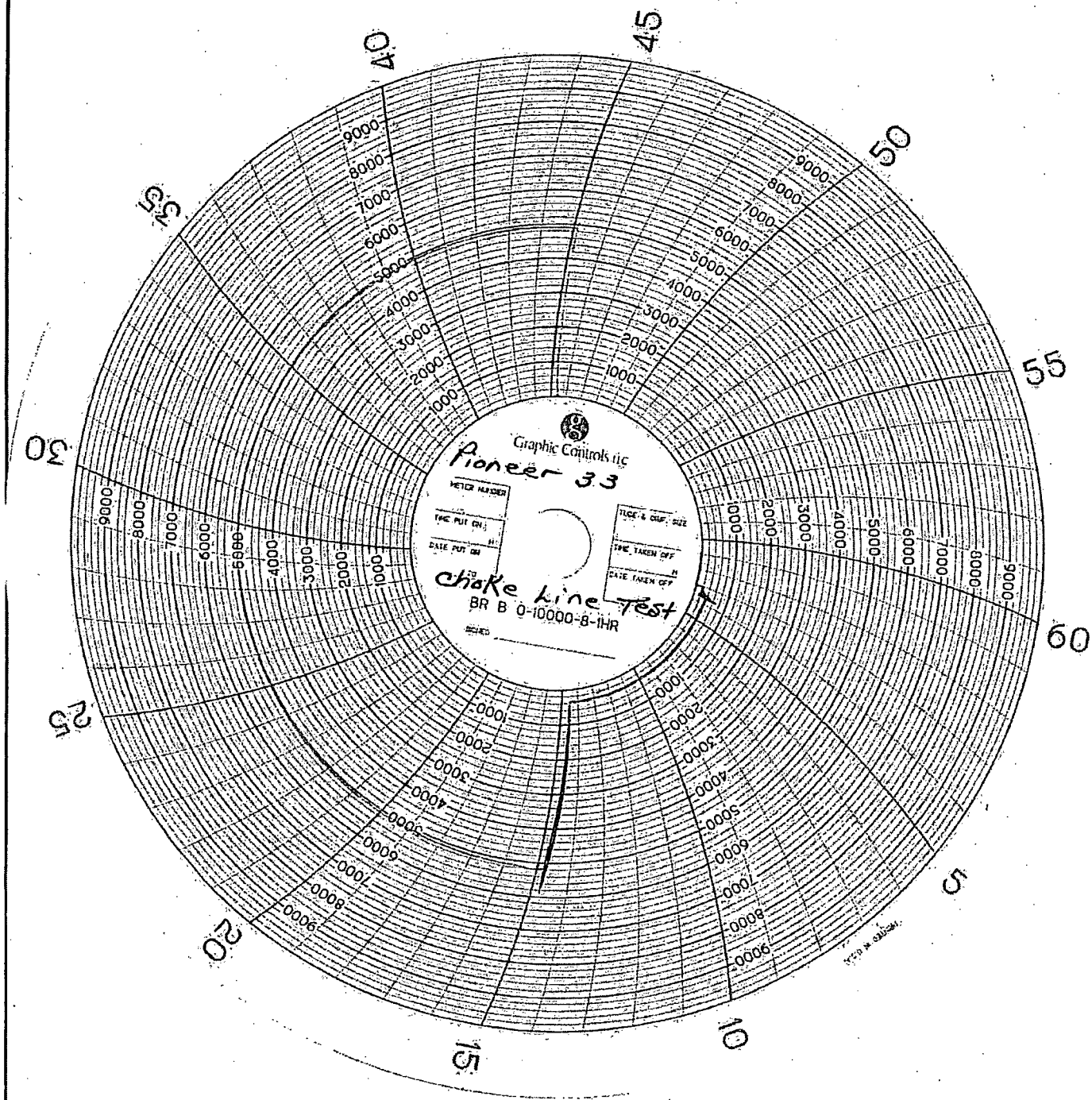
