

Form 3160-3
(August 1999)



N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NM-15896

6. If Indian, Allottee or Tribe Name
Not Applicable

7. If Unit or CA Agreement, Name and No.
Not Applicable

8. Lease Name and Well No.
Cactus Queen Unit #19

9. API Well No.
30-005-21179

10. Field and Pool, or Exploratory
Chaves Queen SE Associated

11. Sec., T., R., M., or Blk, and Survey or Area
Section 34-T12S-R31E

12. County or Parish
Chaves County

13. State
NM

1a. Type of Work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
Yates Drilling Company

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 **1270' FNL & 1650' FEL**
At proposed prod. Zone **same as above** *B*

14. Distance in miles and direction from nearest town or post office*
Approximately 26 miles north of Maljamar, New Mexico

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
40

17. Spacing Unit dedicated to this well
40

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

19. Proposed Depth
3100'

20. BLM/BIA Bond No. on file
586000

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
4431' GL

22. Approximate date work will start*
ASAP

23. Estimated duration
30 Days

24. Attachments

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office.
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized office.

25. Signature *Pat Perez* Name (Printed/Typed) **Pat Perez** Date **5/22/02**

Title: **Regulatory Agent**

Approved by (Signature) *(ORIG. SGD.) ARMANDO...* Name (Printed/Typed) **(ORIG. SGD.) ARMANDO...** Date **SEP 19 2002**

Title **Acting Assistant Field Manager, Lands And Minerals** Office **ACQUILL FIELD 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.

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)

OPER. OGRID NO. **25513**
PROPERTY NO. **11900**
POOL CODE **12-110**
EFF. DATE **10-7-02**
API NO. **30-005-21179**

Ke

DISTRICT I
1885 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87506

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-005-21179	Pool Code 12110	Pool Name Chaves Queen SE Associated
Property Code 11900	Property Name CACTUS QUEEN UNIT	Well Number 19
OGRID No. 025513	Operator Name YATES DRILLING COMPANY	Elevation 4431

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	34	12S	31E		1270	NORTH	1650	EAST	CHAVES

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
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Pat Perez Printed Name Regulatory Agent Title May 22, 2002 Date	
	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. 1/31/2002 Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Herschel Jones RLS 3648 CACTUS QUEEN 19 YATES DRILLING COMPANY	

YATES DRILLING COMPANY
Cactus Queen Unit #19
1270' FSL and 1650' FEL
Section 34, T12S-R31E
Chaves County, New Mexico

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

Rustler	1430'
Salt Top	1516'
Salt Base	2103'
Yates	2220'
Seven Rivers	2355'
Queen	2976'
TD	3100'

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

Water: 150'-300'
Oil or Gas: Queen Formation.

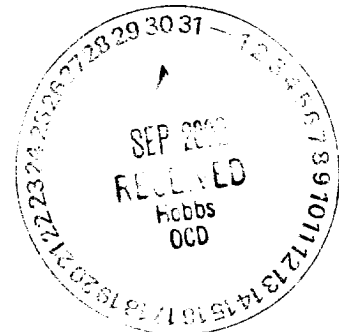
3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 2000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed 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>
12"	8 5/8"	24#	J-55	ST&C	0-450'
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-3100'

1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8



Cactus Queen Unit #19

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B. CEMENTING PROGRAM:

Surface Casing: 250 sx Class "C" (YLD 1.32 WT 14.8).

Production Casing: 350 sx Lite "C" (YLD 2.0 WT 12.5). Tail in with 250 sx Class C + 2% CaCl₂ (YLD 1.32 WT 14.8)

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-400'	FW /Native Mud	8.4 - 9.4	28-34	N/C
400'-2900'	Cut Brine/Brine	9.0 - 10.0	28	N/C
2900'-3100'	Brine/Starch	10 -10.2	28	<15/cc

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, W/NGT TD-Surf csg; DLL/MSFL/GR TD to Surf csg.
BHC Sonic TD-SURF CSG

Coring: None

DST's: None.

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Anticipated BHP:

From: 0	TO: 400'	Anticipated Max. BHP: 175 PSI
From: 400'	TO: 3100'	Anticipated Max. BHP: 1300 PSI

Abnormal Pressures Anticipated: None

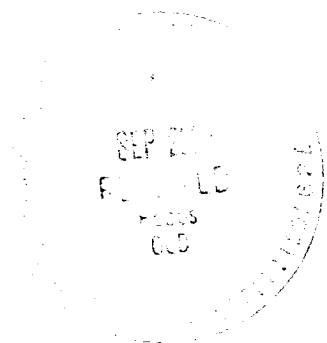
Lost Circulation Zones Anticipated: None.

