Form Tree					ATS-11-916	
(Feb- din 3160-3 August 2007) SECRETARY'S PO	TASH		OMBN	APPROVED lo. 1004-0137 July 31, 2010		
- UNITED STAT DEPARTMENT OF THI BUREAU OF LAND MA	E INTERIOR	OCD HOL	s ocd	5. Lease Serial No.	59392	
APPLICATION FOR PERMIT T			0 6 201	6. If Indian, Alloted	e or Tribe Name	
la. Type of work: 🖌 DRILL 🗌 REEN	NTER		CEIVER	/ II Unit or CA Agr	eement, Name and No.	
Ib. Type of Well: 🗹 Oil Well 🗌 Gas Well 🛄 Other	Sin	gle Zone 🗌 Multi	ole Zone	Lusk AHB Feder		
2. Name of Operator Yates Petroleum Corporation	<,	2557	57	9 API Well No.	- 40988	
3a. Address 105 S. Fourth St Artesia, NM 88210	3b. Phone No. 575-748-41	(include area code) 20		10. Field and Pool, or Undesignated, 24	Exploratory BOUE 41	
<ol> <li>Location of Well (Report location clearly and in accordance with At surface 710' FNL &amp; 2410' FWL</li> </ol>	h c <b>an</b> y State requireme	ents. *)		11. Sec., T. R. M. or I Section 35 T19S-F	Blk. and Survey or Area	
At proposed prod. zone 330' FSL & 1760' FWL 14. Distance in miles and direction from nearest town or post office*				12. County or Parish	13. State	
Approximately 37 miles to Carlsbad			r	Lea	NM	
<ul> <li>Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> </ul>	16. No. of ac 636.08	cres in lease		g Unit dedicated to this 60 acres	well	
18 Distance from proposed location*	19. Proposed	19. Proposed Depth 20. BLM		BIA Bond No. on file		
to nearest well, drilling, completed, 1800' applied for, on this lease, ft.	9764' TVD 13818' MD		NATION	IWIDE BOND #NM	B000434	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3571' GL	22 Approxin 01/16/2013	nate date work will sta 3	rt*	23. Estimated durati 30 days	on	
	24. Attac	hments		" <b>-</b>		
he following, completed in accordance with the requirements of On	shore Oil and Gas (	Order No.1, must be a	ttached to th	is form:	,,	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>		Item 20 above).		ns unless covered by a	n existing bond on file (see	
3. A Surface Use Plan (if the location is on National Forest Syst SUPO must be filed with the appropriate Forest Service Office).	tem Lands, the	<ol> <li>Operator certifie</li> <li>Such other site BLM.</li> </ol>		ormation and/or plans a	is may be required by the	
25. Signature Tlah					Date 07/16/2012	
Title : Land Regulatory Agent						
Approved by (Signature) 15/ Aden L Seidlitz	Name	(Printed/Typed)			DateJAN 29 2013	
STATE DIRECTOR	Office		NM	STATE OF	FICE	
Application.approval.does.not.warrant or certify that the applicant l conduct operations thereon. Conditions of approval, if any, are attached.	holds legal or equit	able title to those righ		oject lease which would	• •	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations	a crime for any pe s as to any matter w	erson knowingly and vitility in the second sec	willfully to n	nake to any department	or agency of the United	
(Continued on page 2)			· · ·	*(Ins	tructions on page 2)	

ontinued on page 2)

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Capitan Controlled Water Basin

