

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.

SF-081231-B

6. IF INDIAN, ALLOTTED OR TRIBE NAME

7. UNIT AGREEMENT NAME

3801

8. FARM OR LEASE NAME, WELL NO.

Pan American Federal #2

9. API Well No.

30-045-30918

10. FIELD AND POOL, OR WILDCAT

Harper Hill FR Sand PC

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Unit D

Sec. 24, T30N, R14W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

Oil ☐Gas ☐SINGLE ☐MULTIPLE ☐Well ☐Well ☒Other ☐ZONE ☒ZONE ☐

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 400' FNL & 1025' FWL (NW/4 NW/4)

545

1215

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

5 miles north of Farmington, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest dirg. unit line, if any)

460'

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160 (NW/4)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

300'

19. PROPOSED DEPTH

1765'

20. ROTARY OR CABLE TOOLS

Rotary

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

5877 5200' 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#	1765'	270 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 Pictured Cliffs Sandstone will be completed from approximately 1641'-1651'. 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 ARE
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 Fagrelus
Kurt Fagrelus

Title Geologist

Date 11/7/01

(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 *David J. Mankiewicz*

Title

AFM

Date

APR 22 2002

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

UNITED STATES FOR NSL

APR 22 2002

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993**SUNDRY NOTICES AND REPORTS ON WELLS**Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals**SUBMIT IN TRIPLICATE**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

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 (Footage, Sec., T., R., M., or Survey Description)

460' FNL & 1020' FWL (NW/4 NW/4)
Unit D, Sec. 24, T30N, R14W, NMPM

5. Lease Designation and Serial No.

SF-081231-B

6. If Indian, Allotted or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Pan American Federal #2

9. API Well No.

30 045 30918

10. Field and Pool, or Exploratory Area

Harper Hill FR Sand PC

11. County or Parish, State

San Juan, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Re-staked</u>	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Location to the proposed well was restaked. New footages for the location are 545' FNL & 1215' FWL (Unit Letter D, Section 24, T30N, R14W, San Juan County, New Mexico). An amended C-102, cut & fill diagram and topographical map are attached.

14. I hereby certify that the foregoing is true and correct

Signed

Kurt Fagrelus

Kurt Fagrelus

Title

Geologist

Date

11/19/2001

(This space for Federal or State office use)

Approved by

David J. Mankiewicz

Title

AFM

Date

APR 22 2002

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

*See Instruction on Reverse Side

NMOCD

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

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

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

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

☐ AMENDED REPORT

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30 045 30918		*Pool Code 78160	*Pool Name HARPER HILL FRUITLAND SAND PICTURED CLIFFS
*Property Code 3801	*Property Name PAN AMERICAN FEDERAL		*Well Number 2
*OGAID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 5877'