H₂S Zones Anticipated: None Anticipated

Maximum Bottom Hole Temperature: 110 F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 10 days to drill the well with completion taking another 20 days.



MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Cactus Queen Unit #19
1270' FSL and 1650' FEL
Section 27-T12S-R31E
Chaves 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 26 miles north of Maljamar, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go East of Maljamar, NM on HWY 82 for approx. 1 mile to the intersection of 82 and 249. Take 249 North for approx. 5.7 miles and 249 turns West and 172 continues North. Take 172 North for approx. 20.5 miles. There will be a cattle guard with a locked gate on the West side of the road. Turn left thru the cattle guard and then take the left fork. Follow the road for approx. 0.4 of a mile and you come to a crossroads. Turn South and go approx. 0.2 of a mile. The new road will start here and go East approx. 400' to the SW corner of the pad.

2. PLANNED ACCESS ROAD:

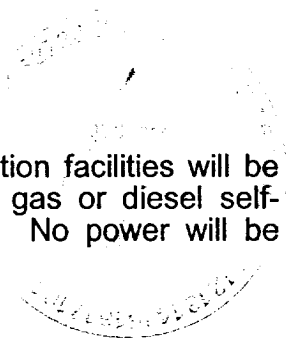
- A. The proposed new access will be approximately 400' in length from the point of origin to the southeast corner of the drilling pad. The road will lie in an easterly direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. 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 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 nearest 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: NONE

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.
- 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.

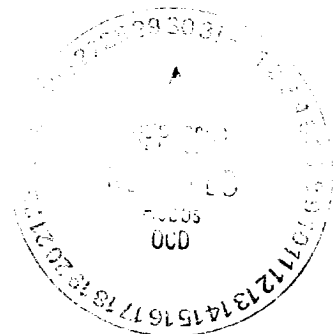
Cactus Queen Unit #19
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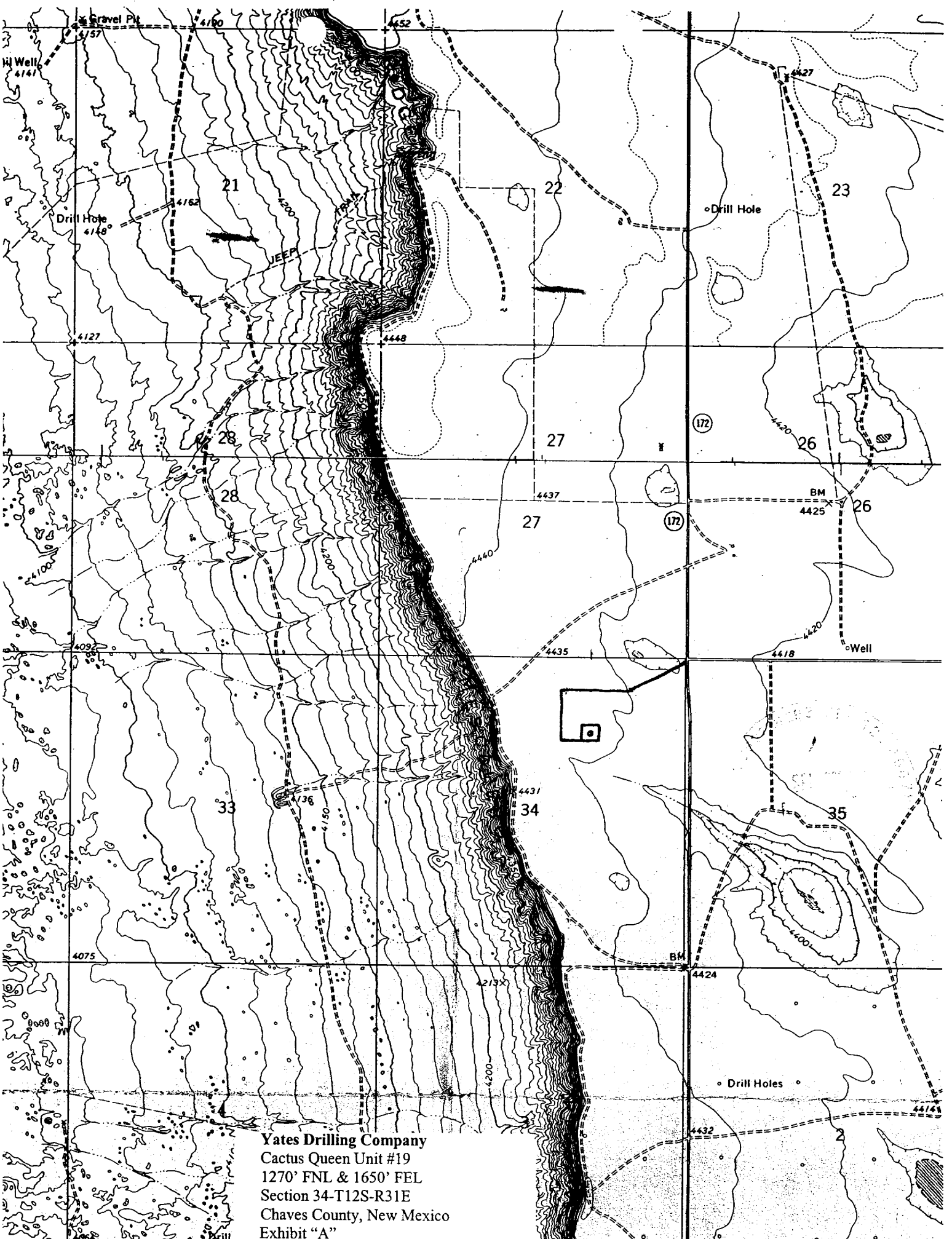
11. SURFACE OWNERSHIP: Split Estate with the surface belonging to Mr. W. T. Tivis, Eunice, New Mexico. Mr. Tivis and Yates Drilling Company have reached an agreement as to the operations to be conducted on his private surface.
12. OTHER INFORMATION:
- A. Topography: Refer to the existing archaeological 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:
Pat Perez, Regulatory Agent
Yates Drilling Company
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471 | B. Through Drilling, Completions & Prod.
Toby Rhodes, Vice-President
Yates Drilling Company
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 746-0308 |
|--|---|
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 Drilling Company 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.

