Form 3160
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE

FORM APPROVED
OMB NO. 1004-0136

EXPEDITED Right-of-Way

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Koch Exploration Company

3. ADDRESS AND TELEPHONE NO.
P.O. Box 489, Aztec, NM (505) 334-9111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 2515' FNL & 810' FEL
At proposed prod. zone Same

5. LEASE DESIGNATION AND SERIAL NO.
NM-03187

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NA

7. UNIT AGREEMENT NAME
NA

8. FARM OR LEASE NAME, WELL NO.
Lambe 2C

9. API WELL NO. 30-045-30747

10. FIELD AND POOL, OR WILDCAT
Blanco Mesa Verde

11. SEC., T., R., M., OR BLK AND SURVEY OR AREA
S20, T31N, R10W (H)

12. COUNTY OR PARISH
San Juan

13. STATE
NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approx. 7 Miles NE of Aztec, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
810'	323.68	324.3 ~~323.68~~ E/2
18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THE LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
1378'	5500'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6096' GR

22. APPROXIMATE DATE WORK WILL START*
11/15/2001

23 PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8" J-55	36#	220' +/-	112 Circ
8 3/4"	7" J-55	23#	3100' +/-	340
6 1/4"	4 1/2" J-55	10.5#	5500'	216

See Attached

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

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

AUG 2001
RECEIVED
OIL CON. DIV.
DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24
SIGNED: [signature] TITLE: Operations Manager DATE: 7/20/01

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE: 8/16/01

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:

AUG 16

APPROVED BY: /s/ Joel Farrell TITLE: DATE:

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 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

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-30747		Blanco Mesa Verde

[4] Property Code	[5] Property Name	[6] Well Number
~~5656~~ 5663	LAMBE	2C

[7] OGRID No.	[8] Operator Name	[9] Elevation
12807	KOCH EXPLORATION	6096'

[10] Surface Location

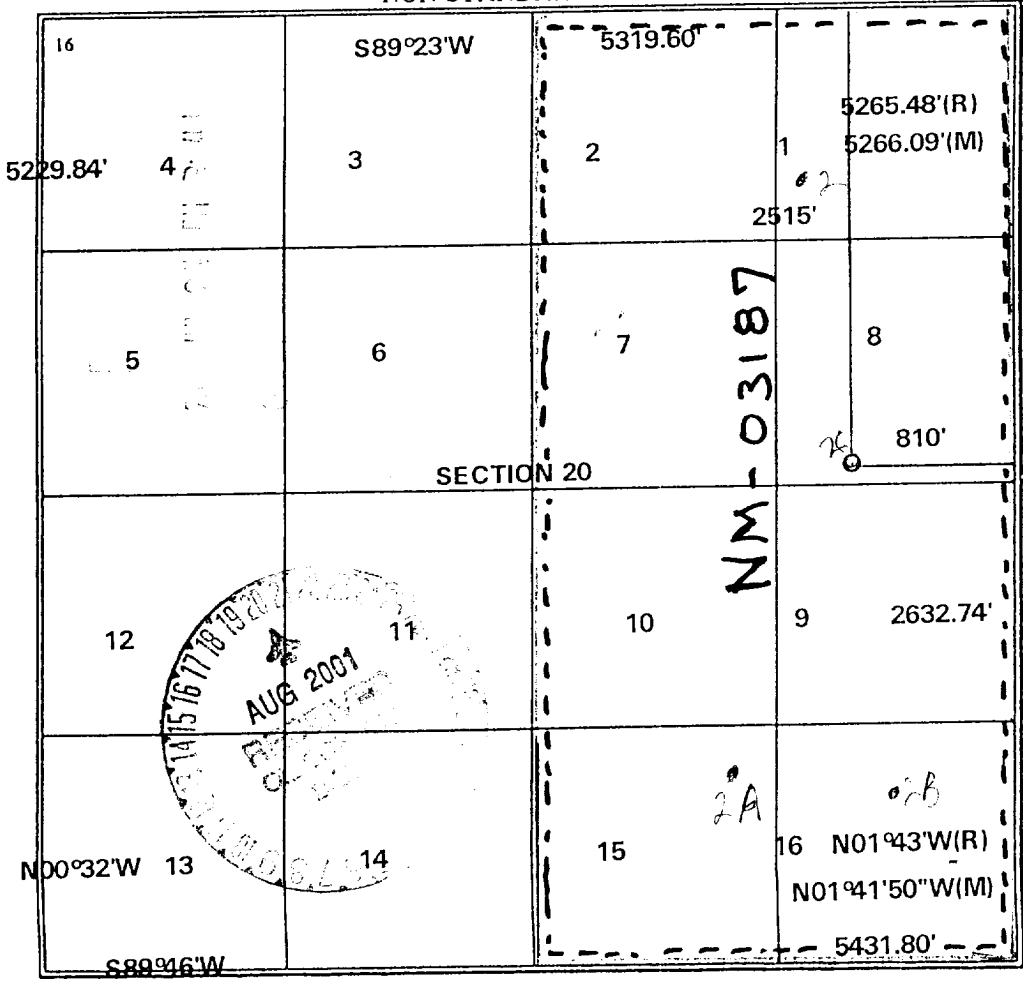
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	20	31N	10W		2515'	NORTH	810'	EAST	SAN JUAN

