

N.M. Oil Cons. Div-Dist. 2

1301 W. Grand Avenue

Artesia, NM 88210

Form 3160-3
(July 1992)SUBMIT IN TRIPLICATE*
(Instructions on
reverse side)FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☒

2. NAME OF OPERATOR

Rubicon Oil & Gas, LLC

3. ADDRESS AND TELEPHONE NO.

400 West Illinois - Suite 1130, Midland, Texas 79701

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

At surface

Unit U, 660' FSL & 660' FWL

At proposed prod. zone

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

9 Miles Northeast of Artesia, New Mexico

15. DISTANCE FROM PROPOSED*

Lease - 660'

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any) Unit - 660'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

4776'

16. NO. OF ACRES IN LEASE

886 acres±

19. PROPOSED DEPTH

8800'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

20. ROTARY OR CABLE TOOLS

Rotary

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

GR - 3561'

ROSWELL CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*

September 15, 2003

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2" WITNESS	13-3/8", H-40	48#	800' WITNESS	800 sx "C" - Circulate
11"	8-5/8", J-55	24#	1700'	700 sx - Circulate
7-7/8"	5-1/2", J-55	17#	0' - 1000'	
	5-1/2", J-55	15.5#	1000' - 6800'	1100 sx - ETOC - 1500'
	5-1/2", J-55	17#	6800' - 8800'	

MUD PROGRAM

INTERVAL	MUD WEIGHT	VISCOSITY	WL CONTROL	REMARKS
0 - 800'	8.6 - 9.0	32 - 34	N/C	Fresh Water, Gel, Lime
800 - 1700'	9.0 - 9.2	29 - 30	N/C	Cut Brine
1700 - 7500'	8.4 - 9.2	28 - 30	N/C	Fresh Water, Cut Brine
7500 - 8300'	9.2 - 9.5	30 - 33	<20 cc	Cut Brine, Starch, Polymer
8300 - 8800'	9.2 - 9.8	34 - 45	10 cc	Cut Brine, Salt Gel, Starch

BOP PROGRAM

A 13-5/8" - 3000# double ram BOP will be installed on the 13-3/8" casinghead and tested to 1000# with the rig pump. An 11" - 3000# double ram BOP and an 11" - 3000# annular BOP will be installed on the 8-5/8" casing spool. The spool, double ram BOP, annular BOP and Choke Manifold will be tested to 3000# by a third party certified tester before drilling out the 8-5/8" cement and shoe.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present production zone and planned 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.

ATTACHED

SIGNED

TITLE

Agent

DATE 6-25-03

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

/s/ Joe G. Lara

ACTING

FIELD MANAGER

APPROVAL FOR 1 YEAR

30 JUL 2003

APPROVED BY

TITLE

DATE

PROPOSED DRILLING PROGRAM

RUBICON OIL & GAS, LLC
DIAMOND FEDERAL #2
660' FSL & 660' FWL of Section 3, T16S, R27E
Eddy County, New Mexico
Lease No. NMNM-109423

In conjunction with Form 3160-3, "Application for Permit to Drill" this well, Rubicon Oil & Gas, LLC submits the following items of pertinent information in accordance with BLM requirements:

1. Estimated top of important geologic markers:

Queen	810'	Abo	5000'
San Andres	1510'	Wolfcamp	6210'
Glorietta	2900'	Strawn	8000'
Tubb	4260'	Atoka	8420'
2. Estimated depths at which the tops and bottom of anticipated water, oil, gas or other minerals are expected to be encountered and how protected:

Ground Water, Fresh – 50' – 400'	Surface Casing
Oil with Gas – Queen 810' – 910'±	Intermediate Casing
San Andres - 1510' – 2400'±	Production Casing
Glorietta - 2900' – 3100'±	Production Casing
Gas with Condensate –	
Abo - 5000' – 5300'±	Production Casing
Atoka - 8420' - 8650'±	Production Casing
3. Pressure Control Equipment – See Form 3160 –3 and Exhibit "B" and Exhibit "C"
4. Proposed Casing Program – See Form 3160 –3.
5. Proposed Mud Program – See Form 3160 –3.

