N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue

Form 3160-3 (August 1999)

Artesia, NM 88210 INTER CTATES

OMB No. 1004-0136

CMIEDSIAIE	13 ·		Expires Noveliber	30, 2000
DEPARTMENT OF THE	INTERIOR		5. Lease Serial No.	
BUREAU OF LAND MANA	NM-82904			
			6. If Indian, Allottee or Trit	ne Name
APPLICATION FOR PERMIT TO D	RILL OR REENTER			
1a. Type of Work: X DRILL RE	EENTER		7. If Unit or CA Agreement	, Name and No.
			8. Lease Name and Well No	D.
b. Type of Well: Oil Well Gas Other Well	Single Zone	Multiple Zone	Adeline ALN Fede	eral #12
2. Name of Operator Sand Owners; Date.	ware, South	~ * *	9. API Well No.	
Yates Petroleum Corporation	R-111-POTAS	SH	30-015-32	- 014
3A. Address 105 South Fourth Street	3b. Phone No. (include area cod	le)	10. Field and Pool, or Explo	ratory
Artesia, New Mexico 88210	(505) 748-14	71	Wildcat Delaware	•
4. Location of Well (Report location clearly and in accordance with an	y State requirements.*)		11. Sec., T., R., M., or Blk,	and Survey or Area
At surface 1800' FSL	& 330' FWL			
At proposed prod. Zone	Same		Section 6, T24	IS-R31E
14. Distance in miles and direction from nearest town or post office*			12. County or Parish	13. State
Approximately 24 miles northeast of Loving, New	Mexico.		Eddy County	NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No. of Acres in lease	17. Spacing Ur	nit dedicated to this well	
	640		41.86 acres	
 I8. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1200' 	19. Proposed Depth 8200'	20. BLM/BIA	Bond No. on file NM-2811	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will	start*	23. Estimated duration	
3439'	ASAP		35 days	•
J-533				
	24. Attachments		BAD CONTROLLED WA	TER BASIN
The following, completed in accordance with the requirements of Onsho	re Oil and Gas Order No. 1, shall b	e attached to this	form:	
1. Well plat certified by a registered surveyor.	4. Bond to cov	er the operations	unless covered by an existing	bond on file (see
2. A Drilling Plan.	Item 20 abov			•
3. A Surface Use Plan (if the location is on National Forest System Land		•		
SUPO shall be filed with the appropriate Forest Service Office.	•		ation and/or plans as may be re	equired by the
	authorized of		and or plant at may our	Aquinos sy uito
25. Signature (M. Swyn-	Name (Printed/Typed) Cy Cowan		Date	8/19/03
Title:	joy ooman			0/13/03
Regulatory Agent/				
Approved by (Signature) 15) Coursten S- Goff	Name (Printed/Typed)	_ C G	Date	11/03
FOR STATE DIRECTOR	Office	NM STATE	OFFICE	
Application approval does not warrant or certify that the applicant holds	legal or equitable title to those righ	nts in the subject l	ease which would entitle the ap	oplicant to conduct
operations thereon. Conditions of approval, if any, are attached.		A	PPROVAL FOR 1	YEAR
Title 18 U.S.C. Section 1001and Title 43 U.S.C. Section 1212, make it a	crime for any nerson knowingly a	nd willfully to me	ike to any denartment or agence	v of the United
States any false, fictitious or fraudulent statements or representations as			inc to any department of agenc	y or the office

*(Instructions on reverse)



APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED**

'District.I '

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

District II

811 South First, Artesia, NM 88210

1625 N. French Dr., Hobbs, NM 88240

District III

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

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

ALCENDED DEDORT

1	A TOT AL		TUD D	² Pool Code		EAGE DEDIC				
¹ API Number ² Pool			Pool Code	· · · · · · · · · · · · · · · · · · ·						
							Wildcat De	laware		
⁴ Property (rty Code				⁵ Property	⁵ Property Name			⁶ Well Number	
					ADELINE ALN	FEDERAL				12
7 OGRID	No.				8 Operator	Name			' E	Elevation
02557	5			Yat	es Petroleum	Corporation			3	3439'
•					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
L	6	245	31E		1800	South	330	Wes	t l	Eddy
			¹¹ B	ottom Ho	ole Location I	f Different Fron	n Surface		_	
UL or let no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West	line	County
	100	1	<u> </u>	110		<u></u>	<u> </u>			
12 Dedicated Acres	¹³ Joint o	rInfill "C	Consolidation	Code 13 O	rder No.					
40										

