

1 of 3
9/16/2009 2:21 PM

BLM Sundry form 3160-5 (pg 2)
Operator: XTO Energy Inc

NASH UNIT #39H
30-015-36951

SHL: 2415' FSL & 1645' FWL Section 12 T23S, R29E, (K)
BHL: 500' FNL & 1575' FWL Section 11, T23S, R29E, (C)
BLM Bond #: UTB 000138

Notice of Intent: Change of Plans (cont.)

9/15/09:

13-3/8" STARTING HEAD REMOVAL – Note that permission has been granted to remove the 13-5/8" 3M HydriL and the 13-3/8" 3M Bradenhead once the 9-5/8" has been cemented. **See attached email correspondence between Chip Amrock, XTO Sr. Drilling Engineer, and Wesley Ingram, BLM Petroleum Engineer.

HOLE SIZE – Hole size will be 8-3/4" from 3300' to 7500'. The 7" casing will then be run and cemented. The hole size will then be reduced to 6-1/8" from 7500' – MD/TD. A 4-1/2" liner with swell packers and sleeves will be run and set in the open hole.

CASING – Change f/New 5-1/2" 17# LTC P-110 to New 7" 26# HCP-110 set @ 7500' MD, 6890-6900' TVD w/DVT @ 5500' cemented to surface. Due to completion changes, the 5-1/2" casing string is being eliminated. A 7" string will be run through the directional curve and cemented f/ 7500' to surface. A 4-1/2" liner system with swell packers and sleeves will be run to MD/TD.

V-DOOR – V-door will be to the Northeast.

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

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

XTO Energy Inc.
Nash Well #39H
Projected TD: 12450 MD / TVD: 6800'
SHL: Section 12 T23S R29E (K)
BHL: Section 11 T23S R29E (C)
Eddy County, NM
Lease #: NM0556859-A

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Salido

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

Formation	Subsea Depth	Well Depth	Water / Oil / Gas
Top Salido Salt		310'	Water
Base of Salt		3111'	Water
Top Delaware		3111'	Water/Oil/Gas
Cherry Canyon		3970'	Water/Oil/Gas
Top Brushy Canyon		5551'	Water/Oil/Gas
Base Brushy Canyon		6603'	Water/Oil/Gas
Brushy Canyon E5 Zone		6763'	Water/Oil/Gas
Target/Land Curve		6798'	Water/Oil/Gas
TD/MD		12450'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

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 @ 285' and circulating cement back to surface. Potash/fresh water sands will be protected by setting 9-5/8" casing at 3300' and circulating cement to surface. The Brushy Canyon intervals will be isolated by setting 7" casing to the end of the directional curve at 7500' +/- and cementing back to surface. A 6-1/8" lateral hole will be drilled to MD/TD and 4-1/2" casing with Halliburton swell packers will be run for completion.

3. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 285'	13-3/8"	48#	STC	H-40	New	2.24	.96	4.56
12-1/4"	0' – 3300'	9-5/8"	36#	LTC	J-55	New	2.12	1.38	3.35
8-3/4"	0' – 7500'	7"	26#	LTC	HCP-110	New	2.6	1.6	2.87
6-1/8"	7350 – 12450'	4-1/2"	11.6#	LTC	P-110	New	2.77	1.96	4.73

WELLHEAD:

- A. Starting head: 13-5/8" 3000 psi top flange x 13-3/8" SOW bottom (to be removed upon setting intermediate casing)
- B. Lower casing head: 11" 3000 psi top flange x 9-5/8" SOW bottom
- C. "B" section: Casing hanger 11" bowl x 7" casing
- D. Tubing spool: 11" 3000 psi bottom flange x 7-1/16" 5000 psi top flange

4. CEMENT PROGRAM: (Note yields and DV tool depths. If multiple stages)

- A. **Surface Casing:** 13-3/8", 48#, NEW H-40, STC casing to be set at $\pm 285'$.

500 sx HalCem-C + 2% CaCl (14.80 ppg, 1.35 cu ft/sx, 6.39 gal/sx wtr)
Compr Strengths: 12 hr - 900 psi 24 hr - 1500 psi
***All volumes 100% excess. Cement to surface.

- B. **Intermediate Casing:** 9-5/8", 36#, NEW J-55, LTC casing to be set at $\pm 3300'$.

