

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

2005 SEP 22 AM 10 29

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-36952	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee, or Tribe Name	
2. Name of Operator DUGAN PRODUCTION CORP. 6515		7. If Unit or CA Agreement, Name and No.	
3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401		8. Lease Name and Well No. Flo Jo #91-S 3684	
3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613		9. API Well No. 30-045-33327	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1650' FNL & 1300' FWL, Lat. 36.1345, Long. 107.5735 At proposed prod. zone Same as above		10. Field and Pool, or Exploratory Basin Fruitland Coal 71629	
14. Distance in miles and direction from nearest town or post office* Approximately 13 miles SW of Blanco Trading Post, NM		11. Sec., T., R., M., or Blk. and Survey or Area E Sec. 13, T23N, R11W	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1300 Feet		12. County or Parish San Juan	
16. No. of Acres in Lease 1760.0 Acres		13. State NM	
17. Spacing Unit dedicated to this well W/2-320 acres		18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 2100 Feet	
19. Proposed Depth 725 Feet		20. BLM/BIA Bond No. on file On file	
21. Elevations (Show whether DF, KB, RT, GL, etc.) GL-6331 Feet		22. Approximate date work will start ASAP	
23. Estimated duration 3-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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- 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 9-21-05
Title GEOLOGIST		
Approved by (Signature) <i>Jim Lovel</i>	Name (Printed/Typed) Acting AFM	Date 1/17/06
Title		

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.

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 505' - 570'. 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



NMOCD

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

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

## OIL CONSERVATION DIVISION

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

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

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

2005 SEP 22 AM 10 39

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

☐ AMENDED REPORT

RECEIVED

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-33327		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 3684	*Property Name FLO JO		*Well Number 91S
*OGRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 6331'

<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
E	13	23N	11W		1650	NORTH	1300	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.		
320.0 Acres - (W/2)									

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

<div><div>16</div><div>5297.16'</div><div>1650'</div><div>1300'</div><div>5266.14'</div><div>13</div><div>5266.14'</div><div>5359.20'</div><div>DUGAN NM-36952</div></div>	<div><div>17</div><div>OPERATOR CERTIFICATION</div><div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div><div><i>Kurt Fagrelus</i></div><div>Signature</div><div>Kurt Fagrelus</div><div>Printed Name</div><div>Geology</div><div>Title</div><div>9-21-05</div><div>Date</div></div>
	<div><div>18</div><div>SURVEYOR CERTIFICATION</div><div>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.</div><div>Date of Survey: JULY 28, 2005</div><div>Signature and Seal of Professional Surveyor</div><div><div><div>JASON C. EDWARDS</div><div>NEW MEXICO</div><div>15269</div><div>REGISTERED PROFESSIONAL SURVEYOR</div></div><div><i>JASON C. EDWARDS</i></div><div>Certificate Number 15269</div></div></div>

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
March 4, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.	30-045-33327
5. Indicate Type of Lease	Federal <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	Federal NM-36952
7. Lease Name or Unit Agreement Name	Flo Jo
8. Well Number	91-S
9. OGRID Number	006515
10. Pool name or Wildcat	Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other

2. Name of Operator Dugan Production Corp.

3. Address of Operator 709 East Murray Drive, Farmington, NM

4. Well Location

Unit Letter E : 1650 feet from the north line and 1300 feet from the west line

Section 13 Township 23N Range 10W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
G.L. 6331'

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL E Sect 13 Twp 23N Rng 10W Pit type Drilling Depth to Groundwater 500' Distance from nearest fresh water well 1 mi.

Distance from nearest surface water 200' Below-grade Tank Location UL Sect Twp Rng ;  
feet from the line and feet from the line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data  
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Reserve pit for drilling (lined) ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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 505' - 570'. The interval will be fractured.

Federal lease, pits will be constructed and abandoned as per BLM and NMOCD guidelines.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Kurt Fagrelius TITLE Geology DATE 9-21-05

Type or print name Kurt Fagrelius

E-mail address:

Telephone No. 325-1821

(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 43 DATE APR 23 2006  
Conditions of approval, if any:

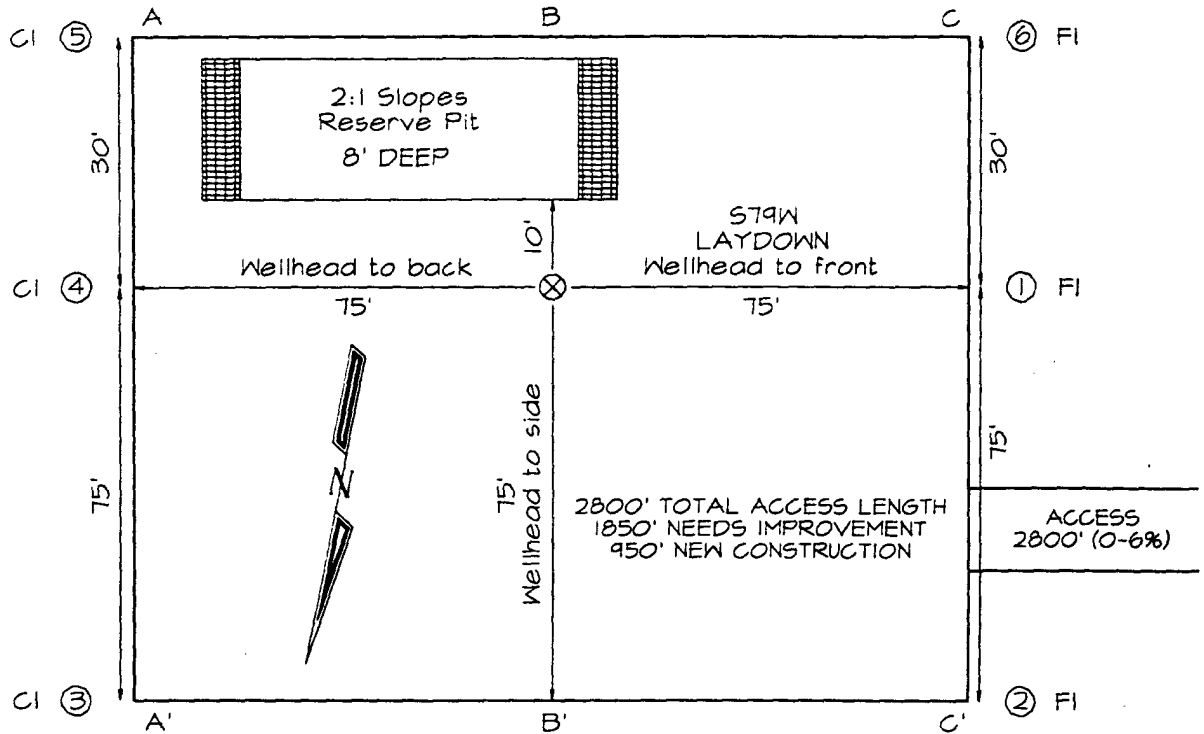
**DUGAN PRODUCTION CORPORATION FLO JO #91S**  
**1650' FNL & 1300' FWL, SECTION 13, T23N, R11W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6331'**

PLAT 13.

**LATITUDE: 36°13'45"**  
**LONGITUDE: 107°57'35"**  
 DATUM: NAD1927

PLAT NOTE:

\*SURFACE OWNER\*  
 Bureau of Land  
 Management



A-A'						
6341'						
6331'						
6321'						

B-B'						
6341'						
6331'						
6321'						

C-C'						
6341'						
6331'						
6321'						

Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

**EXHIBIT B**  
**OPERATIONS PLAN**  
Flo Jo #91-S

**APPROXIMATE FORMATION TOPS:**

Kirtland	Surface	Pictured Cliffs	570'
Fruitland	200'	<b>Total Depth</b>	<b>725'</b>

Catch samples every 10 feet from 450 feet to TD.

**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>
12-1/4"	8-5/8"	24#	120'	J-55
7"	5-1/2"	14#	725'	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 70 cf Class B + 2% CaCl<sub>2</sub>.  
Circulate to surface.

Production Stage-Cement with 60 cf 2% Lodense with  
1/4# celloflake/sx followed by 40 cf Class "B" with  
1/4# celloflake/sx.  
Total cement slurry for production stage is 100 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 (H)
	320-8247 (M)

