OCD-ARTESIA

ATS-12-63Z EA-12-830

Form 3160-3 (August 2007)		FORM APPROVED OMB No 1004-0137 Expires July 31, 2010						
UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN	5 Lease Serial No. NM-102917							
APPLICATION FOR PERMIT TO		6. If Indian, Allotee or Tribe Name						
la. Type of work: DRILL REENTH	7 If Unit or CA Agreen	nent, Name and No.						
lb. Type of Well:	RDX FEDERAL 21-1	8. Lease Name and Well No 350 22 >						
2 Name of Operator RKI EXPLORATION & PRODUCTION,	LLC.	< 24/02	897	9. API Well No.	-40559			
3a. Address 3817 NW EXPRESSWAY, SUITE 950 OKLAHOMA CITY, OK. 73112	10 Field and Pool, or Ex BRUSHY DRAW DE	. 0.40						
 Location of Well (Report location clearly and in accordance with an At surface 430 FNL & 1180 FWL At proposed prod. zone 495 FNL & 495 FWL 	4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 430 FNL & 1180 FWL							
14. Distance in miles and direction from nearest town or post office* 16 MILES SOUTHEAST OF MALAGA, NM	Distance in miles and direction from nearest town or post office*							
Distance from proposed* 430 ft. property or lease line, ft (Also to nearest drig. unit line, if any)	16 No. of a	cres in lease	17 Spacin	ng Unit dedicated to this well				
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 150 ft. west of RDX Federal 21-12	19 Proposed TVD 7500 MD 7602 f	ft.		/BIA Bond No. on file MB-000460				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3027' GL	ť*	23. Estimated duration 30 DAYS						
	24. Attac							
 The following, completed in accordance with the requirements of Onshor Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office) 		4 Bond to cover the Item 20 above). 5 Operator certific	ne operatio ation	is form: ns unless covered by an expression and/or plans as m	· ·			
25. Signature ay W. Hest	BARF	(Printed/Typed) RY W. HUNT		D	4/20/12			
Approved by (Signature) /s/ James Stovall		(Printed/Typed)s/ J	ames	Stovall	JUL 3 0 2012			
Title FIELD MANAGER	FIELD O							
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	ls legal or equit	table title to those right		ject lease which would ent ROVAL FOR TV	• • •			
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	rime for any pe to any matter w	erson knowingly and within its jurisdiction.	villfully to n	nake to any department or	agency of the United			
(Continued on page 2)	· · · · · · · · · · · · · · · · · · ·	^	orloba	d Controlled Wa	ationBasinge 2)			
RE	CEIV	/ED C	alibua	u Jona Janes				

AUG 01 2012

NMOCD ARTESIA

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or RKI Exploration and Production, LLC am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 19th. day of April 2012.

Signed:

Printed Name: Barry Hunt

Position: Agent for RKI Exploration & Production, LLC. Address: 1403 Springs Farm Place, Carlsbad, NM 88220

Telephone: (575) 361-4078

E-mail: specialtpermitting@gmail.com Field Representative: Gene Simer

Address: P. O. Box 370, Carlsbad, NM 88221

San W. A.

Telephone: Office: (575) 885-1313, Cell: (575) 706-3225

RKI Exploration & Production LLC

P.O. Box 370, Carlsbad, NM 88221 Office 505-885-1313 Fax 505-885-3509

July 17, 2009

To Whom It May Concern:

Mr. Barry Hunt is employed by RKI Exploration & Production to sign as their agent for APD's and Right of Ways in the states of New Mexico and Texas.

If you have any questions, please contact me at my office at 575-885-1313.