Based on records from nearby wells, no abnormal pressures are anticipated to total depth. However, before drilling below the intermediate casing at 1700' we will install a pit volume totalizer and a Flo-Sho as safety devices.
6. Testing, Logging, Coring Programs:

Mud Logging – Mud logging is planned from 800' to total depth.
DST's – One (1) DST planned in the Atoka.
Coring – No cores are planned.
Open Hole Logs – One run at total depth. Dual – Laterolog – MicroLaterolog;
Gamma Ray with Compensated Density and Compensated Neutron.

PAGE TWO
Proposed Drilling Program
Rubicon Diamond Federal #2

7. Anticipated BHP and BHT, etc.:

No abnormal pressures or temperatures are anticipated in this well-bore. Near-by wells were drilled with mud weights of 9.0 to 9.3#/gal. We expect a BHP of about 3500# at 8500' in the Atoka. BHT should be about 160°F. Small amounts of H₂S may accompany any water flows from the Permian zones. We plan to install H₂S monitoring equipment (minimal package) from the intermediate casing point to total depth.

8. Other Information:

- (a) Anticipated start of drilling operations – September 15, 2003.
- (b) Anticipated length of drilling operations – 20 Days
- (c) Anticipated length of completion operations – 20 days.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

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

DISTRICT IV
P.O. Box 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Wildcat - Morrow
Property Code	Property Name DIAMOND FEDERAL	Well Number 2
OGRID No. 194266	Operator Name RUBICON OIL & GAS LLC	Elevation 3561'

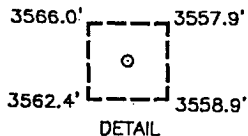
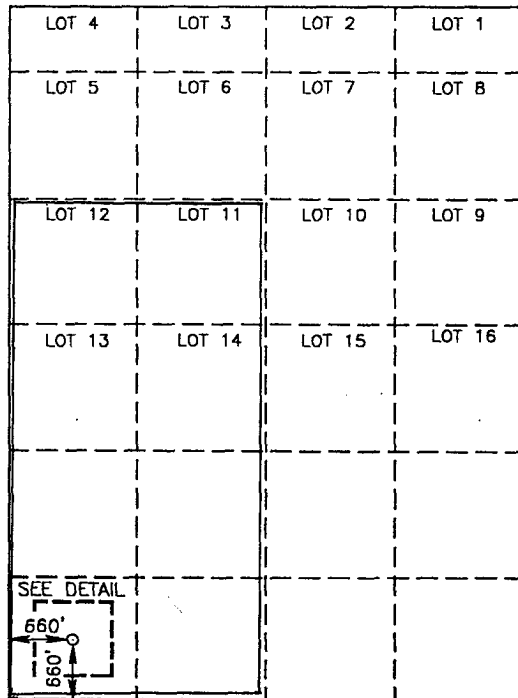
Surface Location

UL or lot No. U	Section 3	Township 16-S	Range 27-E	Lot Idn	Feet from the 660	North/South line SOUTH	Feet from the 660'	East/West line WEST	County EDDY
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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 320	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

Darol K. Ramey
Printed Name

Agent
Title

June 26, 2003
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.

