District I 1625 N French Dr , Hobbs, NM 88240 Phone (575) 393-6161 Fax (575) 393-0720 District II 811 S First St , Artesia, NM 88210 Phone (575) 748-1283 Fax (575) 748-9720 District III

1000 Rio Brazos Road, Aztec, NM 87410 Phone (505) 334-6178 Fax (505) 334-6170 District IV

# **State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division** 1220 South St. Francis Dr.

Santa Fe, NM 87505



1220 S St Francis Dr , Santa Fe, NM 87505 Phone (505) 476-3460 Fax (505) 476-3462

AP	PLICA	HUN					ılı, KE-	ENIER	, DEEP	EN, PLU				D A ZUNE
Operator Name and Address									246289		)GRID Ni	umber		
RKI Exploration & Production, LLC. 3817 NW Expressway, Suite 950, Oklahoma City, Oklahon							). Oklahoma	a 73112		2	0-1	API Nun	nber 70	351-01
						roperty Na			120	<u> </u>	2/5	ر Well No	1/00	
Property Code Property RDX						RDX 16	)		5/5			14	υ.	
	<del> </del>					<sup>7</sup> S	Surface	Locatio	n	1	· · · · · · · · · · · · · · · · · · ·			
UL - Lot C	Section 16	Township 26S		Range 30E	Lot Idn Fe		Feet from			Feet From 1650		E/W Line W		County Eddy
								formatio			I		L	
1 001 1														C. C.
Brushy D	raw De	laware	East	<u> </u>										8050
					A			ell Infor	mation			12		
	k Туре V		10	10 Well Type 11 Cable/1			" Cable/Rot	otary 12 Lease Type S			<sup>13</sup> Ground Level Elevation 3090'			
	ultiple		15 Pr	oposed Depth			16 Formatio	on	17 Contractor			18 Spud Date		
	lo			7500'			Delaware		5	Silver Oak				
Depth to Grou	and water 4	50'					esh water w				earest sur	st surface water 6 miles		
				19	Prop	osed C	asing a	and Cem	ent Pro	gram				
Туре	Hol	e Size	Casing Size		Casing Weight/ft		ght/ft	1		Sack	Sacks of Cement		Estimated TOC	
	17.5	/2''	13 3/8"		54.5#		800			822		Surface		
	12 1/4"		9 5/8"		40#				3450 10		1093			Surface
	8 3/4"		5 1/2"		17#		7:	7500		1600			2925'	
					<del></del>		<del></del>						· · · · · · · · · · · · · · · · · · ·	
				Casir	L 1σ/Ce	ment P	 Progran	n: Addit	ional C	omments	<del> </del>			
				Cush	.6.00		108141	ni maan	TOTAL C					
H2S levels	are not e	xpected 1	o be h	igh enough	to req	uire a H	2S progra	am. See att	ached Dr	illing Plan				
				]	Propo	sed Bl	owout 1	Preventi	on Pro	gram				
Type Working Pressure							Test Pressure			Manufacturer				
13 5/8"Double Ram 2FZ35-35			5,000#			<del> </del>	3,000#			Guanghan				
13 3/8 Double Rail 21 233-33						]	3,00	<del></del>			Guari	anan		
I hereby certify that the information given above is true and complete to the best							OII (	CONGEDI	7 A TITO	NI INI	лето	<b>N</b> T		
of my knowledge and belief.  I further certify that the drilling pit will be constructed according to							OIL (	CONSERV	AIR	יוע אנ	V 1510.	IN		
NMOCD guidelines a general permit are an (attached) alternative					Approved By		-///	Π.	. /	,				
OCD-approv	ved plan <u>L</u>	Closed	Loop.					- <b></b>		. C.S	Mill	MG		,
Printed name: Barry W. Hunt Bay W. Hunt						Title:	Ali	06 0913	f-	/				
Title: Permit Agent							Approved Date: 2/16/2012 Expiration Date: 2/16/2014							
E-mail Address. specialtpermitting@gmail.com								- y	1			1	1	
Date: 01/26/12 Phone (575) 361-4078							Conditions of Approval Attached							

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

State of New Mexico Energy, Minerals and Natural Resources Department

C-102 October 15, 2009 Addmin the Copy to appropriate District Office

# 1000 Rio Brazos Rd., Aztec, NM 87410

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

NMOCD ARTESIA

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

■ AMENDED REPORT

3/2-12/5	Number	Pool Code 8090				Pool Name BRUSHY DRAW DELAWARE EAST					
3690	Code		Well Number								
ogrid Na 24628			Elevation 3090'								
					Surface Loca	ation					
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
С	16	26 S	30 E		330	NORTH	1,650	WEST	EDDY		
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		
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Ore	der No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

4050	SURFACE LOCATION NMSPCE (NAD-83) N = 381838.3'	OPERATOR CERTIFICATION
1650'	E. = 678829 2' Lat. = N 32°02'56,31" Long. = W 103°53'22.42"	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working
	NMSPCE (NAD-27)	ints organization either dans a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at
	N. = 381780.7' E. = 637643.3' Lat. = N 32°02'55.87"	this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a
	Long. = W 103°53'20.69"	compulsory pooling order heretofore entered by the division
		Signature Date  Report 1.1 Hunt
		Barry W. Hunt
		SURVEYOR CERTIFICATION
		I hereby certify that the well location shown on this plat was plotted from field notes of
		actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief
		January 16, 2012
		Signatur & Seal of OMO
		14729 m
		1 1 No. No. 4356
		Certification LAMES E LOOM KINS 14729