Sincerely,

RKI Exploration & Production, LLC

Gene Simer

Production Superintendent

DISTRICT I
1623 N French Dr. Hobbs NN 88240
Phone (575) 393-6161 Fax (575) 393-0720
DISTRICT II
811 S Fmt St., Artesta NN 88210
Phone (575) 348-1285 Fax. (575) 748-9720
DISTRICT III
1000 Rot Bruson Rd., Aztec, NN 87410
Phone (595) 346-178 Fax (595) 346-170
DISTRICT IV
2129 S M. Frence Dr. Senta Fc, NN 87505
Phone (595) 476-3460 Fax: (595) 476-3462

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

3/2-015	- 40	559		Pool Code 8090		BRUSHY DRAW DELAWARE EAST					
Property C	ode	'	Property Name Well								
3907	2		RDX FEDERAL 21								
OGRID N	No.				Operator Name			Elevati	on		
24628	39			RKI EXPI	ORATION & P	RODUCTION		302	7'		
<u> </u>					Surface Locat	ion		•			
UL or lot no	Section	Township	Range	Range Lot Idn Feet		North/South line	Feet from the	East/West line	County		
D	21	26S 30E		430	NORTH 1180		WEST	EDDY			
Bottom Hole Location If Different From Surface											
UL or lot no	Section	Township Range Lot Idn Feet		Feet from the	North/South line Feet from the		East/West line	County			
D	21	26S	30E 495 NORTH 495						EDDY		
Dedicated Acres	Joint or	Infill	Consolidated Co	ie Orde	r No						
40											
		<u> </u>					7/0	7 7/20			

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.

SHL RDX FEDERAL 21-11 **OPERATOR CERTIFICATION** NMSP-E (NAD 83) OPERATOR CENTIFICATION
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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. 430' Y = 376418.2' N 1180' X = 678372 8' F -495' -O N LAT.= 32° 02' 02.70" W LONG.= -103° 53' 27.98" S 84°12'37" W NMSP-E (NAD 27) 688' Y = 376360 730' N X = 637186.720' E N LAT = 32.0339574° W LONG.= -103.8906266° BHL: RDX FEDERAL 21-11 NMSP-E (NAD 83) Y = 376349.1' N X = 677688.4' E N LAT.= 32° 02' 02.04" W LONG.= -103° 53' 35.93" NMSP-E (NAD 27) E-mail Address X = 636502.3' E N LAT.= 32.0337752° WLONG.= -103,8928361° SURVEYORS 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 supervision, and that the same is true and correct to the best of my belief. March 8, 2012 TOMOREN Date of Survey nature and Seal of P Job No WTC48365 JAMES E TOMPKINS 14729 Certificate Number

RKI Exploration & Production, LLC

DRILLING PLAN

Well **RDX Fed 21-11**

SL: 430 FNL 1,180 FWL BHL: 495 FNL 495 FWL

Section 21-26S-30E

County Eddy

State **New Mexico**

1) The elevation for the unprepared ground is 3,027 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 7,500 feet and run casing. This equipment will then be rigged down and the well well. workover rig.

4) Proposed depth is 7,500 feet TVD

5) Estimated tops:

Alluvium	*		
Rustler	850		
Salado	1,200		
Castile	1,700		
Lamar Lime	3,420		
Base of Lime	3,443		
Delaware Top	3,485		
Bell Canyon Sand	3,485 Oil	1,509	psi
Cherry Canyon Sand	4,560 Oil	1,974	psi
Brushy Canyon Sand	5,635 Oil	2,440	psi
Bone Spring	7,300		
TD	7,500 TVD	146	degree F

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

6) Casing program: : All New

	Hole Size	Тор	Bottom	OD Csg	Wt/Grade	Connection	Collapse Design Factor	Burst Design Factor	Tension Design Factor
SAC	17 1/2"	0	4,000 905	13 3/8"	54.5#/J-55	ST&C	2.61	5.31	9.43
	12 1/2"	0	3,430	9 5/8"	40#/J-55	LT&C	1.36	5.41	3.79
	7 7/8"	0	7,500	5 1/2"	17#/N-80	LT&C	1.93	1.55	2.73

^{*} Water possible above the Rustler

7) Cement program:

 Surface
 17 1/2" hole

 Pipe OD
 13 3/8" New

 Setting Depth
 1,000 ft

 Annular Volume
 0.69462 cf/ft

Excess 1 100 %

 Lead
 641 sx
 1.75 cf/sk
 13.5 ppg

 Tail
 200 sx
 1.34 cf/sk
 14.8 ppg

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

Tail: "C" + 1% PF1

Top of cement: Surface

Annular Volume 0.31318 cf/ft 0.3627 cf/ft Excess 1 100 %

Total Annular Volume 1124 cf With Excess 2247 cf

 Lead
 782 sx
 2.07 cf/sk
 12.6 ppg

 Tail
 200 sx
 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" New

 Setting Depth
 7,500 ft

Annular Volume 0.1733 cf/ft 0.26074 cf/ft 300 ft

Excess 0.35 35 %

Total Annular Volume 784 cf
With Excess 1,058 cf
DV Tool Depth 5,000 ft

Stage 1

Lead: 398 sx 1.47 cf/sk 13.0 ppg

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

Top of cement: DV tool

Stage 2

Lead: 160 sx 2.04 cf/sk 12.6 ppg
Tail: 100 sx 1.47 cf/sk 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: 3,130 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	YP	Fluid Loss	Type System
<u> </u>	0	1,000	8.5 to 8.9	32 to 36	6 - 12	2 - 8	NC	Fresh Water
905	1,000	3,430	9.8 to 10.0	28 to 30	1 - 6	1 - 6	NC	Brine
	3,430	7,500	8.9 to 9.1	28 to 36	1 - 6	1 - 6	NC	Fresh Water

10) Logging, coring, and testing program:

No drillstem test are planned

Total depth to intermediate: CNL, Caliper, GR, DLL,

Intermediate to surface: CNL, GR

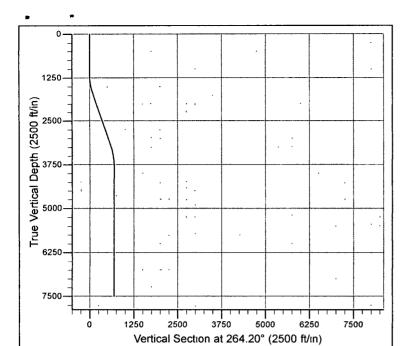
No coring is planned

11) Potential hazards:

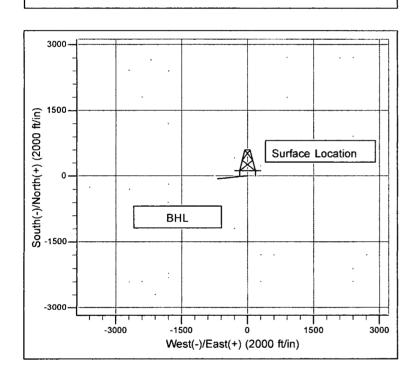
No abnormal pressure or temperature is expected. No H2S is known to exist in the area. No lost circulation is expected to occur.