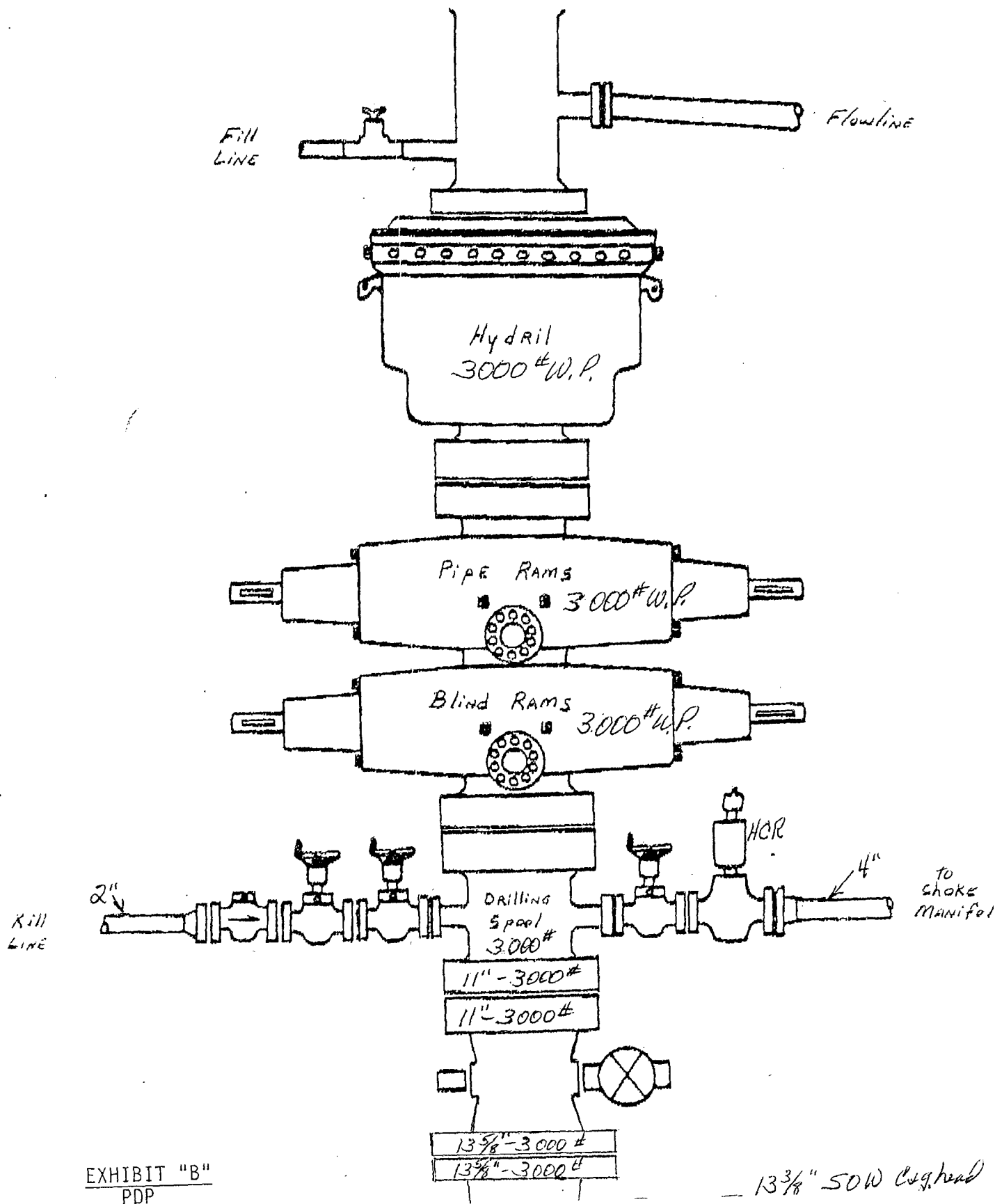
APRIL 2, 2003

Date Surveyed
Signature & Seal of