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NIONI CTANDADO I INTELIA C DEENI ADDDOMED DV THE DIVICIONI

		NON-STANDA	IKD UNIT HAS BEEN A	APPROVED BY THE DIVISION	
16				17 OPERATOR CER I hereby certify that the informat true and complete to the best of belief. Signature	ion contained herein is
				Cy Cowan Printed Name Regulatory Agent Title 8/18/2003 Date	
330'	NM- 82904			¹⁸ SURVEYOR CERT I hereby certify that the well loca was plotted from field notes of a me or under my supervision, and and correct to the best of my bel REFER TO ORIGINAL PLAT Date of Survey	ntion shown on this plate ctual surveys made by I that the same is true
	. 1800			Signature and Seal of Professional St Certificate Number	eveyor.

DISTRICT I
1888 E. Franch Rr., Hobbs, Mr. 1888 E.
DISTRICT II
811 South First, Artesia, Mr. 18810
DISTRICT III
1000 Rio Branco Rd., Antes, Mr. 87410
DISTRICT IV
2040 South Pacheco, Senta Fe, RK 87505

State of New Mexico

Form C-102
Revised March 17, 1999
Instruction on back
Submit to Appropriate District Office
State Lease -- 4 Copies

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

C AMENDED REPORT

Yes Louis - 3 Copies

0CEID No. 025575 YATES P	Property Nam.		Pool Name Wildcat		
OCEND No. 025575 YATES P			Wildcat	_ •	
OCERD No. 025575 YATES P		_		Delaware	
0CEED No. 025575 YATES P	t ver iere			Well M	unber
	Operator Name		Eleva	Hom	
	PETROLEUM CO			3439	
2	Surface Loca	ation			
UL or lot No. Section Township Range Lot Lin I	Fost from the	North/South line	Feet from the	East/West line	County
L 6 24S 31E	1800	SOUTH	330	WEST	EDDY
Bottom Hole Locat	tion If Diffe	rent From Sur	face		
UL or lot No. Section Township Range Lot Idn 1	Foot from the	North/South line	Foot from the	East/Vest line	County
					<u> </u>
Bedicated Acres Joint or Infill Consolidation Code Order	r No.				
NO ALLOWABLE WILL BE ASSIGNED TO THIS CO OR A NON-STANDARD UNIT				SEN CONSOLID	ATED
			7		
				OR CERTIFICA	
			11	y certify the the is n is true and comp	-
			best of my bus	olodge and balley.	
				5 Dr	an
		<u>.</u>	Signature	Cy Cowan	
			Printed Nam		· · · · · · · · · · · · · · · · · · ·
			i i	gulatory Age	ent
	ļ		Title	<u> </u>	
1 1	l			ly 30, 2001	
July 020			Date		
NM-82904			SURVEY	OR CERTIFICA	TION
N.32°14'38.7" W.103°49'28.5"				y that the well loos	
4.109 48 SG.5			on this plat w	one plotted from fla : made by me or	d notes of under my
38 3435	ŀ		supervison, a	ed that the same the best of my bell	s trus and
9 330'					
	1			7/11/2001	
3446 3441			Date Survey		
			Signature & Professional		
				, _	$\overline{}$
1800,			$\parallel \alpha /$,)
1			1 Des	schill 60	
			1 1	No. Herschel L. Jon	ns RLS 36-
			1 1	INE 12 L SURVEYING COMP	wy

YATES PETROLEUM CORPORATION Adeline ALN Federal #12

1800' FSL & 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)

Hole Size	Casing Size	<u> Wt./Ft</u>	<u>Grade</u>	Coupling	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8"	48#	H-40	ST&C	0-750'	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

Adeline ALN Federal #12 Page 2

B. CEMENTING PROGRAM:

WITNESS Surface casing: 250 sx Lite (YLD 1.96 WT.12.5) Tail in w/ 200 sx Class "C" + 2% CaCl2

(YLD 1.34 WT 14.8).

