Gyp buckshot floodplain 7040

ATS-08-104

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OCD-ARTESIA

OCD-ARTESIA

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Form 3160-3
(April 2004)

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NM-100558	
6. If Indian, Allotee or Tribe Name ----------	
1a. Type of work: [X] DRILL [ ] REENTER OGRD-246289	7 If Unit or CA Agreement, Name and No. ----------
1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone	8. Lease Name and Well No. RDX "15" # 1
2 Name of Operator RKI EXPLORATION & PRODUCTION, LLC. (PAT McCOLLOM 918-996-5748)	9. API Well No. 30-015-35955
3a. Address 3817 NW EXPRESSWAY, SUITE 950 OKLAHOMA CITY, OK 73112	3b. Phone No. (include area code) 405-996-5748
	10. Field and Pool, or Exploratory BRUSHY DRAW DELAWARE-EAST
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 330' FNL & 330'FWL SECTION 15 T26S-R30E EDDY CO. NM At proposed prod. zone SAME Carlsbad Controlled Water Basin	11. Sec., T. R. M. or Blk. and Survey or Area SECTION 15 T26S-R30E
14. Distance in miles and direction from nearest town or post office* Approximately 17 Miles Southeast of Malaga New Mexico	12. County or Parish EDDY CO. / 13. State NM
15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of acres in lease 320 / 17. Spacing Unit dedicated to this well 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. NA	19. Proposed Depth 7576' / 20. BLM/BIA Bond No. on file NMB000460 BH
21. Elevations (Show whether DF, KDB, RT, GL. etc.) 3098' GL.	22. Approximate date work will start* WHEN APPROVED / 23. Estimated duration 35 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Joe T. Janica	Name (Printed Typed) Joe T. Janica	Date 10/22/07
Title Permit Engineer		
Approved by (Signature) /s/ Don Peterson	Name (Printed Typed) /s/ Don Peterson	Date NOV 29 2007
Title FOR FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.
Conditions of approval, if any, are attached. APPROVAL FOR TWO YEARS

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.

(Instructions on page 2)

If an earthen pit(s) will be utilized in association with this work, a permit must be obtained prior to pit construction.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Form 3160-5
(February 2005)

OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.
NM-100558

6. If Indian, Allottee or Tribe Name
---

7. If Unit of CA/Agreement, Name and/or No.
---

1 Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

DEC 4 2007
OCD-ARTESIA

8. Well Name and No.
RDX "15" #1

2. Name of Operator
RKI Exploration and Production

9. API Well No.

3a. Address
3817 NW Expressway
Oklahoma City, OK 73112

3b. Phone No. *(include area code)*
405-949-2221

10. Field and Pool or Exploratory Area
Brushy Draw Delaware - East

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
330' FNL & 330' FWL, Sec. 15 T26S-R30E, Eddy Co., NM.

11. Country or Parish, State
Eddy County, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

RKI Exploration and Production respectfully requests a change of plans for the drilling of the above captioned well. A rotary rig will be substituted for a top drive rig. We would like to utilize an armored 4" 3000 psi. (working pressure) hose for the choke line in the drilling of the well. This is rig equipment provided by the rig contractor and will help quicken nipple up time thus saving money without sacrficing safety. The hose itself is rated to 10,000 psi. but has 3,000 psi. flanges on each end. The choke manifold is as described in the original drilling plan attachments. As specified in the original Application to Drill, the estimated bottom hole pressure should be approx. 3500 psi. which would exert 220 psi. at surface with a water fluid column in the wellbore. Therefore, the 3000 psi rated equipment should be more than adequate for well control while drilling this well.

14 I hereby certify that the foregoing is true and correct.
Name *(Printed Typed)*
Joe T. Janica

Title Permit Engineer

Signature Joe T. Janica

Date 11/14/07

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ Don Peterson FOR FIELD MANAGER
Title

Date NOV 29 2007

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.

Office CARLSBAD FIELD OFFICE

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.

(Instructions on page 2)

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

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	8090	BRUSHY DRAW DELAWARE-EAST

Property Code	Property Name	Well Number
36878	RDX "15"	1

OGRID No.	Operator Name	Elevation
246289	RKI EXPLORATION & PRODUCTION	3098'

Surface Location

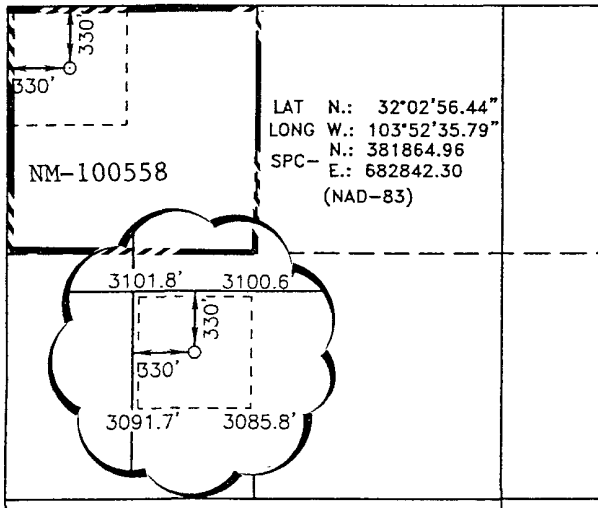
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	15	26 S	30 E		330	NORTH	330	WEST	EDDY

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



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 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.

