

Form 3160-3  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER R-111-POTASH

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

2. Name of Operator

Yates Petroleum Corporation

3A. Address 105 South Fourth Street  
Artesia, New Mexico 88210

3b. Phone No. (include area code)

(505) 748-1471 Sand

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

At surface

2310' FNL & 330' FWL RECEIVED

At proposed prod. Zone

Same

14. Distance in miles and direction from nearest town or post office\*

Approximately 24 miles northeast of Loving, New Mexico.

NOV 14 2005

OCD-ARTESIA

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

640

17. Spacing Unit dedicated to this well

41.94 acres

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

1980'

19. Proposed Depth

8200'

20. BLM/BIA Bond No. on file

NM-2811

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

3423'

22. Approximate date work will start\*

ASAP

23. Estimated duration

35 days

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

Debbie L. Caffall

Name (Printed/Typed)

Debbie L. Caffall

Date

9/1/2005

Title:

Regulatory Technician/Land Department

debbiec@ypcnm.com

Approved by (Signature)

Jamie L. Gandy

Name (Printed/Typed)

Jamie L. Gandy

Date

NOV - 4 2005

ACTING

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)

C-144 attached

Lesser Prairie Chicken

Mosaic Potash Carlsbad Inc.

Previously Approved

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

WITNESS 13 3/8" and 8 5/8" Cement Jobs  
Sat  
79.5

Ed., Astec, RM 87418  
IV  
South Pacheco, Santa Fe, NM 87605

# OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 53818	Pool Name Sand Dunes, Delaware South
Property Code	Property Name ADELINE "ALN" FEDERAL	Well Number 6
OCED No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3423

### Surface Location

UL or lot No.	Section	Township	Range	Lot Lin	Feet from the	North/South line	Feet from the	East/West line	County
E	6	24S	31E		2310	NORTH	330	WEST	EDDY

### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Lin	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40 41.94	Joint or Infill	Consolidation Code	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

				<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature  Cy Cowan Printed Name  Regulatory Agent Title  July 30, 2001 Date
				<b>SURVEYOR CERTIFICATION</b>  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.  7/11/2001 Date Surveyed   Signature & Seal of Professional Surveyor  Certificate No. H000061 L Jones RLS 3640 ADELINE 6 GENERAL SURVEYING COMPANY

**YATES PETROLEUM CORPORATION**  
**Adeline ALN Federal #6**  
 2310' FNL & 330' FWL  
 Sec. 6-T24S-R31E  
 Eddy County, New Mexico

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

Rustler	477'
Top of Salt	863'
Base of Salt	3950'
Bell Canyon	4150'
Cherry Canyon	5129'
Brushy Canyon	6810'
Bone Spring Lime	8010'
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 5129' and Bone Spring 8010'

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- <del>750</del> 890'	750'
11"	8 5/8"	32#	J-55	ST&C	0-4100'	4100'
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: 250 sx Lite (YLD 1.96 WT.12.5) Tail in w/ 200 sx Class "C" + 2% CaCl<sub>2</sub> (YLD 1.34 WT 14.8).

Intermediate Casing: 750 sx Lite (YLD 2.5 WT 11.9); Tail in w/ 250 sx "C" w/ 2% CaCl<sub>2</sub> (YLD 1.34 WT. 14.8)

Production Casing: (TOC=3700') Lead w/400 sx Lite (YLD 2.0 WT 12.0) Tail in w/300 sx Super "H" (Yld 1.67 Wt 13.4).

5. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
0- <del>750</del> <sup>890'</sup>	FW/Native Mud	8.6-9.2	28-36	N/C
<sup>890'</sup> <del>750</del> -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: <sup>890'</sup> <del>750'</del>				
From: 0	TO: <del>750'</del>	Anticipated Max.	BHP:	400 PSI
From: <sup>890'</sup> <del>750'</del>	TO: 4100'	Anticipated Max.	BHP:	1790 PSI
From: 4100'	TO: 8200'	Anticipated Max.	BHP:	4100 PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H<sub>2</sub>S 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 #6**  
**2310' FNL & 330' 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 23 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 3.5 miles and turn west. Follow lease road to the Adeline ALN Federal #1 location. The new road will start here from the northwest corner of the Adeline #1, going west.

**2. PLANNED ACCESS ROAD.**

- A. The proposed new access will be approximately 0.4 of a mile west then turn south and go approx. 200' to the northwest corner of the drilling pad. The road will lie in a west then south 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.

**5. LOCATION AND TYPE OF WATER SUPPLY:**

- A. It is planned to drill the proposed well with a fresh water system. The fresh water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

**6. SOURCE OF CONSTRUCTION MATERIALS:**

Dirt contractor will locate closest pit and obtain any permits and materials needed for construction.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill. Burial on site is not approved.

