

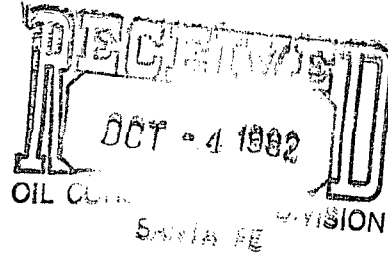
NSL-1593
Bu le 104 F
10-24-82

Shell Oil Company



P.O. Box 991
Houston, Texas 77001

September 29, 1982



State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

SUBJECT: APPLICATION FOR UNORTHODOX LOCATION
SHELL-STATE VI NO. 1
NORTH VACUUM-MORROW GAS POOL
LEA COUNTY, NEW MEXICO

Shell Oil Company respectfully requests administrative approval of an unorthodox location for the subject well. We propose to stake this well 990 FSL and 990 FEL of Section 1, Township 17 South, Range 34 East. This unorthodox location is necessary based on geologic conditions (brief discussion attached).

The required plats are attached and all offset operators have been furnished a copy of this application by certified mail.

If any additional information is required, please advise.

Yours very truly,

A. J. Fore
Supervisor Regulatory and Permitting
Mid-Continent Division

DMB;dmb

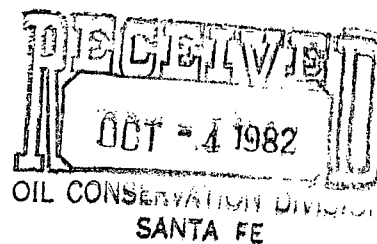
Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

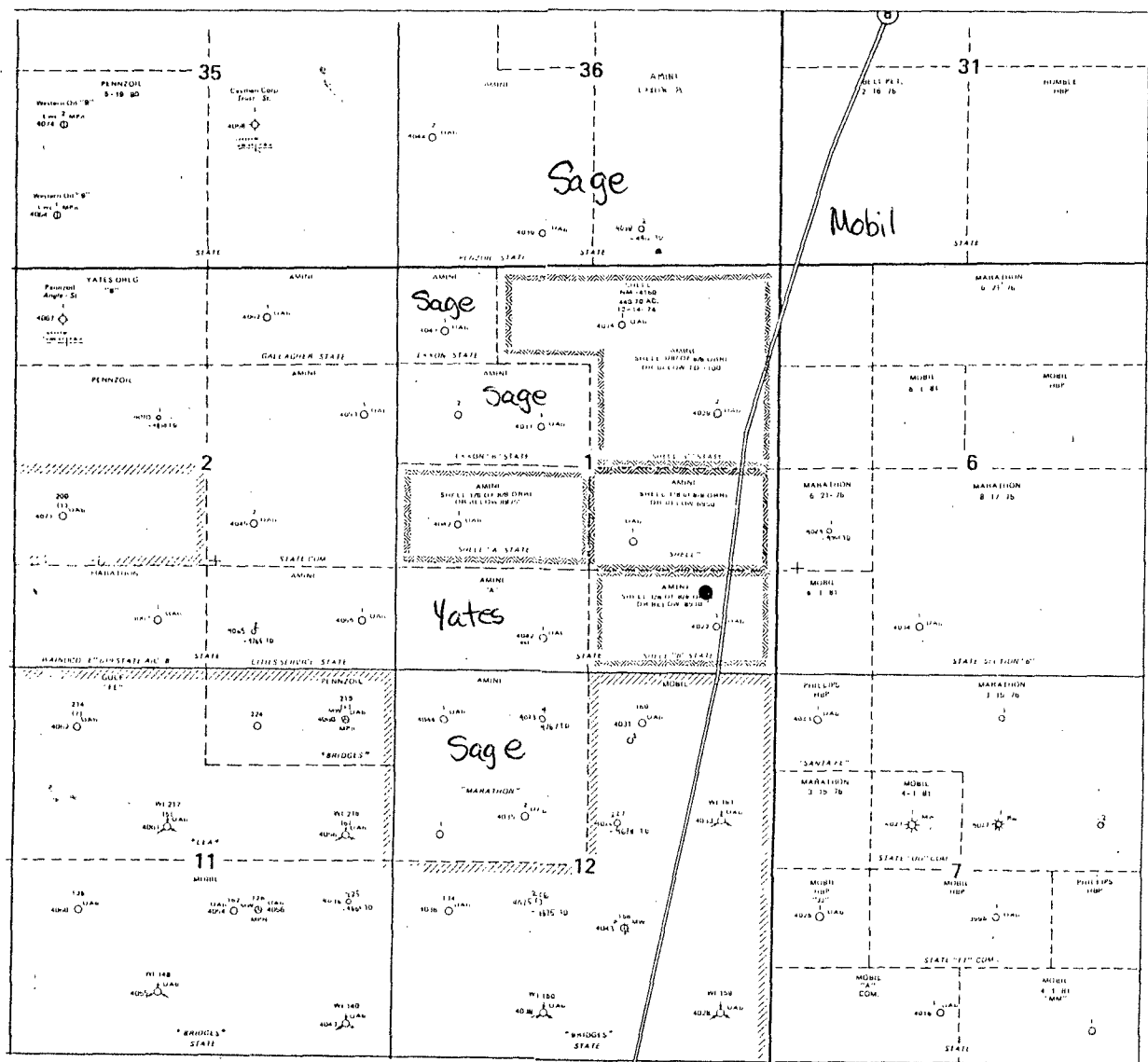
Offset Operators
(List Attached)

