

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

State of New Mexico
Energy Minerals and Natural Resources



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

Form C-101
May 27, 2004

SEP 24 2007
Submit to appropriate District Office
OCD-ARTESIA ☒ AMENDED REPORT
(Revised Down Hole Plan)

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

¹ Operator Name and Address RKI EXPLORATION & PRODUCTION, LLC 3817 NW EXPRESSWAY, SUITE 950, OKLAHOMA CITY, OK 73112		² OGRID Number 246289
³ Property Code 36750	⁵ Property Name PINNACLE STATE	⁶ Well No. 16
⁹ Proposed Pool 1 HERRADURA BEND; DELAWARE, EAST		¹⁰ Proposed Pool 2

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
N	36	22 S	28 E		1152	SOUTH	2528	WEST	EDDY

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

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3,085'
¹⁶ Multiple N	¹⁷ Proposed Depth 7,120'	¹⁸ Formation BONE SPRING	¹⁹ Contractor	²⁰ Spud Date UPON APPROVAL
Depth to Groundwater >50'		Distance from nearest fresh water well >1,000'		Distance from nearest surface water 10'
Pit: Liner Synthetic <input checked="" type="checkbox"/> 12_mils thick Clay <input type="checkbox"/> Pit Volume _____ bbls Drilling Method: _____ Closed-Loop System <input type="checkbox"/> 25,000 bbls Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	54.5#	40'	100	SURFACE
12-1/4"	9-5/8"	36#	560'	250	SURFACE
7-7/8"	5-1/2"	17#	7,120'	658	SURFACE

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.

1. Drill 17-1/2" hole to 40'. Set 40' of 13-3/8" conductor casing. Cement to surface with Redi-Mix cement.
2. Drill 12-1/4" hole to 280'. Set 280' of 9-5/8", 36#, J-55, ST&C surface casing. Cement with 156 sacks of tail slurry with 2% calcium chloride (yield = 1.35). Volume includes 100% excess to bring cement to surface.
3. Drill 7-7/8" hole to 7,120'. Set 7,120' of 5-1/2" production casing. Cement to surface in two stages (DV tool @ ~4,000'). Stage 1, cement with 203 sacks of lead slurry (yield = 2.47) and 139 sacks of tail slurry (yield = 1.30). Stage 2, cement with 193 sacks of lead slurry (yield = 2.47) and 123 sacks tail slurry (yield = 1.30). Note: Actual cement volumes to be determined by open hole caliper log.
4. Will use fresh water mud to drill surface hole and saturated salt to drill production hole.
5. RKI has 15 Delaware wells in Section 36. No H2S has been detected to date.
6. RKI's attorney is preparing NSL application.

Drill Only - NSL Required To Produce

²³ 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 NMOC guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name. BRIAN WOOD <i>Brian Wood</i>		Approved by: BRYAN G. ARRAnt	
Title: CONSULTANT		Title: DISTRICT II GEOLOGIST	
E-mail Address: brian@permitswest.com		Approval Date: SEP 24 2007	Expiration Date: SEP 24 2008
Date: 9-22-07	Phone: (505) 466-8120	Conditions of Approval Attached <input type="checkbox"/>	

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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-	Pool Code 30670	Pool Name HERRADURA BEND; DELAWARE, EAST
Property Code .	Property Name PINNACLE STATE	Well Number 16
OGRID No. 246289	Operator Name RKI EXPLORATION & PRODUCTION	Elevation 3085'

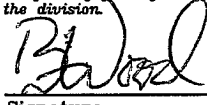
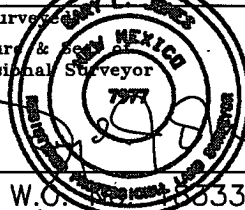
Surface Location