[11] 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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
324.32 W/2	I		

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature: Rolf A. Ornelas

Printed Name: Rolf A. Ornelas

Title: Sr. Engineer

Date: May 17, 2001

[18] 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 supervision, and that the same is true and correct to the best of my belief.

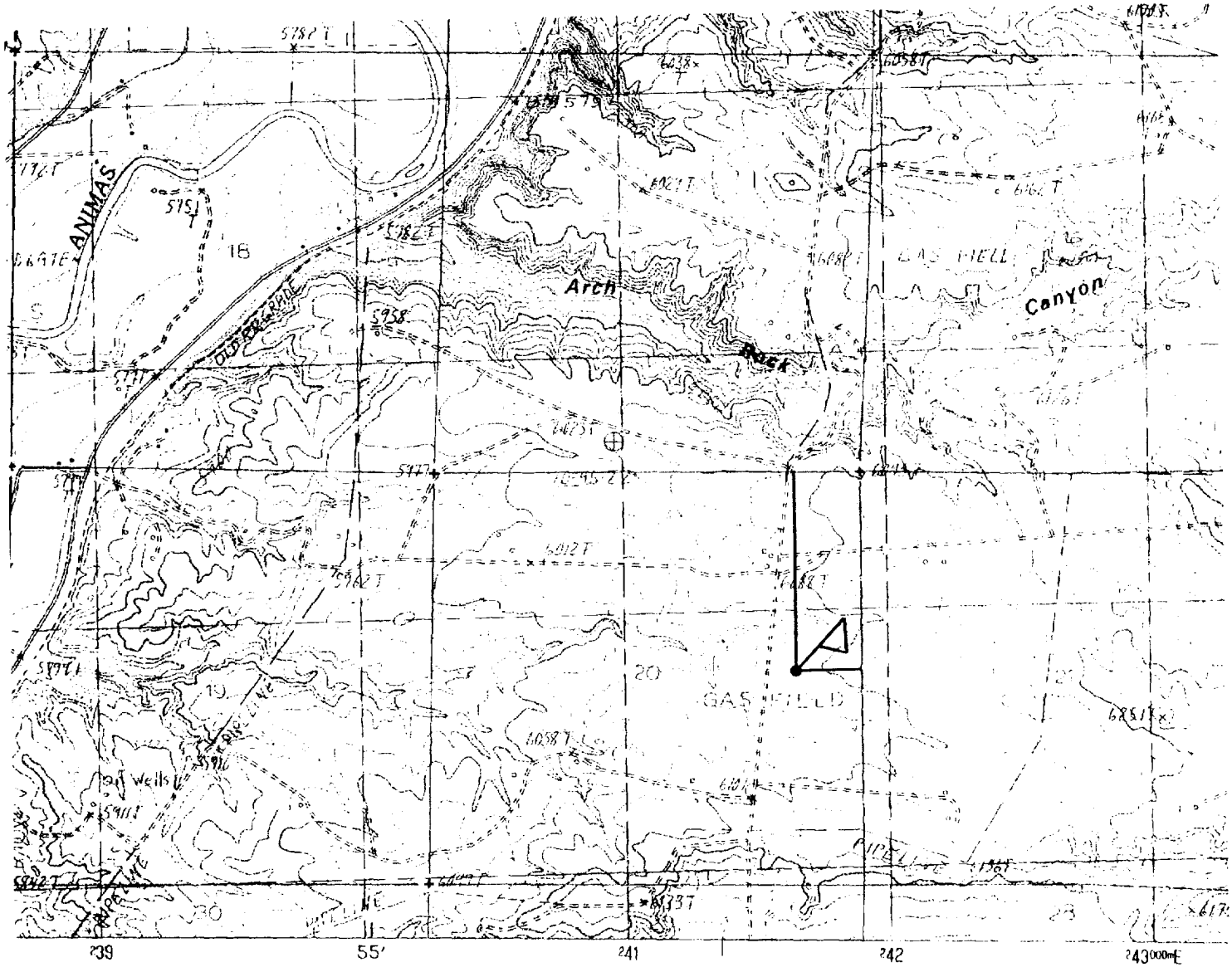
04/16/01

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

KOCH EXPLORATION CO.
LAMBE #2C
2515' FNL, 810' FEL, EL. 6096
SECTION 20, T-31-N, R-10-W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO



