UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED OMB NO 1004-0137 Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL	OR REENTER APR I 0 2009	NIMNM 03		
a Type of Work REENI		Germent 6 H Indian, A		:::::7=
	Farmington Field C	mice N/A		
Oil Well Sas Well Other	Single Zone Multiple Zone		Agreement Name and No	
2 Name of Operator		N/A 8 Lease Name	and Well No	
MTO Energy Inc.	Tal Di Si	HIEREAN	O UNIT #321	
3a Address	3b Phone No (include area co	1 9 ACT WELLIN	0 0 0 1 7	
382 CR 3100 Aztec, New Mexico 87410 4. Location of Well (Report location clearly and in accordance with any S.	505-333-3100		34947	
At surface 1900' FSL x 1280' FWL	,	BASIN D	ool, or Exploratory AKOTA , M , or Blk- and Survey o	
At proposed prod-zone SAME				
14.Distance in miles and direction from nearest town or post office*		L SEC 3-T		SED T TO
Approximately 22.4 miles SE of Bloomers	omfield NM Post Office	SAN JUAN	NIM	CLOSED CLOSED C, OR UANT TO
15. Distance from proposed*	16 No of Acres in lease	17 Spacing Unit dedi		PIT, C PIT, C ANK, URSU
location to nearest property or lease line, ft (Also to nearest drg_unit line, if any)	2080.60	-	: W/2 320 .39	T BE SUBMITTED TO AN CED FOR: A PIT, CLOSEC W GRADE TANK, OR METHOD, PURSUANT 1
18. Distance from proposed location*	19 Proposed Depth	20 BLM/BIA Bond	No on file	BE S BE S BE S BE S V GR V GR
to nearest well, drilling, completed,	15 Hoposed Depth	20 191514119171 190110	710 On the	MUST BI NMOCD BELOW (TIVE ME 5.17, PR
applied for, on this lease, ft 3814'	6850'	ט	TB000138	144 MI HE NI M, BE NATI NATI
21.Elevations (Show whether DF, KDB, RT, GL, etc	22. Approximate date work will star	t* 23. Estima	ited duration	
6566' Ground Elevation	05/11/2009		2 weeks	FETE FED I
	24. Attachments			A COMPLET APPROVED LOOP S PROPOSED A NMOCD PA
The following, completed in accordance with the requirements of Onshore O			ROVD SEP 2'09	A CON APPE APPE NMC
 2 A Drilling Plan 3. A Surface Use Plan (if the location is on National Forest System Lands, SUPO must be filed with the appropriate Forest Service Office) 	the 5 Operator certification 6 Such other site specific in BLM	ormation and/or plans	DIST. 3 as may be required by the	;
25. Signature 1 1 1	Name (Printed/Typed)	'	Date	
Xenner M. Hemby	JENNIFER M. HEMBRY		04/09/2009	9
Tale REGULATORY CLERK			_	
Approved by (Signature) Manke Co	Name (Printed/Typed)		Date 9/1/09)
Tale AFM	Office F-FO			*****
Application approval does not warrant or certify that the applicant holds le conduct operations thereon. Conditions of approval, if any, are attached.	egal or equitable title to those rights in t	he subject lease which	n would entitle the application.	ant to
Table 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crissales any false, fictitious or fraudulent statements or representations as to an		lly to make to any dep	artment or agency of the I	United
Continued on page 2) BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND PROPERTIES OCD 24 PRIOR TO CASING & CE	HP D D	*(Instru	ctions (1) page 2)	

SEP 1 1 2009

NMOCD

This action is subject to technical and procedural review pursuant to 43 CFR 3165 g and appeal pursuant to 43 CFR 3165 4



by

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED 'GENERAL REQUIREMENTS".

DISTRICT I 1625 N French Dr., Hobbs, N.M. 88240

State of New Mexico Resources Department LIVED Revised October 12, 2005

DISTRICT II 1301 W Grand Ave , Artesia, N.M. 88210

OIL CONSERVATION DIVISION Submit 1220 South St. Francis Dr. APR 10 2009 Santa Fe, NM 87505

Submit to Appropriate District Office State Lease — 4 Copies

Fee Lease - 3 Copies

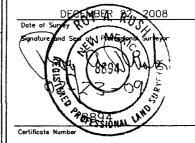
DISTRICT III 1000 Rio Brozos Rd., Aztec, N.M. 87410

DISTRICT IV 1220 South St. Fr	ancis Dr., Sc			OCATIO	N AND	АC	Bureau o Farmi REAGE DED	ngion re	aid Oi	uce] AME	NDED REPORT	
l	Number	1947	/	² Pool Code 7/599	Basin D	a Kota	ol Name	:					
Property Co		1 1		,,,,,,		perty N					e M	feli Number	
3699	2				HUERI	FANO	UNIT				321		
OGRID No					⁸ Oper	rator N	lame		·		1	Etevation	
5380 XTO ENERGY INC.											6566'		
					10 Surfe	ace	Location			b	.,		
Ut or lot no Section Township Range Lot Idn Feet from the North/South line Feet from the East/We										East/Wes	t line	County	
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			"Botte	om Hole	Locati	on I	f Different Fr	om Sur	face				
UL or lot no	Section	Township	Range	Lot Idn	Feet from	the	North/South line	Feet from	the	Eost/Wes	st line	County	
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LOT 4		Lot	7		LOT 2		LOT 1	i h ns bee int income condition of the c	OPER ereby cer true and lief, and t erest or a cluding the ht to drill intract with erest, or	RATOR (thify that the recomplete to that this organization of the proposed baths well at the proposed baths well at the proposed pooling order	nformation he best of nization eith ral interest ttorn hale li this location I such a mi r pooling ag	ICATION contained herein my knowledge and ier owns a working in the land ocation or has a is pursuant to a in pursuant to a interest or a entered by the	
				/ SURI	FACE:				18 S	SURVEY	DR CE	RTIFICATION	