Signature — Date: 10/22/07

Joe Janica
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.

SEPTEMBER 6, 2007
Date Surveyed

Signature & Seal of Professional Surveyor
NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

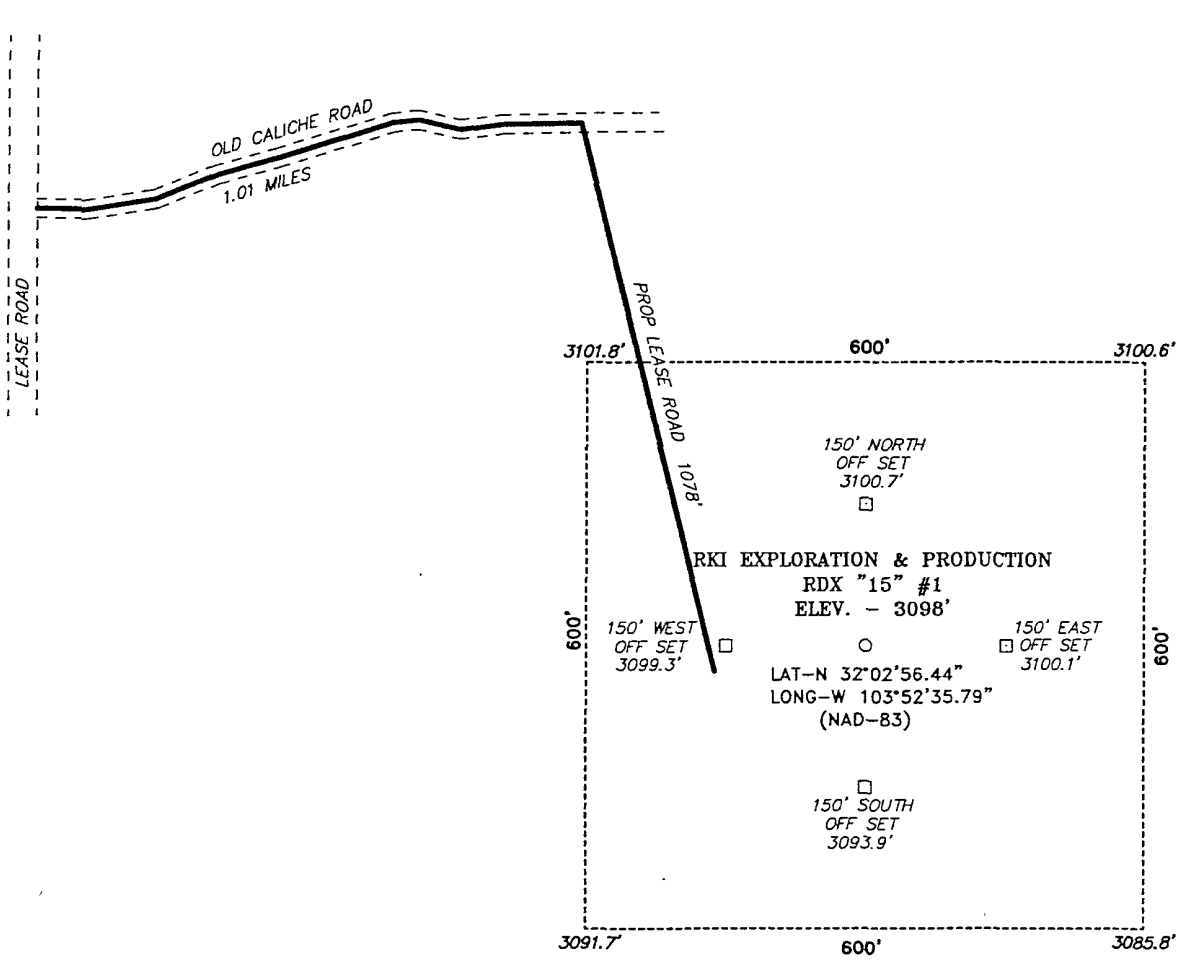
W.O. No. 8527

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

EXHIBIT "A"

SECTION 15, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF U.S HWY 285 AND CO. RD. 726 (WHITETHORN) GO EAST ON CO. RD. 726 FOR APPROX 10.0 MILES TO CO. RD. 725A (TARBUSH) ON CO. RD. 725A GO NORTHERLY 0.5 MILES TO LEASE ROAD, ON LEASE ROAD GO EASTERLY TURNING NORTH FOR APPROX 9 MILES TO OLD LEASE ROAD AND PROPOSED LEASE ROAD.

