

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

CHUSKA ENERGY COMPANY

3. ADDRESS OF OPERATOR

315 N. Behrend Avenue, Farmington, NM 87401

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

At surface

660' FNL & 1660' FWL

At proposed prod. zone

SAME

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

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

50,000

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

19. PROPOSED DEPTH

4500'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

5833 GR 1660' action is subject to technical and

22. APPROX. DATE WORK WILL START*

5-15-89

23. PROPOSED CASING AND CEMENTING PROGRAM
and appeal pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4.

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".
	SEE EXHIBIT "B"			

Exhibit "A" C-102
Exhibit "B" Drilling Program
Exhibit "C" Blowout Preventer Schmatic
Exhibit "D" Surface Use Program
Exhibit "E" Topo Map with Access Roads
Exhibit "F" Drilling Pad Layout
Exhibit "G" Rig Layout
Exhibit "H" New Access Road

RECEIVED

JUN 2 6 1989

OIL CON. DIV.
DIST. 3

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

John Alexander

TITLE Production Manager

DATE 3-22-89

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED
AS AMENDED

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

NMOCC

JUN 21 1989
For AREA MANAGER

*See Instructions On Reverse Side

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

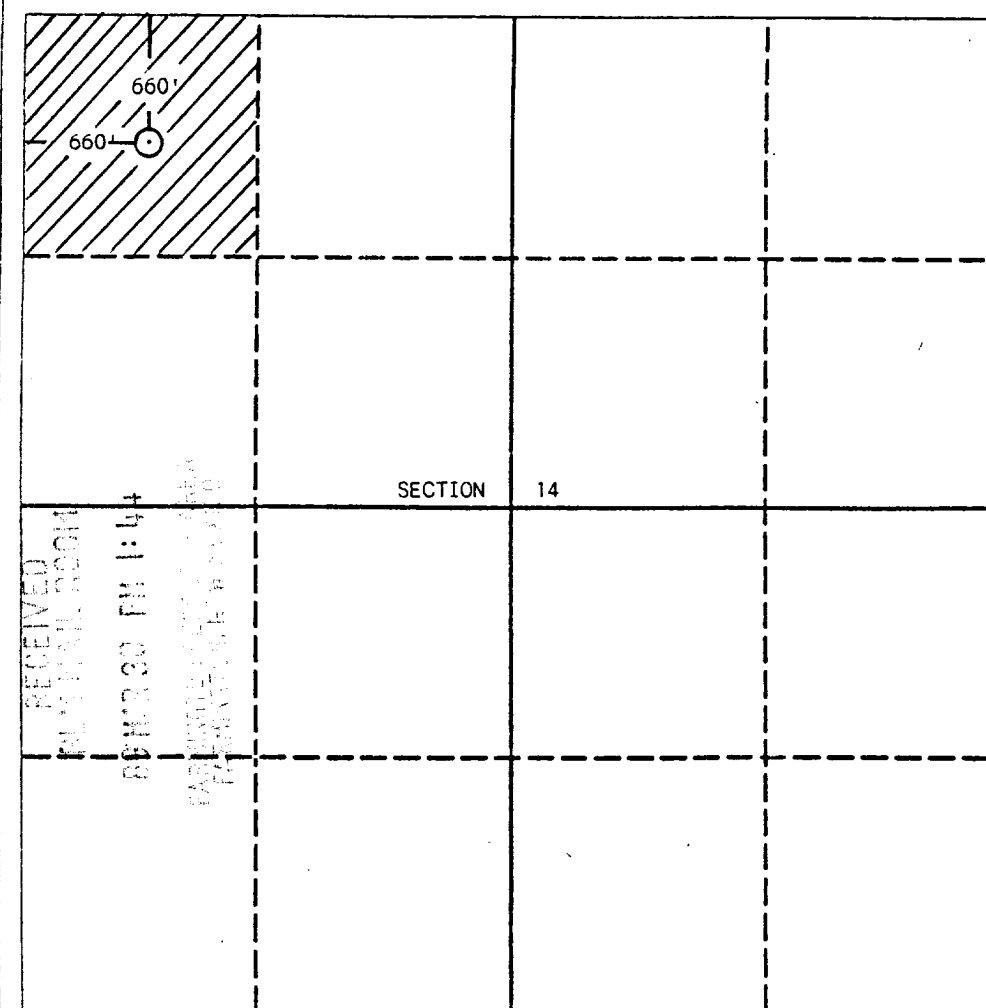
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Chuska Energy Company			Lease Verde South 3-14-28N16W		Well No. 1
Unit Letter D	Section 14	Township 28 North	Range 16 West	County San Juan	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the West line					
Ground level Elev. Corrected 5095		Producing Formation Niobrara		Pool Wildcat	Dedicated Acreage: 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name

Position

Company

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 knowledge and belief.