¹⁰ Surface Location

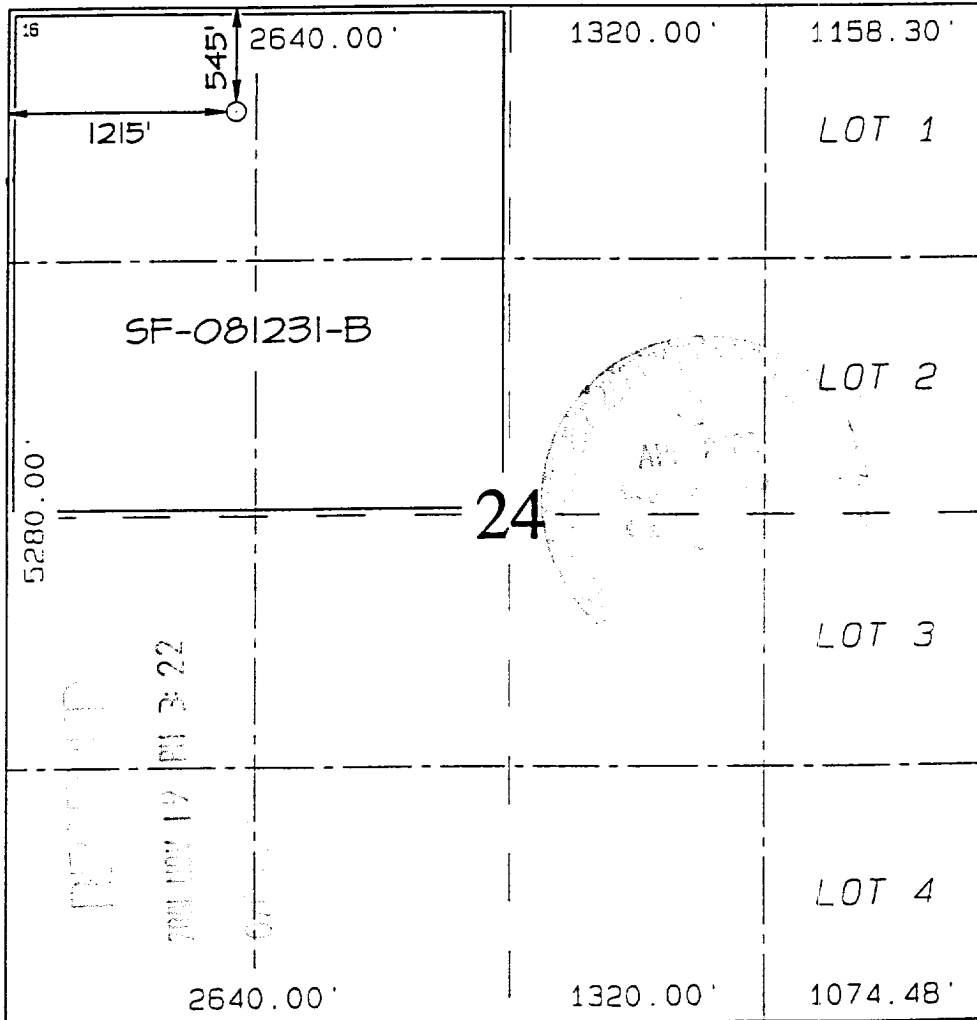
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
0	24	30N	14W		545	NORTH	1215	WEST	SAN JUAN

¹¹ 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

¹² Dedicated Acres 160 Acres (NW/4)	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



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Kurt Fagrelus
Signature

Kurt Fagrelus
Printed Name

Geologist
Title

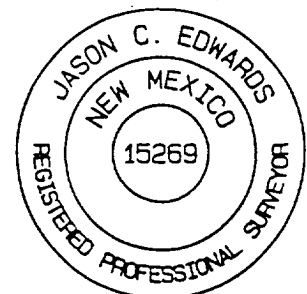
November 19, 2001
Date

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.

Survey Date: NOVEMBER 10, 2001

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

A detailed topographic map of a mountainous region, likely in the southwestern United States, based on the labels 'Pinon Mesa' and 'Coyne'. The map features numerous contour lines indicating elevation, with labels such as 5400, 5500, 5600, 5700, 5800, and 5900. A prominent thick black line is drawn across the map, starting from the left edge near the 5600-foot contour, descending through a series of ridges and valleys, and ending on the right edge near the 5450-foot contour. This line appears to represent a trail or a specific route. Various geographical features are labeled, including 'Pinon Mesa', 'Coyne', 'Gas Well', 'East King Tank', and 'Pipeline'. A grid of latitude and longitude lines is overlaid on the map, with numerical markings along the edges. The terrain is rugged, with many small peaks and valleys. The thick black line follows a path that generally descends from the upper left towards the lower right, with some local variations in direction.

EXHIBIT B
OPERATIONS PLAN
Pan American Federal #2

APPROXIMATE FORMATION TOPS:

Ojo Alamo/McDermott - surface
Kirtland - 180'
Fruitland - 1343'
Pictured Cliffs - 1623'

Total Depth - 1765'

LOGGING PROGRAM: Run cased hole CNL-CDL

Catch samples every 10 feet from 1350 feet to total depth.

CASING PROGRAM:

Hole Size	Casing Size	Setting Wt./ft.	Setting Depth	Grade and Condition
8-3/4"	7"	20#	±120'	J-55
6-1/4"	4-1/2"	10.5# ±	±1765'	J-55

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 Sand/PC 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 175 cu.ft. 2% Lodense with 1/4# celloflake/sx followed by 95 cu.ft. Class "B" with 1/4# celloflake/sx.
Total cement slurry for production stage is 270 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