RKI EXPLORATION & PRODUCTION

REF: RDX "15" #1 / Well Pad Topo

THE RDX "15" #1 LOCATED 330' FROM THE NORTH LINE AND 330' FROM THE WEST LINE OF SECTION 15, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 18527	Drawn By: J. M. SMALL		
Date: 09-07-2007	Disk: JMS 18527W	Survey Date: 09-06-2007	Sheet 1 of 1 Sheets

APPLICATION TO DRILL

RKI EXPLORATION & PRODUCTION, LLC.
RDX "15" # 1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above will is provided for your information.

1. LOCATION: 330' FNL & 330' FWL SECTION 15 T26S-R30E EDDY CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3098' GL

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.

5. PROPOSED DRILLING DEPTH: 7576'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Base of Lime	3600'	Brushy Canyon	5734'
Delaware	3628'	Pipeline Shale	7402'
Bell Canyon Sd.	3628'	Bone Spring Lime	7416'
Cherry Canyon	4702	TD	7576'

7. POSSIBLE MINERAL BEARING FORMATION: Brushy Canyon Oil

Cherry Canyon Oil
Bone Spring Oil

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade	
26"	0-40'	20"	NA	NA	NA	Conductor	New
17½"	0-420' ✓ see COA	13 3/8"	48#	8-R	ST&C	H-40	New
12¼"	0-3500'	9 5/8"	36#	8-R	ST&C	J-55	New
7 7/8"	0-7576'	5½"	17#	8-R	LT&C	J-55	New

APPLICATION TO DRILL

RKI EXPLORATION & PRODUCTION, LLC.
RDX "15" # 1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 420' of 13 3/8" 48# H-40 ST&C casing. Collapse 3.36 Burst 7. Joint 19 Body 7.86. Cement with 180 Sx of 35/65 POZ Class "C" cement + 6% Bentonite, + 5# Gilsonite/Sx. + 1/8# Polyflake/Sx. + 3% CaCl. Yield1.95. Tail in with 200 Sx. of Class "C" cement + 1/4# Poly-flake + 2% CaCl Yield 1.34, circulate cement to surface.
9 5/8"	Intermediate	Set 3500' of 9 5/8" 36# J-55 ST&C casing. Collapse 1.17, Burst 2.04, Joint 3.13, Body 4.48. Cement with 935 Sx. of 35/65 Class "C" POZ cement + 6% Bentonite, + 4# Gilsonite/Sx. , 1/8# Polyflake/Sx. , + 1% CaCl Yield 1.97. Tail in with 200 Sx. of Class "C" cement + 1/8# Polyflake/Sx., +1% CaCl. Yield 1.33, circulate cement.
5½"	Production	Set 7576' of 5½" 17# J-55 LT&C casing. Collapse 1.31, Burst 1.42, Joint 2.11. Cement in two stages with DV tool at 5000±'. Cement 1st stage with 200 Sx. of 35/65 Class "C" POZ, + 5% Salt, + 2% Uniflac, + + 1% retarter, + 1/8# Polyflake/Sx. Yield 1.93. , tail in with 125 Sx. TXI Light weight cement+ 1.33% Salt, +.3% uniflac, + 1% retarder, Yield 1.4. Cement 2nd stage with 140 Sx. of Class "C" POZ cement, + 5% Salt, + 6% Bentonite, + 1/8# Polyflake/Sx., + .1% retarder, Yield 2.04. Tail in with 135 Sx. of Class "C" cement + 2% retarder. Yield 1.32. Estimate top of cement 3000' from surface, 500' into 9 5/8" Intermediate casing.

see COA

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 series 3000 PSI working perssure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once each 24 Hr. period and the blind rams will be operated when the drill pipe is out of on trips. Full opening stabbing valve and upper kelly cock will be available in case if needed. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 3000 PSI choke manifold with adjustable chokes. No abnormal pressures or temperatures are expected while drilling this well. No problems in offset wells.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM

SEE ATTACHED MUD PROGRAM

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing, viscosity, and water loss may have to be adjusted to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, Density, Neutron , Gamma Ray, Caliper from TD back to 9 5/8" casing shoe.

B. Magnetic Resonance tool from TD back to 9 5/8" casing shoe.

C. Cross Dipole Sonic log from TD back to surface.

D. Rig up mud logger on hole at 3500'±.

C. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S 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 3500 PSI, and Estimated BHT 185°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

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

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Brushy Canyon formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

Depth	M W - ppg	Vis	Fil	pH	Sol %				
0-420'	8.4-9.4	32-34	N/C	9.0	3-8				

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 420'	Quaternary	Sand	Seepage, caving

See COA

Interval Notes for 0 - 420

Spud with a conventional Fresh Water/Bentonite slurry. Circulate the working pits and adjust the viscosity as needed to clean the large diameter hole. Add small amounts of Soda Ash/Caustic to control pH and reduce calcium levels. Use periodic sweeps of Ground Paper to enhance hole cleaning and control seepage. Use the jet and dilute method to control weight below 9.4 ppg. Should severe losses occur we suggest mixing a viscous (50-60) Bentonite pill containing 10-20 ppb of various LCM's and spotting it across the loss zone. Should returns not be regained, dry drill sweeping the hole as necessary to keep cuttings from the well bore. Sweep and spot a viscous (50-60) Bentonite pill at total depth to ensure a clean hole for casing operations. We suggest setting casing into the Rustler Anhydrite.

