

N.M. Oil Cons. DIV-Dist. 2
1201 W. Grand Avenue
UNITED STATES
DEPARTMENT OF THE INTERIOR
ARRESIA, NM 88210
BUREAU OF LAND MANAGEMENT

0
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

AUG 29 2005

QOD-ARRESIA

1a. Type of Work: ☒ DRILL ☐ REENTER

b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
Yates Petroleum Corporation 25575 SECRETARY'S POTASH

3A. Address 105 South Fourth Street
Artesia, New Mexico 88210 3b. Phone No. (include area code)
(505) 748-1471

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface SWSW 330 FSL 530 FWL
At proposed prod. Zone same as above

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 24 MILES NE OF LOVINGTON, NM.

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

330'

16. No. of Acres in lease

688.29

17. Spacing Unit dedicated to this well

40.00

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

1980'

19. Proposed Depth

8200 MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3458 GL

22. Approximate date work will start*

23. Estimated duration

24. Attachments

CARLSBAD CONTROLLED WATER BASIN

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
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.

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized office.

25. Signature

Title:

Regulatory Technician/Land Department

Approved by (Signature)

/s/ Linda S. C. Rundell

Name (Printed/Typed)

Debbie L. Caffall

Date

6/28/2005

Title

STATE DIRECTOR

Office

NM STATE OFFICE

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, are attached.

APPROVAL FOR 1 YEAR

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.

*(Instructions on reverse)

Previously Approved C-144 Attached

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Witness Surface &
Intermediate Casing

S. 17
795

YATES PETROLEUM CORPORATION

Adeline ALN Federal #13

330' FSL & 530' FWL

Sec. 6-T24S-R31E

Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

Rustler	580'
Top of Salt	950'
Base of Salt	3950'
Bell Canyon	4178'
Cherry Canyon	5200'
Brushy Canyon	6840'
Bone Spring Lime	8050'
TD	8200'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: Approx 150'
Oil or Gas: Canyon 5182' and Bone Spring 8032'

3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" casing and rated for 3000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

Auxiliary Equipment:

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

- A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>	
17 1/2"	13 3/8"	48#	H-40	ST&C	0-900'	900'	WITNESS
11"	8 5/8"	32#	J-55	ST&C	0-4100'	4100'	WITNESS
7 7/8"	5 1/2"	17#	J-55	LT&C	0-100'	100'	
7 7/8"	5 1/2"	15.5#	L-80	LT&C	100'-6900'	6800'	
7 7/8"	5 1/2"	17#	J-55	LT&C	6900'-8200'	1300'	

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

B. CEMENTING PROGRAM:

Surface casing: Lead w/ 550 sx Lite (YLD 1.90 WT.12.6) Tail in w/ 200 sx Class "C" + 2% CaCl₂ (YLD 1.34 WT 14.8).

Intermediate Casing: Lead w/ 1000 sx Lite (YLD 2.5 WT 11.9); Tail in w/ 250 sx "C" + 2% CaCl₂ (YLD 1.34 WT. 14.8)

Production Casing: TOC-3700'. 150 bbls nitrified mud ahead,
Lead w/ 300 sx Lite (YLD 2.5 WT. 11.9), tail in w/ 350 sx Super "H" (Yld 1.62 Wt 13.2), followed by 50 sx Thixotropic (YLD 1.4 WT 14.4).

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-900'	FW/Native Mud	8.6-9.2	28-36	N/C
900'-4100'	Brine	10.0-10.2	28	N/C
4100'-6500'	Cut Brine	8.6-9.1	28	N/C
6500'-8200'	Cut Brine/Starch	8.6-9.1	28-32	<15cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: 10 samples out from under surface casing.

Logging: CNL/LDT TD to casing; GR w/CNL to Surface; DLL x/RXO TD to casing.

Coring: None Anticipated.

DST's: As warranted.

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From: 0	TO: 900'	Anticipated Max.	BHP: 450	PSI
From: 900'	TO: 4100'	Anticipated Max.	BHP: 1790	PSI
From: 4100'	TO: 8200'	Anticipated Max.	BHP: 4740	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H₂S Zones Anticipated: None

Maximum Bottom Hole Temperature: 198 F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 20 days to drill the well with completion taking another 15 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Adeline ALN Federal #13
330' FSL & 530' FWL
Sec. 6-T24S-R31E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 24 miles northwest of Loving, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go east of Carlsbad on Highway 285 to Highway 31. Go east on Highway 31 to Highway 128 (Jal Highway). Go approximately 12 miles to County Road 787 (Twin Wells Road). Turn south and go approximately 4 miles. The new road will start here going west to the well location.