Professional Surveyor

4/02/03
03.11.0356

Certificate No. 3239
RONALD L. EDSON
GARY EDSON 12641

EXHIBIT "A"
PDP



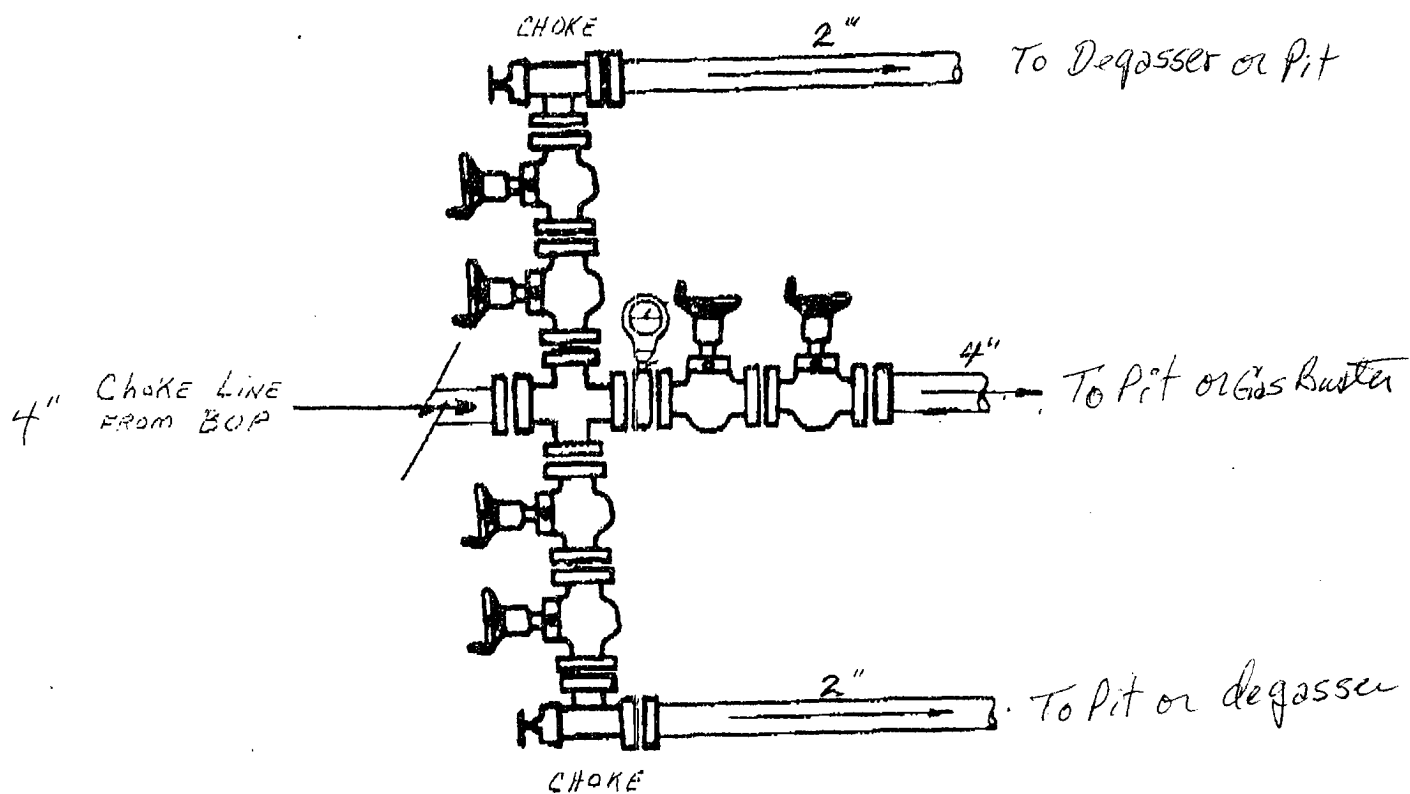
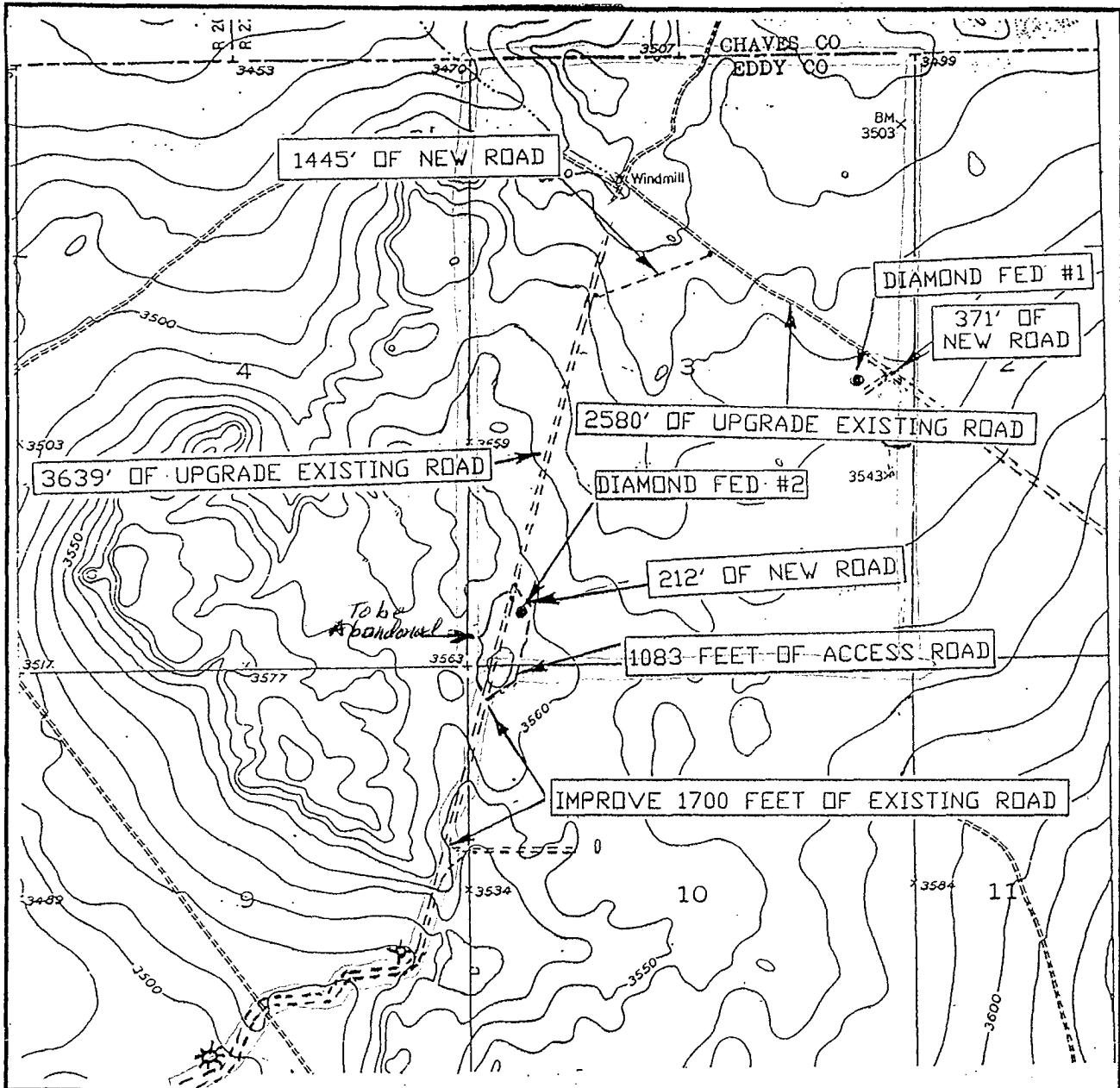


