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Form 3160-3  
(September 2001)

070 FARMINGTON, NM  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			5. Lease Serial No. SF-077383A		
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			6. If Indian, Allottee or Tribe Name NA		
2. Name of Operator Koch Exploration Company, LLC			7. If Unit or CA Agreement, Name and No. NA		
3a. Address 20 East Greenway Plaza Houston, Texas 77046			8. Lease Name and Well No. Noe Com 27-2A		
3b. Phone No. (include area code) 713-544-4318			9. API Well No. 3004531391		
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NW/4, Sec. 27, T28N, R10W, 1245' FNL & 965' FWL At proposed prod. zone (Same)			10. Field and Pool, or Exploratory Basin Fruitland Coal		
14. Distance in miles and direction from nearest town or post office* 7 miles southeast of Bloomfield, NM			11. Sec., T., R., M., or Blk. and Survey or Area Sec. 27, T28N, R10W		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 965'		16. No. of Acres in lease 640		17. Spacing Unit dedicated to this well 320 W/2	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 3100'		19. Proposed Depth 2075'		20. BLM/BIA Bond No. on file 400 GH. 0471	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5991' GR		22. Approximate date work will start* available rig		23. Estimated duration 30 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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Rolf A. Ornelas</i>	Name (Printed/Typed) ROLF A. Ornelas	Date Feb 07, 03
Title SR Engineer		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify the 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.

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 reverse)

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

NM000

DISTRICT I  
P.O. Box 1880, Hobbs, N.M. 88241-1880

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Elko Brazos Rd., Artesia, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-31391	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 18435	<sup>5</sup> Property Name NOE COM 27	<sup>6</sup> Well Number 2A
<sup>7</sup> GRID No. 12807	<sup>8</sup> Operator Name KOCH EXPLORATION	<sup>9</sup> Elevation 5991

<sup>10</sup> Surface Location

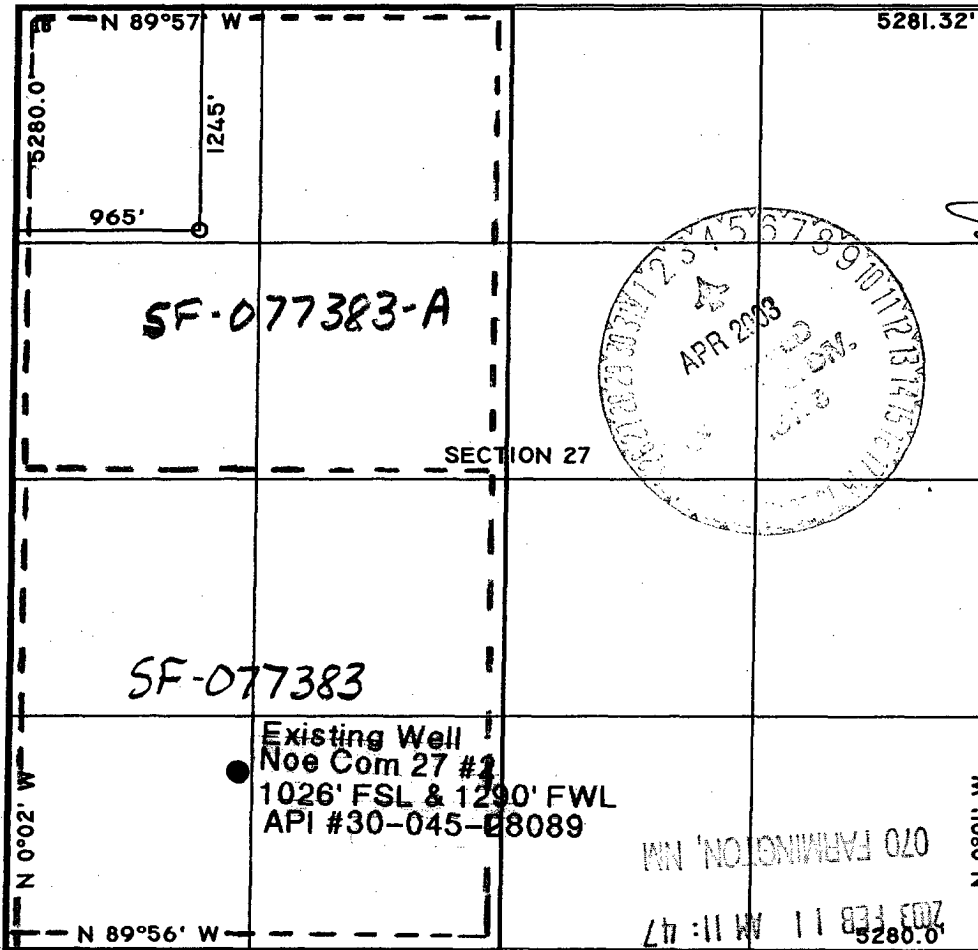
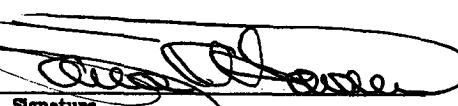
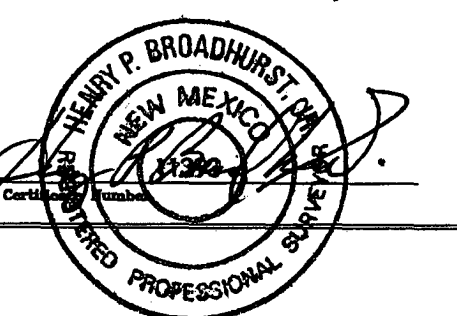
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	28 N	10 W		1245	NORTH	965	WEST	SAN JUAN