KE/11/13

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

· 43	F:	UNITED STATES ARTMENT OF THE INTE GAU OF LAND MANAGE	RIOR	DIM		OMB No	APPROVED . 1004-0137 . arch 31, 2007		
فر	BURE	EAU OF LAND MANAGE	MENT	D-HUBB	<b>Š</b> 5.	Lease Serial No.			
	SUNDRY I	NOTICES AND REPORTS	ON WELLS	;		NM-	59392		
1		form for proposals to d Use Form 3160-3 (APD) fo			6.	If Indian, Allotte	e or Tribe Name		
1		IPLICATE – Other instruc	tions on p	age 2.	• 7.	If Unit or CA/Ag	greement, Name and/o		
Ĵ	1. Type of Well Gas Well Gas Well	Other			8.	Well Name and	/		
	2. Name of Operator	005575					ederal #7H		
	Yates Petroleum Corporation	n 025575	Dhana No	. (include area		API Well No.			
			505) 748-1	,	· –	Field and Pool	or Exploratory Area		
	<ol> <li>105 South Fourth Street, Arte</li> <li>4. Location of Well (Footage, Sec., 2)</li> </ol>		505)746-1	4/1					
		20	11	County or Parish	Nolfcamp				
		nd 2410' FWL Surface H nd 1760' FWL Bottom H			11.		i, blate		
	300 1 02 21	Section 35, T19S-R32E		///		Lea County,	New Mexico		
	12. CHECK THE APPR	ROPRIATE BOX(ES) TO IND		FURE OF NO	TICE, REPO	ORT, OR OTHE	R DATA		
	TYPE OF SUBMISSION			TYPE OF AC	TION				
	Notice of Intent	Acidize	Deepen Fracture Tr		Production (Sta Reclamation	art/Resume)	Water Shut-Off Well Integrity		
	Subsequent Report	Casing Repair	New Constr Plug and A	ruction 🔲 F	Recomplete Temporarily At	bandon	Other Change of surface		
	Final Abandonment Notice	Convert to Injection	Plug Back	Ū V	Vater Disposal		Use Plan.		
	13. Describe Proposed or Completed Operation the proposal is to deepen directionally or Attach the Bond under which the work we following completion of the involved operates testing has been completed. Final Abanda determined that the site is ready for final in	recomplete horizontally, give subsurfac- vill be performed or provide the Bond N rations. If the operation results in a mul onment Notices must be filed only after	e locations and n o. on file with B tiple completion	neasured and true BLM/BIA. Require or recompletion in	vertical depths of ed subsequent rep n a new interval, a	f all pertinent marker ports must be filed w a Form 3160-4 must	s and zones. rithin 30 days be filed once		
	Yates Petroleum Corporation of a 320' x 320' x 11' freshwa								
	and other possible future we	lls in the area.							
	The frac pond will be located	I in the NW/NE/4 of Secti	on 35.						
	On the east side of the frac p	oond there will be a 12' w	ide road w	ith in the bu	iffer with ra	amps and a tu	urn around for the		
	water trucks after unloading.								
	Please note attached plats								
	Thank you.								
	14. I hereby certify that the foregoing	g is true and correct							
	Name (Printed/Typen)		Title						
		owan		La	and Regula	atory Agent			
	Signature AMA	2	Date		August 9	9, 2011			
		THIS SPACE FOR	FEDERAL (	OR STATE US	E				
	Approved by S Adren L. Sei	dlitz	Title	FIELD MAN	AGER	JAN	2 9 2013		

Conditions of approval, if any, are attached. Approval of this notice 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. Office CARLSBAD FIELD OFFICE

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

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(Instructions on reverse)

YATES PETROLEUM CORPORATION Lusk AHB Federal #7H 710' FNL & 2410' FWL Surface Hole Location 330' FSL and 1760' FWL Bottom Hole Location Section, 35-T19S-R32-E Lea County, New Mexico

7918' Oil

8239'

8573'

13818'

- 1. The estimated tops of geologic markers are as follows: Rustler 1083' Avalon Sand 1168' Top of Salt Middle Avalon 2718' Base of Salt Lower Avalon 1<sup>st</sup> Bone Spring/SD 8808' Oil 2<sup>nd</sup> Bone Spring/SD 9435' Oil 2883' Oil Yates Capitan Reef 3228' 4723' Oil Bell Canyon Target Zone SBSG 10041' Oil Cherry Canyon 5023' Oil TD Brushy Canyon 6248' Oil Bone Spring 7723' Oil
- 2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: Approx. 250' - 350' and 3228' All Potential Zones—see above Oil or Gas:

Pressure Control Equipment: Yates Petroleum Corporation hereby request a variance to 3. allow us to place a 2000 PSI annular system with a 21 1/4" opening will be installed on the 20" a 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375" casing and 5000 PSI BOPE will be installed on the 9.625" casing. Pressure tests to 1000 PSI, 3000 PSI and 5000 PSI respectively and held for 30 minutes will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit. Low pressure test -See COA

Auxiliary Equipment:

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.
- THE PROPOSED CASING AND CEMENTING PROGRAM: 4.

Α. Casing Program: (All New) Intermediate casing will be J-55/H-40 Hybrid

Hole Size 36"	Casing Size 30"	Wt./Ft	Grade H-40	Coupling	Interval 0-58'	Length 58'	400
26"	20"	106.5#	J-55	ST&C	0-80'	80'	See COPI
26"	20"	94.0#	J-55	ST&C	80'-900' 1175	<sup>′</sup> 820'	-
26"	20"	106.5#	J-55	ST&C	900'-1110'	210'	
17 ½"	13 <sup>3/8</sup> "	61.0#	HCK-55	ST&C	0-80'	80'	
17 1⁄2"	13 <sup>3/8</sup> "	54.5#	J-55/ <b>≵h⊴4</b> €	TST&C	80'-1800'	1720'	
17 ½"	13 <sup>3/8</sup> "	61.0#	HCK-55	ST&C	1800'-2850'	1050'	
12 ¼"	9 5/8,	40.0#	HCK-55	LT&C	0-80'	80'	
12 ¼"	9 5/8,	36.0#	J-55	LT&C	80'-3500'	3420'	
12 ¼"	9 <sup>5/8</sup> "	40.0#	HCK-55	LT&C	3500'-4800'	1300'	
8 ¾"	5 ½"	17.0#	P-110	LT&C	0-9280'	9280'	
8 1⁄2"	5 1⁄2"	17.0#	P-110	<b>Buttress Thread</b>	9280'-13818'	4538'	