GEOLOGIC CONDITIONS FOR UNORTHODOX LOCATION

The primary objective of the proposed location is the Atoka/Morrow reservoirs which are productive to the Southeast. Atoka/Morrow reservoirs are primarily stratigraphically controlled, locally variable and difficult to predict. The proposed location is designed to penetrate Basal Atoka/Morrow sand near its up dip limits, and to gain the most favorable structural position in the indicated NW-SE trend of Basal Atoka sand accumulation, which lies along the NE flank of a NE trending structural nose. (See Exhibit II) An orthodox location 1320 FSL and 990 FEL would minimize the possibility of encountering sand development in this narrow stream channel. Exhibit III is a structural cross-section through the three North Vacuum-Morrow Gas producers and one dry hole. The exhibit also shows Shell's location extrapolated into the line of section and the estimated up dip limits of sand development.



100-10000



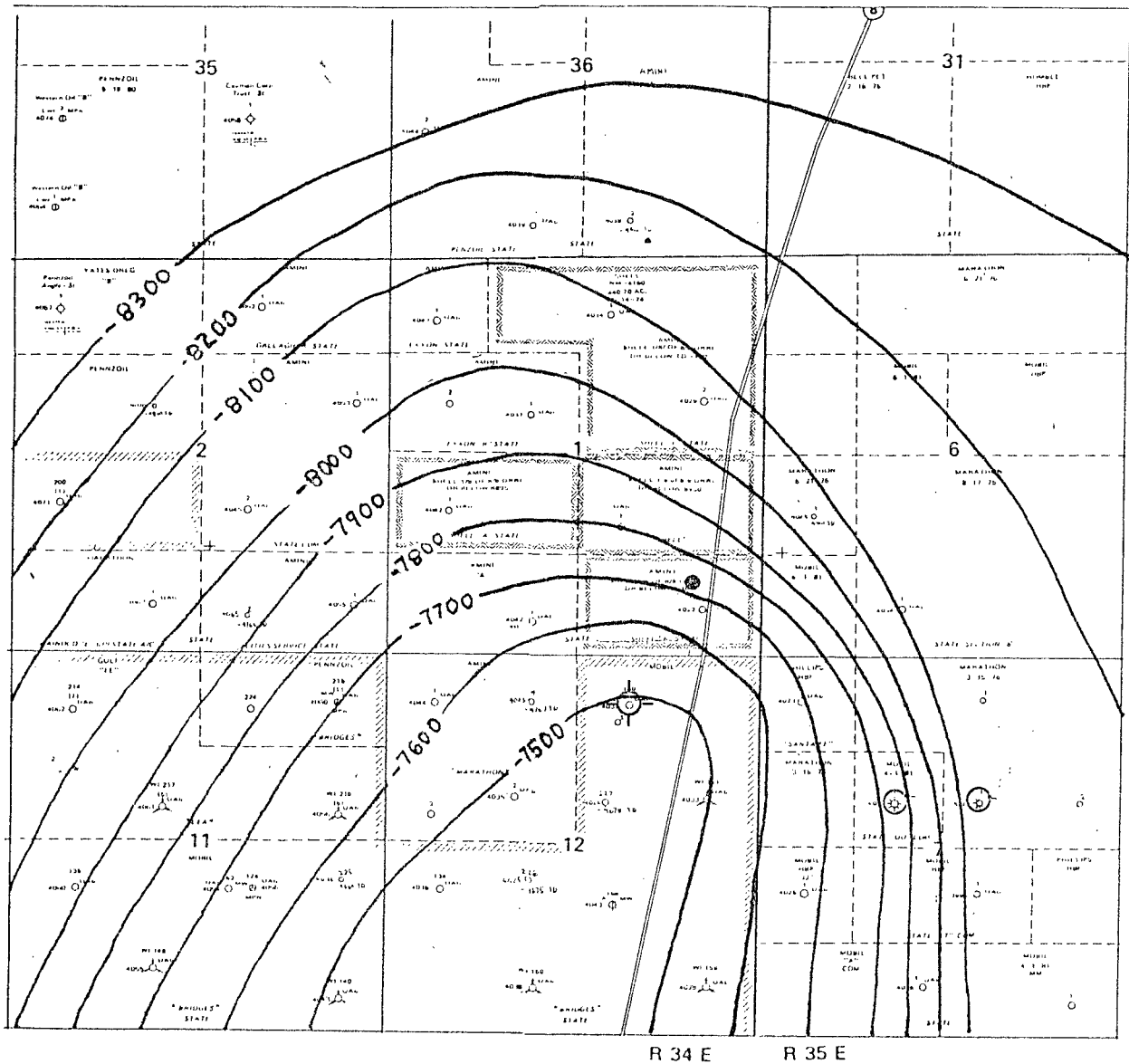
T 16 S
T 17 S

R 34 E R 35 E

● PROPOSED WELL

SHELL OIL COMPANY	WESTERN & P REGION MID-CONTINENT DIVISION	PRODUCTION
NORTH VACUUM FIELD LEA COUNTY, NEW MEXICO OWNERSHIP MAP		
CONTINUED ON		C.I. 1
SCALE 0 1000 2000 3000 4000		
GEOLOGY	MAP NO.	
DATE		

EXHIBIT II



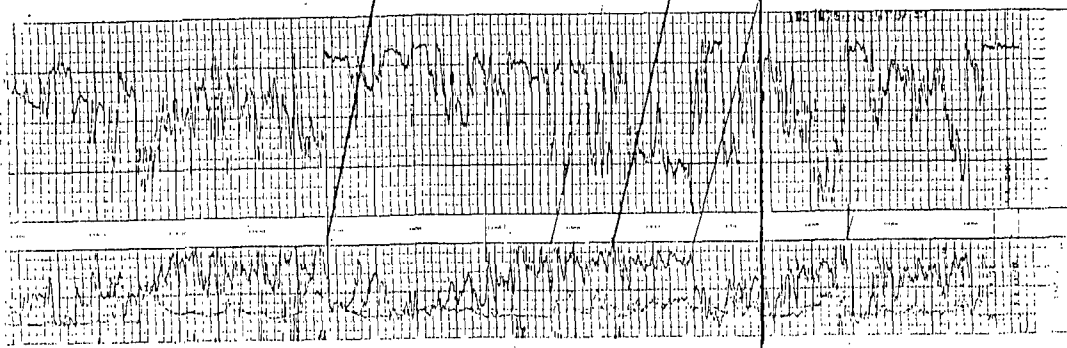
- PLANNED WELL
- NORTH VACUUM-MORROW GAS PRODUCERS
- ⊙ MORROW DRY HOLE

SHILL OIL COMPANY	MIDDLE E & P REGION MID-CONTINENT DIVISION	PRODUCTION
NORTH VACUUM FIELD LEA COUNTY NEW MEXICO		
CONTINUED ON MORROW		CI - 100'
SCALE 0 1000 2000 3000 4000		
GEOLOGY		MAP NO.
DATE		