NOTE: we recommend a complete corrosion program be used on this project. Nova Mud, Inc. carries a full line of chemicals and can provide service.

Projected Mud Properties

Depth	M W - ppg	Vis	Fil	pH	Cl - ppm				
420-3,500'	10.0	28	N/C	10.0	186K				

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
420' - 600'	Quaternary		
600' - 1,900'	Rustler	Anhydrite, Dolomite	Marker betw. FW sands & salt
1,900' - 2,300'	Salado	Salt, anhydrite & dolomite stringers	Dissolution, key seats, boulders, deviation
2,300' - 3,100'	Castile	Banded limey anhydrite & salt stringers	
3,100' - 3,500'	Lamar	Limestone	Top of Delaware Mt. Group

Interval Notes for 420 - 3,500

Drill out from under the surface with Brine. Circulate a controlled portion of the reserve. Adjust the pH to 10.0 with Lime additions. Use MF-55 to aid in fine solids removal. Continue to use Ground Paper sweeps as needed to control seepage and aid in hole cleaning. Should torque and/or drag become a problems sweep the hole with a viscous (50-60) Salt Water Gel pill or use periodic sweeps of MF-55 down the drill pipe to clean the hole. Sweep and spot viscous (50-60) Salt Water Gel pills(minimum of 50 bbl) to ensure hole stability for casing operations.

Projected Mud Properties

Depth	M W - ppg	Vis	Fil	pH	Cl - ppm				
3,500-7,300'	9.0-9.3	28	N/C	10.0	55-75K				

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
3,500' - 4,550'	Lamar	Limestone, possible salt stringers	
4,550' - 5,900'	Cherry Canyon	Limestone & dolomite w/sand stringers	Seepage, lost circ, possible water flow
5,900' - 7,300'	Brushy Canyon		Poss. lost circualtion

Interval Notes for 3,500 - 7,300

Drill out from intermediate casing with Brackish Water weighing 9.0-9.3 ppg circulating the outside reserve. Adjust the pH to 10.0 with Caustic Soda. Continue to use Ground Paper additions to control seepage and enhance hole cleaning. Use MF-55 at the flow line to flocculate fine solids. Should torque and/or drag become a problem sweep the hole with a viscous (50-60) Salt Water Gel pill to aid in hole cleaning. Should severe losses occur add 6-15 ppb of various LCM's to the viscous pills to aid in regaining returns.

Projected Mud Properties

Depth	M W - ppg	Vis	Fil	pH	Cl - ppm				
7,300-7,600'	9.0-9.5	30-34	15cc	10.0	80-140K				

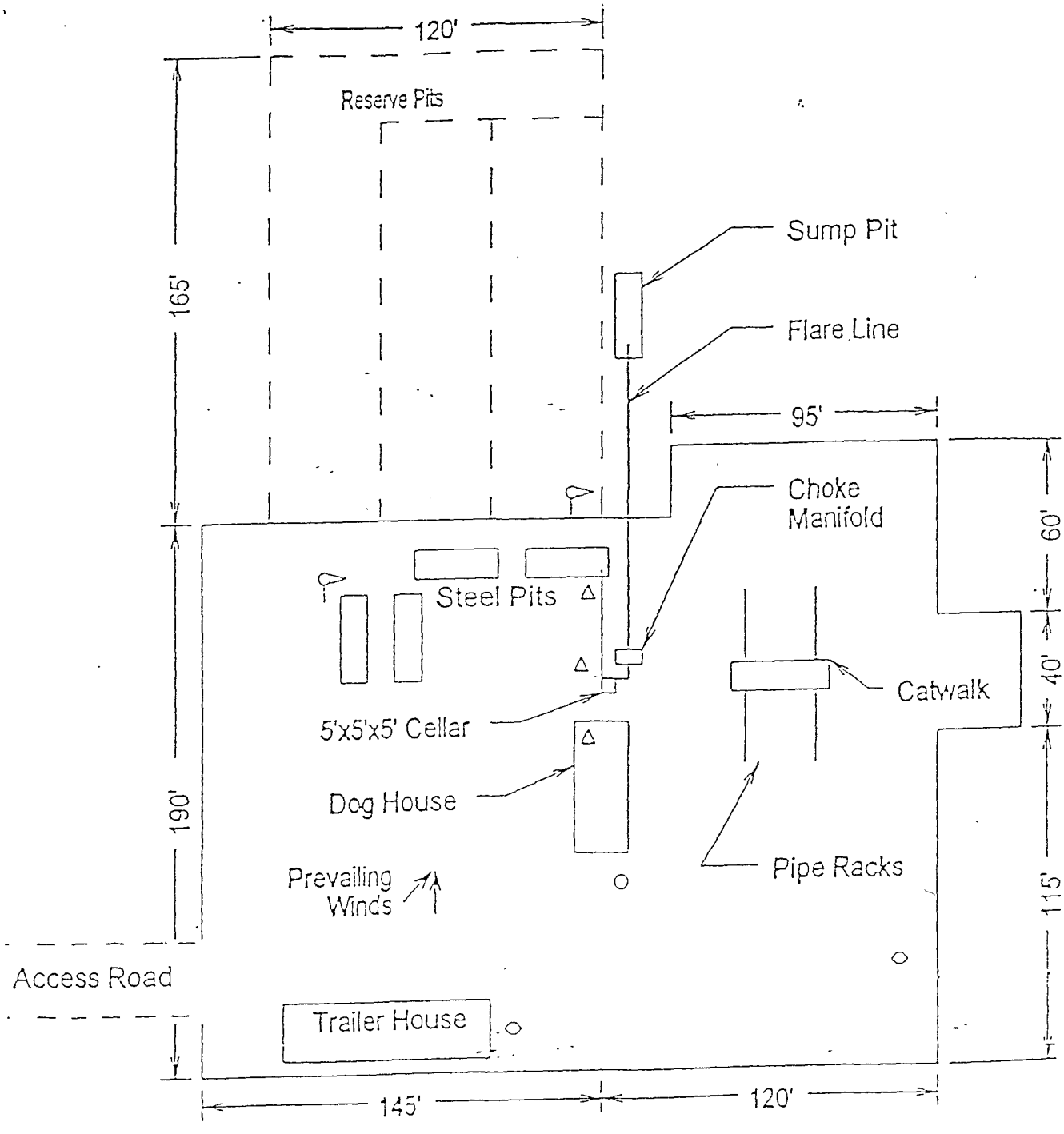
General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
7,300' - 7,400'	Brushy Canyon		Poss. lost circualtion
7,400' - 7,600'	Bone Spring	Shaly limestone w/sand stringers	Pay Zone, TD