WITNESS Intermediate Casing: 750 sx Lite (YLD 2.5 WT 11.9); Tail in w/ 250 sx "C" w/ 2% CaCl2

(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:

<u>Interval</u>	_Type	<u>Weight</u>	<u>Viscosity</u>	Fluid Loss
0-750'	FW/Native Mud	8.6-9.2	28-36	N/C
750'-4100'	Brine	10.0-10.2	28	N/C
4100'-65′00'	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:

Andoipa	CG DIII.						
From:	0	TO:	750'	Anticipated Max.	BHP:	400	PSI
From:	750'	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.

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 #12 1800' FSL & 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. Continue west to the Adeline ALN Federal #6 location. The new road will start here going south.

PLANNED ACCESS ROAD.

- A. The proposed new access will be approximately 1200' in length to the northwest corner of the drilling pad. The road will lie in a north to 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.

Adeline ALN Federal #12 Page 3

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.

8/18/2003

Regulatory Agent



IMC Potash Carlsbad Inc. P. O. Box 71 1361 Potash Mines Road Carlsbad, New Mexico 88221-0071 505.887.2871 505.887.0589 Fax

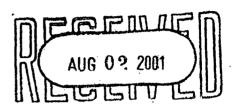
August 1, 2001

Mr. Cy Cowan Yates Petroleum Corporation 105 South Fourth Street. Artesia, New Mexico 88210-2188

RE:

Proposed Wells Adeline ALN Federal #5, #6, #12

Section 6, T24S-R31E, N.M.P.M. #5: 330' FNL & 990' FWL #6: 2310' FNL & 330' FWL #12: 1800' FSL & 330' FWL Eddy County, New Mexico



Dear Mr. Cowan:

IMC Kalium Carlsbad Potash Company has received your notices that Yates Petroleum Corporation intends to drill the above referenced wells. IMC Kalium has no objections to Yates drilling wells Adeline ALN Federal #5, #6, #12 to depths no deeper than 100' below the base of the Delaware formation at the stated locations. Based on the best available information, the locations of the fore mentioned wells would not interfere with the development of our potash resources.

The above consideration is based on the best available information at this time; as more information becomes available our estimates of the extent of the potash resources in the area may change. Therefore, please consider the "objections offered" and "no objection offered" to the well locations to be valid for one year only. If you are still considering a well location that a potash operator has or has not objected to, more than one year prior, notify us again at that time so we can make the decision based on current information.

IMC Kalium submits this letter in lieu of the forms requested.

Sincerely,

John Purcell

Chief Mine Engineer

oc:

Don Purvis

Charlie High

Leslie Theiss

Lori Wroteneery

Dan Morehouse Tim O'Brien

Craig Cranston

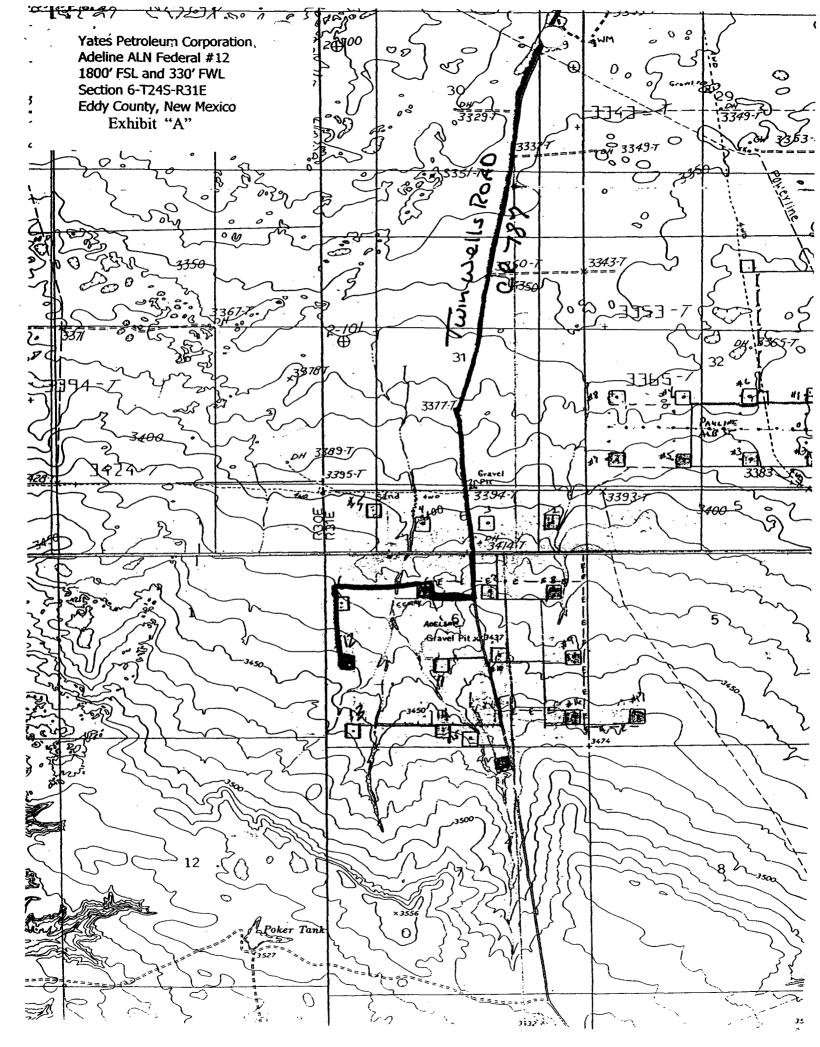
MARTIN YATES, III 1912 - 1985 FRANK W. YATES 1936 - 1986