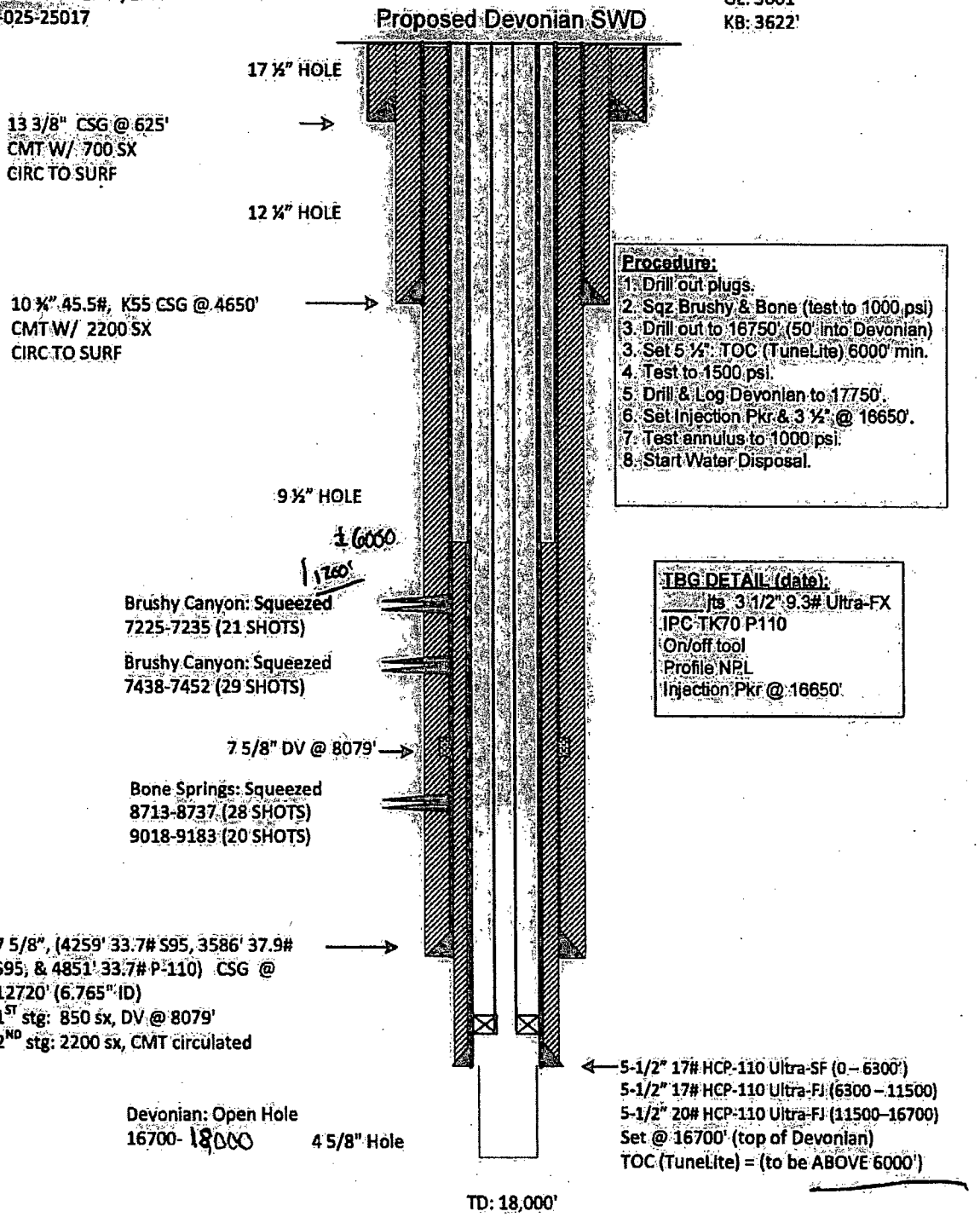

