Form 3160-3 (March 2012)			BBS OCI		APPROVED 10. 1004-0137	
UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN	Expires C 5. Lease Serial No. NM-92199	October 31, 2014				
APPLICATION FOR PERMIT TO	DRILL OF	REENTER		%6. If Indian, Allotee	the second se	*** = ····
la. Type of work: DRILL REENTE		1004	<u> </u>	7. If Unit or CA Agre	eement, Name and	I No.
1b. Type of Well: Oil Well Gas Well Other	<b>S</b> iu	igle Zone 🔲 Multip	ole Zone	8. Lease Name and WEST COPPERLI COM. # 3H	Well No.	<i>7064 /</i> /state
2. Name of Operator CAZA OPERATING, LLC.	2490	1999		9. API Well No. 30-024		
3a. Address 200 NORTH LORAINE SUITE 1550 MIDLAND, TEXAS 79701		. (include area code) 2–682–7424		10. Field and Pool, or BELL LAKE-BON	Exploratory NE SPRING	2209)
4. Location of Well (Report location clearly and in accordance with any	y State requirem	ents.*)	AA	TELOPE R 11. Sec., T. R. M. or B	lk. and Survey or	Area
At surface 150' FNL & 1980' FWL SECTION At proposed prod. zone 330' FSL & 1980' FWL S		3S-R34E 29 T23S-R34E		SECTION 29	T235-R34	E
14. Distance in miles and direction from nearest town or post office* Approximately 25 miles Northwest of	Jal New	Mexico		12. County or Parish LEA CO.	13. St	tate
15. Distance from proposed* location to nearest	16. No. of a	cres in lease	17. Spacin	g Unit dedicated to this		
property or lease line, ft. 150' (Also to nearest drig. unit line, if any)	560		I	L60		
18. Distance from proposed location* to nearest well, drilling, completed, 180' applied for, on this lease, ft.	19. Proposed MD- 16,	209' PILOT HOLE		BIA Bond No. on file -000471		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		nate date work will sta		23. Estimated duration		
3539' GL	WHEN AP			APP. 35 day	ys	<u> </u>
The following, completed in accordance with the requirements of Onshor	24. Attac		tached to the	is form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the	Item 20 above). 5. Operator certific	ation	ns unless covered by an ormation and/or plans as	3	``
25. Signature Joset, Januar		(Printed/Typed) T. Janica			Date 12/18	 3/13
Title Permit Eng.					<u> </u>	
Approved by (Signature) /s/George MacDonell	Name	(Printed/Typed)			DateEC 23	2013
Title FIELD MANAGER Office CARLSBAD FIELD OFFICE						
Application approval does not warrant or certify that the applicant holds conduct operations thereon. Conditions of approval, if any, are attached.	s legalorequi	table title to those righ		pjectlease which would PPROVAL FOF		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	rime for any p to any matter v	erson knowingly and writhin its jurisdiction.	villfully to n	nake to any department	or agency of the	United
(Continued on page 2)			C	arlsbad Coħŧłභ	reutionster f	
Approval oubjeet to denotal hedding months		ACHED FOI ONS OF AP	R	KE 1	30/13	
				DEC	3 0 2013	Ĵ

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### **HOBBS OCD**

December 15, 2013

DEC 3 0 2013

Bureau of Land Management-Carlsbad Office 620 E Green Street Carlsbad, New Mexico

RECEIVED

Attn: Mr. Wesley Ingram

Re: BLM APD dated November 23, 2013 Caza Petroleum-W. Copperline 29 No. 3H E/2 W/2 Section 29, T23S-R34E Lea County, New Mexico

Gentlemen:

Caza Petroleum is preparing to drill its W. Copperline 29 No. 3H well in the E/2 of the W/2 of Section 29, T23S-R34E, Lea County, New Mexico. This 160 acre project area includes portions of State Lease VB 2228 and BLM Lease NM 092199, respectively. In support of drilling this well, Caza:

(1) has received NMOCD compulsory pooling Order No. R-13723 covering this project area and both of the above referenced leases;

(2) is named Farmee/Operator in that certain Farmout Agreement dated July 1, 2013, between Caza and Devon Energy Production Company covering operating rights in SW/4 of Section 29 under NM 092199; and

(3) Caza is named Operator in that certain Operating Agreement dated May 30, 2013, executed by First Roswell Company and Chevron Energy covering all of Section 29, including the 160 acre project area under NM 091299.