**8. ANCILLARY FACILITIES:** Amend the surface use plan to include the following, one 3" SDR Poly surface flowline and one (1) three phase 640 volt raptor proof powerline from this well to the Adeline ALN Federal Com. #1. See attached plat.

**9. WELLSITE LAYOUT:**

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined and will face to the north.
- C. A 400' x 400' area has been staked and flagged.

**10. PLANS FOR RESTORATION**

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.

**11. SURFACE OWNERSHIP:** Federal surface, Administered by the Bureau of Land Management, Carlsbad, New Mexico.

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE

- A. Through A.P.D. Approval:

Cy Cowan, Regulatory Agent  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

- B. Through Drilling Operations,  
Completions and Production:

Pinson McWhorter, Operations Manager  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

14. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

*Debbie L. Coffey* Regulatory Tech

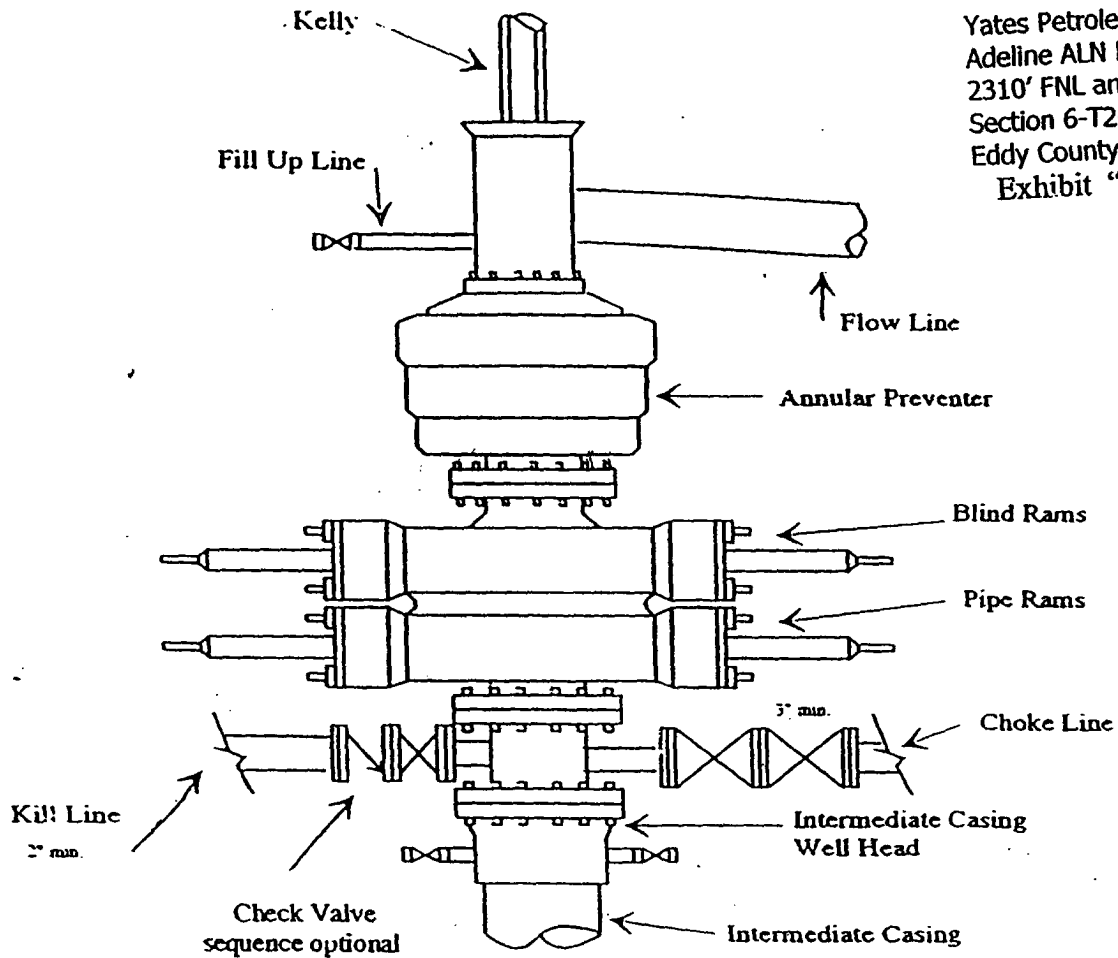
09/01/2005

for *Cy Cowan*  
Regulatory Agent

# Yates Petroleum Corporation

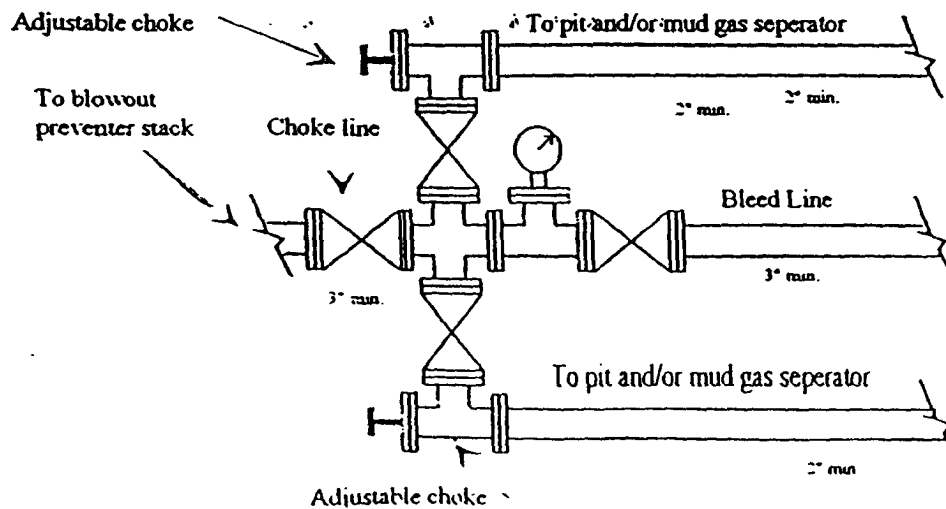
BOP-3

## Typical 3,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



Yates Petroleum Corporation  
Adeline ALN Federal #6  
2310' FNL and 330' FWL  
Section 6-T24S-R31E  
Eddy County, New Mexico  
Exhibit "C"

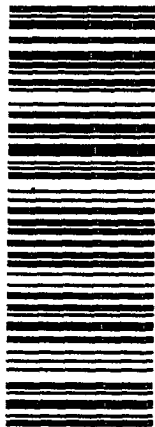
## Typical 3,000 psi choke manifold assembly with at least these minimum features





PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT  
OF THE RETURN ADDRESS. FOLD AT DOTTED LINE

**CERTIFIED MAIL**



7004 2510 0000 6680 1567  
7004 2510 0000 6680 1567

U.S. Postal Service<sup>TM</sup>  
**CERTIFIED MAIL<sup>TM</sup> RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

Postage	\$	CyC/lef Adeline ALN Fed Postmark #6 Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To  
**Dan Morehouse/Mosaic Potash Carlsbad Inc**  
Street, Apt. No.,  
or PO Box No. **P.O. Box 71**  
City, State, ZIP+4  
**Carlsbad, NM 88221-0071**

PS Form 3800, June 2002