Graphic Controls Inc
Pioneer 33
METER NUMBER
TIME PUT ON
DATE PUT ON
TUBE & ORIF. SIZE
TIME TAKEN OFF
DATE TAKEN OFF
CHART NO.
Choke Line Test
BR B 0-10000-8-1HR
ISSUED
0
5
10
15
20
25
30
35
40
45
50
55
60
1000
2000
3000
4000
5000
6000
7000
8000
9000

Exhibit G

Sand 18 Federal SWD #1
Lea, NM

LOCATION: 1991 FNL & 657 FEL, SEC 18, T23S, R32E
FORMATION:
SPUD/COMPL DATE: 1975/1975
API No: 30-025-25017

ELEV
GL: 3601'
KB: 3622'



Procedure:
1. Drill out plugs.
2. Sqz Brushy & Bone (test to 1000 psi)
3. Drill out to 16750' (50' into Devonian)
3. Set 5 ½": TOC (TuneLite) 6000' min.
4. Test to 1500 psi.
5. Drill & Log Devonian to 17750'.
6. Set Injection Pkr & 3 ½" @ 16650'.
7. Test annulus to 1000 psi.
8. Start Water Disposal.

TBG DETAIL (date):
____jts 3 1/2" 9.3# Ultra-FX
IPC TK70 P110
On/off tool
Profile NPL
Injection Pkr @ 16650'