If you have any questions, please call me at 832-381-3854 or email me at jbrown@cazapetro.com.

Very truly yours, Caza Petroleúm, Inc.

Land Manager

#### APPLICATION TO DRILL

CAZA OPERATING, LLC. WEST COPPERLINE 29 STATE COM. #3H UNIT "C" SECTION 29

T23S-R34E LEA CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

1. LOCATION: SHL: 150' FNL & 1980' FWL SECTION 29 T23S-R34E LEA CO. NM BHL: 330' FSL & 1980' FWL SECTION 29 T23S-R34E LEQ CO. NM 2. ELEVATION ABOVE SEA LEVEL: 3539' GL

3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids from hole.

5.	PROPOSED	DRILLING	DEPTH:	MD-16,209'
				TVD-11,631'

6.	ESTIMATED TOPS OF	GEOLOGICAL FORMATIONS:
	Rustler Anhydrite	1024'
	Top of Salt	1267'
	Castile	3199'
	Base of Salt	4787 <b>'</b>
	Bell Canyon	5212'

7. POSSIBLE MINERAL BEARING FORMATIONS: Bell Canyon 0il/water/Gas

2	
Cherry Canyon	OI1/Water/Gas
Brushy Canyon	Oil/Water/Gas
lst Bone Spring 3. CASING PROGRAM:	0il/Water/Gas

Cherry Canyon	6004'
Brushy Canyon	7301'
Bone Spring	8678'
lst Bone Spring	9771'
2nd Bone Spring	10,286'
3rd Bone Spring	11,266'
Red Hills Sand	11,398'
2nd Bone Spring	Oil/Water/Gas
3rd Bone Spring	Oil/Water/Gas
Possible Fresh Water	250±'

600/1

8. ASING PROGRAM

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION	_
26"	0-140'	20"	NA	NA	NA	NA	New	
1711	0-1060'	13.3/8"	54.5#	8-R	ST&C	J-55	New	
121"	0-5085'	9 5/8"	4O <b>#</b>	8-R	LT&C	J-55 HCK-55	New	
8 3/4"	0-16,209'	51"	20#	8-R	LT&C	P-110	New	

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5 Joint Strength 8-Round 1.3 Buttress 1.6

CAZA OPERATING, LLC. WEST COPPERLINE 29 FED/STATE COM. #3H UNIT "C" SECTION 29 T23S-R34E LEA CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

1. LOCATION: SHL: 150' FNL & 1980' FWL SECTION 29 T23S-R34E LEA CO. NM BHL: 330' FSL & 1980' FWL SECTION 29 T23S-R34E LEQ CO. NM 2. ELEVATION ABOVE SEA LEVEL: 3539' GL

- 3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;
- 4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids from hole.
- 5. PROPOSED DRILLING DEPTH: MD-16,209' TVD-11,631'

6.	Rustler Anhydrite Top of Salt Castile Base of Salt Lamar Bell Canyon	GEOLOGICAL FORMATIONS: 1066' 1267' 2787' 4896' 4950' 5177' BEARING FORMATIONS:	Cherry Canyon Brushy Canyon Bone Spring lst Bone Spring 2nd Bone Spring 3rd Bone Spring Red Hills Sand	6004' 7301' 8678' 9771' 10,286' 11,266' 11,398'
	Bell Canyon Cherry Canyon Brushy Canyon lst Bone Spring	Oil/water/Gas OIl/Water/Gas Oil/Water/Gas Oil/Water/Gas	2nd Bone Spring 3rd Bone Spring Possible Fresh Water	Oil/Water/Gas Oil/Water/Gas 250±'