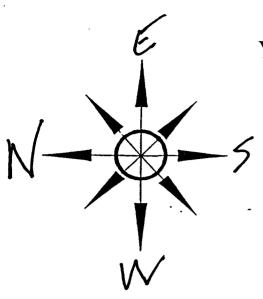


S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES

U.S. Postal Service 105 SOUTH FOURTH ST CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) ARTESIA, NEW MEXICO & TELEPHONE (505) 748- in 474 July 30, 2001 S Postage Certified Fee Attention: Mr. John Purcell, Chief Mining Engineer IMC Carlsbad Potash Company **Destricted Delivery Fee** P.O. Box 71 Carlsbad, New Mexico 88221-0071 입 John Purcell, Chief Mining Engineer - IMC RE: Adeline ALN Federal #12 Township 24 South, Range 31 East or PO Box No. Section 6: 1800' FSL & 330' FWL Eddy County, New Mexico Dear Mr. Purcell: 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 Regulatory Agent **OBJECTION OFFERED** NO OBJECTION OFFERED **IMC Potash Company** IMC Potash Company Bv:

Title:

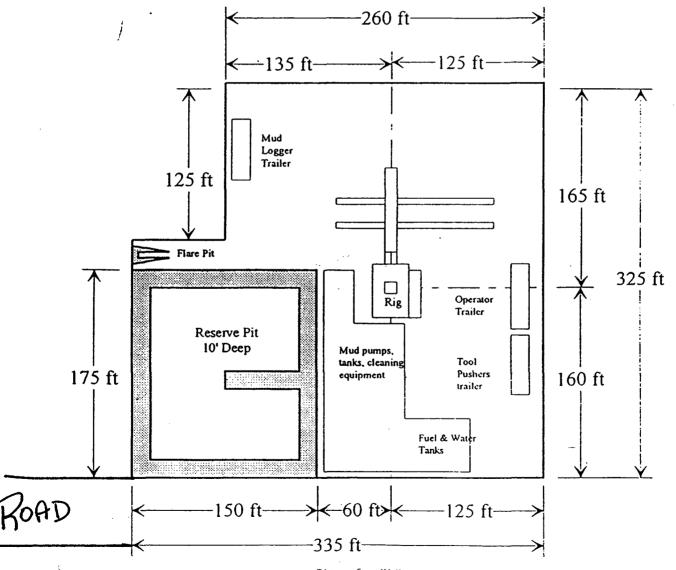




Yates Petroleum Corporation

Location Layout for Permian Basin Up to 12,000'

> Yates Petroleum Corporation Adeline ALN Federal #12 1800' FSL and 330' FWL Section 6-T24S-R31E Eddy County, New Mexico Exhibit "B"

