

OPER. OGRID NO. 21712

PROPERTY NO. 20262

POOL CODE 96322

EFF. DATE 3/9/98

API NO. 30-025-34338

BLM Roswell District
Modified Form No.

NM060-3160-2

DEPT. M
BUREAU

APPLICATION FOR PERMIT TO

5. LEASE DESIGNATION AND SERIAL NO.

LC-067715

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Bonanza Federal

9. WELL NO.

#3

10. FIELD AND POOL, OR WILDCAT

Bell Lake Delaware East

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

Section 28-23S-34E

12. COUNTY OR PARISH

Lea

13. STATE

NM

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL

WELL ☒

GAS

WELL ☐

OTHER ☐

SINGLE

ZONE ☒

MULTIPLE

ZONE ☐

2. NAME OF OPERATOR

STRATA PRODUCTION COMPANY

3a. Area Code & Phone No.

505-622-1127

3. ADDRESS OF OPERATOR

P. O. Box 1030

Roswell, New Mexico 88202-1030

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

990' FNL & 1980' FEL

At proposed prod. zone

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

21 miles northwest of Jal, New Mexico

15. DISTANCE FROM PROPOSED *
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

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

990'

16. NO. OF ACRES IN LEASE

640.00

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40.00

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

1700'

19. PROPOSED DEPTH

8800'

20. ROTARY OR CABLE TOOLS

Rotary

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

3479' GR

22. APPROX. DATE WORK WILL START*

March 2, 1998

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#/550'	H40	8 RD STC	550'	Circ to Surface
11'	8 5/8"	24#/2150' & 32#/2750'	J55/N80	8 RD LTC	4900'	Circ to Surface
7 7/8"	5 1/2"	17#/8800'	J55/N80	8 RD LTC	8800'	Tie back to 300'

CARLSBAD CONTROLLED WATER BASIN

into 8 5/8" casing

Strata Production Company proposes to drill to a depth sufficient to test the Delaware and Bone Spring formations. If productive, 5 1/2" casing will be set. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as set out in Onshore Oil and Gas Order #1 are outlined in the following attachments:

NMOCD Form C-102 Well Location and Acreage Dedication Plat

Statement of Responsibility

Hole Prognosis

Surface Use and Operating Plan

Exhibit 'A' Equipment Description

Exhibit 'B' Planned Access Roads

Exhibit 'C' One Mile Radius Map

Exhibit 'D' Drilling Rig Layout Plan

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

3/5/98

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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

Carol J. Garcia

TITLE

PRODUCTION RECORDS MANAGER

DATE

2/6/98

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

(ORIG. SGD.)

APPROVED BY

TITLE

Acting DW. MINERALS

DATE

3-5-98

CONDITIONS OF APPROVAL, IF ANY:

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, 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 10, 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 30-025-34338		Pool Code 96322	Pool Name BELL LAKE DELAWARE EAST
Property Code 020262	Property Name BONANZA FEDERAL		Well Number 3
OGRID No. 021712	Operator Name STRATA PRODUCTION COMPANY		Elevation 3479.

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
B	28	23-S	34-E		990	NORTH	1980	EAST	LEA

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 40.00	¹³ Joint or Infill N	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>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>Carol J. Garcia</i> Signature CAROL J. GARCIA Printed Name PRODUCTION RECORDS MANAGER Title FEBRUARY 6, 1998 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>JANUARY 31 1998 Date of Survey Signature and Seal of Professional Surveyor: </p>	
	<p>Certificate Number NM PE&PS NO. 5412</p>	

STATEMENT OF RESPONSIBILITY

The undersigned, on behalf of Strata Production Company, accepts all applicable terms, conditions, stipulations and restrictions concerning the operations conducted on the leased lands or portions thereof as described below:

Federal Lease Number NM-067715
Township 23 South, Range 34 East
Section 28
Lea County, New Mexico
Formation: Delaware
Bond: Statewide
Bond Number: OGB-233
Bonanza Federal

STRATA PRODUCTION COMPANY

February 6, 1998

Date



Carol J. García

Production Records Manager

HOLE PROGNOSIS
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
BONANZA FEDERAL #3 WELL
990' FNL & 1980' FEL
SECTION 28-23S-34E
LEA COUNTY, NEW MEXICO

In conjunction with Form 3160-3, Application for Permit to Drill, Strata Production Company submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Geologic Markers:

Red Beds	Surface	Cherry Canyon	6150'
Permian Evaporites	850'	Brushy Canyon	7070'
Basil Anhydrite	4780'	Bone Spring	8570'
Delaware	5030'	TD	8800'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Surface	150'	Fresh Water
Delaware	5030' - 8800'	Oil or Gas

No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 550' and circulating cement back to surface. Shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across the zone by inserting a cementing stage tool into the 5 1/2" production casing which will be run at TD.