Stage 1:

Lead: 20 bbls FW, then 900 sx EconoCem-HLC + 5% salt (mixed at 12.8 ppg, 1.92 ft³/sk, 10.44 gal/sx wtr) Compr Strengths 12 hr - 319 psi 24 hr - 653 psi

Tail: 250 sx HalCem-C + 1% CaCl (mixed at 14.8 ppg, 1.34 ft³/sk, 6.36 gal/sx wtr)
Compr Strengths: 12 hr - 900 psi 24 hr - 1500 psi
***All volumes 100% excess. Cement to surface.

- C. **2nd Intermediate Casing:** 7", 26#, NEW HCP-110, LTC casing to be set at $\pm 7500'$ w/DVT @ 5500'

Stage 1:

Lead: 350 sx CorossaCem-H + 0.5% LAP-1 + 0.1% HR-800 + 5 lb/sx Gilsonite (14.4 ppg, 1.23 cuft/sx, 5.18 gal/sx wtr).
Compr Strengths: 24 hr - 681 psi 48 hr - 1561 psi.

Tail (Csg Shoe Cmt): 100 sx HalCem-H + .5% LAP-1 + .25% CFR-3 + 5 pps Gilsonite + .25 lb/sx D-air 3000 (15.8 ppg, 1.17 cuft/sx, 4.58 gal/sx Compr Strengths - 24 hr - 2203 psi 48 hr - 2788 psi
*** Cement to 5500'.

Stage 2: (thru DV Tool @ 5500')

Lead: 580 sx EconoCem HLC + 5% Salt (mixed at 12.8 ppg, 1.92 cuft/sx, 10.44 gal/sx wtr)
Compr Strengths: 12 hr - 444 psi 24 hr - 755 psi

Tail: 150 sx HalCem C (mixed at 14.8 ppg, 1.33 cuft/sx, 6.34 gal/sx wtr)
Compr Strengths: 12 hr - 1440 psi 24 hr - 1909 psi *** Cement to Surface.

5. PRESSURE CONTROL EQUIPMENT:

The blow out preventer equipment (BOP) diagram is attached to this Drilling Plan. The blowout preventer stack will consist of a double ram blowout preventer and annular preventer rated to 5000 psi working pressure. All BOPs and accessory equipment will be tested according to Onshore Order #2 before drilling out. A hydraulic closing unit will be a part of this equipment and will be function tested daily. See 'Sundry' discussion for use of a 13-5/8" 3M hydril on the 13-3/8" csg and testing, then the use of the 11" 5M stack on the 9-5/8" casing & below and its testing.

6. PROPOSED MUD CIRCULATION SYSTEM:

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 285'	17-1/2"	FW/Native	8.5-8.8	35-40	NC
285' to 3300' +/-	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3300' to 7500'	8-3/4"	Cut Brine/ Poly-Sweeps	9.2-9.6	29-32	NC-30
7500' to 12450'	6-1/8"	Cut Brine/Poly-Starch	8.6-9	32-38	NC -30

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

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Use available solids controls equipment to help keep mud weight down after mud up. Rig up Dynamic Energy Systems' solids control equipment to operate as a closed loop system.

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 the 12-1/4" hole.

8. LOGGING, CORING AND TESTING PROGRAM:

- A. Mud Logger: Suttles Mud Logging Unit (2 man) on @ 6000'.
Catch 10' samples from 6000' to 12450' (TD).
Send 1 set of dry samples to Midland Sample Library.

9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

None anticipated. Max bottom hole pressure should not exceed 2500psi. BHT of 175 F is anticipated. H₂S can be present from 4600 – 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. If production casing is run then 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.

11. SPECIAL INSTRUCTIONS:

- A. Reports should be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.
- B. Deviation:
 - Surface Hole: Maximum of 1° and not more than 1° change per 100'.
 - Intermediate Hole: Maximum of 4° and not more than 1.5° change per 100'.
 - Production hole: Maximum of 6° and not more than 1.5° change per 100'.

Note: Maximum distance between surveys is 500'.
- C. WOC a minimum of 12 hours before drilling out shoe joint on surface and intermediate casing strings. Use minimal WOB and RPM until drill collars are below the shoe joints.
- D. Check BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.
- E. 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.
- F. 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.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

Hydrogen Sulfide Training:

All regularly assigned personnel contracted or employed by XTO Energy, Inc. will receive training from qualified instructor(s) in the following areas prior to commencing drilling possible hydrogen sulfide bearing formations in this well:

- The hazards and characteristics of hydrogen sulfide (H₂S)
- The proper use and maintenance of personal protective equipment and life support systems.
- The proper use of H₂S detectors, alarms, warning systems, briefing area, evacuation procedures & prevailing winds.
- The proper techniques for first aid and rescue procedures.

