

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1.a. TYPE OF WORK  
 DRILL  DEEPEN

b. TYPE OF WELL  
 Oil  Gas  SINGLE  MULTIPLE   
 Well  Well  Other  ZONE  ZONE

5. LEASE DESIGNATION AND SERIAL NO.  
NM-10561

6. IF INDIAN, ALLOTTED OR TRIBE NAME

7. UNIT AGREEMENT NAME  
3591

8. FARM OR LEASE NAME, WELL NO.  
Big Field #91

9. API Well No.  
30-045-30926

10. FIELD AND POOL, OR WILDCAT  
Basin Fruitland Coal

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA  
Unit K  
Sec. 10, T30N, R14W

2. Name of Operator  
Dugan Production Corp.

3. Address and Telephone No.  
P.O. Box 420, Farmington, NM 87499 (505) 325-1821

LOCATION OF WELL: (Report location clearly and in accordance with any State requirements.)\*  
At surface 2455' FSL & 1880' FWL (NE/4SW/4)

At proposed prod. zone same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
5 miles north of Farmington, NM

12. COUNTY OR PARISH  
San Juan

13. STATE  
NM

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1880'

16. NO. OF ACRES IN LEASE 1397.16

17. NO. OF ACRES ASSIGNED TO THIS WELL 319.11 (w/2)

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2700'

19. PROPOSED DEPTH 1900'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6158' GL

22. APPROX. DATE WORK WILL START\* ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADES, SIZES OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7"	20#	120'	70 cu.ft. circ. to surf.
6-1/4"	4 1/2"	10.5#	1900'	290 cu.ft. circ. to surf.

A water based gel-mud will be used to drill surface and production casing hole. Standard 2,000 psi BOP will be used to drill production hole. The Fruitland Coal will be completed from approximately 1757'-1773'. The interval will be fractured.

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 ARL SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

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 Kurt Fagrellius Title Geologist Date 11/7/01  
Kurt Fagrellius

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE 4/22/02

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:  
 Approved by /s/ David J. Mankiewicz Title AFM Date APR 22 2002

District I  
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

District II  
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

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

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

AMENDED REPORT

District IV  
PO Box 2086, Santa Fe, NM 87504-2086

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30 045 <b>30926</b>		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code <b>3591</b>	*Property Name BIG FIELD		*Well Number 91
*OGRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 6158'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
K	10	30N	14W		2455	SOUTH	1880	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres 319.11 Acres (W/2)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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

<sup>17</sup> OPERATOR CERTIFICATION

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

*Kurt Fagrelius*  
Signature

Kurt Fagrelius  
Printed Name

Geologist  
Title

November 7, 2001  
Date

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<sup>18</sup> 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.

Survey Date: OCTOBER 22, 2001

Signature and Seal of Professional Surveyor

*JASON C. EDWARDS*  
Certificate Number 15269

DUGAN PRODUCTION CORPORATION BIG FIELD #91

2455' FSL & 1880' FWL, SECTION 10, T30N, R14W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO

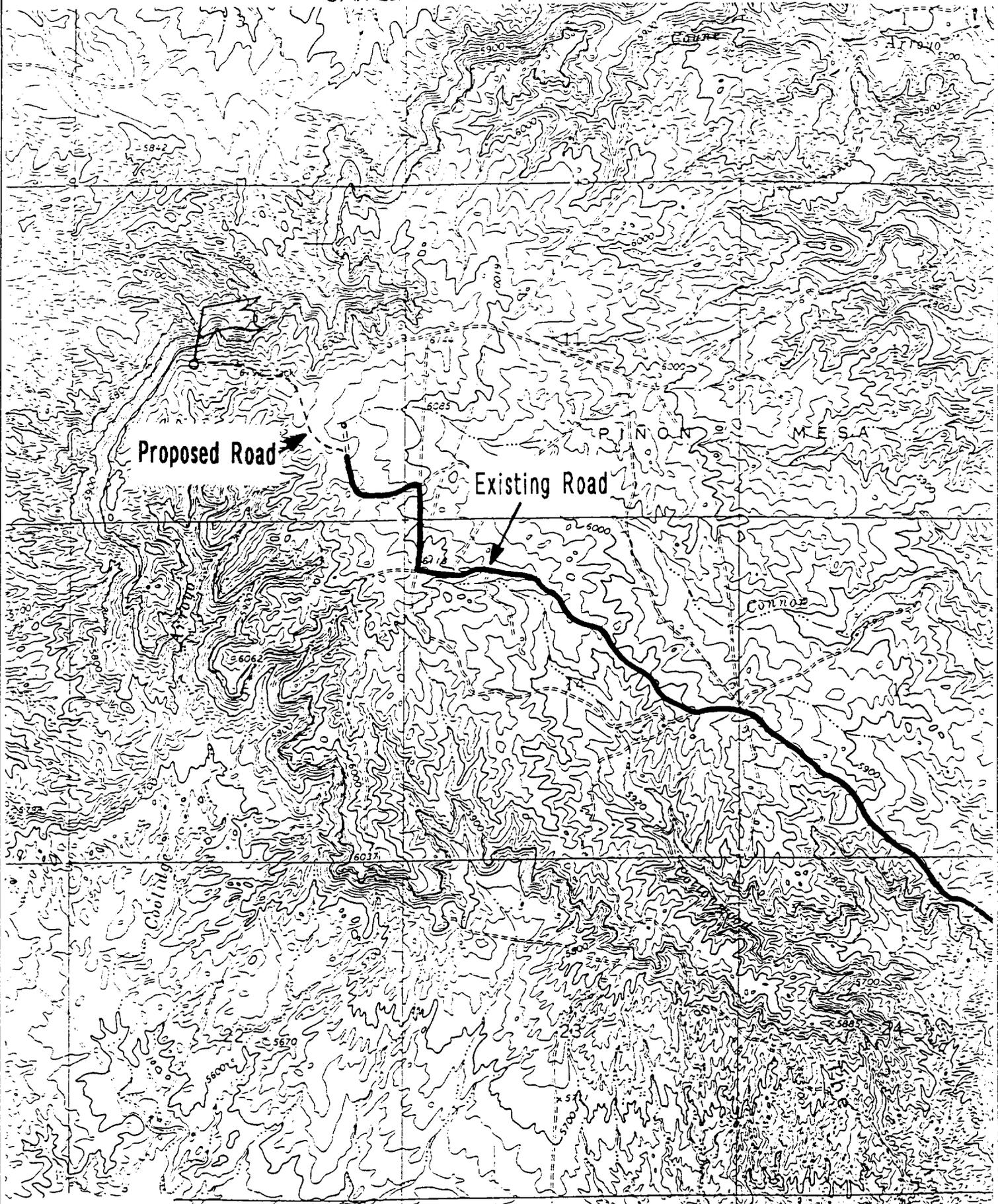


Exhibit E.

**EXHIBIT B**  
**OPERATIONS PLAN**

*Big Field #91*

**APPROXIMATE FORMATION TOPS:**

Ojo Alamo/McDermott	- surface
Kirtland	- 235'
Fruitland	- 1440'
Pictured Cliffs	- 1773'
<b>Total Depth</b>	<b>- 1900'</b>

**LOGGING PROGRAM:** Run cased hole CNL-CDL

Catch samples every 10 feet from 1400 feet to total depth.

**CASING PROGRAM:**

<u>Hole Size</u>	<u>Casing Size</u>	<u>Setting Wt./ft.</u>	<u>Setting Depth</u>	<u>Grade and Condition</u>
8-3/4"	7"	20#	±120'	J-55-new
6-1/4"	4-1/2"	10.5# ±	±1900'	J-55-new

Plan to drill a 8-3/4" hole and set 120' of 7" OD, 20#, J-55 surface casing; then plan to drill a 6-1/4" hole to total depth with gel-water-mud program to test Fruitland Coal Formation. 4½", 10.5# J-55 casing will be run and cemented. Cased hole CNL-CDL log will be run. Productive zone will be perforated and fractured. After frac the well will be cleaned out and production equipment will be installed.

**CEMENTING PROGRAM:** All volumes are contingent upon Caliper logs.

Surface: Cement with 70 cu.ft. Class "B" neat. Circulate to surface

Production Stage - Cement with 180 cu.ft. 2% Lodense with 1/4# celloflake/sx followed by 110 cu.ft. Class "B" with 1/4# celloflake/sx.  
Total cement slurry for production stage is 290 cu.ft.  
Circulate to surface.

An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement. An adequate number of casing centralizers will be run through usable water zones to ensure that casing is centralized through these zones. The adequate number of centralizers will be determined based on API standards. Centralizers to impart a swirling action around the casing will be used just below and into the base of the lowest usable water zone. These devices will assist mud displacement, increase cement bonding potential and create an effective hydraulic seal. A chronological log will be kept which records the pump rate, pump pressure, slurry density, and slurry volume for the cement job. The log will be sent to the BLM after completion of the job.

**WELLHEAD EQUIPMENT:**

Huber 7" x 4-1/2" casing head, 1000#WP, tested to 2000#

Huber 4-1/2" x 2-7/8" tubing head, 1000# WP, tested to 2000#

BOP and Related Equipment will include for a 2000 psi system:

Annual preventer, double ram, or 2 rams with one being blind and one being a pipe ram

Kill line (2" minimum)

1 kill line valve (2" minimum)

1 choke line valve

2 chokes

Upper kelly cock valve with handle available

Safety valve and subs to fit all drill string connections in use

Pressure gauge on choke manifold

2" minimum choke line

Fill-up line

Dugan Prod.Corp. Office & Radio Dispatch:	325-1821
Kurt Fagrelus 325-4327	Mark Brown 327-3632
John Alexander 325-6927	John Roe 326-1034