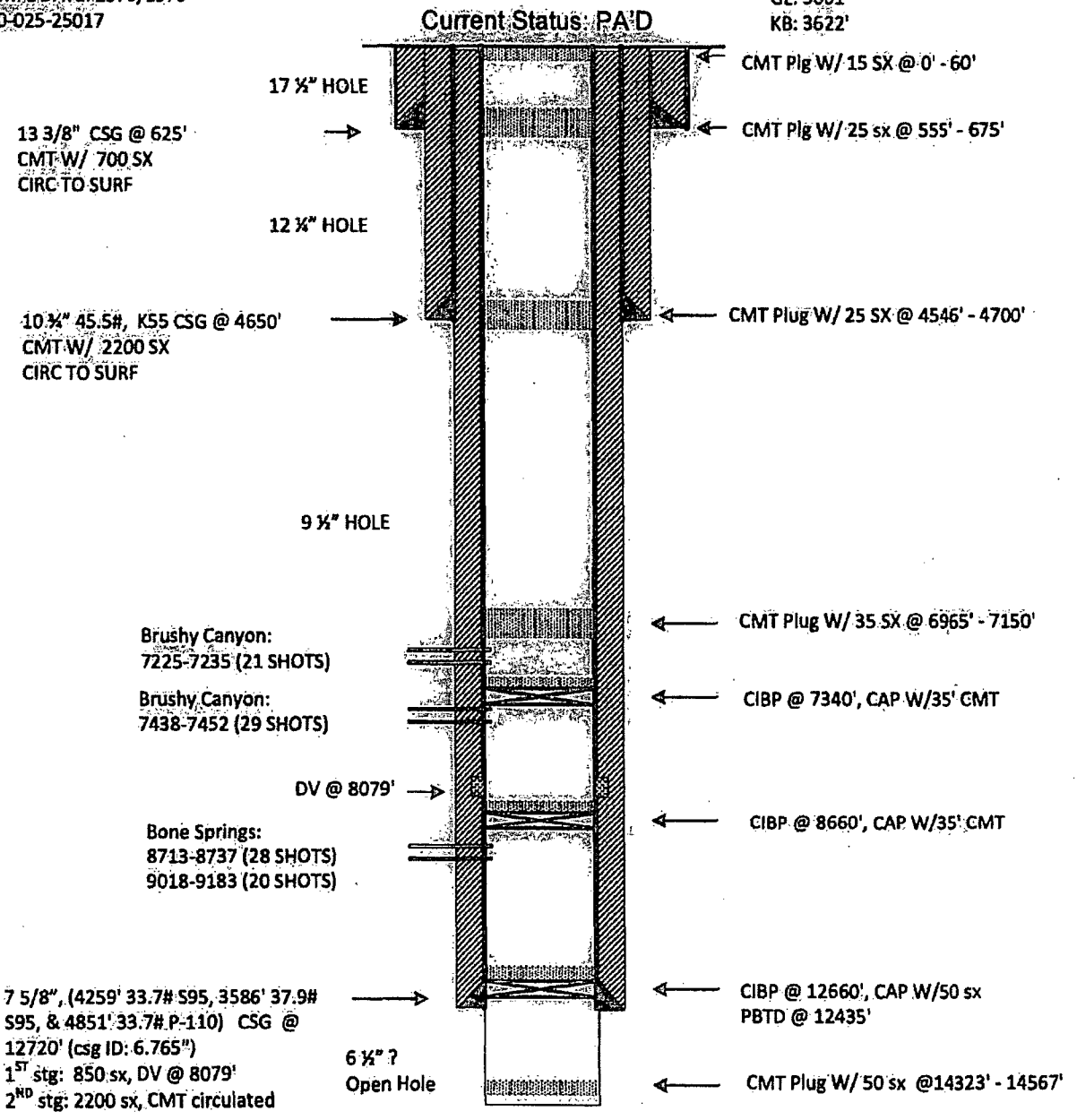
PREPARED BY: DWL DATE: 2/26/14

Exhibit F

Sand 18 Federal #1
Lea, NM

LOCATION: 1991 FNL & 657 FEL, SEC 18, T23S, R32E
FORMATION:
SPUD/COMPL DATE: 1975/1975
API No: 30-025-25017

ELEV
GL: 3601'
KB: 3622'



PREPARED BY: DWL DATE: 02/17/14

XTO ENERGY

Sand 18 Federal #1
Deepen & Convert to Devonian SWD

API: 30-025-25017
Location: 1980' FNL & 660' FEL, Sec 18 T23S R32E
County: Eddy
Elevation: 3601' GL; 3622' KB
WELL DATA:

Surface Csg:	13 3/8" 61# Csg set @ 625'. Cmt w 700 sx. Circ to surf.
Inter.Csg:	10 ¾" 45.5# csg to 4650'. Cmt'd w 2200 sx. Circ to surf.
Prod. Csg:	7 5/8" 37.9# S95 @12,720'. 1ST stg: w/850 sx CL H, DV @ 8079'. 2ND stg: 2200 sx (circ cement).
Open Hole:	6 ¼" Open Hole from 12720' to 15500'.
Well Status:	PAed. Check attached diagram for Plug depths

OBJECTIVE: Drill out plugs, squeeze, deepen & Convert to Devonian SWD

RECOMMENDED PROCEDURE

1) MI and prepare location (install anchors, level, install caliche,..., etc.)
2) MIRU PU. NU BOP W/ 2 7/8" Rams.
3) PU 2 7/8" WS and TIH w/ 6 5/8" Bit and DC. Drill out plugs at surface, 555', 4546', 6965, and 7340'.
4) Establish an injection rate into perfs. POOH
5) TIH w/ CIRC and set at 7150'. Establish IR. Release from CIRC and break circulation. Sting back into CIRC and squeeze Brushy Canyon perfs per the below Halliburton squeeze procedure.

