Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
AUG 20 2012
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO. **30 025 40621**

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil & Gas Lease No. **VB 1184**

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name **Caza Ridge 14 State**

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

8. Well Number **3H**

2. Name of Operator **Caza Operating,LLC**

9. OGRID Number **249099**

3. Address of Operator **200 N. Loraine, Suite 1550, Midland, Texas 79701**

10. Pool name or Wildcat **Antelope Ridge Bone Sprg-West**

4. Well Location
Unit Letter **O** : 330 feet from the **South** line and **1980** feet from the **East** line
Section **14** Township **23 S** Range **34E** NMPM County **Lea**

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **3372 GR**

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☒	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER:	☐			OTHER:	☐		

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Caza Operating Respectfully request the following changes in Hole Size, Casing size and cement. Attached for your convenience is the approved APD along with casing design & cement modifications. Thanks for you help.

Hole size	Csg Size	Csg Wgt	Setting depth	Sacks Cement	TOC est	
12-1/4"	9-5/8"	40# J/HCK	4950 ft	1153 sks	Surface	
8-3/4"	7"	29# P	11,600 ft	1121 sks	4,400'	Set Thru curve
6-1/8"	4-1/2"	13.5# P	15,730 ft	477 sks	10,650'	

Spud Date: **June 28, 2012**

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Richard L. Wright TITLE **Operations Manager** DATE 8/13/2012

Type or print name **Richard L. Wright** E-mail address: **rwright@cazapetro.com** PHONE: **432 682 7424 ext 1006**

For State Use Only

APPROVED BY: TITLE Petroleum Engineer DATE AUG 21 2012

Conditions of Approval (if any):

AUG 21st 2012

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
JUN 18 2012
RECEIVED

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1 Operator Name and Address	2 OGRID Number
CAZA OPERATING, LLC. 200 NORTH LORAINE SUITE 1550 MIDLAND, TEXAS 79701	249099
	3 API Number 30-025-40621

4 Property Code	5 Property Name	6 Well No.
39020	CAZA RIDGE "14" STATE	3H

9 Proposed Pool 1	10 Proposed Pool 2
ANTELOPE RIDGE BONE SPRING-WEST (2209)	

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	14	23S	34E		330'	SOUTH	1980'	EAST	LEA

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	14	23S	34E		330'	NORTH	1980'	EAST	LEA

Additional Well Information

11 Work Type Code	12 Well Type Code	13 Cable/Rotary	14 Lease Type Code	15 Ground Level Elevation
N	O	ROTARY	S	3372'
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
NO	MD-15,739' TVD-11,500'	WOLFCAMP	UNKNOWN	WHEN APPROVED

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface
17½"	13 3/8"	54.5#	750'	456 Sx.	Surface
12¼"	9 5/8"	43.5 & 40#	4950'	1156 Sx.	Surface
8½" & 7 7/8"	5½"	20 & 17#	15,574'	2510 Sx	4400' FS

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHED SHEET FOR DETAIL

Permit Expires 2 Years From Approved Date Unless Drilling Underway

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Joe T. Janica

Printed name: Joe T. Janica

Title: Permit Eng.

E-mail Address: joejanica@valornet.com

Date: 06/14/12 Phone: 575-391-8503

OIL CONSERVATION DIVISION

Approved by:

Title: PETROLEUM ENGINEER

Approval Date: JUN 18 2012 Expiration Date:

Conditions of Approval Attached ☐

JUN 18 2012

JOB AT A GLANCE

Depth (TVD)	4,950 ft
Depth (MD)	4,950 ft
Hole Size	12.25 in
Casing Size/Weight	9 5/8 in, 40 lbs/ft
Pump Via	9 5/8" O.D. (8.835" .I.D) 40
Total Mix Water Required	12,362 gals
Lead Slurry	
35:65:6 Class C	953 sacks
Density	12.4 ppg
Yield	2.09 cf/sack
Tail Slurry	
Class C	200 sacks
Density	14.8 ppg
Yield	1.34 cf/sack
Displacement	
Displacement	372 bbls
Density	8.3 ppg

Operator Name:	CAZA OPERATING LLC
Well Name:	Ridge 14 State #3H
Job Description:	9 5/8" 40# Casing @ 4,950'
Date:	July 18, 2012