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Lusk AHB Federal 7H Page 2

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Well will be drilled vertically to 9286'. Well will be kicked off at approximately 9286' and directionally drilled at 12 degrees per 100' with an 8 <sup>3</sup>/<sub>4</sub>" hole to 10041' MD (9764' TVD). Hole size will then be reduced to 8 <sup>1</sup>/<sub>2</sub>" and drilled to 13818' MD (9728' TVD) where 5 <sup>1</sup>/<sub>2</sub>" casing will be set. A DV tool will be set at approximately 7000'. Penetration point of producing zone will be encountered at 1187' FNL & 2339' FWL, 35-19S-32E. Deepest TVD in the well will be 9764', in the lateral. NO PILOT HOLE.

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

B. CEMENTING PROGRAM:

Surface casing: Lead with 1535 sacks of Class PozC 35:65:6 (Yld 2.00 Wt.12.5). Tail in w/200 sacks of "C" (Yld 1.34 Wt 14.8) w/CaCl2 +2% designed with 100% excess. TOC-Surface.

Intermediate Casing 1 (0'-2850'): Lead with 1841 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5); Tail in w/200 sacks of Class "C" (Yld 1.34 Wt. 14.8) w/CaCl2 +2% designed with 100% excess. TOC-Surface.

Intermediate Casing 2:

Stage 2 (0'-3170'): Lead with 860 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5); Tail in w/200 sacks of Class C (Yld 1.34 Wt 14.8) w/CaCl2 +2% designed with 100% excess. TOC Surface.

Stage 1 (3170'-4800'): Lead with 370 sacks of Class PozC 35:65:6 (YLD 2.0 Wt 12.5); tail in with 200 sacks of Class C (Yld 1.34 Wt 14.8) with CaCl2 + 2%, designed with 100% excess.

Production casing will be cemented using DV tool at 7000'.

Production Casing 2<sup>nd</sup> stage (3000'-7000'): Lead w/545 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5). Tail in 200 sacks of Pecos VILt (Yld 1.41 Wt 13.0) with the additives including 30% CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15% Fluid loss. Designed with 35% excess, and TOC is 3000'.

Production Casing 1<sup>st</sup> stage (7000'-13818'): Lead with 510 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5); Tail in 925 sacks of Pecos VILt (Yld 1.41 Wt. 13.0) with the additives including 30% CaCO, 3.2% Expansion additive, 2% Antifoam, 0.8% Retarder, 15% Fluid loss, designed with 35% excess. TOC-7000'

### 5. Mud Program and Auxiliary Equipment:

See

OR	Interval 0'-1140' เเาร์ 1125'-3000' 3000'-4500' 4500' 10573'	Type Fresh Water Gel Brine Water Fresh Water	Weight 8.6-9.2 10.0-10.2 8.6-9.2	32-34 28-29 28-32	Fluid Loss N/C N/C N/C
	4500'-10573'	Cut Brine	8.8-9.2	30-34	N/C

#### Lusk AHB Federal #7H Page Three

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Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: 30' samples to 4800' then 10' samples from 4800' to TD.
Logging: GR Newtron 30 degrees dev to surface, Density 30 degrees dev to intermediate casing, Laterolog 30 degrees dev to intermediate casing, CMR 30 degrees dev to intermediate casing, Schlumberger Tools Platform/HRLA/CMR.
Coring: As warranted.
DST's: As warranted.
Mudlogging: On, from surface casing to TD (1110'-13818')

### 7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From:	0	TO:	1110'	Anticipated Max. BHP:	531	PSI
From:	1125'	TO:	2850'	Anticipated Max. BHP:	1512	PSI
From:	2850'	TO:	4800'	Anticipated Max. BHP:	2296	PSI
From:	4800'	TO:	9764'	Anticipated Max. BHP:	4671	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 15 days.