NEW MEXICO

QUADRANGLE LOCATION

1	2	3	1 Pinkerton Mesa 2 Long Mountain 3 Bonded Hill 4 Adobe Downs Ranch 5 Mount Nebo 6 Flora Vista 7 Aztec 8 Farler
4		5	
6	7	8	

ADJOINING 7.5' QUADRANGLE NAMES

ROAD CLASSIFICATION

Improved Road . . . . . .
Unimproved Road . . . . . .
Trail . . . . . .

Interstate Route U.S. Route

CEDAR HILL, N.M.
PROVISIONAL EDITION 1987

ACY STANDARDS
, COLORADO 80225

EXHIBIT A

CEDAR HILL – N.M., COLO.

Lambe #2C ==> EXPEDITED Right-of-Way!
Sec 20, T31N-R10W, 2515' FNL & 810' FEL
San Juan Co., New Mexico
Lease NM-03187
Drilling Program:

1. **Geological name of surface formation -**
   Estimated tops of important geological markers:

Ojo Alamos	1167 feet
Kirtland Shale	1317 feet
Fruitland Coal	2350 feet
Picture Cliff	2799 feet
Lewis Shale	2906 feet
TD	5500 feet

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

Fresh Water	0 feet to 200 feet
Salt Water	201 feet to 2350 feet
Oil and Gas	2351 feet to 5500 feet

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** 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. 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.
   e. BOP testing procedures and frequency:

      1. Hydrill (3,000 WP) 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	9 5/8 inch	36.0#	J-55 STC	New
Intermediate Casing	7 inch	23.0#	J-55 STC	New
Production Casing	4 ½ inch	10.5#	J-55 STC	New

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

9-5/8 inch Surface Casing - Surface to 220 feet - Cement with 112 sx "Type III Cement" with 2% $CaCl_2$ + 0.25 lbs/sack Celloflake (14.6 lb/gal; 1.39 cf/sk; 6.67 gal/sk) Volume: 155 scf. 100% Excess.

7 inch Intermediate Casing – Surface to 3100 feet. Lead cement with 290 sacks "Premium Lite FM Cement" + 0.25 lbs/sk Cello Flake + 1% $CaCl_2$, + 0.4% Sodium Metasilicate Volume: 621 scf, (12.0 lb/gal; 2.15 cf/sk; 12.08 gal/sk). Tail with 50 sacks "Type III Cement" + 1% $CaCl_2$, + 0.25 lbs/sk Cello Flake,Volume: 70 scf (14.50 lbs/sk; 1.4 cf/sk; 6.82 gal/sk).

4-½ inch Production Casing – Surface to 5500'. Cement 2800' to 5500' – Lead with 30 sacks Premium Lite High Strength FM + 3% Potassium Chloride + 0.25 lbs/sk Cello Flake + 2% Pheno Seal + 0.4% FL-52. Volume: 122 scf, (10.5 lb/gal; 4.06 cf/sk; 25.70 gal/sk). Tail with 186 sacks Premium Lite High Strength FM + 3% Potassium Chloride + 0.25 lbs/sk Cello Flake + 2% Pheno Seal + 0.4% FL-52. Volume: 431 scf, (12.0 lb/gal; 2.32 cf/sk; 12.82 gal/sk).

5. **Mud Program:**

0 feet – 220 feet - Spud mud and water treated with gel lime.
220 feet – 3,100 feet - Lime mud, water and polymer.
3101 feet - 5500 feet - air, produced or fresh water, soap and polymer

6. **Testing, Logging and Coring Program:**

No drill stem tests or cores will be taken.

Logging: Intermediate Casing - CBL Log will only be ran if cement doesn't circulate to surface.

Production Casing - First Run - Gamma Ray - Casing Collar Locator - Cement Bond Log.

Second Run - Gamma Ray - Gas Spectrum Log; or Gamma Ray-DIL, Density Neutron Porosity Caliper

7. **Expected Pressures -**

Fruitland Fm.- 600 - 700 psia