BAKER HUGHES

Proposal No: 847250109A

FLUID SPECIFICATIONS

FLUID	VOLUME CU-FT		VOLUME FACTOR		AMOUNT AND TYPE OF CEMENT
Lead Slurry	1995	/	2.09	=	953 sacks (35:65) Poz (Fly Ash):Class C Cement + 6% bwoc Bentonite II + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 111.6% Fresh Water
Tail Slurry	267	/	1.34	=	200 sacks Class C Cement + 1% bwoc Calcium Chloride + 56.3% Fresh Water
Displacement					372.3 bbls Displacement @ 8.34 ppg

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.40	14.80
Slurry Yield (cf/sack)	2.09	1.34
Amount of Mix Water (gps)	11.64	6.34
Estimated Pumping Time - 70 BC (HH:MM)	4:08	2:10
COMPRESSIVE STRENGTH		
3.86 hrs @ 117 ° F (psi)		500
12 hrs @ 117 ° F (psi)		1165
24 hrs @ 117 ° F (psi)		1611
72 hrs @ 117 ° F (psi)		2384
12 hrs @ 124 ° F (psi)	408	
24 hrs @ 124 ° F (psi)	836	
72 hrs @ 124 ° F (psi)	1370	

RHEOLOGIES

FLUID		TEMP	600	300	200	100	6	3
Lead Slurry	@	80 ° F	65	54	50	45	25	18
Tail Slurry	@	80 ° F	97	73	62	49	25	15

JOB AT A GLANCE

Depth (TVD)	11,315 ft
Depth (MD)	11,600 ft
Hole Size	8.75 in
Casing Size/Weight	7in, 29 lbs/ft
Pump Via	7" O.D. (6.184" .I.D) 29
Total Mix Water Required	6,240 gals

Stage No: 1 **Float/Landing Collar set @** 11,560 ft

1st Lead Slurry

50:50:2 Class H	565 sacks
Density	14.2 ppg
Yield	1.31 cf/sack

1st Tail Slurry

Class H	170 sacks
Density	15.6 ppg
Yield	1.20 cf/sack

Displacement

Displacement	429 bbls
Density	8.3 ppg

Operator Name:	CAZA OPERATING LLC
Well Name:	Ridge 14 State #3H
Job Description:	7" 29# Casing @ 11,600'
Date:	July 18, 2012

Proposal No: 847250109A

FLUID SPECIFICATIONS

STAGE NO. 1

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
1st Lead Slurry	737	/	1.31	= 565 sacks (50:50) Poz (Fly Ash):Class H Cement + 2% bwoc Bentonite II + 0.6% bwoc FL-52A + 0.6% bwoc FL-25 + 0.2% bwoc CD-32 + 0.3% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride + 3 lbs/sack LCM-1 + 0.125 lbs/sack Cello Flake +55.1% Fresh Water
1st Tail Slurry	205	/	1.2	= 170 sacks Class H Cement + 1% bwoc FL-62 + 0.3% bwoc FL-52 + 0.4% bwoc CD-32 + 0.75% bwoc EC-1 + 0.3% bwoc Sodium Metasilicate + 5 lbs/sack LCM-1 + 41.3% Fresh Water
Displacement				429.4 bbls Displacement @ 8.34 ppg

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	14.20	15.60
Slurry Yield (cf/sack)	1.31	1.20
Amount of Mix Water (gps)	5.55	4.65
Estimated Pumping Time - 70 BC (HH:MM)	4:51	4:05
COMPRESSIVE STRENGTH		
12 hrs @ 169 ° F (psi)	0	
24 hrs @ 169 ° F (psi)	736	
48 hrs @ 169 ° F (psi)	1679	
72 hrs @ 169 ° F (psi)	1878	
12 hrs @ 174 ° F (psi)		1721
24 hrs @ 174 ° F (psi)		2304
48 hrs @ 174 ° F (psi)		2642

RHEOLOGIES

FLUID		TEMP	600	300	200	100	6	3
1st Lead Slurry	@	80 ° F	600	460	348	218	24	14
1st Tail Slurry	@	80 ° F	300	300	300	220	25	17

JOB AT A GLANCE (Continued)