Supervisory personnel will be trained in the following areas:

The effects of H₂S on metal components. If high tensile tubulars are to be utilized, personnel will be trained in their special maintenance requirements.

Corrective action & shut-in procedures when drilling or reworking a well & blowout prevention / well control procedures.

The contents and requirements of the H₂S Drilling Operations Plan

H₂S SAFETY EQUIPMENT AND SYSTEMS:

Well Control Equipment:

- Flare Line w/continuous pilot. Choke manifold with a minimum of one remote choke.
- Blind rams and pipe rams to accommodate all pipe sizes w/properly sized closing unit.
- Auxiliary equipment to include: annular preventer, ude-gas separator, rotating head & flare.

Protective Equipment for Essential Personnel:

Mark II Survive-air 30 minute units located in dog house & at briefing areas, as indicated on wellsite diagram.

H₂S Detection and Monitoring Equipment:

Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

One portable H₂S monitor positioned near flare line.

H₂S Visual Warning Systems:

Wind direction indicators are shown on wellsite diagram.

Caution / Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

Mud Program:

The Mud Program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weights, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones. A mud-gas separator will be utilized as needed.

Metallurgy:

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and line and valves will be suitable for H₂S service.

Communication:

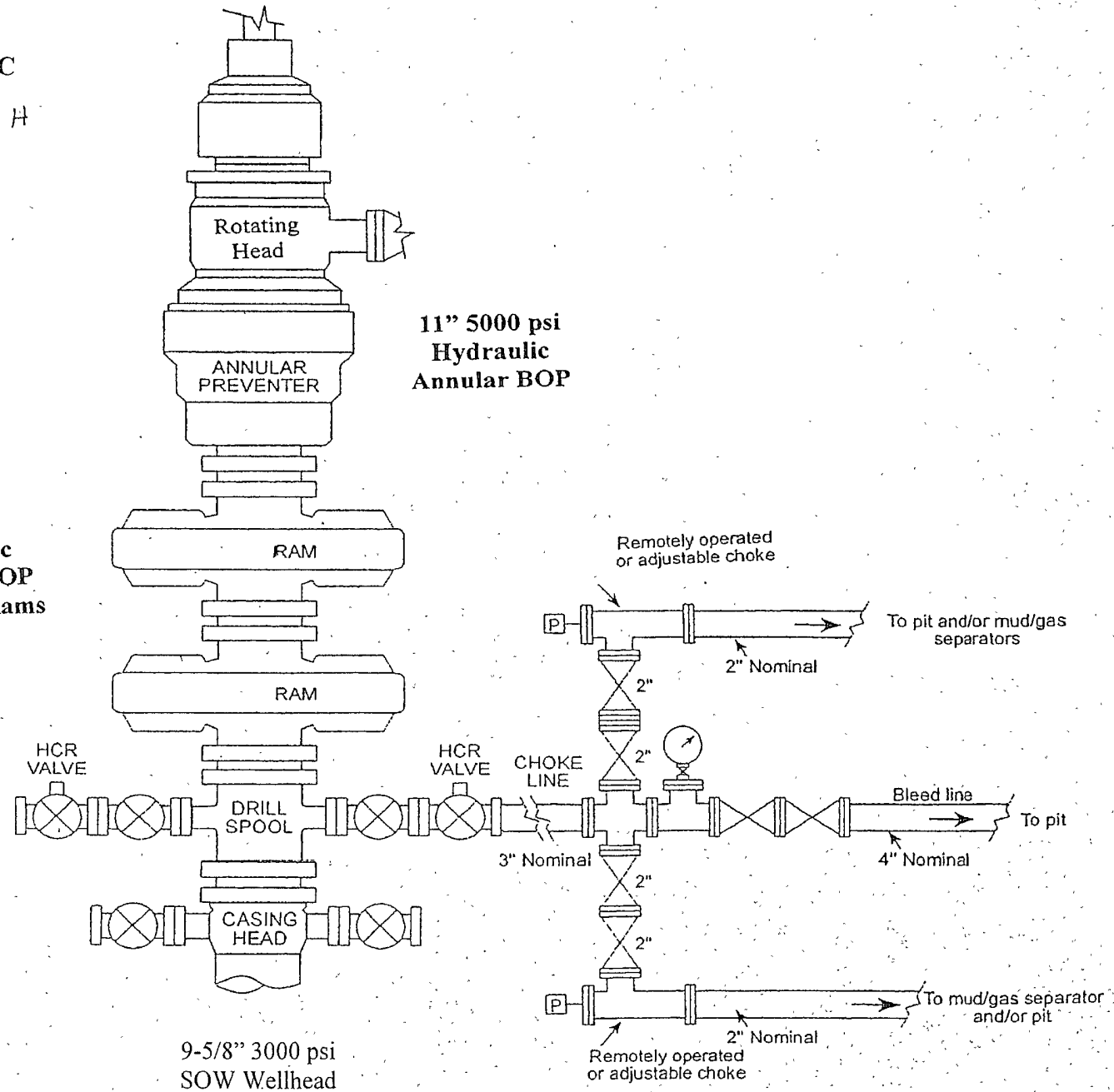
Cellular telephone communications in company vehicles, rig floor and mud logging trailer.