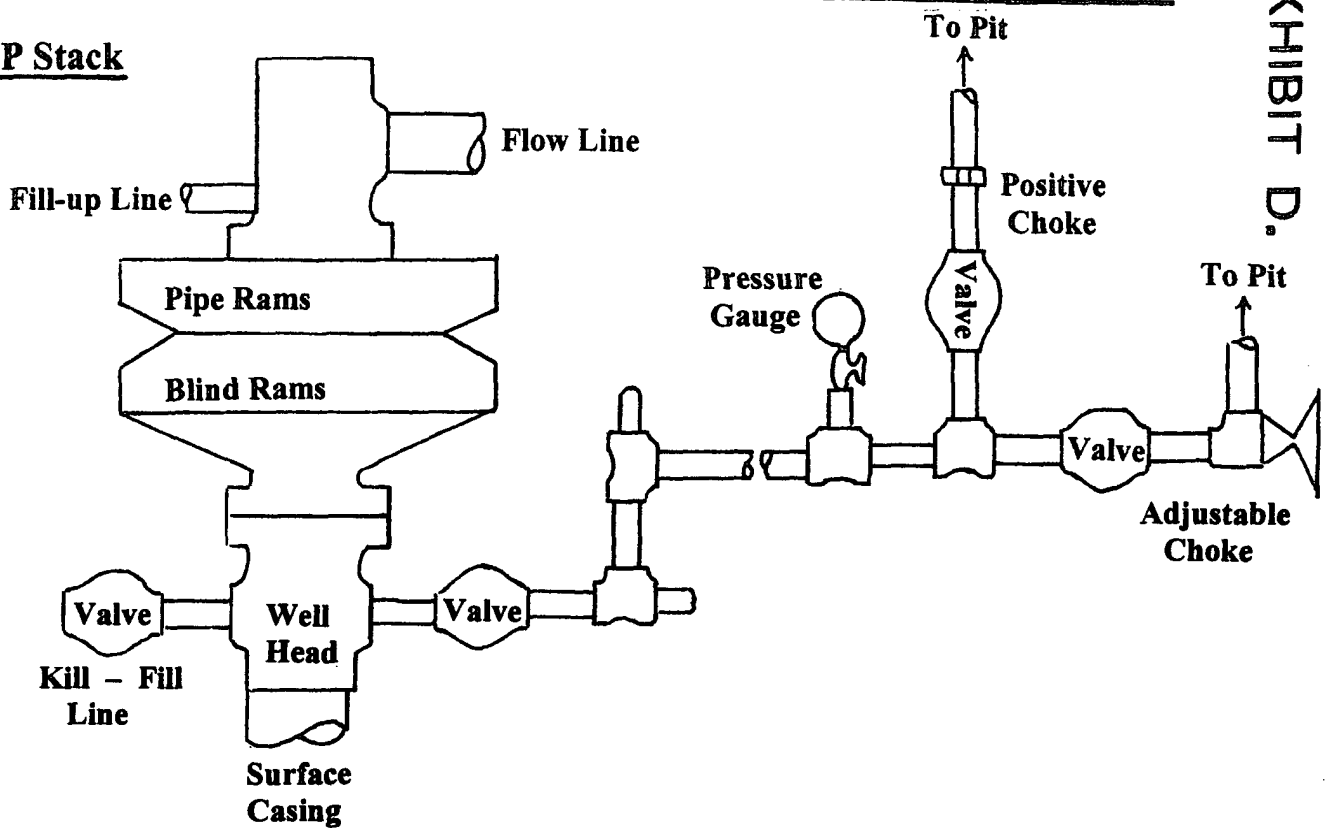
Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

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

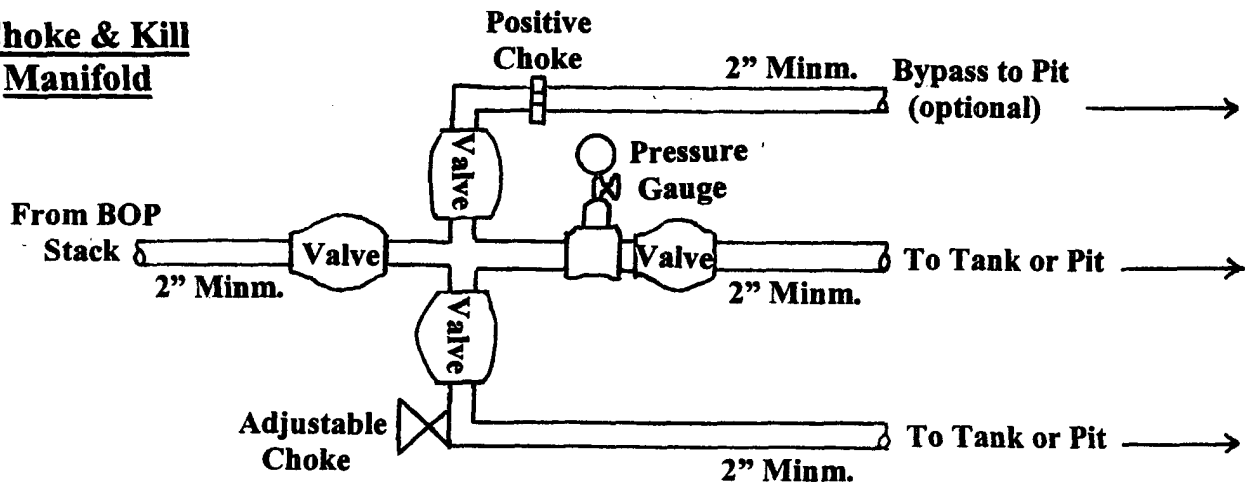
# Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

## BOP Stack



## Choke & Kill Manifold



Working Pressure for all equipment is 2,000 psi or greater

DUGAN PRODUCTION CORP.  
FLO JO #91-S