12) Anticipated Start Date May '12

Duration 15 days



RDX Fed 21-11 Section 21-26S-30E Eddy County, NM



						SECT	ION DE	TAILS			
Se	c	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
	1	0.0	0.00	0 00	0.0	0.0	0.0	0.00	0.00	0.0	-
	2	1200	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
	3	1662	18.49	264.20	1654.3	-7.5	-73.6	4.00	264.20	74.0	
	4	3286	18.49	264.20	3194.3	-59.5	-585.9	0.00	0.00	589.0	
	5	3902	0.00	0.00	3800.0	-69.5	-684.0	3.00	180.00	687.6	
	6	7602	0.00	0.00	7500.0	-69.5	-684.0	0.00	0.00	687.6	RDX 21-11 Target 1

```
H HEADER INFORMATION ---
H COMPANY: RKI 2
H FIELD : Eddy County, NM
H SITE : Section 21-26S-30E
H WELL : RDX Fed 21-11
H WELLPATH: Wellbore #1
H DEPTHUNT: ft
H SURVDATE: 1/1/1990
H WELL INFORMATION
H WELL EW MAP: 206768.41
H WELL NS MAP: 114732.59
H DATUM ELEVN: 0.00
H VSECT ANGLE: 264.20
H VSECT NORTH: -1.62
H VSECT EAST : -149.77
H SURVEY TYPE INFORMATION
H 0.00 - 7602.46 DESIGN #1:
H SURVEY LIST
H<sub>MD</sub>
        INC
                       TVD
                               NS
                                      EW
                AZI
                             -1.62
0.00
       0.00
              0.00
                      0.00
                                    -149.77
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                                          -361.46
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                                          -677.00
3200.00 18.49
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                         3112.63 -58.39
                                          -708.55