Stage No: 2 **Stage Collar set @** 7,000 ft

2nd Lead Slurry	
50:50:2 Class H	286 sacks
Density	14.2 ppg
Yield	1.30 cf/sack
2nd Tail Slurry	
Class C	100 sacks
Density	14.8 ppg
Yield	1.33 cf/sack
Displacement	
Displacement	260 bbls
Density	8.3 ppg

FLUID SPECIFICATIONS (Continued)

STAGE NO. 2

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
2nd Lead Slurry	370	/	1.3	= 286 sacks (50:50) Poz (Fly Ash):Class H Cement + 2% bwoc Bentonite II + 0.6% bwoc FL-25 + 0.1% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 58.5% Fresh Water
2nd Tail Slurry	133	/	1.33	= 100 sacks Class C Cement + 0.3% bwoc FL-25 + 56% Fresh Water
Displacement				260.0 bbls Displacement @ 8.34 ppg

CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	14.20	14.80
Slurry Yield (cf/sack)	1.30	1.33
Amount of Mix Water (gps)	5.89	6.31
Estimated Pumping Time - 70 BC (HH:MM)	4:20	3:04
COMPRESSIVE STRENGTH		
12 hrs @ 130 ° F (psi)	650	
24 hrs @ 130 ° F (psi)	1588	
72 hrs @ 130 ° F (psi)	2113	
12 hrs @ 134 ° F (psi)		1465

RHEOLOGIES

FLUID		TEMP	600	300	200	100	6	3
2nd Lead Slurry	@	80 ° F	76	48	35	23	6	4
2nd Tail Slurry	@	80 ° F	79	60	51	43	29	17

Operator Name:	CAZA OPERATING LLC
Well Name:	CAZA RIDGE `14` STATE 3H
Job Description:	4 1/2" 13.5# Liner @ 15,730'
Date:	August 6, 2012

Proposal No: 847250135A

JOB AT A GLANCE

Depth (TVD)	11,315 ft
Depth (MD)	15,730 ft
Hole Size	6.125 in
Liner Size/Weight	4 1/2 in, 13.5 lbs/ft
Pump Via	Drill Pipe 4 1/2" O.D. (3.400" .I.D) 24.66 Casing 4 1/2" O.D. (3.920" .I.D) 13.5
Total Mix Water Required	2,867 gals
Slurry	
Class H (ASC)	477 sacks
Density	15.6 ppg
Yield	1.42 cf/sack
Displacement	
Displacement	195 bbls
Density	8.3 ppg

Operator Name:	CAZA OPERATING LLC
Well Name:	CAZA RIDGE `14` STATE 3H
Job Description:	4 1/2" 13.5# Liner @ 15,730'
Date:	August 6, 2012

Proposal No: 847250135A

FLUID SPECIFICATIONS

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Slurry	677	/	1.42	= 477 sacks Class H Cement + 20 lbs/sack ASCA-1 + 1.4% bwoc FL-62 + 0.2% bwoc Sodium Metasilicate + 0.15% bwoc ASA-301 + 53.3% Fresh Water
Displacement				195.4 bbls Displacement @ 8.34 ppg

CEMENT PROPERTIES

	SLURRY NO.1
Slurry Weight (ppg)	15.60
Slurry Yield (cf/sack)	1.42
Amount of Mix Water (gps)	6.01

Well name **Caza Ridge 14 State #3H**

Operator **Caza Operating, LLC**

String type **Intermediate**

Design parameters:		**Minimum design factors:**			**Environment:**		
Collapse		**Collapse:**			H2S considered?	No	
Mud weight	10 00 ppg	DF	1 125		Surface temperature	75 00	°F
Design is based on evacuated pipe					Bottom hole temp	104	°F
					Temperature gradient	0 60	°F/100ft
					Minimum section length	450	ft
		Burst:			Minimum Drift	8.750	in
		DF	1 10		Cement top	Surface	
Burst							
Max anticipated surface pressure	2,466 55 psi						
Internal gradient	0 12 psi/ft	**Tension:**			Non-directional string		
Calculated BHP	3,054 51 psi	8 Round ST		1 80 (J)			
		8 Round LTC		1 80 (J)			
Annular backup	8 00 ppg	Buttress		1 60 (J)			
		Premium		1 50 (J)			
		Body yield		1 60 (B)	**Re subsequent strings:**		
					Next setting depth	11,500	ft
		Tension is based on buoyed weight			Next mud weight	9 200	ppg
		Neutral pt	4,170 87 ft		Next setting BHP	5,496	psi
					Fracture mud wt	12 000	ppg
					Fracture depth	4,900	ft
					Injection pressure	3,055	psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)
2	4200	9 625	40 00	J-55	LT&C	4200	4200	8 75
1	700	9 625	40 00	HCK-55	LT&C	4900	4900	8 75