HOLE PROGNOSIS
BONANZA FEDERAL #3
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4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight, Grade, Jt. Cond, Type</u>
17 1/2"	0- 550'	13 3/8"	48#, H-40, ST&C, New
11"	0-4900'	8 5/8"	32# & 24#, J-55 & N-80, LT&C, New
7 7/8"	0- TD	5 1/2"	17#, J-55 & N-80, LT&C, New

Cementing Program:

Surface Casing: 13 3/8" casing will be set at approximately 550' and cemented with approximately 700 sacks of Premium Plus cement with 2% CaCL and additives per sack. The amount may be adjusted depending upon the fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Intermediate Casing: 8 5/8" casing will be set at approximately 4900' and cemented with approximately 1200 sacks of 35/65 Poz "C" with 15# salt and additives per sack, and 200 sacks Class "C" with 2% CaCl. The amount may be adjusted dependent upon fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Production Casing: If appropriate, 5 1/2" casing will be set at Total Depth. Strata utilizes cement in sufficient quantities to circulate cement into the 8 5/8" intermediate casing in two (2) stages. The first stage to be cemented with approximately 600 sacks 50/50 Poz "H" with 5# salt and additives per sack. The second stage to be cemented with approximately 300 sacks of 50/50 Poz "H" with 5# salt and additives per sack and 100 sacks of Class "C" Neat.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown on Exhibit "A" will consist of a double ram-type (3000 psi WP) preventer and a bag-type (hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOPs will be nipped up on the 13 3/8" surface casing and used continuously until TD is reached. All BOPs and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 70% of rated working pressure (2100 psi).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. The checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

0' to 550'	Fresh water with lime and gel with paper and fiber for seepage will be used for drilling purposes. Anticipated mud properties are as follows: MW 8.4-8.6, Vis 29-36, Ph >8, WL N/C.
550' to 4900'	Saturated brine water purchased from commercial sources with paper and fiber for seepage will be utilized. Anticipated mud properties are as follows: MW 8.6-10.5, Vis 32-34, Ph 10, WL N/C.
4900' to 8800'	3% KCL water with 20-50 PPM Nitrates, CL 30,000 PPM, caustic for PH control, paper for seepage and starch for fluid loss control will be utilized. Anticipated mud properties are as follows: MW 8.5-8.9, Vis 29-34, Ph 9-10, WL NC-50.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Testing, Logging and Coring Program:

A two (2) man Mudlogging unit will be on location from the top of the Delaware formation to TD. Mudlogging unit will be employed from approximately 5030' (Top of Delaware) to 8800' (Total Depth).

If indicated, Dual Laterolog MSFL, Compensated Neutron Litho-Density Gamma Ray logs and Caliper logs will be run at TD. The Dual Laterolog will be run from TD back to the intermediate casing and the Compensated Neutron Litho-Density Log will be run from TD back to surface. In some cases, Strata may elect to run rotary sidewall cores from selected intervals from approximately 5030' to 8800' dependent upon logging results.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The anticipated bottomhole pressure is 2600# PSI.