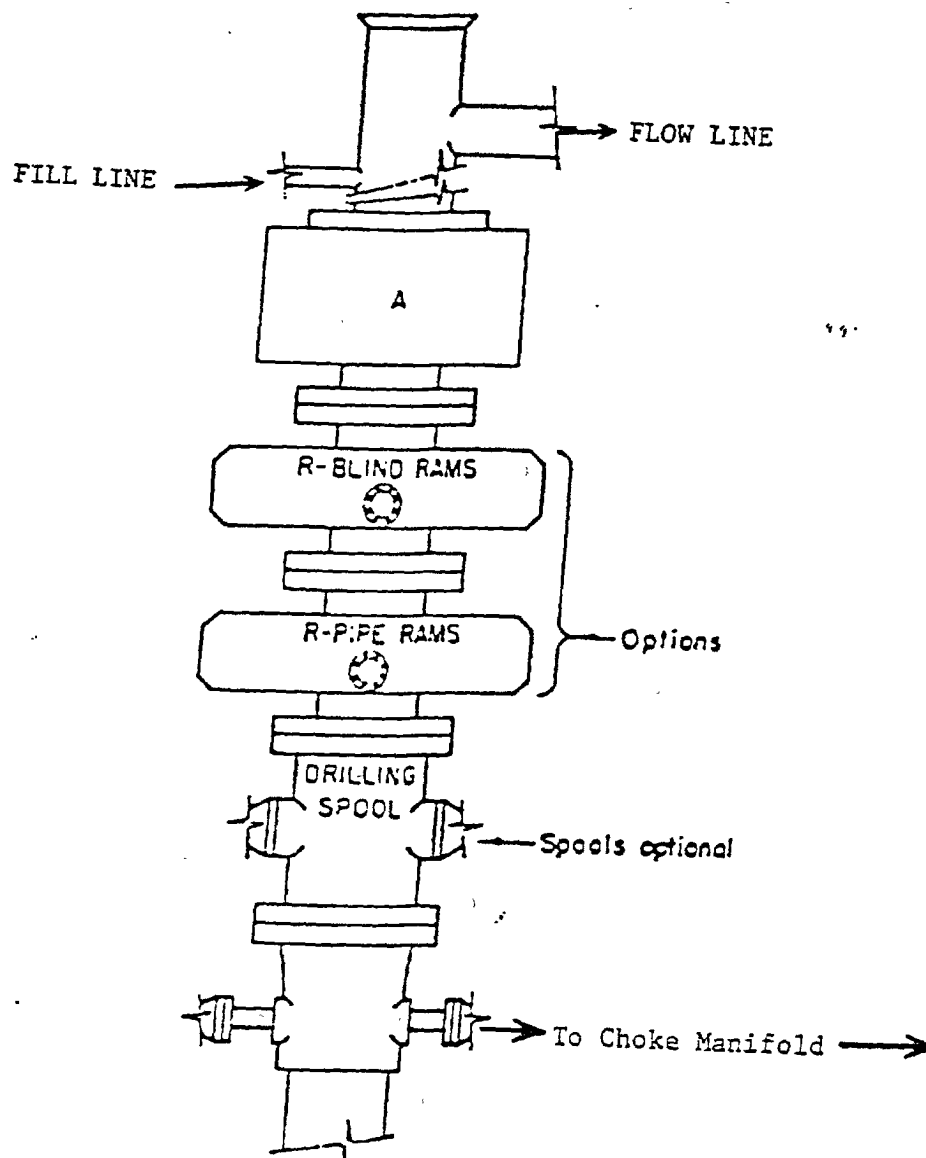
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	22 S	28 E		1152	SOUTH	2528	WEST	EDDY

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 40	Joint or Infill I	Consolidation Code	Order 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

	<p>LAT N.: 32°20'41.6" LONG W.: 104°02'30.0" N.: 489322.708 E.: 631416.872 (NAD-83)</p>
<p>OPERATOR CERTIFICATION</p> <p>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 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.</p> <p> 9-3-07</p> <p>Signature Date</p> <p>BRIAN WOOD</p> <p>Printed Name</p>	
<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>JULY 28 2007</p> <p>Date Surveyed</p> <p></p> <p>Signature & Seal Professional Surveyor</p> <p>W.O. Jones 7977</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>	



ARRANGEMENT SRRA

900 Series
3000 PSI WP

Arrant, Bryan, EMNRD

From: Arrant, Bryan, EMNRD
Sent: Friday, September 07, 2007 8:43 AM
To: 'brianwood'
Cc: Gum, Tim, EMNRD
Subject: Pinnacle State # 16

Dear Brian,

In order to further review/and or approve the above noted application to drill, please resubmit the top page of the APD and adjust the surface casing setting depth so that it is not proposed to be set in the Salado formation.

As RKI Exploration & Production Company, LLC should be aware of, the setting depth of 560' is too deep and may cause contamination of any shallow ground water in this area and could pose a problem in obtaining a good casing seat.