5/22/2002


Regulatory Agent

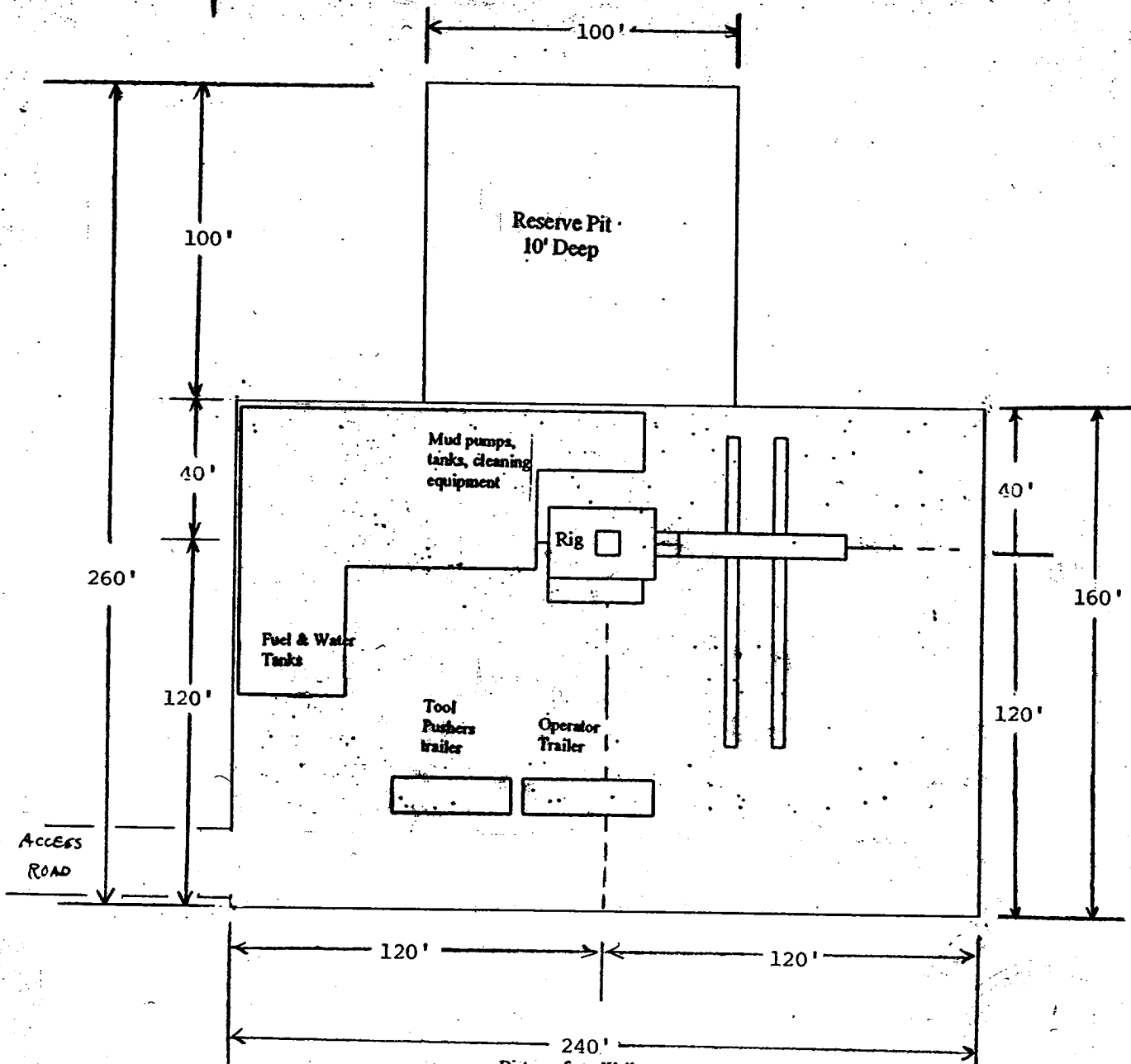
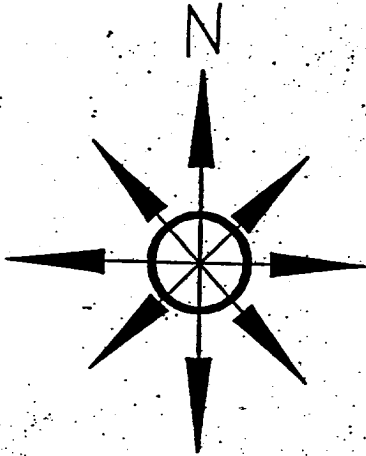