EXHIBIT "C"
PDP

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
ARTESA NE, N.M.

SEC. 3 TWP. 16-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 3300' FSL & 660' FEL

ELEVATION 3533'

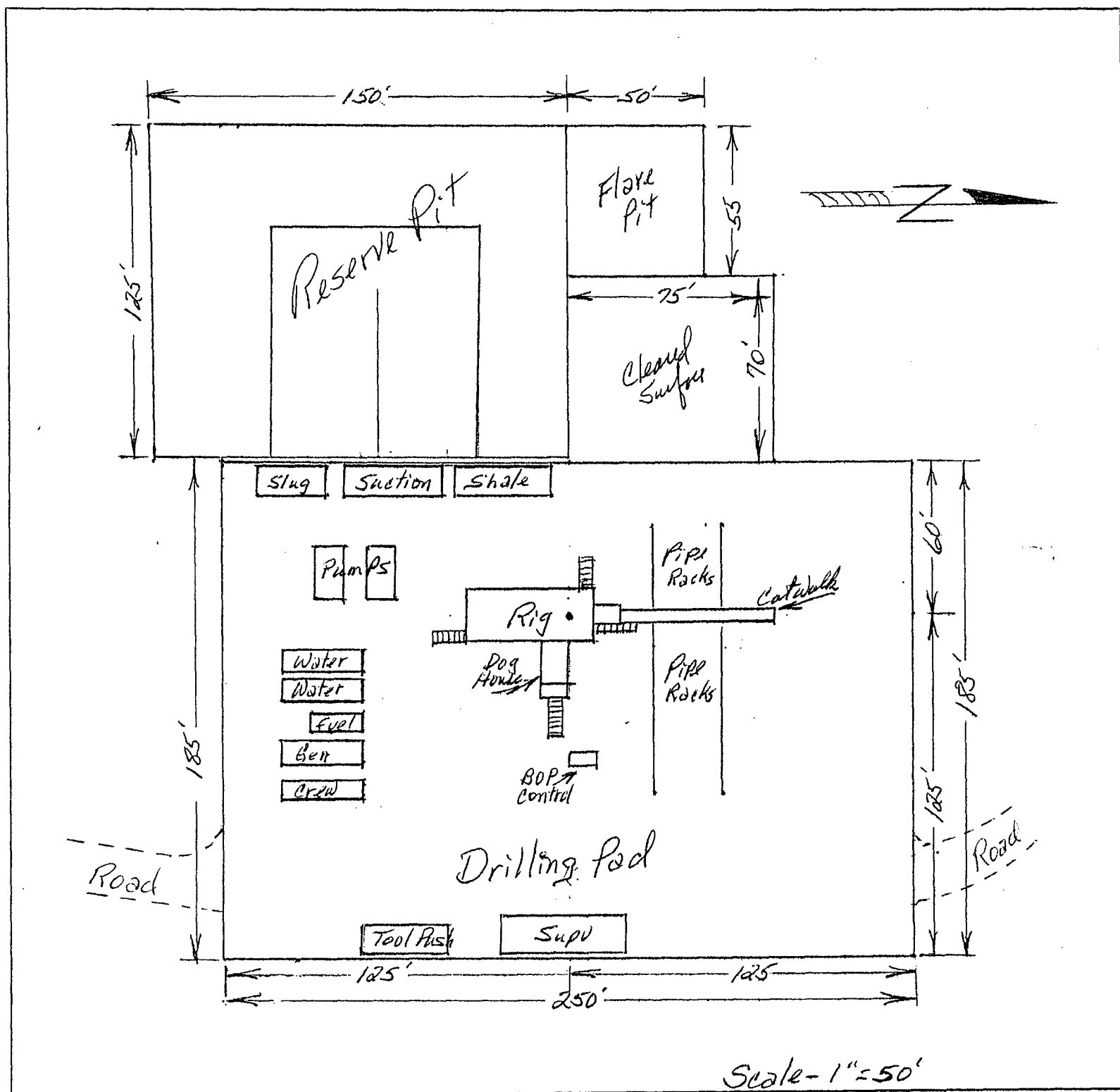
OPERATOR RUBICON OIL AND GAS, LLC

LEASE DIAMOND FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
ARTESA NE, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

EXHIBIT "B"
M-PSU



DIAMOND FEDERAL #2

EXHIBIT "C"

M-PSU