XTO ENERGY

Sand 18 Federal #1
Deepen & Convert to Devonian SWD

Job Recommendation ***Recement 5-1/2"***

Fluid Instructions

Fluid 1: Establish circulation to surface
Fresh Water — Fluid Volume: 20 bbl

Fluid 2: Pump 500 gallons
Super Flush 101 — Fluid Volume: 11.90 bbl

Fluid 3: Pump 5 bbl
Fresh Water — Fluid Volume: 5 bbl

Fluid 4: Lead with 100 sks
HalCem - H

0.5 %	Halad®-322 (Low Fluid Loss Control)	Fluid Weight	15.60 lbm/gal
0.1 %	HR-800 (Retarder)	Slurry Yield:	1.19 ft^3/sk
		Total Mixing Fluid:	5.36 Gal/sk
		Proposed Sacks:	100 sks

Fluid 5: Tail-in with 50 sks
HalCem - H

0.1 %	HR-800 (Retarder)	Fluid Weight	15.60 lbm/gal
		Slurry Yield:	1.19 ft^3/sk
		Total Mixing Fluid:	5.39 Gal/sk
		Proposed Sacks:	50 sks

6) POOH. WOC.
7) TIH w/ 6 5/8" bit and drill out CIRC & Cmt to 7500'. Pressure test squeeze to 1000 psi.
8) If passing test then move on to next step. If still leaking then re-squeeze.
9) Drill out cement and CIBP at 8660'.Establish an injection rate into perfs. POOH
10) TIH w/ CIRC and set at 8650'. Establish IR. Release from CIRC and break circulation. Sting back into CIRC and squeeze Bone Spring perfs per the below Halliburton squeeze procedure.

XTO ENERGY

Sand 18 Federal #1
Deepen & Convert to Devonian SWD

Job Recommendation ***Recement 5-1/2"***

Fluid Instructions

Fluid 1: Establish circulation to surface			
Fresh Water		Fluid Volume:	20 bbl
Fluid 2: Pump 500 gallons			
Super Flush 101		Fluid Volume:	11.90 bbl
Fluid 3: Pump 5 bbl			
Fresh Water		Fluid Volume:	5 bbl
Fluid 4: Lead with 100 sks			
HalCem - H		Fluid Weight	15.60 lbm/gal
0.5 %	Halad®-322 (Low Fluid Loss Control)	Slurry Yield:	1.19 ft^3/sk
0.1 %	HR-800 (Retarder)	Total Mixing Fluid:	5.36 Gal/sk
		Proposed Sacks:	100 sks
Fluid 5: Tail-in with 50 sks			
HalCem - H		Fluid Weight	15.60 lbm/gal
0.1 %	HR-800 (Retarder)	Slurry Yield:	1.19 ft^3/sk
		Total Mixing Fluid:	5.39 Gal/sk
		Proposed Sacks:	50 sks

11) PU Hole and circulate bottoms up. POOH & WOC
12) TIH and drill out to 9400'. Pressure test squeeze to 1000 psi.
13) RDMO PU.