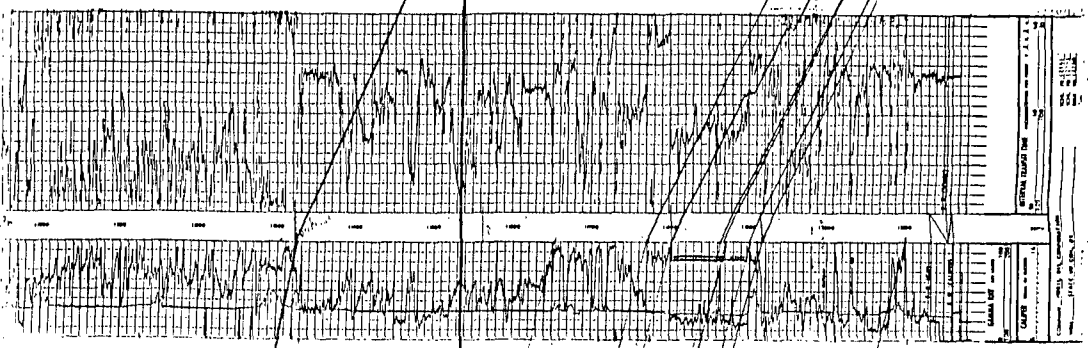
MOBIL
State VV Com #1
KB = 4037

SHELL
State VI #1
Proposed location

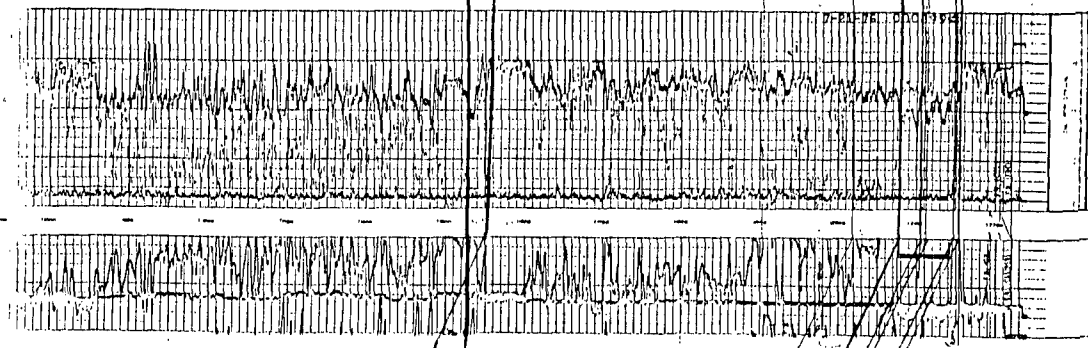
EXHIBIT III



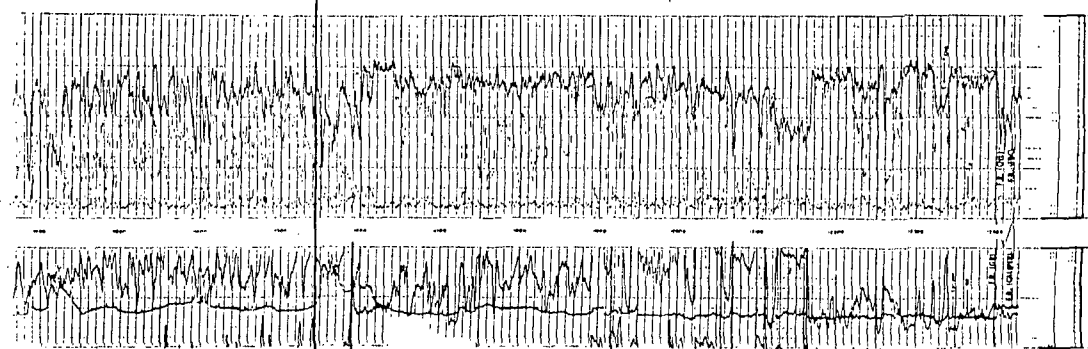
MOBIL
State UU Com #1
KB = 4035



MARATHON
State Sec 7 #1
KB = 4027

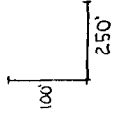


MOBIL
State NN #1
KB = 4003



35	36	31	TIME 11:19
2	1	6	0
11	12	0	0
TIME 11:18	TIME 11:19	TIME 11:18	

VACUUM CROSS SECTION
TIG 4175, R 34435E
LEA COUNTY, NEW MEXICO



-7500

-7600

HORROW

OFFSET OPERATORS

SHELL - STATE VI LEASE

SAGE ENERGY
P. O. DRAWER 3068
MIDLAND, TEXAS 79702

MOBIL PRODUCING TEXAS AND NEW MEXICO INC.
NINE GREENWAY PLAZA, SUITE 2700
HOUSTON, TEXAS 77046

MARATHON OIL COMPANY
P. O. BOX 552
MIDLAND, TEXAS 79702

PHILLIPS PETROLEUM COMPANY
4001 PENBROOK
ODESSA, TEXAS 79762

YATES DRILLING COMPANY
207 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210

P 226 788 972

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		PHILLIPS PET. CO.	
STREET AND NO.		4001 PENBROOK	
P.O. STATE AND ZIP CODE		ODESSA, TEXAS 79762	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES			
CERTIFIED FEE	¢		
SPECIAL DELIVERY	¢		
RESTRICTED DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED	¢		
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢		
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢		
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE		D. M. BRANFORD WCK 4435 SEPTEMBER 29, 1982	