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RDX 21-11 Directional Design #1 3286.08 18.49 264.20 3194.27 -61.15 -735.71 -740.06 18.07 3300.00 264.20 3207.48 -61.59 3400.00 15.07 264.20 3303.31 -64.47 -768.43 3500.00 12.07 264.20 3400.51 -66.84 -791.78 3600.00 9.07 264.20 3498.80 -68.70 -810.03 3597.92 -70.03 3697.59 -70.83 3700.00 6.07 264.20 -823.15 3800.00 3.07 264.20 -831.08 0.00 3902.46 0.00 3800.00 -71.11 -833.81 4000.00 0.00 0.00 3897.54 -71.11 -833.81 4100.00 0.00 0.00 3997.54 -71.11 -833.81 4200.00 0.00 0.00 4097.54 -71.11 -833.81 4300.00 0.00 0.00 4197.54 -71.11 -833.81 4400.00 0.00 0.00 4297.54 -71.11 -833.81 4500.00 0.00 0.00 4397.54 -71.11 -833.81 4600.00 0.00 0.00 4497.54 -71.11 -833.81 4597.54 4700.00 0.00 0.00 -71.11 -833.81 4800.00 0.00 0.00 4697.54 -71.11 -833.81 4900.00 0.00 0.00 4797.54 -71.11 -833.81 5000.00 0.00 0.00 4897.54 -71.11 -833.81 5100.00 0.00 0.00 4997.54 -71.11 -833.81 5200.00 0.00 0.00 5097.54 -71.11 -833.81 5300.00 0.00 0.00 5197.54 -71.11 -833.81 5400.00 0.00 0.00 5297.54 -71.11 -833.81 5500.00 0.00 0.00 5397.54 -71.11 -833.81 5600.00 0.00 0.00 5497.54 -71.11 -833.81 5700.00 0.00 0.00 5597.54 -71.11 -833.81 5800.00 0.00 5697.54 -71.11 0.00 -833.81 5900.00 0.00 5797.54 -71.11 0.00 -833.81 6000.00 0.00 0.00 5897.54 -71.11 -833.81 6100.00 0.00 5997.54 -71.11 0.00 -833.81 6200.00 0.00 6097.54 -71.11 0.00 -833.81 6300.00 0.00 6197.54 -71.11 0.00 -833.81 6297.54 -71.11 6400.00 0.00 0.00 -833.81 6397.54 -71.11 6500.00 0.00 0.00 -833.81 6497.54 -71.11 6600.00 0.00 0.00 -833.81 6700.00 0.00 0.00 6597.54 -71.11 -833.81 6800.00 0.00 0.00 6697.54 -71.11 -833.81 6900.00 0.00 0.00 6797.54 -71.11 -833.81 7000.00 0.00 0.00 6897.54 -71.11 -833.81 7100.00 0.00 0.00 6997.54 -71.11 -833.81 7200.00 0.00 0.00 7097.54 -71.11 -833.81 7300.00 0.00 0.00 7197.54 -71.11 -833.81 7400.00 0.00 0.00 7297.54 -71.11 -833.81 7500.00 0.00 0.00 7397.54 -71.11 -833.81

7500.00 -71.11

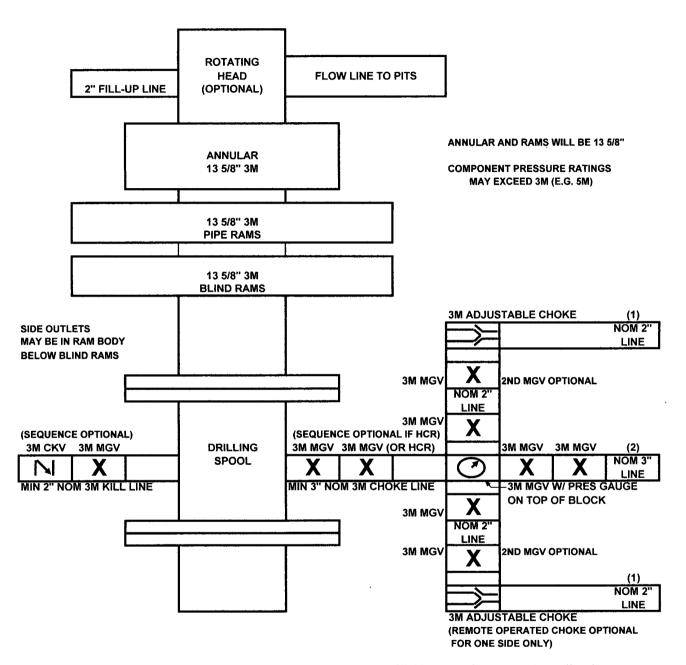
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1.4

7602.46 0.00

0.00

3M BOP SCHEMATIC

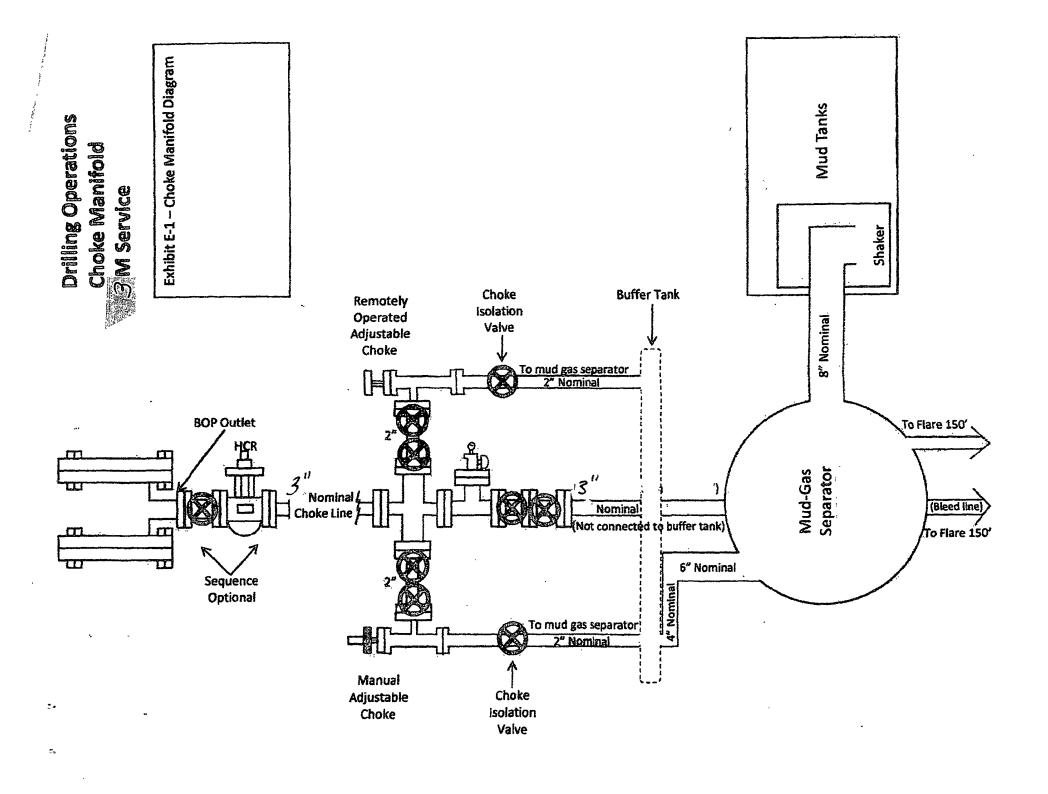