This is a topographic map showing a mountainous region. The map features contour lines indicating elevation, with labels such as 4100, 4200, 4300, 4400, 4500, and 4600. A prominent ridge runs vertically through the center of the map. The map is divided into sections, with numbers 21, 22, 23, 26, 27, 28, 33, 34, and 35 visible. Various landmarks are marked, including a 'Gravel Pit' in the upper left, a 'Well' in the upper right, and several 'Drill Holes' and 'Drill Holes' (plural) in the lower right. A 'JEEP' track is shown in the upper left. A 'BM' (Benchmark) is marked with the number 4425. A 'Well' is marked with the number 4418. A 'Drill Hole' is marked with the number 4427. A 'Drill Holes' (plural) is marked with the number 4432. A 'Drill Holes' (plural) is marked with the number 4433. A 'Drill Holes' (plural) is marked with the number 4434. A 'Drill Holes' (plural) is marked with the number 4435. A 'Drill Holes' (plural) is marked with the number 4436. A 'Drill Holes' (plural) is marked with the number 4437. A 'Drill Holes' (plural) is marked with the number 4438. A 'Drill Holes' (plural) is marked with the number 4439. A 'Drill Holes' (plural) is marked with the number 4440. A 'Drill Holes' (plural) is marked with the number 4441. A 'Drill Holes' (plural) is marked with the number 4442. A 'Drill Holes' (plural) is marked with the number 4443. A 'Drill Holes' (plural) is marked with the number 4444. A 'Drill Holes' (plural) is marked with the number 4445. A 'Drill Holes' (plural) is marked with the number 4446. A 'Drill Holes' (plural) is marked with the number 4447. A 'Drill Holes' (plural) is marked with the number 4448. A 'Drill Holes' (plural) is marked with the number 4449. A 'Drill Holes' (plural) is marked with the number 4450. A 'Drill Holes' (plural) is marked with the number 4451. A 'Drill Holes' (plural) is marked with the number 4452. A 'Drill Holes' (plural) is marked with the number 4453. A 'Drill Holes' (plural) is marked with the number 4454. A 'Drill Holes' (plural) is marked with the number 4455. A 'Drill Holes' (plural) is marked with the number 4456. A 'Drill Holes' (plural) is marked with the number 4457. A 'Drill Holes' (plural) is marked with the number 4458. A 'Drill Holes' (plural) is marked with the number 4459. A 'Drill Holes' (plural) is marked with the number 4460. A 'Drill Holes' (plural) is marked with the number 4461. A 'Drill Holes' (plural) is marked with the number 4462. A 'Drill Holes' (plural) is marked with the number 4463. A 'Drill Holes' (plural) is marked with the number 4464. A 'Drill Holes' (plural) is marked with the number 4465. A 'Drill Holes' (plural) is marked with the number 4466. A 'Drill Holes' (plural) is marked with the number 4467. A 'Drill Holes' (plural) is marked with the number 4468. A 'Drill Holes' (plural) is marked with the number 4469. A 'Drill Holes' (plural) is marked with the number 4470. A 'Drill Holes' (plural) is marked with the number 4471. A 'Drill Holes' (plural) is marked with the number 4472. A 'Drill Holes' (plural) is marked with the number 4473. A 'Drill Holes' (plural) is marked with the number 4474. A 'Drill Holes' (plural) is marked with the number 4475. A 'Drill Holes' (plural) is marked with the number 4476. A 'Drill Holes' (plural) is marked with the number 4477. A 'Drill Holes' (plural) is marked with the number 4478. A 'Drill Holes' (plural) is marked with the number 4479. A 'Drill Holes' (plural) is marked with the number 4480. A 'Drill Holes' (plural) is marked with the number 4481. A 'Drill Holes' (plural) is marked with the number 4482. A 'Drill Holes' (plural) is marked with the number 4483. A 'Drill Holes' (plural) is marked with the number 4484. A 'Drill Holes' (plural) is marked with the number 4485. A 'Drill Holes' (plural) is marked with the number 4486. A 'Drill Holes' (plural) is marked with the number 4487. A 'Drill Holes' (plural) is marked with the number 4488. A 'Drill Holes' (plural) is marked with the number 4489. A 'Drill Holes' (plural) is marked with the number 4490. A 'Drill Holes' (plural) is marked with the number 4491. A 'Drill Holes' (plural) is marked with the number 4492. A 'Drill Holes' (plural) is marked with the number 4493. A 'Drill Holes' (plural) is marked with the number 4494. A 'Drill Holes' (plural) is marked with the number 4495. A 'Drill Holes' (plural) is marked with the number 4496. A 'Drill Holes' (plural) is marked with the number 4497. A 'Drill Holes' (plural) is marked with the number 4498. A 'Drill Holes' (plural) is marked with the number 4499. A 'Drill Holes' (plural) is marked with the number 4500.