XTO ENERGY INC

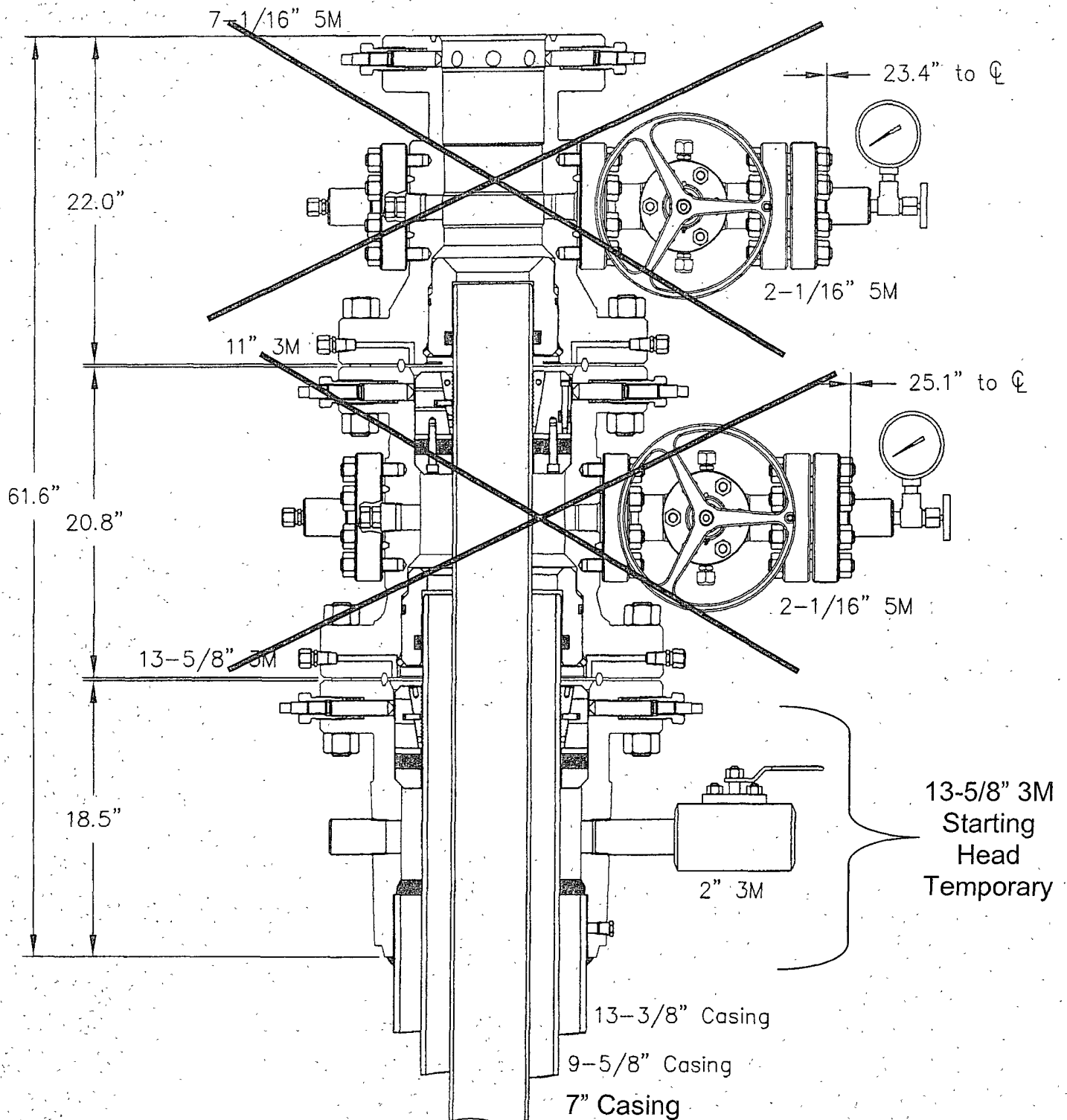
Nash Unit # 39 H

11" Hydraulic
Double Ram BOP
Blinds X Pipe Rams

11" 5000 psi
Hydraulic
Annular BOP