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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><b>17 OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p>Signature: </p> <p>Printed Name: Lance F. Harmon</p> <p>Title: Vice President - Land</p> <p>Date: 12/11/02</p>
	<p><b>18 SURVEYOR CERTIFICATION</b></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>Date of Survey: 9/20/02</p> <p>Signature and Seal of Professional Surveyor: </p>

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires January 31, 2004

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**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.**

5. Lease Serial No.  
**SF077383A**

6. If Indian, Allottee or Tribe Name  
**NA**

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

**Koch Exploration Company, LLC**

3a. Address

**20 E. Greenway Plaza, Houston, Tx 77046**

3b. Phone No. (include area code)

**713-544-4318**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**Sec 27 T28N R10W**

**1245' FNL & 965' FWL**

7. If Unit or CA/Agreement, Name and/or No.  
**NA**

8. Well Name and No.

**Noe Com 27-2A**

9. API Well No.

**30-045-31391**

10. Field and Pool, or Exploratory Area  
**Basin Fruitland Coal**

11. County or Parish, State

**San Juan County, NM**

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>Supplement to APD</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Additional information to APD Drilling Program (already submitted).  
See Attached.**

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

**ROLF A. ORNELAS**

Title **Senior Engineer**

Signature

**ROLF A ORNELAS**

Date

**3-26-03**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**David J. Mankiewicz**

Title

Date

**APR - 1 2003**

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

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Koch Exploration Company, LLC  
Basin Fruitland Infill Well  
**Noe Com 27-2A**  
S27 - T28N - R10W  
**Sundry Notice APD Supplement**

**Casing Program:**

Hole Size	Grade, size of Casing	Weight per Foot	Setting Depth
12 1/4" Hole	8 5/8" J-55 ST&C	24.0#	150'
7 7/8" Hole	4 1/2" J-55 LT&C	10.5#	2,130'

Circulate 8-5/8" cement to surface - Volumes to be adjusted to new casings depths  
Circulate 4-1/2" cement to surface - Volumes to be adjusted to new casing depths

100% excess on surface casing  
50% excess on production casing

**Centralizer Program:**

<b>Surface Casing:</b>	3 Centralizers will be ran on the bottom 3 joints, starting at the shoe joint
<b>Production Casing:</b>	2 Centralizers will be ran on the bottom 2 joints, then every 10th joint thereafter or +/-400', and Centralizers to impact a swirling action will be placed just below and into the base of the Ojo Alamo.

