Form 3160 5 (August 2007)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

**OCD** Artesia

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.						NMNM11042  6. If Indian, Allottee or Tribe Name				
SUBMIT IN TRIPLICATE - Other instructions on reverse side.						7. If Unit or CA/Agreement, Name and/or No. NMNM71027X				
1. Type of Well						8. Well Name and No. ROSS DRAW UNIT 60				
2. Name of Operator Contact: HEATHER BREHM RKI EXPLORATION & PRODUCTIONE-Mail: hbrehm@rkixp.com						9. API Well No. 30-015-41979				
3a. Address 210 PARK AVE STE 900 OKLAHOMA CITY, OK 7310	3b. Phone N Ph: 405-9 Fx: 405-94	996-5769 ROSS E			Field and Pool, or ROSS DRAW; [	d Pool, or Exploratory DRAW; DELAWARE, EAST				
4. Location of Well (Footage, Sec.,	T., R., M., or Survey Description	1)			11.	County or Parish,	and State			
Sec 27 T26S R30E Mer NMF 32.007670 N Lat, 103.86582		-	EDDY COUNTY, NI			/, NM				
12. CHECK APF	PROPRIATE BOX(ES) TO	O INDICATI	E NATURE OF	NOTICE,`F	EPO	RT, OR OTHEI	R DATA			
TYPE OF SUBMISSION			ТҮРЕ О	F ACTION						
- N	☐ Acidize	☐ Dee	epen	☐ Produc	☐ Production (Start/Resume)		☐ Water Sl	nut-Off		
Notice of Intent	☐ Alter Casing	•	cture Treat	_	☐ Reclamation		☐ Well Into			
☐ Subsequent Report	□ Casing Repair	☐ Nev	v Construction	☐ Recom			Other			
☐ Final Abandonment Notice	☐ Change Plans	🗖 Plu	g and Abandon	☐ Temporarily Abandon		Change to Original A	A			
· 	Convert to Injection	🗖 Plu	g Back	□ Water	er Disposal					
13. Describe Proposed or Completed Op If the proposal is to deepen direction Attach the Bond under which the we following completion of the involve testing has been completed. Final A determined that the site is ready for RKI respectfully requests to conveil. Please see the attached	nally or recomplete horizontally, ork will be performed or provided operations. If the operation rebandonment Notices shall be fil final inspection.)	give subsurface the Bond No. o sults in a multip ed only after all e size from 8	locations and meast n file with BLM/BIA le completion or rec- requirements, include ?? to 7 7/8? for t	ured and true v A. Required sompletion in a ding reclamation	ertical ibseque new in	depths of all pertine int reports shall be terval, a Form 3160	ent markers and filed within 30 o 0-4 shall be filed	zones. days d once		
This well is set to spud on 12.	NM OIL CONSERVATION ARTESIA DISTRICT					ę.				
#2D					1 2 5 20 o	).				
Accepted to	on record CD					RE	CEIVED			
	•	Alm	rady do	لعب						
14. I hereby certify that the foregoing is	Electronic Submission #2	284448 verifie	d by the BLM Wel	II Information			25.5500			
Committed to AFMSS for processing  Name(Printed/Typed) HEATHER BREHM			Title REGUL	ATORY AN	ALVS	<del>作PIEDF(</del>	JR RECU	IRD		
Signature (Electronic S	Submission)		Date 12/08/2	014		JUN 18	2015			
	L OR STATE	OFFICE U	SE	1) 11	am					
Approved By			Title		Bi	REAU OF LAND CARLSBAD FIE	MANAGEMEN	VT		
									_	

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.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Well **RDU 60** 

580 FSL Location

1,650 FEL 580. FSL 1,650 FEL Surface **Bottom Hole** 

Section 27-26S-30E

County Eddy

New Mexico State

1) The elevation of the unprepared ground is

2,991 feet above sea level.

2) The geologic name of the surface formation is Quaternary - Alluvium.

3) A rotary rig will be utilized to drill the well to 7,448 feet and run casing. This equipment will then be rigged down and the well will be completed with a

4) Proposed depth is

7;448 feet

5) Estimated tops:

	MD	IVD		
Rustler	625	. 625		
Salado	1,140	1,140		
Castile	1,589	1,589		
Lamar Lime	3,400.	3,400		
Base of Lime	3,421	3,421		
Delaware Top	4,564	4,564		
Bell Canyon Sand	4;564	4,564 Oil	1,976	psi
Cherry Canyon Sand	4,564	4,564 Oil	1,976	psi <sub>.</sub>
Brushy Canyon Sand	7;027	7,027 Oil	3,043	psi
Bone Spring	7,298	7,298		
TD	7,448	7,448	145	degree F

The Bone Spring will be penetrated as rathole to enable the entire Brushy Canyon to be logged.