2. PLANNED ACCESS ROAD.

- A. The proposed new access will be approximately 0.3 of a mile in length from the point of origin to the northeast corner of the drilling pad. The road will lie in an east to west direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. The new road will be bladed with drainage on one side. Traffic turnouts may be built.
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL

- A. There is drilling activity within a one-mile radius of the wellsite.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.



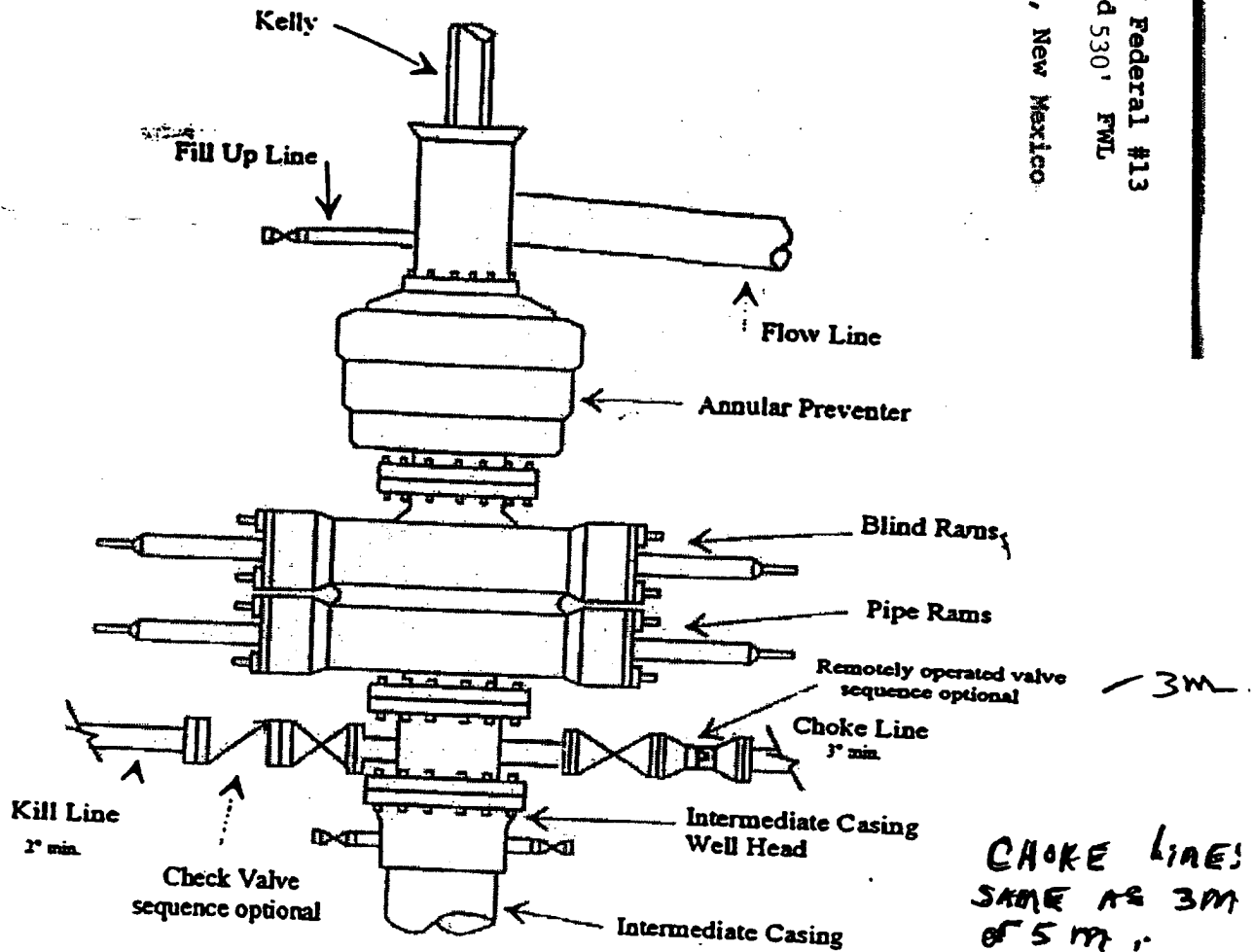
Yates Petroleum Corporation

Typical 5,000 psi Pressure System

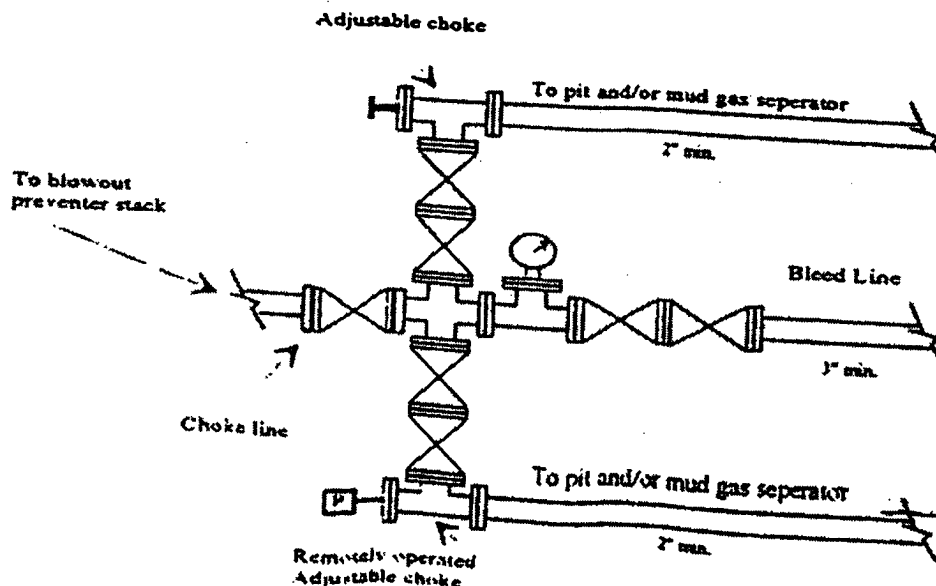
Schematic

Annular with Double Ram Preventer Stack

Adeline ALN Federal #13
330' FSL and 530' FWL
Section
Eddy County, New Mexico
NM-82904



Typical 5,000 psi choke manifold assembly with at least these minimum features 3M APPROV. SCHEMATIC OK



New Mexico Office of the State Engineer
Well Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

Well / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

WATERS Menu

Help

AVERAGE DEPTH OF WATER REPORT 06/23/2005

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
C	24S	31E	02				3	160	212	192

Record Count: 3

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

June 28, 2005

Attention: Mr. Dan Morehouse, Chief Mining Engineer
Mosaic Potash Carlsbad Inc.
P.O. Box 71
Carlsbad, New Mexico 88221-0071

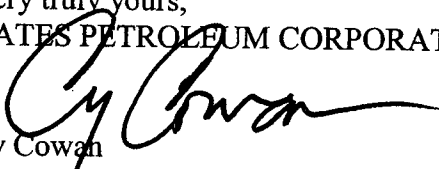
RE: Adeline ALN Federal #13
Section 6: Township 24 South, Range 31 East
330' FSL and 530' FWL
Eddy County, New Mexico

Dear Mr. Morehouse:

Yates Petroleum Corporation wishes to place the captioned well on our list for future drilling operations. We are planning to drill this well to a total depth of 8,200' or 100' below the base of the Delaware Formation. We have been advised that your company is the owner of certain potash leases in this area. Therefore, we respectfully request that you waive any objections you may have to this proposed well location and so indicate by signing and returning one copy of this letter in the enclosed envelope.

Your favorable consideration of this request will be greatly appreciated. Thank you.

Very truly yours,
YATES PETROLEUM CORPORATION


Cy Cowan
Regulatory Agent

☐ **NO OBJECTION OFFERED**
Mosaic Potash Carlsbad Inc.

☐ **OBJECTION OFFERED**
Mosaic Potash Carlsbad Inc.

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Yates Petroleum Corporation
Well Name & No. Adeline ALN Federal #13 - RESUBMITTAL
Location: 330' FSL, 530' FWL, Section 6, T. 24 S., R. 31 E., Eddy County, New Mexico
Lease: NM-82904

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:
 - A. Well spud
 - B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch
 - C. BOP tests
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 900 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is to be circulated to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.
4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
 - The tests shall be done by an independent service company.
 - The results of the test shall be reported to the appropriate BLM office.
 - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
 - Testing must be done in a safe workman-like manner. Hard line connections shall be required.