Interval Notes for 7,300 - 7,600

Return to the working pits. Discontinue the use of MF-55. Adjust the pH to no more 10.0 with Caustic. Add biocide to the system to prevent bacteria growth. Add White Starch to reduce the filtrate to 15cc or less. Small amounts of Defoamer may be needed while adding starch to prevent aeration of the pumps. Maintain the weight as needed with additions of Fresh and/or Brine Water. Continue to use Ground Paper additions to control seepage. Viscous (50-60) Salt Water Gel pills should be used to combat any torque or drag that hole fill may cause. Raise the viscosity of the entire system should continuous hole problems occur, otherwise, sweep and spot a viscous pill at total depth to ensure a dean hole for logging and casing operations. Should severe losses occur add 6-15 ppb of LCM to viscous pills to regain returns.

NOTE: the recommendation for mud up is intended solely for formation protection and sample recovery. Many of the wells in the vicinity mudded up at total depth for logging and casing operations and to get better geo data from the Bone Spring sands. Should the mud up not be desirable, the section can be drilled with the cut brine and the hole swept at total depth.

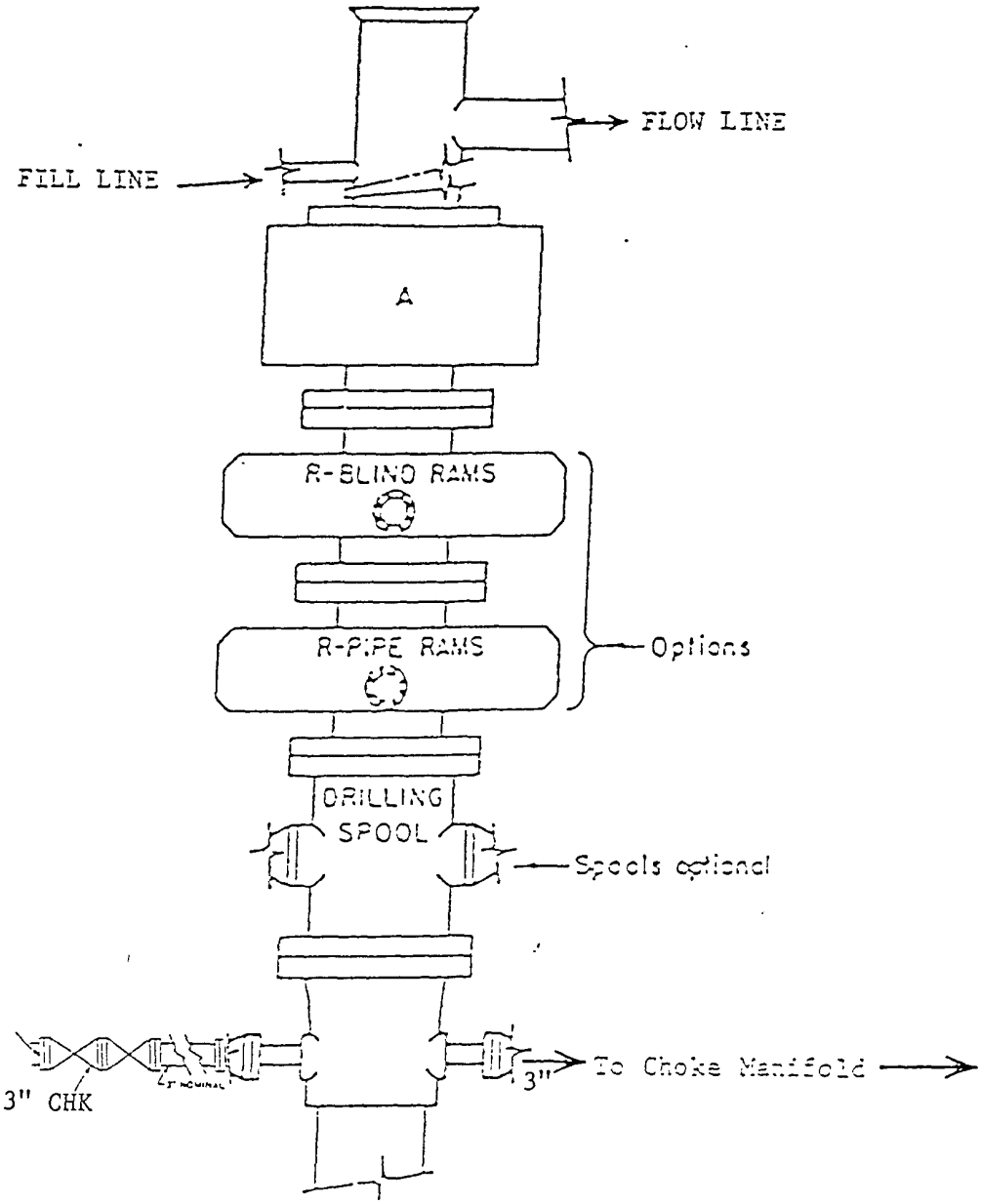


See COA's
Pit North

- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- ○ Briefing Areas
- ○ Remote BOP Closing Unit
- □ Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

RKI EXPORATION & PRODUCTION, LLC.
RDX "15" # 1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM



ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

RKI EXPLORATION & PRODUCTION, LLC.
RDX "15" # 1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM

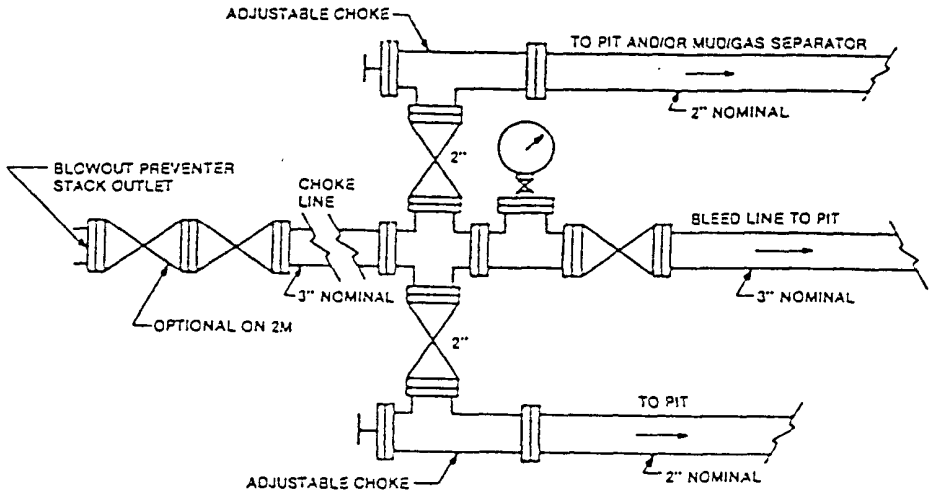


FIGURE K-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

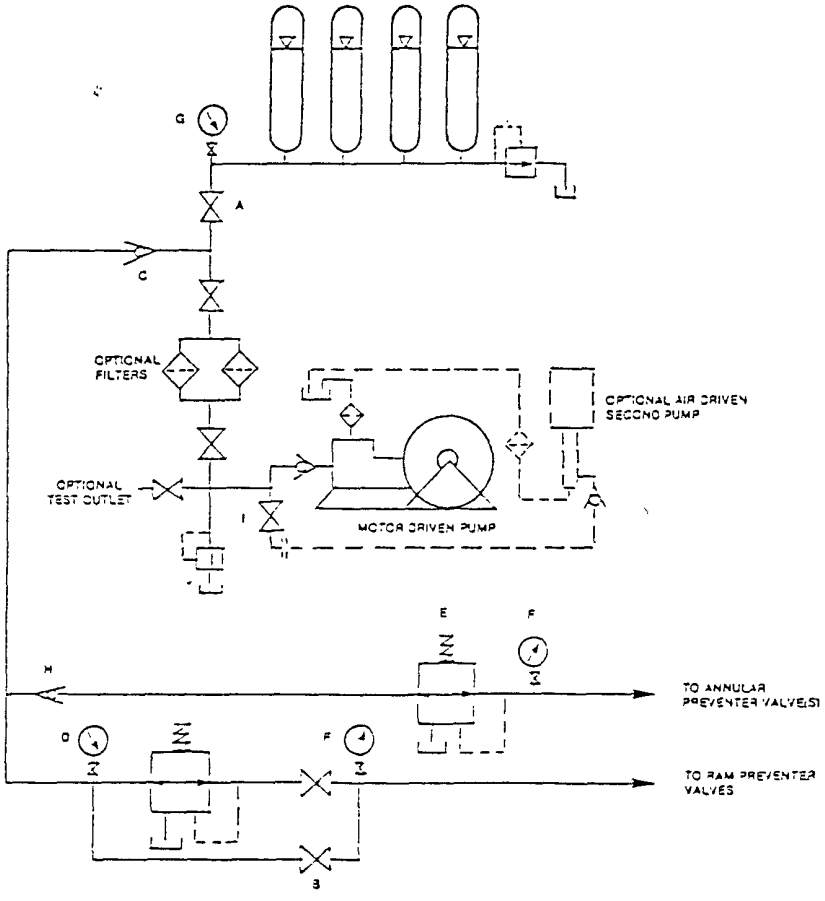


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

RKI EXPLORATION & PRODUCTION, LLC.
RDX "15" #1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock at entrance to location.

4. Condition Flags and Signs

   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

RKI EXPLORATION & PRODUCTION, LLC.
RDX "15" # 1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS:

A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Loving New Mexico take U. S. Hi-way 285 South for 17.1± miles to CR-725, turn Left (East) go 4.2 miles take pipeline road East for 6.5 miles, turn Right (South) go 1 mile, then turn Left (East) follow lease road 1.1 mile and the location 1100' on the south side of road.

D. Exhibit "C" is a topographic map showing location and roads in the area.

2. PLANNED ACCESS ROADS: Approximately 1100' of new road will be constructed.

A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.

E. Center line for new roads will be flagged, road construction will be done as field conditions require.

F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

A. Water wells - None within 2 miles of location

B. Disposal wells - None Known

C. Drilling wells - None Known

D. Producing wells - as shown on Exhibit "A-1"

E. Abandoned wells - As shown on Exhibit "A-1"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed roads , flowlines and powerlines.

5. LOCATION & TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the location access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of the drill site, if additional material is required it will be obtained from a local source and transported over the location access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE:

A. All trash, junk and other waste material will be contained in trash cages or trash bins in order to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

B. Sewage from living quatersw will be drained into holding tanks and will be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of well.

C. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a State approved disposal site. Later the pits will be broken out to speed drying. Water produced during completion will be stored in tanks and disposed of in State approved disposal site. Oil and condensate produced during completion will be put in storage tanks and sold.