Yates Drilling Company
Cactus Queen Unit #19
1270' FNL & 1650' FEL
Section 34-T12S-R31E
Chaves County, New Mexico
Exhibit "A"

Yates Drilling Company
Cactus Queen Unit #19
1270' FNL & 1650' FEL
Section 34-T12S-R31E
Chaves County, New Mexico
Exhibit "B"



Distance from Well
Head to Reserve Pit
will vary between rigs

The above dimension
should be a maximum

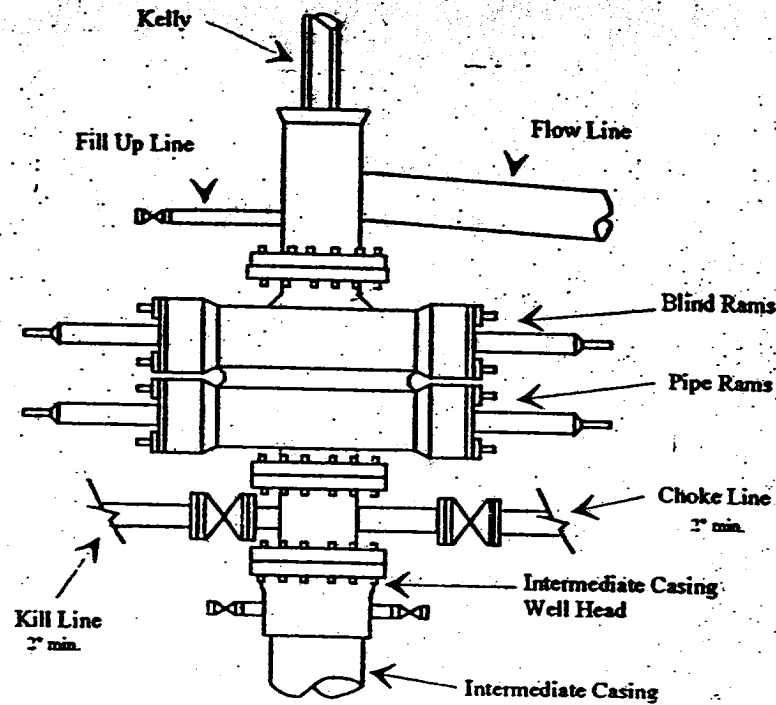


BOP-2

Yates Drilling Company
Cactus Queen Unit #19
1270' FNL & 1650' FEL
Section 34-T12S-R31E
Chaves County, New Mexico
Exhibit "C"

Typical 2,000 psi Pressure System Schematic

Double Ram Preventer Stack



Typical 2,000 psi choke manifold assembly with at least these minimum features