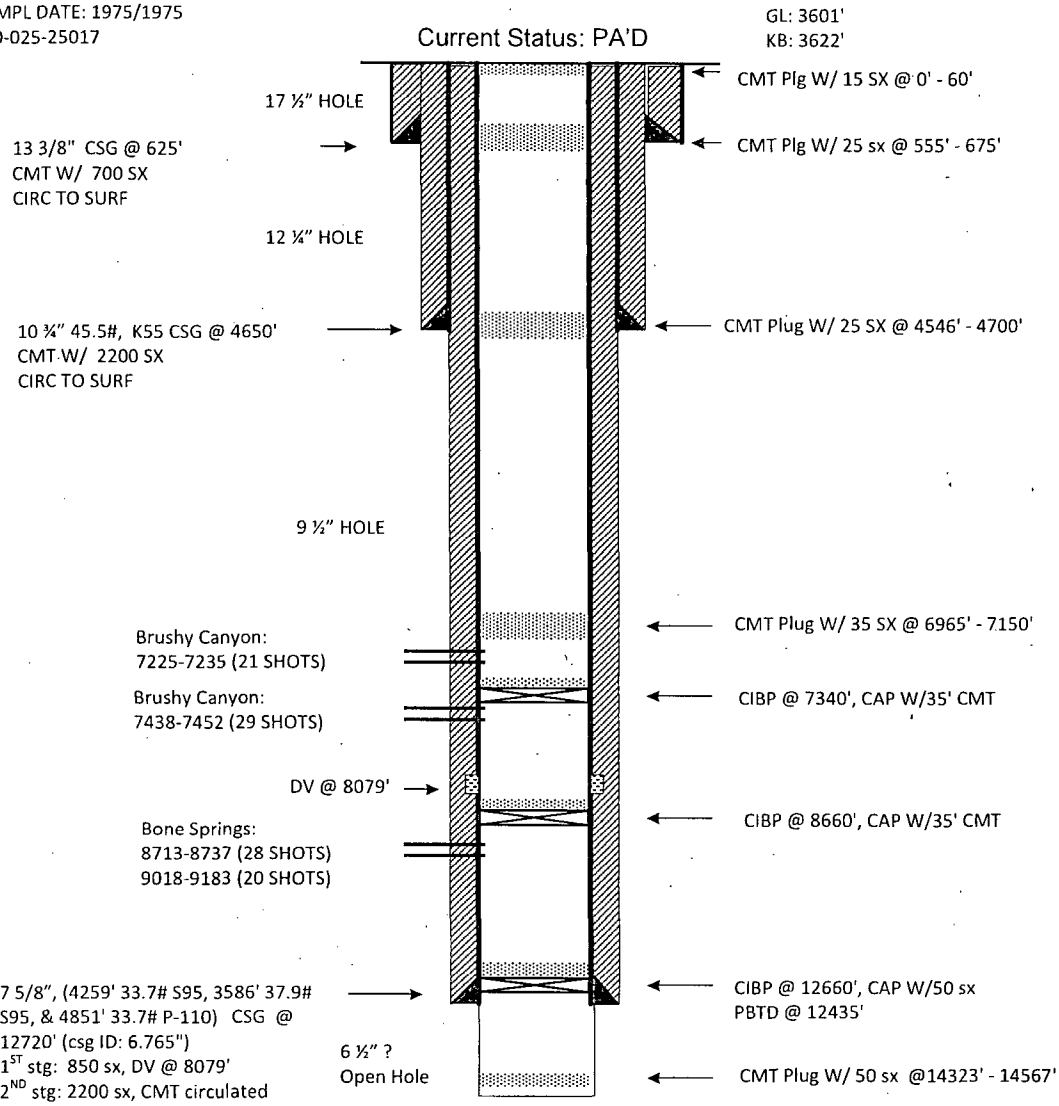
14) MIRU Drilling Rig/24 hour HDPU.
15) TIH with 6 5/8" Bit. Drill out cement and CIBP at 12435 to 12660.
16) Continue drilling Open Hole section to old TD of 15,500'.
17) Install Mud Logger (Monitor for Devonian Top).
18) Once Devonian Top is located with mud log then drill an additional 50'.
19) Run Triple combo Open Hole Logs.
20) Correlate to Neutron-Density run 7-23-75. Verify Dev. Top.
21) TIH w/ 5 ½" Ultra-FJ & SJ 17# & 20# HCP-110 (install marker 3 joints above FC).
22) Cement using Tunelite. Get with drilling to determine if DV is necessary.
23) Bring cement to no less than 6000'. WOC. Pressure test to 1500 psi.
24) Circulate mud out and replace with Fresh Water.
25) Drill out FC & FS w/ 4 5/8". Continue down to TD at 18,000'. Circulate hole clean.
26) POOH & LD WS & BHA.
27) RU WL & make Gauge Ring run (packer=4.61"OD, SJ casing=4.848" ID).
28) Run GR-CBL from bottom of 5 ½" to TOC.
29) RIH w/ 5 ½" Injection Packer and set within 100' of Devonian Top. RD WL.
30) TIH w/ 3 ½" Ultra-FX 9.3# P-110 W/ TK 70 (IPC).
31) Circulate hole clean with Packer fluid. Latch into packer. Pressure test TCA to 1000 psi.
32) RD Rig. Start injection per BLM/NMOCD guidelines.