D. Drill cuttings will be disposed of in resebev pits or if necessary will be taken to a State approved landfarm and disposed of properly.

E. Any remaining salts or mud additives will be collected by the supplier and to stock, this includes all broken bags.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows the proposed well site layout.

B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.

C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.

D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than12 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.

E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out.If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate furture erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

11. OTHER GENERAL INFORMATION:

A. Topography consists of low lying caliche hills with a gentle dip to the Southwest toward Brushy Creek. Soil is then sandy gray in color and very shallow with caliche base. Vegetation consists of mesquite, native grasses with various cacti.

B. The surface and minerals are owned by The U. S. Department of Interior and is administered by The Bureau of Land Management. The surface is used to graze livestock.

C. An Archaeological survey has been condicted and is on file with The Bureau of Land Management Carlsbad Field Office.

D. There are no dwellings located within 2 miles of the location.

E. Production facilities will be constructed on the location in case the well is completed as an oil well.

CERTIFICATION

I HEREBY CERTIFY THAT I OR PERSONS UNDER MY SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND THE ACCESS ROAD ROUTES, THAT I AM FAMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST, AND THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT, AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY RKI EXPLORATION & PRODUCTION, LLC. ITS CONTRACTORS OR ITS SUB-CONTRACTORS IS IN CONFORMANCE WITH THIS PLAN AND THE TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. 1001 FOR THE FILING OF A FALSE STATEMENT.

OPERATORS REPRESENTATIVES

BEFORE CONSTRUCTION

JOE T. JANICA

TIERRA EXPLORATION, INC.
P. O. BOX 2188
HOBBS, NEW MEXICO 88241
PHONE OFFICE 505-391-8503

CELL 505-390-1598

DURING AND AFTER CONSTRUCTION

GENE SIMER

RKI EXPLORATION & PRODUCTION, LLC..
309 SOUTH HALAGUENO STREET
P. O. BOX 370
CARLSBAD, NEW MEXICO 88221-0370
PHONE OFFICE 505-885-3509
CELL 505-706-3225