5000 psi Working Pressure
BOPE Configuration and Choke Manifold



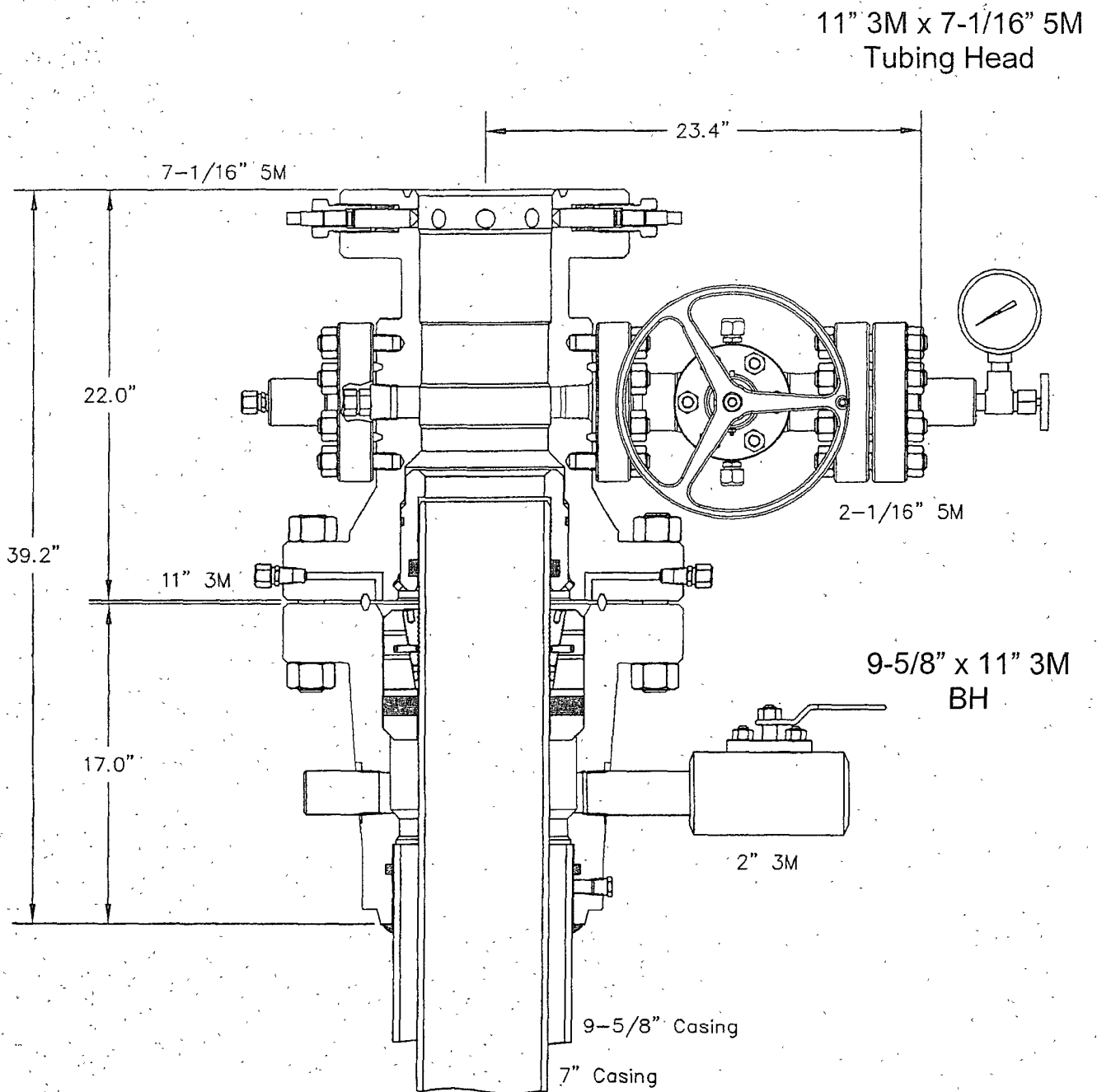
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PROPOSED