Date Surveyed

Signature & Seal of Professional Surveyor

EDGAR L. RISENHOVER
NEW MEXICO
Certification No. 15678
Edgar L. Risenhoover

EXHIBIT "B"

Drilling Program

Attached to Form 3160-3
CHUSKA ENERGY CO.
Verde South 3-14-28N16W No. 2
Sec. 14 T28N R16W
360' FNL & 1060' FWL
San Juan County, New Mexico

1. The Geologic Surface Formation:

The surface formation is the Lewis Shale.

2. Estimated Tops of Important Geologic Markers:

Cliffhouse	- 800 feet
Henefee	- 1000 feet
Point Lockout	- 2020 feet
Mancos Shale	- 2290 feet
Niobrara "A"	- 2650 feet
Niobrara "A"	- 3150 feet
Gallup	- 3320 feet

Requested TD - 4500 feet

3. Estimated Depths (Top & Bottom) of Anticipated Water, Oil, Gas or Minerals:

Oil: 3150 feet & 3320 feet

4. The Proposed Casing Program

HOLE SIZE	SETTING DEPTH (INTERVAL)	SECTION LENGTH	SIZE (OD)	WEIGHT-GRADE & JOINT	N E W or USED
17-1/2"	300	300'	13-3/8"	48.00# H-40 ST&C	NEW
12-1/4"	3000'	2700'	8-5/8"	32.00# J-55 LT&C	NEW
6-3/4"	4500'	1800'	5-1/2"	15.50# J-55 LT&C	NEW

Cement Program:

Surface Csg:	Cement with 360 sacks Class "B" = 2% CaCl ₂ . Circulate cement back to surface.
Intermediate Csg:	Cement with 1095 sacks of Highbond-75 + 0.4% Halad 322: Tail in with 475 sacks of Class "B" + 2% CaCl ₂ + 1/4 #/sk Flocele + 0.4% Halad 322. Circulate cement to surface.

Production Csg: Cement with 315 sacks Highbond-50 + 0.6% Halad 322. Cement top at 2700 feet.

5. The Operator's Minimum Specifications for Pressure Control:

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. Ram preventers will be tested to 70% of the minimum yield pressure of the casing, after nipping up and after any use under pressure. All BOP checks will be noted on the daily drilling records.

Accessories to BOP will include an upper and lower Kelly cock, floor safety valve, drill string BOP & choke manifold with pressure ratings equivalent to the BOP stack.

6. The Type & Characteristics of the Proposed Circulating Mud:

Mud system will be gel-chemical with adequate stocks of sorptive agents on site to handle possible spills of fuel and oil on the surface. Heavier muds will be on location to be added if pressure requires.

<u>DEPTH</u>	<u>TYPE</u>	<u>WEIGHT</u> (#/gal)	<u>VISCOSITY</u> (sec/qt)	<u>FLUID LOSS</u> (cc)
0 - 300'	SPUD	8.6 - 8.8	30 - 35	No Control
300 - 3000'	L.S.N.D.	8.8 - 9.5	45 - 65	6 cc or <
3000 - 4500'	Air Drilling			

7. The Auxiliary Equipment to be Used:

- (a) An upper & lower kelly cock will be kept in the string.
- (b) A mud logging unit & gas detecting device will be monitoring the system.
- (c) A stabbing valve will be on the floor to be stabbed into the drill pipe when the kelly is not in use.
- (d) Two fire stops & floats will be run during air drilling operations.

8. The Testing, Logging, and Coring Programs to be Followed:

- (a) The logging program will consist of the following logs:

Intermediate Hole: DIL/Caliper/GR/SP 3000' to Surf Csg.

Production Hole: DIL/FDC/Caliper/CNTG/GR TD - Inter Csg.

9. Any Anticipated Abnormal Pressures or Temperatures:

No abnormal pressures or temperatures have been noted or reported in wells drilled in this area nor at the depths anticipated in this well.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported, or known to exist at these depths in the area.