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2182	2570	1 178	2467	3950	1 60	166 8	520	3 12 J
1	2545	4230	1 662	1225	3950	3 22	-1 2	630	99.99 B

Wright

Date June 20,2012

Midland, Texas

Remarks

Collapse is based on a vertical depth of 4900 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension

Burst strength is not adjusted for tension

Engineering responsibility for use of this design will be that of the purchaser

Well name **Caza Ridge 14 State # 3H**
Operator **N/A**
String type Production Liner

Design parameters:			**Minimum design factors:**		**Environment:**	
Collapse			**Collapse:**		H2S considered?	No
Mud weight	10 00	ppg	DF	1 200	Surface temperature	75 00 °F
Design is based on evacuated pipe					Bottom hole temperature	154 °F
					Temperature gradient	0 70 °F/100ft
					Minimum section length	1,000 ft
			Burst:		Minimum Drift.	3 900 in
			DF	1 20	Cement top	1,812 ft
Burst						
Max anticipated surface pressure	4,610 32	psi			Liner top	10,500 ft
Internal gradient	0.11	psi/ft	**Tension:**		Directional Info - Build & Hold	
Calculated BHP	5,876 47	psi	8 Round ST	1 80 (J)	Kick-off point	10825 ft
Gas gravity	0 60	8 Round LTC		1 80 (J)	Departure at shoe:	4634 ft
Annular backup	4 00	ppg	Buttress	1.60 (J)	Maximum dogleg	11 78 °/100ft
			Premium	1 50 (J)	Inclination at shoe	89 99 °
			Body yield	1 60 (B)		

Tension is based on buoyed weight
Neutral poin 11,244 29 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)
1	5237	4 5	13 50	P-110	LT&C	11312	15737	3.9 Special

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5876	10680	1 817	3604	12410	3.44	9.3	338	36.16 J
							Date	June 18,2012	
		Wright						Midland, Texas	

Remarks

For this liner string, the top is rounded to the nearest 100 ft Collapse is based on a vertical depth of 11312 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension

Burst strength is not adjusted for tension

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load

Engineering responsibility for use of this design will be that of the purchaser

Well name **Caza Ridge 14 State #3H**

Operator **Caza Operating, LLC**

String type **Production: Frac**

Design parameters:		**Minimum design factors:**		**Environment:**	
Collapse		**Collapse:**		H2S considered?	No
Mud weight	10 00 ppg	DF	1 125	Surface temperature	75 00 °F
Design is based on evacuated pipe				Bottom hole temperature	143 °F
				Temperature gradient	0 60 °F/100ft
				Minimum section length	1,000 ft
		Burst:			
		DF	1 13	Cement top	4,489 ft
Burst					
Max anticipated surface pressure.	9,192 89 psi				
Internal gradient	0 12 psi/ft	**Tension:**		Directional Info - Build & Hold	
Calculated BHP	10,546 34 psi	8 Round STC	1 80 (J)	Kick-off point	10739 ft
	8 Round LTC		1 80 (J)	Departure at shoe	502 ft
Annular backup	4 00 ppg	Buttress.	1 60 (J)	Maximum dogleg.	10.59 °/100ft
		Premium	1.50 (J)	Inclination at shoe	85 87 °
		Body yield.	1 60 (B)		

Tension is based on buoyed weight

Neutral point 9,571 62 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)
2	10000	7	29 00	HCP-110	LT&C	10000	10000	6 125
1	1550	7	29 00	HCP-110	Buttress	11279	11550	6.125

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	5195	9200	1 771	9193	11220	1 22	277 6	797	2.87 J
1	5859	8756	1 494	8315	11220	1 35	-12 4	929 4	-74 82 B

Wnght

Date June 18,2012

Midland, Texas

Remarks

Collapse is based on a vertical depth of 11279 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension

Burst strength is not adjusted for tension

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load

Engineering responsibility for use of this design will be that of the purchaser