8. CASING PROGRAM:

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$\Gamma$	MA-
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	HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION	
-	26"	0-140' 1150' 0-1960'	20"	NA	NA	NA	NA	New	
	17 <u>1</u> ''	0-1060'	13 3/8"	54.5#	8-R	ST&C	J-55	New	
	12‡"	0-5085'	9 5/8"	40 <i>#</i>	8-R	LT&C	J-55 HCK-55	New	
	8 3/4"	0-16,209'	5 <u>1</u> "	20#	8-R	LT&C	P-110	New	

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5 Joint Strength 8-Round 1.8 Buttress 1.6

#### APPLICATION TO DRILL

CAZA OPERATING, LLC. WEST COPPERLINE 29 FED/STATE COM. #3H UNIT "C" SECTION 29 T23S-R34E LEA CO. NM

#### 9. CASING SETTING DRPTHS AND CEMENTING:

Set 140' of 20" conductor pipe and cement to surface 20" Conductor with Redi-mix. Run and set 1060 of 13 3/8" 54.5# J-55 ST&C casing. 13 3/8" Surface Cement with 674 Sx of Class "C" cement + 4% Gel, + 2% Cacl, Yield 1.74, tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.32. 50% Excess circulate cement to surface. Run and set 5085' of 9 5/8" 40# casing as follows" 9 5/8" Intermediate 3185-1100 of 9 5/8" 40# HCK-55 LT&C casing,0-3985' of 9 5/8" 5085 40# J-55 LT&C casing. Cement with 1053 Sx. of 35/65

Class "C" POZ cement + 5% Salt, + 6% Gel, Yield 2.09, Tail in with 200 Sx. of Class "C" cement + 1% CaCl, Yield 1.32. 75% Excess, circulate cement to surface.

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5½" Production Run and set 16,209! of 5½" 20# P-110 LT&C casing. Cement with 1429 Sx. of 35/65 Class "H" POZ cement + 1½ / Sx. of KolSeal, + retarder, Yield 1.93, tail in with 621 Sx. of Class "H" SoluCem cement, # fluid.loss control + defoamer, Yield 2.61, 50% Excess top of cement 4500'.

#### 10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 5000 PSI working pressure B.O.P. consisting of a packoff an annular bag type preventor, blind rams. and pipe rams. A 13 5/8" B.O.P. will be nippled up on the 13 3/8" surface casing and will remain on the well to TD. The B.O.P. will be tested by a third party testing company to 5000 PSI. The B.O.P. will be operated at least once in each 25 hour period and the blind rams will be operated when the drill pipe is out of the hole on trips. A full opening stabbing valve and an upper kelly cock will be available on the derrick floor at all times and will be compatible with the drill pipe being used to drill this well. Exhobit "E-1" shows a 3" 5000 PSI choke manifold with a manual choke and a hydraulically remote choke. The choke manifold will be regid connection to the B.O.P. No abnormal pressures or abnormal temperatures are expected in this well during drilling operations, other wells drilled in the area did not encounter high temperatures or pressures. CAZA OPERATING, LLC. WEST COPPERLINE 29 FED/STATE COM. #3H UNIT "C" SECTION 29 T23S-R34E LEA CO. NM

	Λ	UD CIRCULATING	SYSTRM:		
Sl	COR		~		
20	DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
	40-1060'	8.6-8.9	29-32	NC	Fresh water spud mud use paper to control seepage, and high vis- cosity to clean hole.
	1060-5085'	10.0- 10.2	29 <b>-</b> 36	NC	Brine water using paper to control seepage and high viscosity sweeps to clean hole.
	5085-16,209'	8.6-9.2	29-38	NC	Fresh water with the possibility of going to cut brine system, using high viscosity sweeps to clean hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, cut cores and casing, the viscosity, water loss and other properties may have to be altered to meet these requirements. Pit level will be monitered visually and electronic pit level moniter will be used.

THIS WELL WILL BE DRILLED USING A CLOSED MUD SYSTEM.