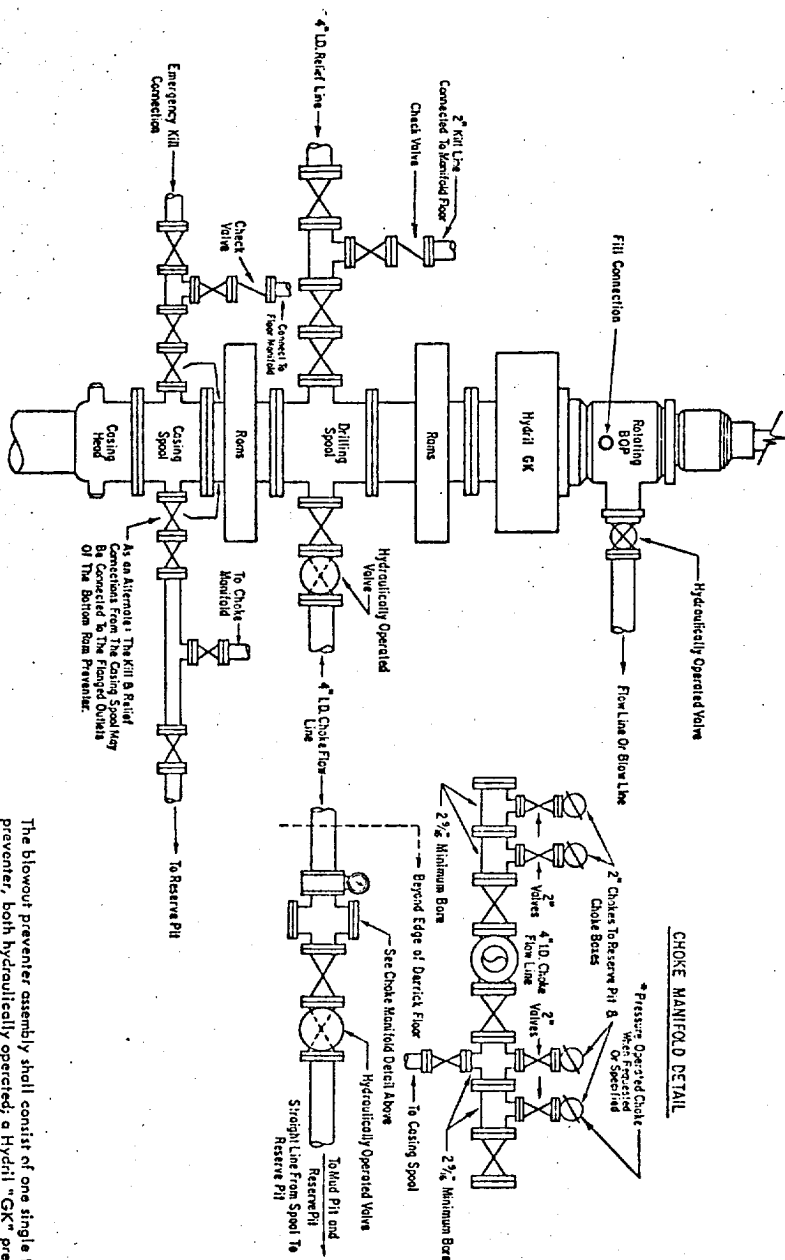
Loss of circulation is possible in the Delaware section of the hole, however, no major loss circulation zones have been reported in offsetting wells.

HOLE PROGNOSIS
BONANZA FEDERAL #3
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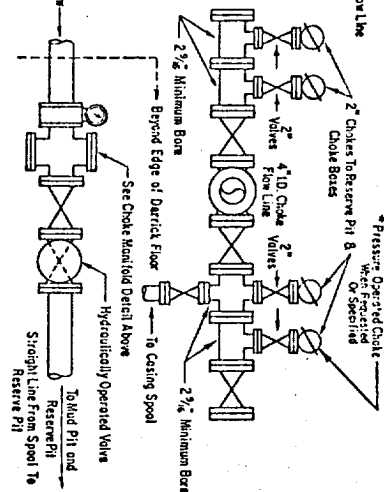
Strata has drilled and completed six (6) wells in the immediate area. To date, Hydrogen Sulfide has not been encountered. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide alarm on the drilling rig would be activated. All personnel have had Hydrogen Sulfide training and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blow out preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is March 2, 1998. Once commenced, the drilling operation should be completed in approximately 20 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities.



CHOKES MANIFOLD DETAIL



3000 # PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

hydraulic operating system which is to be a closed system. (2) Accumulators with a precharge of nitrogen at not less than 750 PSI and connected to the pressure-reduced devices simultaneously within _____ seconds after closure. With the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume of at least _____ percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities.

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to ram preventers. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways and stairways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow line valves and relief line valves connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

* To include derrick floor mounted controls.

EXHIBIT "E"