WOOD GROUP PRESSURE CONTROL

XTO Energy, Inc.
Brushy Canyon Horizontal

DRAWN	VJK	22APR09
APPRV	THH	22APR09
DRAWING NO.		AE16844



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PROPOSED

WOOD GROUP PRESSURE CONTROL

XTO Energy, Inc.
Brushy Canyon

Wellhead Assembly, With T-EBS Tubing Head

DRAWN	VJK	13AUG09
APPRV	THH	13AUG09
DRAWING NO.		AE17410



Wesley_Ingram@blm.gov
04/24/2009 12:36 PM

To Chip_Amrock@xtoenergy.com

cc

bcc

Subject Re: Wellhead Configuration for Nash Unit #39H, etc

Chip,

Now that I read your actual situation, this is what has been standard operation on BLM land as well. Since the casings are being cemented to surface, the need for the larger Bradenhead is eliminated. The one comment that I received is that if there was ever a need for the larger Bradenhead, it could be installed deeper in the cellar.

Your plans of removing the Bradenhead are acceptable.

Thanks, Wesley

Chip_Amrock@xtoenergy.com

04/24/2009 09:49 AM

wesley_ingram@nm.blm.gov

To

cc

Subject
Wellhead Configuration for Nash Unit
#39H, etc

Wesley,

Appreciate talking to you this morning in regards to my question concerning the wellhead configuration for this well and others just like it, this is our first major BLM well with three strings of pipe in it, and we are double checking our drilling plans. As we drill one of these wells, we must set our wellhead equipment below ground level, so this does not obstruct the moving of the rig and its equipment to the next well on the same pad about 50' away, and then again for a third well.

This well has a 13-3/8" surface string, a 9-5/8" intermediate string and 5-1/2" production string of pipe planned. This is also a similar pipe design for a Morrow type well that we have drilled that is not on Federal/BLM land. On a non-BLM well, when the 13-3/8" casing is set and the 'Bradenhead' is installed, a rental/or drilling contractor supplied 13-5/8" hydril is installed for the drilling of the 12-1/4" hole. Once the intermediate string has been cemented, the 13-5/8" hydril is removed, and

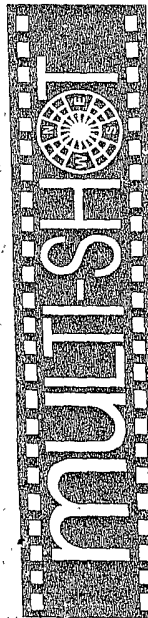
the '13-3/8" Bradenhead' is removed, and a 9-5/8" SOW type x 11" 3M or 5M flange 'Bradenhead' is installed, then the normal 'drilling contractor 11" double ram with hydril' BOP is installed, and the well is drilled to TD.

The question for the Nash wells is - are we required to leave the 13-3/8" 'Bradenhead' on the well? This affects the setting depth of the wellhead and the other wellhead segments that would be required and installed.

If more clarification is needed, please let me know.