**Operator Co.** 

**→**) (

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Sal Man Chief a	REAL AT	A Story	C. C. A. C. A.	Surveý/Plann	ing Report						
Operator	perator Yates Petroleum Corp.			Northing				3-Jul-12			
Dir. Co.	Yates Petroleum Corp.			Easting			System	2 - St. Plane			
Well Name	Lusk AHB	Fed. #7H Si	urvey	Elevation			Datum	1983 - NAD	83		
Location	Sec. 35, 1	9S-32E		Latitude			Zone	4302 - Utah	Central		
Rig				Longitude			Scale Fac.				
Job				Units			Converg.				
	⊧.s. INC γ	AZI	t 🗤 TVD	**** <b>+N/S</b> -	⊷+E/W-	VS@188:44°,	∍ <b>⊴ BR</b>	TR	DLS		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1083.00	0.00	360.00	1083.00	0.00	0.00	0.00	0.00	0.00	0.00		
1083: RUSTLER	t, 1083'										
1168.00	0.00	360.00	1168.00	0.00 ,	0.00	0.00	0.00	0.00	0.00		
1168: TOS, 1168	3'										
2718.00	0.00	360.00	2718.00	0.00	0.00	0.00	0.00	0.00	0.00		
2718: BOS, 2718	3'										
2883.00	0.00	360.00	2883.00	0.00	0.00	0.00	0.00	0.00	0.00		
2883: YATES, 28	383'										
3228.00	0.00	360.00	3228.00	0.00	0.00	0.00	0.00	0.00	0.00		
3228: CAPITAN,	3228'										
4723.00	0.00	360.00	4723.00	0.00	0.00	0.00	0.00	0.00	0.00		
4723: BELL CAN	YON, 4723	3'									
5023.00	0.00	360.00	5023.00	0.00	0.00	0.00	0.00	0.00	0.00		
5023: CHERRY (	CANYON, 5	5023'									
6248.00	0.00	360.00	6248.00	0.01	0.00	-0.01	0.00	0.00	0.00		
6248: BRUSHY (	CANYON, 6	248'									
7723.00	0.00	360.00	7723.00	0.01	0.00	-0.01	0.00	0.00	0.00		
7723: BONE SPI	RINGS LM,	7723'									
7918.00	0.00	360.00	7918.00	0.01	0.00	-0.01	0.00	0.00	0.00		
7918: AVALON S	SAND, 7918	8'									
8239.00	0.00	360.00	8239.00	0.01	0.00	-0.01	0.00	0.00	0.00		
8239: MIDDLE A	VALON, 82	239'									
8573.00	0.00	360.00	8573.00	0.01	0.00	-0.01	0.00	0.00	0.00		
8573: LOWER A	VALON, 85						<u></u>				
8808.00	0.00	360.00	8808.00	0.01	0.00	-0.01	0.00	0.00	0.00		
8808: FBSG, 880											
9286.16	0.00	188.44	9286.16	0.01	0.00	-0.01	0.00	2.03	0.00		
9286.16: KOP, 9	286'										
9300.00	1.66	188.44	9300.00	-0.19	-0.03	0.19	12.00	0.00	12.00		
9400.00	13.66	188.44	9398.92	-13.35	-1.98	13.50	12.00	0.00	12.00		
9435.42	17.91	188.44	9433.00	-22.88	-3.40	23.13	12.00	0.00	12.00		
9435.42: SBSG,		· · ·							•		
9500.00	25.66	188.44	9492.92	-46.57	-6.91	47.08	12.00	0.00	12.00		
9600.00	37.66	188.44	9577.88	-98.40	-14.60	99.48	12.00	0.00	12.00		
9700.00	49.66	188.44	9650.09	-166.57	-24.71	168.39	12.00	0.00	12.00		
9800.00	61.66	188.44	9706.40	-248.10	-36.80	250.81	12.00	0.00	12.00		
9900.00	73.66	188.44	9744.34	-339.42	-50.35	343.14	12.00	0.00	12.00		
10000.00	85.66	188.44	9762.25	-436.56	-64.76	441.34	12.00	0.00	12.00		
10040.66	90.54	188.44	9763.60	-476.74	-70.72	481.96	12.00	0.00	12.00		
10040.66: TARG		,									
13818.30	90.54	188.44	9728.01	-4213.32	-624.99	4259.42	0.00	0.00	0.00		
13818.3 LATER	13818.3: LATERAL TD. 13818' MD (9728' TVD)										

13818.3: LATERAL TD, 13818' MD (9728' TVD)







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Typical 2,000 psi choke manifold assembly with at least these minimun features





Typical 3,000 psi choke manifold assembly with at least these minimum features



## YATES PETROLEUM CORPORATION

Piping from Choke Manifold to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.



# Yates Petroleum Corporation Location Layout for Permian Basin

YATES PETROLEUM CORPORATION Lusk AHB Federal #7H 710' FNL and 2410' FWL SHL 330' FSL and 1760' FWL BHL Section 35, T19S-R32E Exhibit C Lea County, New Mexico

### Closed Loop Design Plan

\* NOT TU SCALE Gen. Roll off 下 Closed Loop Equip. 25′ 1/2 170' 不 Working Pits Mud 20 Steel Power . 50'-330' Pipe F"Rig Eq.mip Sub-Structure e 215 Rack 50 25 9 Well 7 Dog House 15' N 4-30'-x 85.' 40-K 160 HOAL Hours House Howe 117 • . •