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

State of New Mexico

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-101
Revised August 1, 2011

RECEIVED
JAN 26 2012
NMOCD ARTESIA

2-15-2012
Permit
~~1/31/2012~~
NNCNL -
175/4

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

[1] Operator Name and Address	[2] OGRID Number
RKI Exploration & Production, LLC. 3817 NW Expressway, Suite 950, Oklahoma City, Oklahoma 73112	246289
	[3] API Number 30-015-39957

[4] Property Code	[5] Property Name	[6] Well No.
36900	RDX 16 S/S	13

[7] Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	16	26S	30E		990	S	330	W	Eddy

[8] Pool Information

Brushy Draw Delaware East ✓ Not Sensitive	8090

Additional Well Information

[9] Work Type	[10] Well Type	[11] Cable/Rotary	[12] Lease Type	[13] Ground Level Elevation
N	0	R	S	3048'
[14] Multiple	[15] Proposed Depth	[16] Formation	[17] Contractor	[18] Spud Date
No	7500'	Delaware	Silver Oak	

Depth to Ground water 450'	Distance from nearest fresh water well	Distance to nearest surface water 6 miles

[19] Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
	17 ½"	13 3/8"	54.5#	800	822	Surface
	12 ¼"	9 5/8"	40#	3450	1093	Surface
	8 3/4"	5 ½"	17#	7500	1600	2925'

Casing/Cement Program: Additional Comments

H2S levels are not expected to be high enough to require a H2S program. See attached Drilling Plan

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
13 5/8"Double Ram 2FZ35-35	5,000#	3,000#	Guanghan

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐. Closed Loop.**	OIL CONSERVATION DIVISION
Printed name: Barry W. Hunt *(signature)*	Approved By: T. C. Shepard
Title: Permit Agent	Title: Geologist
	Approved Date: 2/16/2012 Expiration Date: 2/16/2014
E-mail Address: specialtpermitting@gmail.com	
Date: 01/26/12 Phone (575) 361-4078	Conditions of Approval Attached

SNGARIN GEN N #001
BOND 17750

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

RECEIVED
JAN 26 2012
NMOCD ARTESIA

Form C-102
Revised October 15, 2009

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-39957	8090	BRUSHY DRAW DELAWARE EAST

Property Code	Property Name	Well Number
36900	RDX 16	13

OGRID No.	Operator Name	Elevation
246289	RKI EXPLORATION AND PRODUCTION	3048'

Surface Location

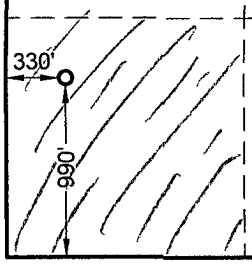
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	26 S	30 E		990	SOUTH	330	WEST	EDDY

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 Acres	Joint or Infill	Consolidation Code	Order No.
40			

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



SURFACE LOCATION
NMSPCE (NAD-83)
N. = 377832.8'
E. = 677516.8'
Lat. = N 32°02'16.73"
Long. = W 103°53'37.80"

NMSPCE (NAD-27)
N = 377775.4'
E. = 636330.8'
Lat. = N 32°02'16.28"
Long. = W 103°53'36.10"

OPERATOR CERTIFICATION

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 interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

Barry W. Hunt 1/26/12
Signature Date

Barry W. Hunt
Printed Name

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
Date Surveyed

Signature & Seal of Professional Surveyor

JAMES E. TOMPKINS
NEW MEXICO
14729
REGISTERED PROFESSIONAL LAND SURVEYOR

WEC W.O. No. 4666

Certificate No. JAMES E. TOMPKINS 14729

RKI EXPLORATION & PRODUCTION, LLC.
DRILLING PLAN

RDX 16-13
990' FSL & 330' 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)

*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 ½" 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.

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.

Intermediate: 12 ¼" 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 ¾" 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.