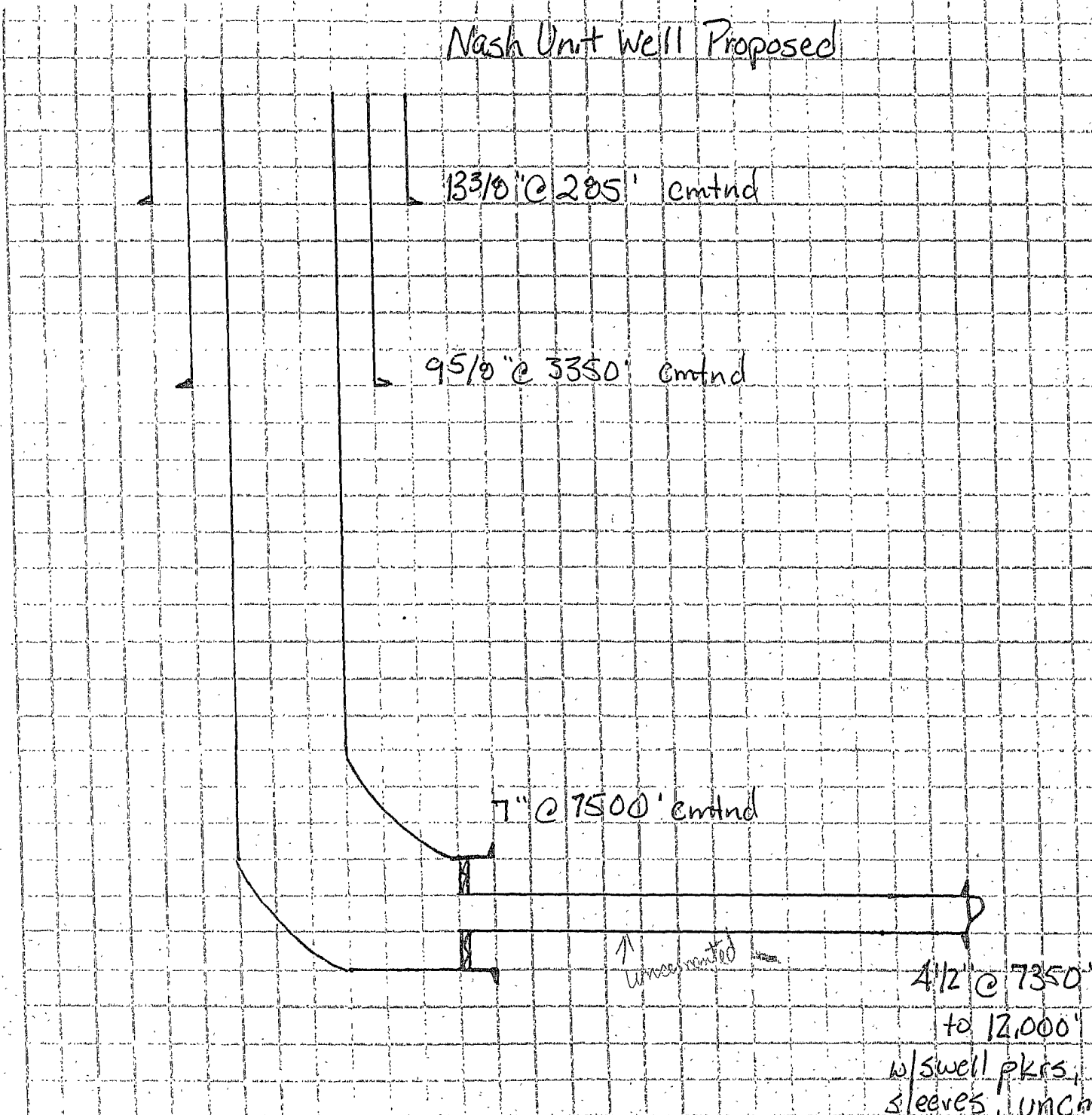
Thanks,

Chip Amrock
Sr Drilling Engineer
XTO Energy - Permian Div
Office: 432-620-4323
Cell: 432-638-8372
Fax: 432-620-4307



Directional Services

DIRECTIONAL DRILLING
DIRECTIONAL SURVEYING
MWD SERVICE
STEERING TOOL
MOTO



Nash Unit Well Proposed

BAKER, MONTANA	877-844-9850	406-778-3983
BROUSSARD, LOUISIANA	800-259-2867	337-839-8400
DENVER, COLORADO	303-542-1957	
DECATUR, TEXAS	800-880-7468	
GRAND JUNCTION, COLORADO	970-257-1911	
HOUSTON, TEXAS	281-951-4346	
MIDLAND, TEXAS	432-683-6565	
ROCK SPRINGS, WYOMING	307-231-0135	
TYLER, TEXAS	800-880-7468	
CORPUS CHRISTI, TEXAS	800-880-7468	361-289-7272
DFW, TEXAS	817-870-4847	972-772-3377

