Form 3 160-3. August 1999) UNITED ST	ATES	FORM APPROVED OMB No. 1004-0136 Expires November 30, 2000
DEPARTMENT OF T	HE INTERIOR MANAGEMENT	5. Lease Serial No. NM-10561
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe Name
la. Type of Work: DRILL REENTER		7. If Unit or CA Agreement, Name and No.
lb. Type of Well: ☐ Oil Well ☐ Gas Well 🔯 Oth	ner: CBM Single Zone   Multiple Zone	8. Lease Name and Well No. BIG FIELD 92
	KURT FAGRELIUS E-Mail: kfagrelius@duganproduction.com	9. API Well No. 3004532201
3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401	3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613	10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
4. Location of Well (Report location clearly and in accorda	100 VO 200 VO 20	11. Sec., T., R., M., or Blk. and Survey or Ar
At surface NESW 1850FSL 1950FWL At proposed prod. zone	. 36.48430 N Lat, 108.175 (W.Lord) 77	Sec 15 T30N R14W Mer NMP SME: BLM
14. Distance in miles and direction from nearest town or post APPROX. 5-MILES NORTHWEST OF FARMING	GTON, NM	SAN JUAN 13. Sta
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1850'	16. No. of Acres Leas Of CONS. DIV.	△7. Spacing Unit dedicated to this well
<ol> <li>Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROX. 1700 '</li> </ol>	19. Proposed Depth 1475 MD	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KB, RT, GL, etc. 5720 GL	22. Approximate date work will start 03/19/2004	23. Estimated duration 6-DAYS
	24. Attachments	
The following, completed in accordance with the requirements o	f Onshore Oil and Gas Order No. 1, shall be attached to t	his form:
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	Item 20 above). 5. Operator certification	ns unless covered by an existing bond on file (s
25. Signature Kurt Fzgrelin	Name (Printed/Typed) KURT FAGRELIUS	Date 02/18/200
Title GEOLOGIST		
Approved by (Signature)	Name (Printed/Typed)	Date 7-13-1
Title 15-14	Office FFO	/

## **Additional Operator Remarks:**

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 1,190' - 1,325'. The interval will be fractured.

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.

This aution is subject to rechnical 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". District I State of New Mexico PO Box 1980, Hobbs, NM 88241-1980 Energy, Minerals & Natural Resources Department Revised February 21, 195 Instructions on bat District II /-Submit to Appropriate District Offic PO Drawer DD, Artesia, NM 88211-0719 OIL CONSERVATION DIVISION State Lease - 4 Copie 65 25 M 19 55 Fee Lease - 3 Copie PO Box 2088 District III Santa Fe, NM 87504-2088 1000 Rio Brazos Rd., Aztec, NM 87410 070 Famington, NM AMENDED REPORT District IV PO Box 2088, Santa Fe. NM 87504-2088 WELL LOCATION AND ACREAGE DEDICATION PLAT API Number \*Pool Code Pool Name 71629 BASIN FRUITLAND COAL Property Code Property Name Well Number BIG FIELD 92 OGRID No. \*Operator Name Elevation 006515 DUGAN PRODUCTION CORPORATION 5720 <sup>10</sup> Surface Location UL or lot no. Section Township Lot Idn Feet from the North/South line Feet from the East/West line County MOE 14W 1850 K 15 SOUTH 1950 WEST SAN JUAN <sup>11</sup>Bottom Hole Location If Different From Surface UL or lot no. North/South line Section Township Feet from the Feet from the County 12 Dedicated Acres Soint or Infill 14 Consolidation Code 15 Occiec No. 320.0 Acres -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 16 OPERATOR CERTIFICATION 5304.421 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief nur i <u>Kurt Fagrelius</u> Printed Name Geologist OIL CONIS. DIV Title DIST 2/1712004 Date "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. 8 5280. **DUGAN 100%** Survey Date: NOVEMBER 13, 2003

1950

LEASE

NM-10561

5305.74

**B**EO.

Signature and Seal of Professional Surveyor

SPOR C. EDWARDS

15269

POFESSION

15269

Certificate Number

### EXHIBIT B OPERATIONS PLAN

Big Field #92

#### APPROXIMATE FORMATION TOPS:

Kirtland	Surface	Pictured Cliffs	1325′
Fruitland	900′	Total Depth	1475'

Catch samples every 10 feet from 1150 feet to total depth.

#### LOGGING PROGRAM:

Run cased-hole GR-CCL-CNL from total depth to surface.

#### CASING PROGRAM:

Hole	Casing		Setting	Grade and
Size	Size	Wt./ft.	Depth	Condition
12-1/4"	<del>8-5/</del> 8"	24#	120'	J-55
7″	5-1/2"	14#	1475′	J-55

Plan to drill a 12-1/4" hole and set 120' of 8-5/8" OD, 24#, J-55 surface casing. Then plan to drill a 7" hole to total depth with gel-water mud program to test the Fruitland Coal. 5-1/2", 14#, J-55 production casing will be run and cemented. Cased hole GR-CCL-CNL 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:

Surface: Cement to surface with 80 cf Class B + 2% CaCl<sub>2</sub>. Circulate to surface.

Production Stage-Cement with 150 cf 2%Lodense with

1/4# celloflake/sx followed by 75 cf Class "B" with

1/4# celloflake/sx.

Total cement slurry for production stage is 225 cf.

Circulate cement 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 8-5/8"x5-1/2" casing head, 1000# WP, tested to 2000#. Huber 5-1/2"x2-7/8" tubing head, 1000# WP, tested to 2000#.

# BOP and Related Equipment will include for a 2000 psi system: (Exhibit D)

Annular 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.

#### Contacts:

Dugan Prod.Corp. Office & Radio Dispatch: 325-1821

Mark	Brown	327-3632 320-8247	
Kurt	Fagrelius	325-4327 320-8248	
John	Alexander	325-6927 320-1935	