**Estimated Formation Tops:**

San Jose	Surface
Ojo	1,028'
Kirtland Shale	1,103'
Fruitland Coal	1,778'
Pictured Cliff	2,003'
TD	2,130'

**Estimated Formation Pressures:**

Fruitland Coal	600 psi
Bottom Hole	200 psi

**Estimated depths of useable water, salt water and oil/gas bearing formations:**

Fresh/Useable Water	0' to 1,103'
Salt Water	1,103' to 1,778'
Oil and Gas	1,778' to 2,130'

**NOE COM 27-2A**

Sec. 27-T28N-R10W, 1245' FNL &amp; 965' FWL

San Juan Co., New Mexico

Lease SF 077383-A

**Drilling Program****1) Geological name of surface formation -**

Estimated tops of important geological markers:

San Jose	Surface
Ojo	963'
Kirtland Shale	1038'
Fruitland Coal	1713'
Pict. Cliffs	1958'
TD	2075'

**2) Estimated depths at which oil, gas, water, and mineral bearing formation will be found:**

Fresh Water	0' to 200'
Salt Water	201' to 1713'
Oil and Gas	1713' to 2075'

**3) Pressure Control Equipment:**

- a. 10-inch 900 series or 3,000 psi test double gate hydraulic with 4-1/2" pipe rams and 10-inch series 900 hydril above 10-inch series casinghead and cross spool with flanged outlets. See BOP diagram at **Exhibit F-1** for drawing of choke lines, kill lines and choke manifold. Procedures will include waiting on cement 12 hours, nipple up blowout preventer (BOP) assembly and test to 70% of yield of casing or 3,000 psi maximum. The production casinghead pressure rating will be 3,000 psi.
- b. Type of BOP rams: Blind rams and pipe rams are used as shown on the BOP diagram at **Exhibit F-1**. Occasionally, the position of the rams is reversed depending on the drilling contractor's methods.
- c. The choke manifold and header will have 2-inch choke outlets, a 2-inch straight through the line with 2-inch adjustable chokes installed. The inlet line will be a 2-inch line. All of the above are rated at 3,000 psi working pressure (WP). The choke manifold and header system will have manual control valves; no hydraulic valves will be installed. Casing testing procedure – Surface casing will be tested at 750 psi with 1,000 psi maximum after cementing in place and before drilling out of shoe. Intermediate and production casing will be tested to 3,000 psi after cementing in place and after drilling to the required depth.
- d. Hydraulic controls to close the BOPs are located on the rig floor; the hydraulic remote control is located in the bottom doghouse. There will be no manual controls on the BOP.

**NOE COM 27-2A**

Sec. 27-T28N-R10W, 1245' FNL & 965' FWL

San Juan Co., New Mexico

Lease SF 077383-A

e. BOP testing procedures and frequency:

1. Hydril (3,000WP) will be tested to 70% of yield of casing or 3,000 psi maximum.
  2. Double ram BOPs will be tested to 70% of yield of casing or 3,000 psi maximum.
  3. BOPs will be tested upon installation, after casing is run and on each bit trip.
- f. Casinghead connections will be 2-inch; these outlets will usually be bull plugged during drilling operations. No pumping through these connections is allowed except in emergency to keep from wearing out the head.
- g. The drilling spool will be a series 900 3,000 psi WP with a 2-inch kill line and a 2-inch outlet.

**4) Proposed Casing Program:**

Surface Casing Program:

Surface Casing	8 5/8"	24.0#	J-55 STC	New
Production Casing	4 1/2"	10.5#	J-55 LTC	New

Proposed setting depth, amount and type of cement including additives:

8 5/8" Surface Casing – Surface to 150' – Cement with 100 sks type III (14.6 ppg, slurry yield 1.39 cf/sk) Cement + 2% bwoc Calcium Chloride + .25 lbs/sk Cello Flake + 59.2% Fresh Water. Volume: 138.1 cf., includes 100% excess.

4 1/2" Production Casing – Surface to 2075' –

Lead with 260 sks Premium Lite FM (12.1 ppg, slurry Yield 2.15 cf/sk) + 3% bwoc Calcium Chloride + .25 lb/sk Cello Flake + .4% bwoc FL-52 + 8% bwoc Bentonite + .4% bwoc Sodium Metasilicate + 3 lb/sk Pheno Seal + 116.1 % Fresh Water. Volume: 558.2 cf., includes 50% excess.

Tail with 86 sks Type III Cement (14.0 ppg, slurry Yield 1.54 cf/sk) + 2% bwoc Calcium Chloride + .25 lb/sk Cello Flake + .2% bwoc FL-52 + 68.9% Fresh Water. Volume: 131.7 cf., includes 50% excess.

**5) Mud Program:**

0' – 150' – Spud mud and water treated with gel lime.

150' – 2075' – Lime mud, water and polymer.