CONROE, TEXAS
936-441-6630
1-800-769-5988
FAX 936-441-6620
www.multi-shotllc.com

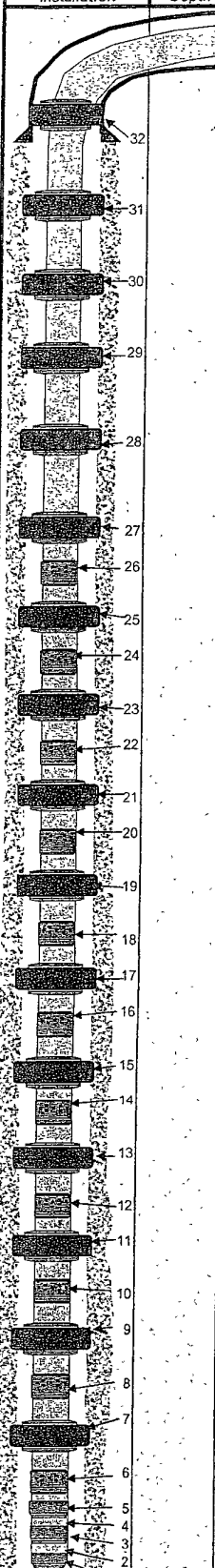
HALLIBURTON

XTO Energy

Nash Draw TBA
Eddy County New Mexico
4-Aug-09

Company Rep.
Sales Rep.
Office

Richard Lauderdale
Lynn Talley
432-682-4305

Proposed Installation		Eddy County New Mexico		Sales Rep.		Lynn Talley	
		4-Aug-09		Office		432-682-4305	
Installation	Depth	Length	Jts.	Description	OD	ID	
				33) 7" 29# VersaFlex Liner Hanger			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				32) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				31) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				30) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				29) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				28) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				27) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				26) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	3.560	
				4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				25) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				24) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	3.310	
				4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				23) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
				19' Ultra FJ Casing Sub Supplied By Customer			
				22) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	3.060	
				4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above			
				4 1/2" 11.6# N-80 Ultra FJ casing			
				21) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750		
			19' Ultra FJ Casing Sub Supplied By Customer				
			20) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	2.810		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			19) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			18) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	2.560		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			17) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			16) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	2.310		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			15) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			14) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	2.060		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			13) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			12) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	1.810		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			11) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			10) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	1.560		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			9) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			8) 4 1/2" Delta Stim Sleeve Threaded Ultra FJ	5.600	1.310		
			4' Ultra FJ Sub Below & 6' Ultra FJ Sub Above				
			7) 4.5x5.75x2.3m SP-S WBM Swellpacker	5.750			
			19' Ultra FJ Casing Sub Supplied By Customer				
			4 1/2" 11.6# N-80 Ultra FJ casing				
			6) 4 1/2" Blank Delta Stim Initiator Sleeve. Ultra FJ X 8rd. LTC	5.750	3.000		
			10' LTC Sub Below & 6' Ultra FJ Sub Above				
			5) 4 1/2" Landing Collar		1.000		
			4) 10'x 4 1/2" LTC sub				
			3) 4 1/2" 8rd. LTC Float Collar				
			2) 6'x 4 1/2" LTC sub				
			1) 4 1/2" 8rd. LTC Float Shoe				

4 1/2" LTC Casing Subs Required 1-Six Foot & 2-Ten Foot
4 1/2" Ultra FJ Casing Subs Needed 10-Four Foot, 11-Six Foot & 10-Nineteen Foot

McWay Drilling Rig No. 5



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy, Inc.
LEASE NO.:	BHL: NM-0554221 SHL: NM-0556859-A
WELL NAME & NO.:	Nash Unit, Well #39H
SURFACE HOLE FOOTAGE:	2415' FSL & 1645' FWL (K) Sec. 12
BOTTOM HOLE FOOTAGE:	500' FNL & 1575' FWL (C)
LOCATION:	Section 11, T. 23 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in Section 13 and it is recommended that monitoring equipment be onsite. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

HIGH CAVE/KARST

R-111-P Potash

Possible lost circulation in the Delaware Mountain group and Bone Springs formation.

1. **The 13-3/8 inch surface casing shall be set at approximately 280 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is penetrated, set casing shoe 25 feet above the top of salt. Fresh water mud to setting depth, brine mud below.**
 - a. **If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.**
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. **Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.**

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash.
3. The minimum required fill of cement behind the 7 inch intermediate casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. **Additional cement will be needed because the calculated excess of cement is -27%.**
 - b. Second stage above DV tool, cement shall:
 - ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement may be needed because the calculated excess of cement is only 12%. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**
4. The 4-1/2 inch production casing requires no cement behind the casing because of the use of swell packers. Top packer to be set a minimum of **150 feet** into the previous casing.
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
6. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi**. Operator will install a **3M** annular and test to 1500psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be **5000 (5M) psi**. Operator will install **5M** system and test as **3M**.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

DHW 092909