## APPLICATION TO DRILL

CAZA OPERATING, LLC. WEST COPPERLINE 29 FED/STATE COM. #3H UNIT "C" SECTION 29 T23S-R34E LEA CO. NM

#### 12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Run Dual Laterolog, CNL, LDT, Gamma Ray FMI Sonic, from End of verticle hole (11,900±") back to Intermediate casing (5085') Run Gamma Ray, Neutron from intermediate casing shoe back to surface.
- B. Rig up mud logger on hole at 5085' and remain on hole to TD.
- C. No DST's or cores are planned at this time unless Geologist requests one to determine quality of reservoir.

#### 13. POTENTIAL HAZARDS:



No abnormal pressures or temperatures are expected. There is no known presence of  $H^2S$  in this area. If  $H^2S$  is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP <u>Est. 5350</u> PSI, and Estimated BHT <u>Est. 195°</u>. The well 180' South of this location did not encounter any H2S during the drilling operation.

#### 14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 35 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

#### 15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The <u>Bone Spring</u> formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as a Bone Spring producer.

## Caza Operating, LLC West Copperline Fed/State Com # 3H Hydrogen Sulfide Contingency Plan For Drilling/Workover/Facility

150 FNL & 1980 FWL, SEC 29, T23S, R34E, LEA COUNTY, NEW MEXICO

get 5P

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no occupied dwellings in the area but a contingency plan has been orchestrated. Caza Operating,LLC will have a Company Representative living on location through out the drilling and completion of this well. If Hydrogen Sulfide is detected or suspected, monitoring equipment will be available for monitoring and/or testing. An un-man H2S safety trailer and monitoring equipment will also be station on location during the drilling operation below the Surface Casing depth of  $\pm$  1060 ft. to total drilling depth of 16,060 ft. MD & TVD of ± 11.470 ft.

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## West Copperline 29 Fed/State Com # 3H 5000 PSI BOP Schematic Minimum requirement 11 inch





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#### Note: The Rig and Closed System Company for this well have not been selected thus the set up shown is simply generic.

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# West Copperline 29 State Com # 3H Closed Loop Drilling System

## **Operations and Maintenance Plan**

Closed Loop equipment will be inspected and monitored closely on a daily basis by each drilling rig Tour and by those hired specifically to operate the equipment. Any leak or release detected will be repaired immediately and the proper NMOCD official will be notified within the 48 hr requirement. A large release will require Caza Operating, LLC representatives to contact BLM immediately at the Carlsbad office "575 234 5972" Hobbs "575 393 3612" as well as the NMOCD @ 575 393 6161 as stated by NMOCD rule 116.

## **Closure Plan**

During and after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed of at the R-360 disposal (permit number NM 01-0006) located about 30 miles East of Carlsbad, New Mexico. An alternate approved disposal site has been selected Parabo disposal "Sundance" which is 4 miles East of Eunice (permit number NM 01-0003). The Second site would be used in the event of economics or physical problems with R-360 disposal.







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Preplaining reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is thallenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind threation, spacing access for truck removal of cutting bins, flare pit location, and piping provision to the flare pit. Include the choke manifold and mud-gas separation location sond their connection routing.

### EXHIBIT "D" RIG LAYOUT PLAT

CAZA OPERATING, LLC. WEST COPPERLINE 29 STATE COM. #3H UNIT "C" SECTION 29 T23S-R34E LEA CO. NM



EXPANDED VIEW OF FLOW LINESTO MUD-GAS SEPERATOR & BLOW DOWN LINES TO FLARE PIT

## Caza Operating, LLC West Copperline 29 State Com # 3H Hydrogen Sulfide Contingency Plan For Drilling/Workover/Facility

150 FNL & 1980 FWL, SEC 29, T23S, R34E, LEA COUNTY, NEW MEXICO

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no occupied dwellings in the area but a contingency plan has been orchestrated. Caza Operating,LLC will have a Company Representative living on location through out the drilling and completion of this well. If Hydrogen Sulfide is detected or suspected, monitoring equipment will be available for monitoring and/or testing. An un-man H2S safety trailer and monitoring equipment will also be station on location during the drilling operation below the Surface Casing depth of ± 800 ft. to total drilling depth of 15,880 ft.

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