Sand 18 Federal #1
Deepen & Convert to Devonian SWD

Sand 18 Federal #1
Lea, NM

LOCATION: 1980 FNL & 660 FEL, SEC 18, T23S, R32E
FORMATION:
SPUD/COMPL DATE: 1975/1975
API No: 30-025-25017

ELEV
GL: 3601'
KB: 3622'



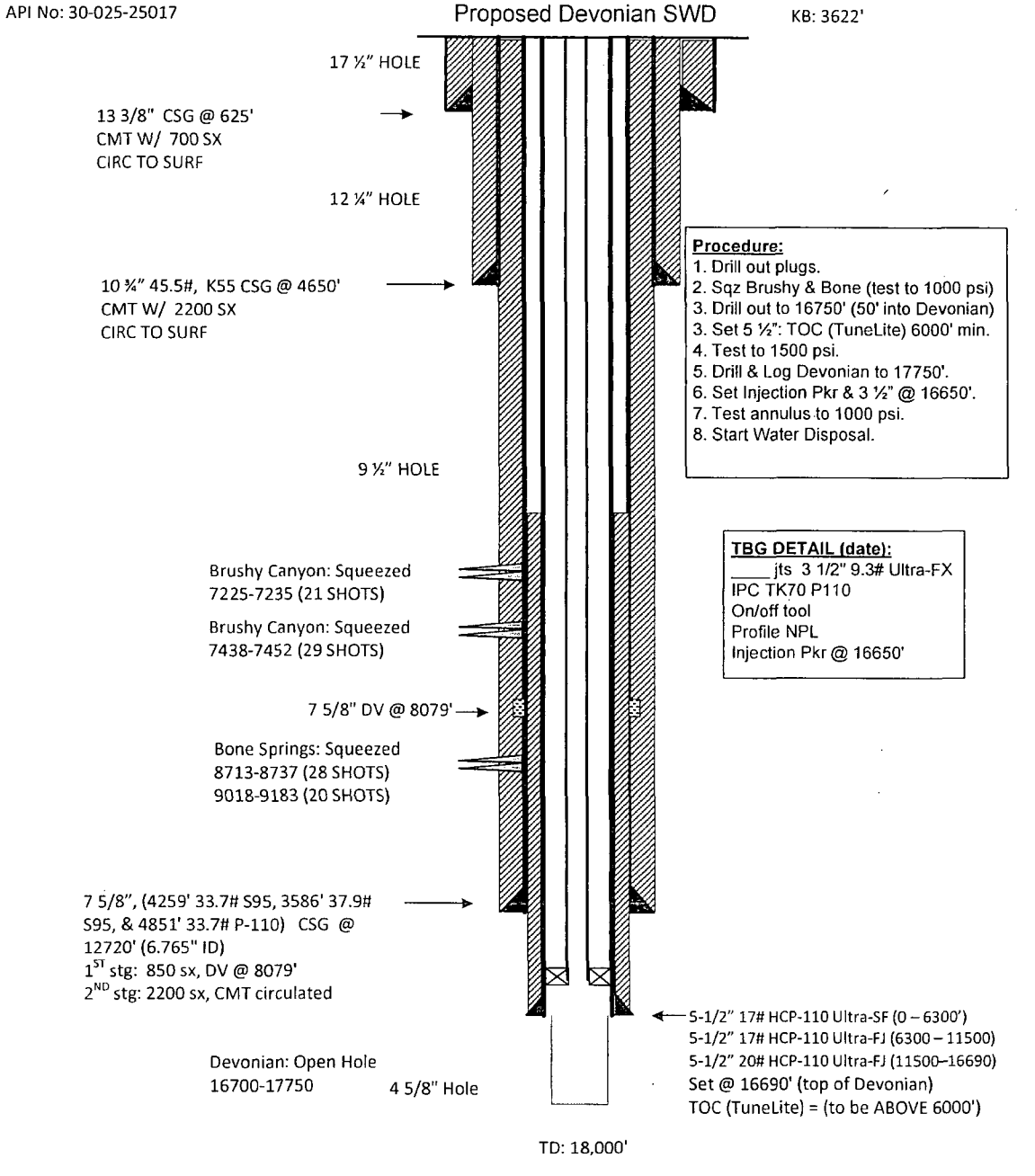
PREPARED BY: DWL DATE: 02/17/14

Sand 18 Federal #1
Deepen & Convert to Devonian SWD

Sand 18 Federal #1
Lea, NM

LOCATION: 1980 FNL & 660 FEL, SEC 18, T23S, R32E
FORMATION:
SPUD/COMPL DATE: 1975/1975
API No: 30-025-25017

ELEV
GL: 3601'
KB: 3622'



Procedure:
1. Drill out plugs.
2. Sqz Brushy & Bone (test to 1000 psi)
3. Drill out to 16750' (50' into Devonian)
3. Set 5 ½": TOC (TuneLite) 6000' min.
4. Test to 1500 psi.
5. Drill & Log Devonian to 17750'.
6. Set Injection Pkr & 3 ½" @ 16650'.
7. Test annulus to 1000 psi.
8. Start Water Disposal.

TBG DETAIL (date):
____jts 3 1/2" 9.3# Ultra-FX
IPC TK70 P110
On/off tool
Profile NPL
Injection Pkr @ 16650'

 PREPARED BY: DWL DATE: 2/17/14

HALLIBURTON

XTO Energy Inc
810 Houston Ste 2000
Fort Worth, Texas 76102-6298

SDE 18 Federal #1

Lea County, New Mexico
United States of America
S:18 T:23S R:32E
API/UWI 30-025-25017