LAT: 36.42812" N. (NAD 83) LONG: 107.78104" W. (NAD 83)

LAT: 36°25'41.22" N. (NAD 27) LONG 107°46'51.76" W. (NAD 27)

I hereby certify that the well location shown on this plat was platted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge & belief



N 89'53'77" E 2618.84' (M) FD. 2 1/2"/BC. 1947 G.L.D.

1280'

Z 00 N 00".

FD. 2 1/2" BC 1947 G.L.O.

XTO ENERGY INC.

Huerfano Unit #321 APD Data April 9, 2009

Location: 1900' FSL x 1280' FWL Sec 3, T25N, R9W County: San Juan State: New Mexico

GREATEST PROJECTED TD: 6850'

OBJECTIVE: Basın Dakota

APPROX GR ELEV: 6566'

Est KB ELEV: <u>6578' (12' AGL)</u>

1. MUD PROGRAM:

INTERVAL	0' to 360'	360' to 2500'	2500' to 6850'
HOLE SIZE	12.25"	7.875"	7.875"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6- 9.20
VISCOSITY	28-32	28-32	45-60
WATER LOSS	NC	NC	8-10

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

2. CASING PROGRAM:

Surface Casing: 8.625" casing to be set at \pm 360' in a 12-1/4" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-360'	360'	24.0#	J-55	ST&C	1370	2950	244	8.097	7.972	7.950	17.13	28.24

Production Casing: 5.5" casing to be set at TD (± 6850 ') in 7.875" hole filled with 9.20 ppg mud.

1						Coll	Burst				118		
ı						Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
ı	Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
ı					_				, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
ł	0'-6850	6850'	15.5#	J-55	ST&C	4040	4810	202	4.950	4.825	1.23	1.47	1.90

Remarks: All Casing strings will be centralized in accordance with Onshore Order #2 and NTL FRA-90-1.

3. WELLHEAD:

- A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

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

A. Surface:

8.625", 24.0#, J-55, ST&C casing to be set at \pm 360' in 12-1/4" hole.

214 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft³/sk, & 6.70 gal wtr/sk.

Total slurry volume is 297 ft³, 100% excess of calculated annular volume to 360'.

B Production: 5.5", 15.5#, J-55 (or K-55), ST&C casing to be set at ± 6850 ' in 7 875" hole. DV Tool set @ ± 4375 '

1st Stage

LEAD:

±184 sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft³/sk, 10.55 gal wtr/sx.

TAIL:

150 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

2nd Stage

LEAD:

 ± 367 sx of Type III or equivalent cement with 8% gel & LCM mixed at 11.9 ppg, 2.54 ft³/sk, 15.00 gal wtr/sx.

TAIL:

100 sx Type III neat mixed at 14.5 ppg, 1.39 cuft/sx, 6.3 gal/sx.

Total estimated slurry volume for the 5-1/2" production casing is 1671 ft³.

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

5. LOGGING PROGRAM:

- A. Mud Logger: None.
- B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (6850') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (6850') to 3,000'.

6. FORMATION TOPS:

Est. KB Elevation: 6578'

FORMATION	Sub-Sea	MD	FORMATION	TV Sub-Sea	MD
Ojo Alamo SS	5440	1138	Gallup	1122	5456
Kirtland Shale	5262	1316	Greenhorn	237	6341
Farmington SS			Graneros	185	6393
Fruitland Formation	5055	1523	Dakota 1*	160	6418
Lower Fruitland Coal	4676	1902	Dakota 2*	103	6475
Pictured Cliffs SS	4577	2001	Dakota 3*	72	6506
Lewis Shale	4377	2201	Dakota 4*	1	6577
Chacra SS	3707	2871	Dakota 5*	-55	6633
Cliffhouse SS*	3007	3571	Dakota 6*	-103	6681
Menefee**	2972	3606	Burro Canyon	-130	6708
Point Lookout SS*	2154	4424	Morrison*	-149	6727
Mancos Shale	1827	4751	TD	-272	6850

^{**-}Primary Objective ----** Secondary Objective _

7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
Justin Niederhofer	Drilling Engineer	505-333-3199	505-320-0158
Bobby Jackson	Drilling Superintendent	505-333-3224	505-486-4706
John Klutsch	Project Geologist	817-885-2800	

JDN 4/8/09

^{****} Maximum anticipated BHP should be <2,000 psig (<0.30 psi/ft) *****

CHOKE MANIFOLD

SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

- 1. Stake all lines from choke manifold to pit.
- 2. Pressure test choke manifold after installation.
- 3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.

TESTING PROCEDURE