See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

**1. Article Addressed to:**

Attn: Dan Morehouse,  
Chief Mining Engineer  
Mosaic Potash Carlsbad Inc.  
P.O. Box 71  
Carlsbad, NM 88221-0071

**2. Article Number**  
(Transfer from)

7004 2510 0000 6680 1567

**COMPLETE THIS SECTION ON DELIVERY**

<b>A. Signature</b>		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
<b>X</b>		
<b>B. Received by (Printed Name)</b>	<b>C. Date of Delivery</b>	
<b>D. Is delivery address different from item 1? <input type="checkbox"/> Yes</b> If YES, enter delivery address below: <input type="checkbox"/> No		
<b>3. Service Type</b>		
<input checked="" type="checkbox"/> Certified Mail	<input type="checkbox"/> Express Mail	
<input type="checkbox"/> Registered	<input type="checkbox"/> Return Receipt for Merchandise	
<input type="checkbox"/> Insured Mail	<input type="checkbox"/> C.O.D.	
<b>4. Restricted Delivery? (Extra Fee)</b>		<input type="checkbox"/> Yes

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

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

September 01, 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 #6  
Township 24 South, Range 31 East  
Section 6: 2310' FNL & 330' 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.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

☐ OBJECTION OFFERED  
Mosaic Potash Carlsbad Inc.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: YATES PETROLEUM CORPORATION  
Well Name & No. 6 - ADELINE ALN FEDERAL  
Location: 2310' FNL & 330' FWL - SEC 6 - T24S - R31E - EDDY COUNTY  
Lease: NM-82904

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:
  - A. Spudding
  - 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 between 890 and 1000 feet, below usable water 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 salt protection casing is circulate cement to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is circulate cement to the surface.
5. 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.

(ORIG. SGD.) LES BABYAK

### **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) is 2000 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.