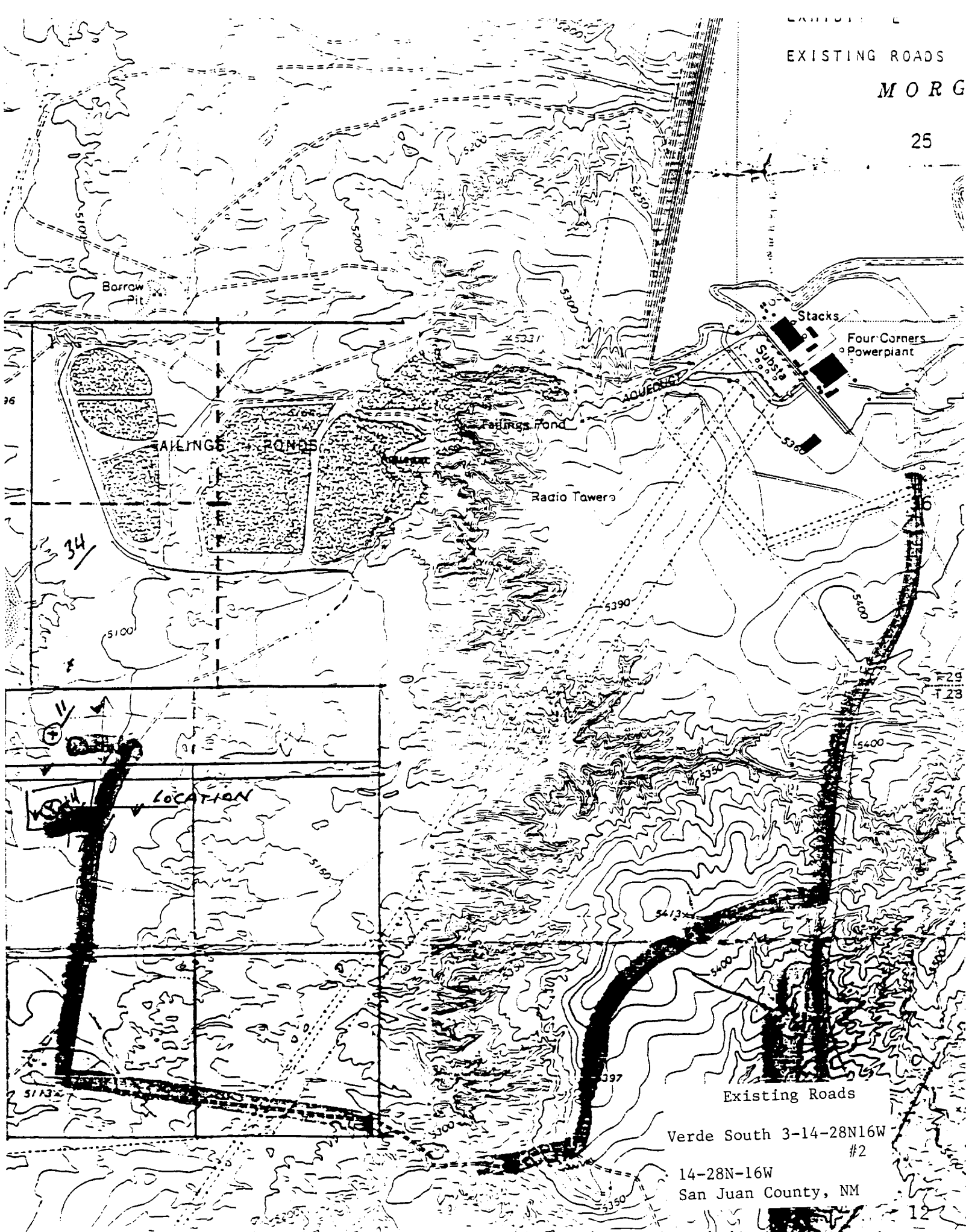
10. Anticipated Starting Date and Duration of Operations:

The anticipated spud date is set for: May 15, 1989, or as soon as possible after examination and approval of drilling requirements. Operations will cover 14 days for drilling.

EXISTING ROADS

MORG

25



Existing Roads

Verde South 3-14-28N16W
#2

14-28N-16W
San Juan County, NM

12