Cement Squeeze 5-1/2" Casing Cost Estimate

Prepared for: David Luna
August 23, 2013
Version: 1

Submitted by:
Levi Davenport

Halliburton
125 West Missouri, Suite 300
Midland, Texas 79705
+14326319516

HALLIBURTON

Well Name: SDE 18 Federal	Well #: 1
Production Casing	0 - 12435 ft (MD)
Outer Diameter	7.625 in
Inner Diameter	6.765 in
Linear Weight	33.70 lbm/ft
Tubing	0 - 7150 ft (MD)
Outer Diameter	2.875 in
Retainer	7150 ft (MD)
Squeeze Perfs	7225 - 7452 ft (MD)
Number Of Perforations	50

Fluid Instructions

Fluid 1: Establish circulation to surface			
Fresh Water		Fluid Volume:	20 bbl
Fluid 2: Pump 500 gallons			
Super Flush 101		Fluid Volume:	11.90 bbl
Fluid 3: Pump 5 bbl			
Fresh Water		Fluid Volume:	5 bbl
Fluid 4: Lead with 100 sks			
HalCem - H		Fluid Weight	15.60 lbm/gal
0.5 %	Halad®-322 (Low Fluid Loss Control)	Slurry Yield:	1.19 ft^3/sk
0.1 %	HR-800 (Retarder)	Total Mixing Fluid:	5.36 Gal/sk
		Proposed Sacks:	100 sks
Fluid 5: Tail-in with 50 sks			
HalCem - H		Fluid Weight	15.60 lbm/gal
0.1 %	HR-800 (Retarder)	Slurry Yield:	1.19 ft^3/sk
		Total Mixing Fluid:	5.39 Gal/sk
		Proposed Sacks:	50 sks

EXHIBIT D

Rig Plat Only
SAND 18 FEDERAL SWD #1
V-DOOR SOUTH