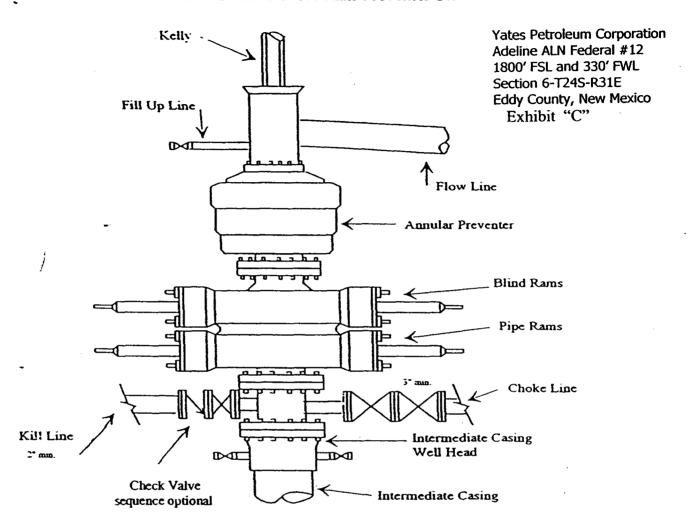


Distance from Well Head to Reserve Pit will vary between rigs

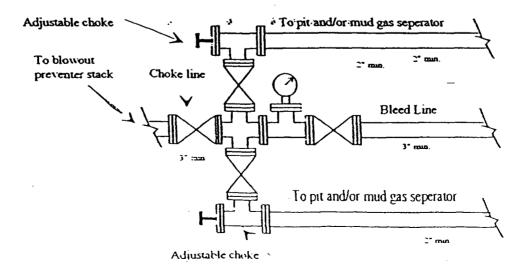
The above dimension should be a maximum

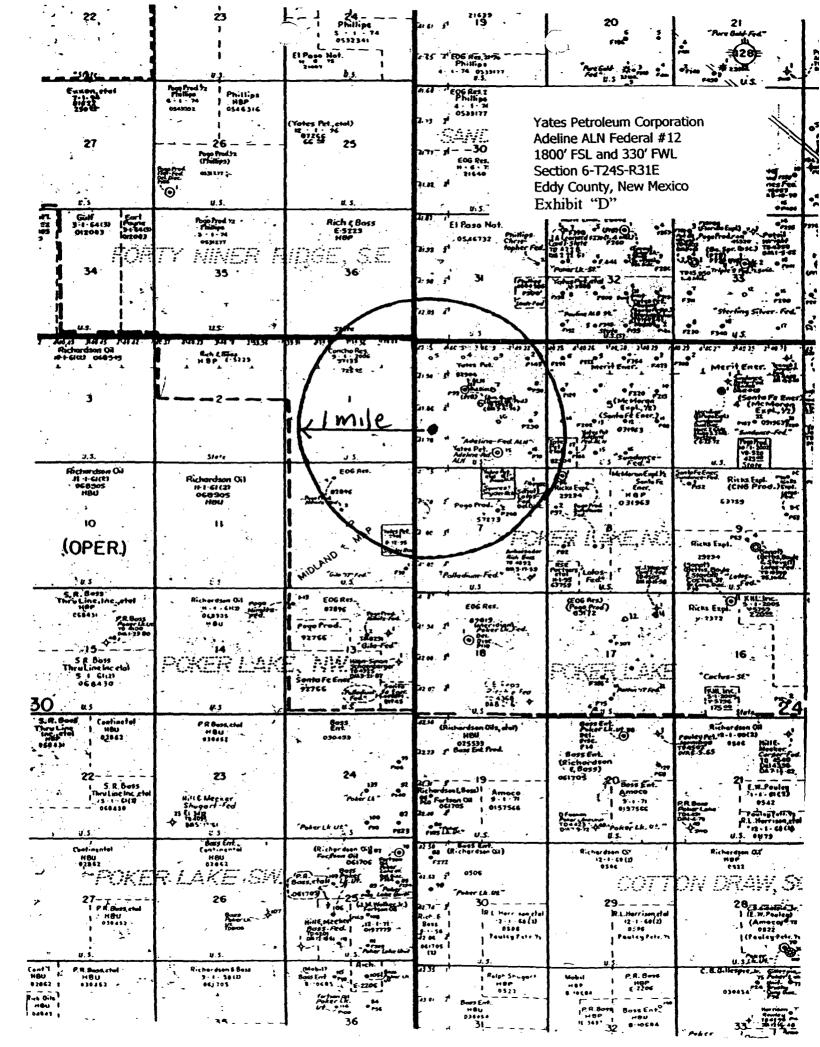
Yates Petroleum Corporation

Typical 3.000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack



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





CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

YATES PETROLEUM CORPORATION

Well Name & No.

12 - ADELINE ALN FEDERAL

Location:

1800' FSL & 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 800 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 <u>8-5/8</u> inch salt protection casing is <u>circulate cement to</u> 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.