- (1) Line to mud gas separator and/or pit
- (2) Bleed line to pit

MGV - Manual Gate Valve

CKV - Check Valve

HCR - Hydraulically Controlled Remote Valve



Shale

Scilling

RKI Exploration and Production 3817 N. W. Expressway, Suite 950 Oklahoma City, OK. 73112

Closed Loop System

Design Plan

Equipment List

- 2-414 Swaco Centrifuges
- 2-4 screen Mongoose shale shakers
- 2-250 bbl. tanks to hold fluid
- 2 CRI Bins with track system
- 2 500 bbl. frac tanks for fresh water
- 2 500 bbl. frac tanks for brine water

Operation and Maintenance

- Closed Loop equipment will be inspected daily by each tour and any necessary maintenance performed
- · Any leak in system will be repaired and/or contained immediately
- OCD notified within 48 hours
- Remediation process started

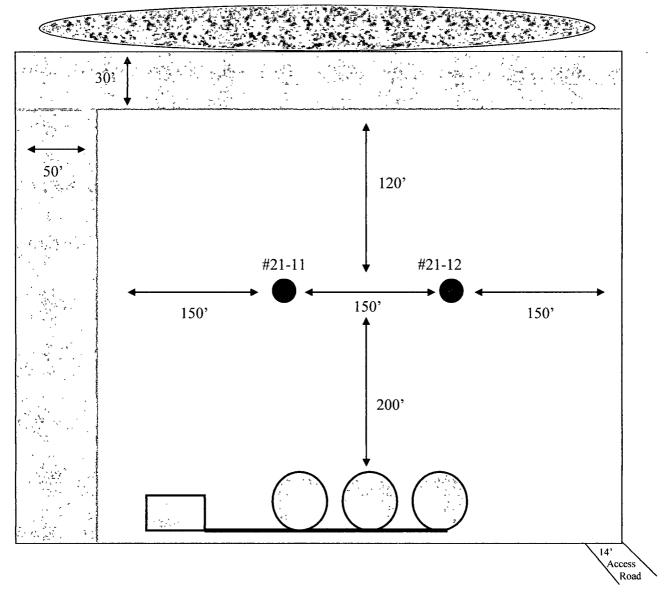
Closure Plan

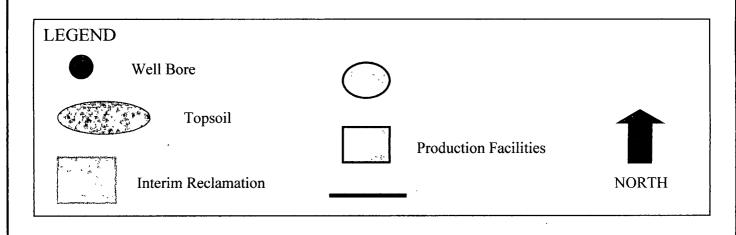
During drilling operations, all liquids, drilling fluids and cuttings will be hauled off via CRI (Controlled Recovery Incorporated). Permit #: R-9166.

Form C-144 CLEZ Oil Conservation Division Page 3 of 3

EXHIBIT C

Interim Reclamation & Production Facilities RDX FEDERAL 21-11 V-DOOR EAST





PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: RKI EXPLORATION, LLC
LEASE NO.: NM102917
WELL NAME & NO.: 11-RDX FEDERAL 21
SURFACE HOLE FOOTAGE: 430'/N. & 1180'/W.
BOTTOM HOLE FOOTAGE 495'/N & 495'/W
LOCATION: Section 21, T. 26 S., R. 30 E., NMPM
COUNTY: Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

☐ General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Phantom Banks Heronries
Hydrology
◯ Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
☐ Road Section Diagram
☑ Drilling
Logging Requirements
Medium Cave/Karst
Waste Material and Fluids
☐ Production (Post Drilling)
Well Structures & Facilities
Pipelines
Electric Lines
Interim Reclamation
☐ Final Abandonment & Reclamation