

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-26047
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: CBM <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DUGAN PRODUCTION CORP.		7. If Unit or CA Agreement, Name and No. 3601
Contact: KURT FAGRELIUS E-Mail: kfagrelus@duganproduction.com		8. Lease Name and Well No. BOWERS 91
3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401	3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613	9. API Well No. 30045 31408
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWNE 1870FNL 1665FEL 36.18580 N Lat, 107.42040 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* APPROX. 4-MILES NORTH OF NAGEEZI, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 17 T24N R8W Mer NMP G
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1665'	16. No. of Acres in Lease 640.00	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1200'	19. Proposed Depth 2060 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6853 GL	22. Approximate date work will start 06/12/2003	17. Spacing Unit dedicated to this well 320.00 N/2
23. Estimated duration		20. BLM/BIA Bond No. on file

24. Attachments

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

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| 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>Kurt Fagrelus</i>	Name (Printed/Typed) KURT FAGRELIUS	Date 02/13/2003
Title GEOLOGIST		
Approved by (Signature) <i>David J. Mankiewicz</i>	Name (Printed/Typed)	APR 17 2003
Title Office		

Application approval does not warrant or certify 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.

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 1913-1927'. The interval will be fractured.

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

NMOC

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

District II
PO Drawer 00, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO 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

API Number 30-045-31408		Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code 3601	Property Name BOWERS		Well Number 91
OGRIID No. 006515	Operator Name DUGAN PRODUCTION CORPORATION		Elevation 6853'

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
G	17	24N	8W		1870	NORTH	1665	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 320.0 ACRES - (N/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

<p>16</p> <p>5280.66'</p> <p>DUGAN 100% NM-26047</p> <p>17</p> <p>5227.20'</p> <p>5219.28'</p> <p>2644.62'</p> <p>2609.64'</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Kurt Fagrelus</i></p> <p>Signature Kurt Fagrelus</p> <p>Printed Name Geologist</p> <p>Title 02/1302003</p> <p>Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</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>Survey Date: FEBRUARY 5, 2003</p> <p>Signature and Seal of Professional Surveyor</p> <p> JASON C. EDWARDS Certificate Number 15269</p>

EXHIBIT B
OPERATIONS PLAN
Bowers #91

APPROXIMATE FORMATION TOPS:

Ojo Alamo	1190'
Kirtland	1386'
Fruitland	1600'
Pictured Cliffs	1930'
Total Depth	2060'

Catch samples every 10 feet from 1800 feet to total depth.

LOGGING PROGRAM:

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

CASING PROGRAM:

<u>Hole</u> <u>Size</u>	<u>Casing</u> <u>Size</u>	<u>Wt./ft.</u>	<u>Setting</u> <u>Depth</u>	<u>Grade and</u> <u>Condition</u>
9-7/8"	7"	20#	120'	J-55
6-1/4"	4-1/2"	10.5#	2060'	J-55

Plan to drill a 9-7/8" 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 the Fruitland Coal. 4-1/2", 10.5#, 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 70 cf Class B + 2% CaCl₂.
Circulate to surface.

Production Stage-Cement with 210 cf 2% lodense with
1/4# celloflake/sx followed by 105 cf Class "B" with
1/4# celloflake/sx.
Total cement slurry for production stage is 315 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 7"x4-1/2" casing head, 1000# WP, tested to 2000#.

Huber 4-1/2"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 (H)
	320-8247 (M)

Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

John Alexander	325-6927 (H)
	320-1935 (M)