#### 6) Casing program:

Hole Size	Тор	Bottom	OD Csg	Wt/Grade	Connection	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17 1/2"	. 0	830	13 3/8"	54.5#/J-55	ST&C	3.14	6.39	
12 1/4"	0	3,540	9 5/8"	40#/J-55	LT&C	1.32	5.24	11.36
7.7/8"	0	7,448	5 1/2"	17#/N-80	LT&C	1.95	1.55	3.67
								2.75

# 7) Cement program:

Surface	17 1/2" hole
Pipe OD	13 3/8"
Setting Depth	830 ft
Annular Volume	0.69462 cf/ft
F	

Excess 100 %

1.74 cf/sk 1:33 cf/sk Lead 510 sx 13.5 ppg Tail 200 sx 14.8 ppg

Lead: "C" + 4% PF20 + 2% PF1 + .125 pps PF29 + .2% PF46

Tail: "C" + 1% PF1

Top of cement:

Surface

12 1/4" hole Intermediate Pipe OD 9 5/8" Setting Depth 3,540 ft Annular Volume 0.31318 cf/ft

0.3627 cf/ft Excess 0.5

Lead 681 sx 1.92 cf/sk 12.6 ppg 200 sx Tail 1.33 cf/sk 14.8 ppg

Lead: 35/65 Poz "C" + 5% PF44 + 6% PF20 + 3 pps PF42 + .125 pps PF29 + .2% PF46 +1% PF1

Tail: "C" + .2% PF13

Top of cement: Surface

Production 7 7/8" hole Pipe OD 5 1/2" Setting Depth 7,448 ft

Annular Volume 0.1733 cf/ft 0.26074 cf/ft Excess 0.4 40 %

DV Tool Depth 5500 · ft

Stage 1

319 sx Lead:

1.48 cf/sk

13.0 ppg

300 ft

Lead: PVL + 2% PF174 + .3% PF167 + .1% PF65 + .2% PF13 + .25 pps PF46

Top of cement: DV tool

Stage 2

Lead: Tail:

231 sx 100 sx 1.89 cf/sk 1.48 cf/sk

12.9 ppg 13.0 ppg

Lead: 35/65 Poz "C" + 5% PF44 + 6% PF20 + 3 pps PF42 + .2% PF13 + .125 pps PF130 + .25 pps PF46

Tail: PVL + 2% PF174 + .3% PF167 + .1% PF65 + .2% PF13 + .25 pps PF46

Top of cement: 3,240 ft

## 8) Pressure control equipment:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram type (3,000 psi WP) preventer, a bag-type annular preventer (3,000 psi WP), and rotating head. Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and pipe rams (sized to accommodate the drill pipe size being utilized) on bottom. A 13 3/8" SOW x 13 5/8" 3M casing head will be installed on the 13 3/8" casing and utilized until total depth is reached. All BOP and associated equipment will be tested to 3,000 psi and the annular will be tested to 1,500 psi after setting the 13 3/8" string. The 13 3/8" and 9 5/8" casing will be tested to .22 psi per ft of casing string length or 1,500 psi whichever is greater, but not to exceed 70% of the minimum yield.

The 9 5/8" casing will be hung in the casing head and the stack will not be nippled down at this point. The stack will not be isolated and tested after running the 9 5/8" casing, but will be tested along with the 9 5/8" casing. Pipe rams will be operated and checked each 24 hour period and each time the drill string is out of the hole. These function test will be documented on the daily driller's log.

A drilling spool or blowout preventer with 2 side outlets (choke side shall be 3" minimum diameter, kill side shall be at least 2" diameter).

- 2 kill line valves, one of which will be a check valve
- 2 chokes on the manifold along with a pressure gauge.
- Upper kelly cock valve with handle available.

Safety valve and subs to fit all drill string connections in use.

All BOP equipment connections subjected to pressure will be flanged, welded, or clamped.

Fill up line above the upper most preventer.

# 9) Mud program:

Тор	Bottom	Mud Wt.	Vis	PV	ΥP	Fluid Loss	Type System
0	830	8.5 to 8.9	32 to 36	6 - 12	2 - 8	NC	Fresh Water
830	3,540	9.8 to 10.0	28 to 30	i - 6	1 - 6	NC	Brine
3,540	7,448	8.9 to 9.1	28 to 36	1 - 6	1 - 6	NC	Fresh Water

### 10) Logging, coring, and testing program:

No drill stem test are planned Total depth to intermediate: CNL, Caliper, GR, DLL, Intermediate to surface: CNL, GR No coring is planned

#### 11) Potential hazards:

No abnormal pressure or temperature is expected. No H2S is known to exist in the area. Lost circulation can occur in, lost circulation will be on location and readily available if needed.

12) Anticipated Start Date

Duration

15 days