In reading your proposed drilling method of using fresh water, please explain to me how drilling with a fresh water mud will not wash out the salt section.

Also, please provide a H2S well contingency plan that meets the requirements of NMOCD Rule 118.

Or if in your review such a plan is not required per the conditions of NMOCD 118, provide a letter of statement.

Please notify me when a NSL from Santa Fe is granted.

Yours truly,

Bryan G. Arrant

District II Geologist

New Mexico Oil Conservation Division

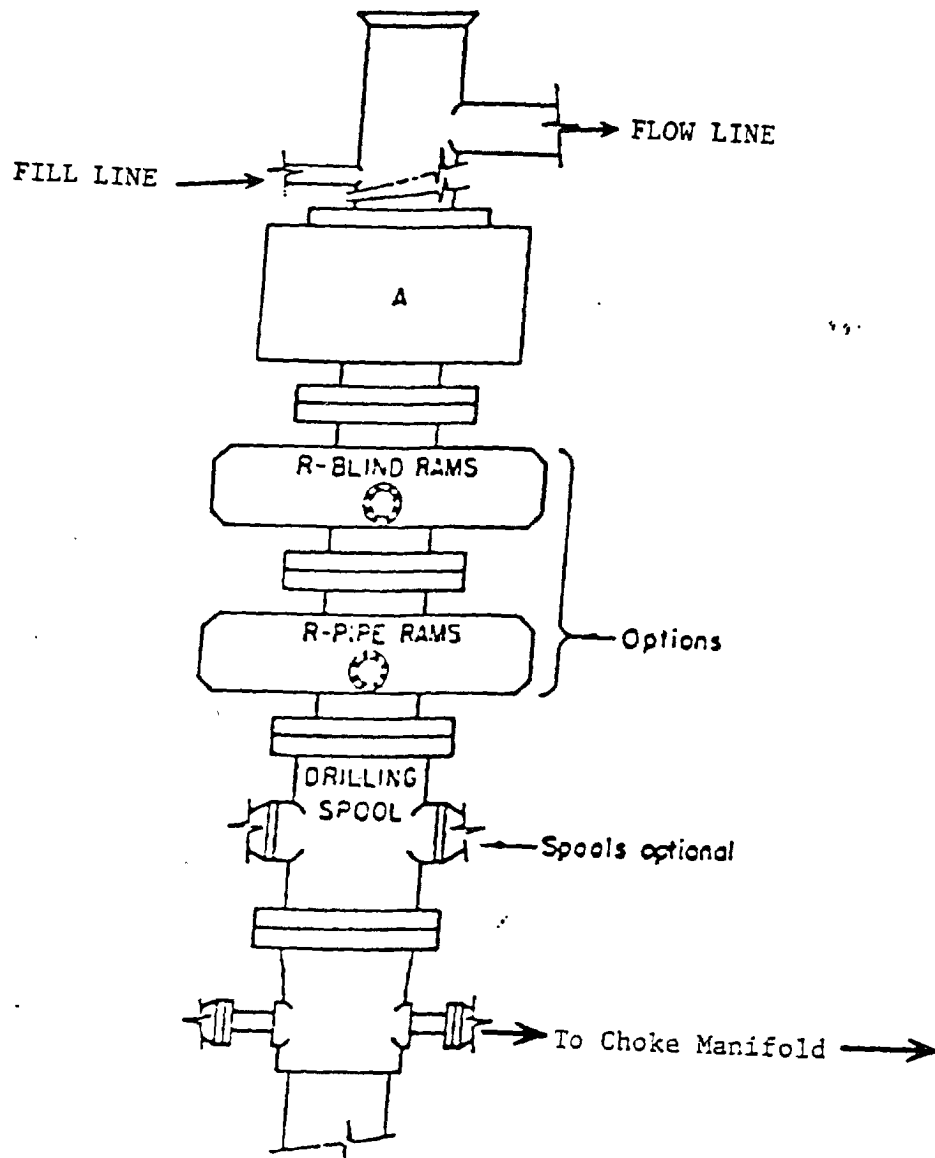
1301 West Grand Ave.

Artesia, NM 88210

505-748-1283 Ext. 103

CC: Well File

9/7/2007



ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
B.O.P. SKETCH TO BE USED ON

LOUIS DREYFUS NATURAL GAS CORP.
WHITE WING "22" FEDERAL COM. #23
UNIT "K" SECTION 22
T22S-R26E EDDY CO. NM