# RKI EXPLORATION & PRODUCTION, LLC. DRILLING PLAN

RDX 16-14 330' FNL & 1650' FWL 16-26S-30E Eddy County, NM

- 1. The elevation of the unprepared ground is 3,157 feet above sea level.
- 2. The geologic name of the surface formation is Quaternary Aeolian Deposits.
- 3. A rotary rig will be utilized to drill the well to 7,500' and run casing. This equipment will then be rigged down and the well will be completed with a workover rig.
- 4. Proposed total depth is 7,500'.
- 5. Estimated tops of important geologic markers:

Quaternary - Alluvium	Surface*	
Rustler	718'	
Salado	1,059'	
Castile	1,564'	
Lamar Lime	3,403'	
Base of Lime	3,586'	
Delaware Top	3,621'	
Bell Canyon Sand	3,621'	
Cherry Canyon Sand	4,703'	
Brushy Canyon Sand	5,760'	
Bone Spring Lime	7,423	
TD	7,500'	(135 degree F)

<sup>\*</sup>Water possible above Rustler

6. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Bell Canyon	Oil	3,621'
Cherry Canyon	Oil	4,703
Brushy Canyon	Oil	5,760'
Bone Spring	Oil	7,423

7. The proposed casing program is as follows:

Surface: 17  $\frac{1}{2}$ " Hole. 13-3/8" casing, 54.5# J-55 ST&C, new casing set from 0' - 800'

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

Intermediate: 12  $\frac{1}{4}$ " Hole. 9-5/8" casing, 40# J-55 ST&C, new casing set from 0'-3,450'

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

Production: 8 3/4" Hole. 5-1/2" casing, 17# N-80 LT&C, new casing set from 0' - 7,500'

Tension SF 2.0, Collapse SF 1.125, Burst SF 1.8.

## 8. Casing setting depth and cementing program:

- a. 13 3/8" surface casing set at 800' in 17-1/2" hole. Circulate cement to surface with 822 sx Halcem with 2% Calcium Chloride mixed at 14.8 ppg (1.35 cf/sk). excess-100%.
- b. 9 5/8" intermediate casing set at 3,450' in 12 ¼" hole. Cement will be circulated to surface with 893 sx Econocem with 5% Salt, .25 pps Pheno Seal mixed at 12.4 ppg (2.12 cf/sk) followed by 200 sx Halcem mixed 14.8 ppg (1.33 cf/sk). excess -25%.
- c. 5-1/2" production casing set at 7500' in 8 ¾" hole. Hole will be callipered to determine cement volume to bring TOC to 2925' from surface. The well will be cemented in two stages as follows: Stage 1: 650 sx Versacem with .5% LAP-1, .25 pps D-Air 3000, .4% CFR-3, 3 pps Salt mixed at 13.2 ppg (1.64 cf/sk). Stage 2: 850 sx Econocem mixed at 12.4 ppg (2.01 cf/sk) followed by 100 sx Halcem mixed at 14.8 ppg (1.33 cf/sk). DV tool at approximately 5000'. excess -25%.

#### 9. Pressure Control Equipment

The blowout preventor equipment (BOP) will consist of a 5000 psi double ram type preventor, a bag-type (Hydril) preventor, and rotating head. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 -1/2" drill pipe rams on bottom. A 5M BOP will be installed on the 13-3/8" surface casing and utilized continuously until total depth is reached. BOP's and associated equipment will be tested as a 3M system prior to drilling out all casing shoes. All casing strings will be tested as per Onshore Order #2.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi rating.

## 10. Mud Program:

0' - 800'	Bentonite/Lime mud. Paper for losses and seepage. 8.5 to 9.0 ppg, 32 to 34 vis, PV 3 to 5, YP 5 to 7, WL NC.
260' – 3,450'	Brine. As needed LCM for losses and seepage. 10.0 to 10.2 ppg, 28 to 29 vis, PV 1, YP 1, WL NC.
3,450' – 5,800'	Drill out with fresh water. 8.4 to 8.6 ppg, 28 to 29 vis, PV 1, YP 1, WL NC.
5,800' - 7,500'	Cut brine. 9.0 to 9.2 ppg, 36 to 38 vis, PV 6 to 10, YP 8 to 12, WL 18 to 25.

### 11. Testing, Logging and Coring Program:

Testing program: No drillstem tests are anticipated. Electric logging program: CNL/CAL/GR, DLL/CAL/GR.

Coring program: None.

#### 12. Potential Hazards:

No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S 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 3315 psi and estimated BHT 135. BHP determination based on 0.442 x 7500 ft.

# 13. Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the NMOCD has approved the APD. Anticipated spud date will be soon after NMOCD approval and as soon as a rig will be available, Move in operations and drilling is expected to take 25 days. If production casing is then an additional 30 days will be needed to complete the well and to construct surface facilities and/or lay flow lines in order to place well on production.