NAME: JOE T. JANICA Joe T Janica

DATE: 10/22/07

TITLE: AGENT

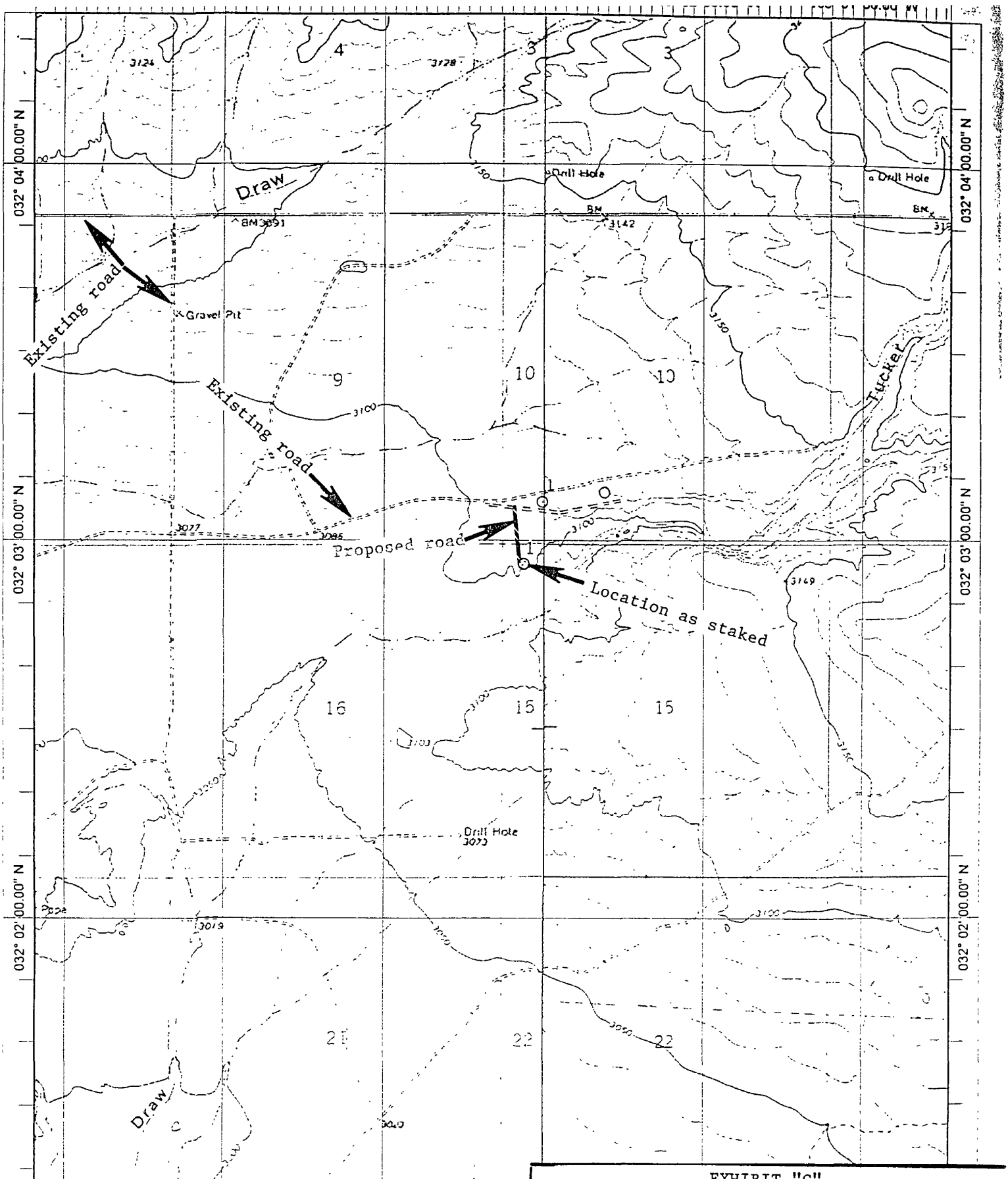


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

RKI EXPLORATION & PRODUCTION, LLC.
RDX "15" # 1
UNIT "D" SECTION 15
T26S-R30E EDDY CO. NM

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The **13-3/8** inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite at approximately 750** feet and cemented to the surface. **Fresh water mud to be used to setting depth of surface casing. This setting depth will place the casing within a competent formation as required in Onshore Order II. The returns should change in color from an orange-red to a gray and the drill rates should slow substantially indicating that the Rustler Anhydrite has been reached.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

Medium cave/karst.
Possible lost circulation from surface to the base of the Castile Group and in the Delaware and Bone Spring formation.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a-d above.
   Casing should be set in the Lamar limestone at approximately 3500'.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. All tests are required to be recorded on a calibrated test chart. A copy of the

BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

e. **Variance approved to use 4" armored flexible line from BOP to BOPE, replace if exterior is damaged or if line fails test. Line to be as straight as possible. Flexible line to be anchored according to manufacturer's specifications – either anchor in middle or on each end. Sundry requesting variance for flex line attached to APD.**

Engineer on call phone (after hours): **Carlsbad: (575) 706-2779**

WWI 112807