PS Form 3800, Apr. 1976

CERTIFIED

P 226 788 972

MAIL

P 226 788 971

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		MARATHON OIL COMPANY	
STREET AND NO.		P. O. BOX 552	
P.O. STATE AND ZIP CODE		MIDLAND, TX 79702	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES			
CERTIFIED FEE	¢		
SPECIAL DELIVERY	¢		
RESTRICTED DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED	¢		
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢		
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢		
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE		D. M. BRANFORD WCK 4435 SEPTEMBER 29, 1982	

PS Form 3800, Apr. 1976

CERTIFIED

P 226 788 971

MAIL

P 226 788 970

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		MOBIL	
STREET AND NO.		9 GREENWAY PLAZA, STE. 200	
P.O. STATE AND ZIP CODE		HOUSTON, TX 77046	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES			
CERTIFIED FEE	¢		
SPECIAL DELIVERY	¢		
RESTRICTED DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED	¢		
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢		
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢		
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE		D. M. BRANFORD WCK 4435 SEPTEMBER 29, 1982	

PS Form 3800, Apr. 1976

CERTIFIED

P 226 788 970

MAIL

P 226 788 969

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		SAGE ENERGY	
STREET AND NO.		P. O. DRAWER 3068	
P.O. STATE AND ZIP CODE		MIDLAND, TX 79702	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES			
CERTIFIED FEE	¢		
SPECIAL DELIVERY	¢		
RESTRICTED DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED	¢		
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢		
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢		
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE		D. M. BRANFORD WCK 4435 SEPTEMBER 29, 1982	

PS Form 3800, Apr. 1976

CERTIFIED

P 226 788 969

MAIL

P 226 788 973
RECEIPT FOR CERTIFIED MAILNO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		YATES DRILLING COM.	
STREET AND NO.		207 SOUTH FOURTH ST.	
P.O. STATE AND ZIP CODE		ARTESIA, NM 88210	
POSTAGE		\$	
CONSULT POSTMASTER FOR FEES			
CERTIFIED FEE	¢		
SPECIAL DELIVERY	¢		
RESTRICTED DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED	¢		
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢		
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢		
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢		
TOTAL POSTAGE AND FEES		\$	
POSTMARK OR DATE		D. M. BRANFORD WCK 4435 SEPTEMBER 29, 1982	

PS Form 3800, Apr. 1976

CERTIFIED

P 226 788 973

MAIL

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-101

Revised 10-1-78

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5A. Indicate Type of Lease

STATE ☒FEE ☐

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

2. Type of Well

OIL WELL ☒GAS WELL ☐

OTHER

SINGLE ZONE ☒MULTIPLE ZONE ☐

Name of Operator

SHELL OIL COMPANY

Address of Operator

P. O. BOX 991, HOUSTON, TEXAS 77001

Location of Well

UNIT LETTER

P

LOCATED

990

FEET FROM THE

SOUTH

LINE

10. 990

FEET FROM THE

EAST

LINE OF SEC.

1

TWP. 17-S

RGE. 34-E

NMPM

7. Unit Agreement Name

8. Farm or Lease Name

STATE VI

9. Well No.

1

10. Field and Pool, or Wildcat

NORTH VACUUM -
MORROW GAS

12. County

LEA

Elevations (Show whether D.F., K.T., etc.)

4030' (Est.)

21A. Kind & Status Plug. Bond

BLANKET

19. Proposed Depth

12,200'

19A. Formation

MISSISSIPPIAN

20. Rotary or C.T.

ROTARY

21B. Drilling Contractor

UNKNOWN

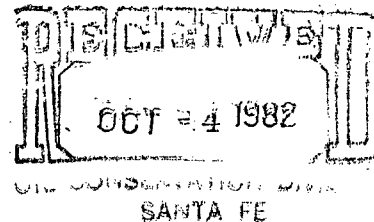
22. Approx. Date Work will start

UPON APPROVAL

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17-1/2"	13-3/8"	54.5#	400'	425 SX	SURFACE
12-1/4"	9-5/8"	36#, 40#	4850'	2000 SX	SURFACE
7-7/8"	5-1/2"	17#, 20#	12,200'	650 SX	9000'

BOP PROGRAM: Min. BOP Class, 5MS-10-SRRA.



ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed A. J. FORE Title SUPERVISOR REGULATORY & PERMITS Date SEPTEMBER 29, 1982

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

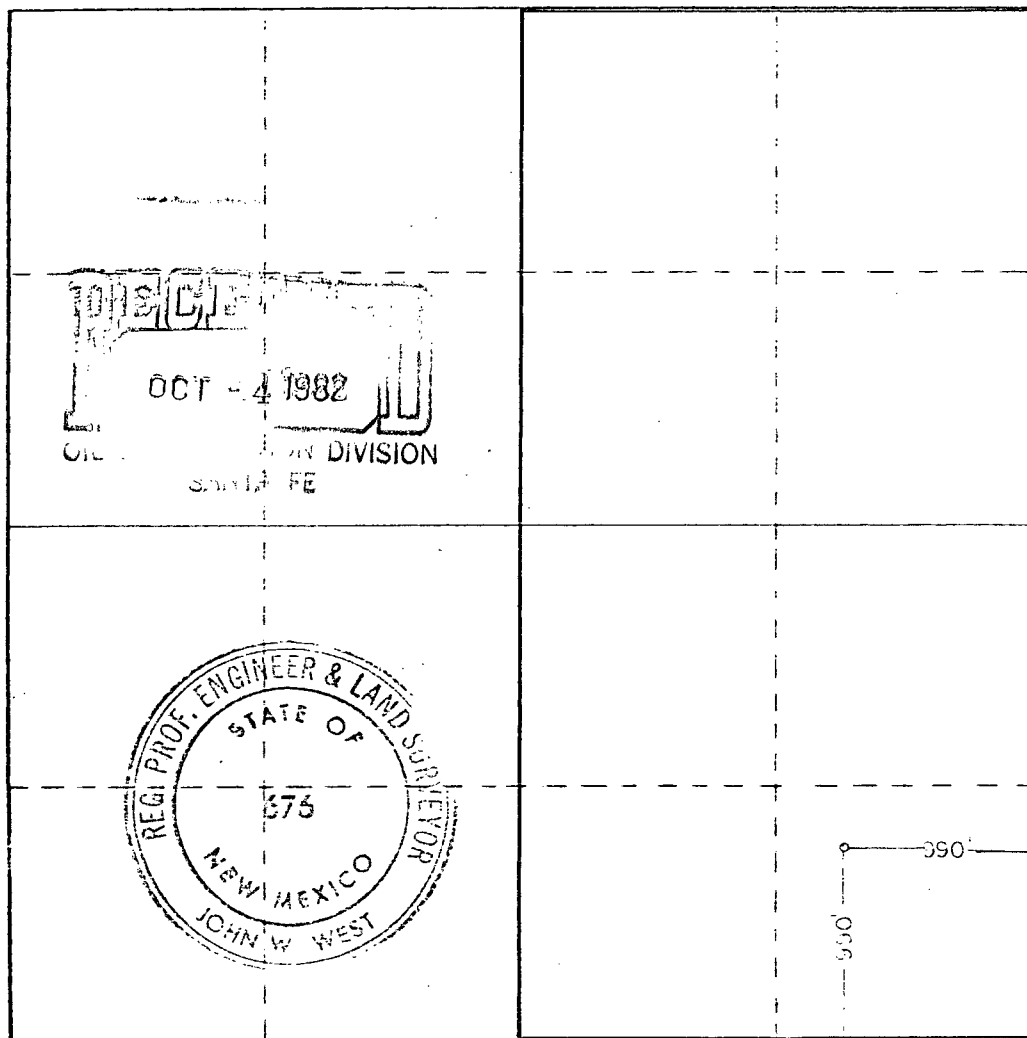
Operator SHELL OIL CO.			Lessee SHELL STATE VI		Well No. 1
Unit Letter P	Section 1	Township 17 SOUTH	Range 34 EAST	County LEA	
Actual Footage Location of Well:					
990		feet from the SOUTH line	990		feet from the EAST line
Ground Level Elev. 4041.2	Producing Formation MISSISSIPPIAN		Pool NORTH VACUUM-MORROW GAS		Dedicated Acreage 320

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests 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 interests, has been approved by the Commission.



CERTIFICATION

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

Name *A. J. Fane*
Position _____

SUPERVISOR REG. & PERMITTING

Company
SHELL OIL COMPANY

Date
SEPTEMBER 29, 1982

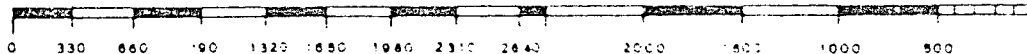
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
8-16-82

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6863
Ronald J. Eidson 3239



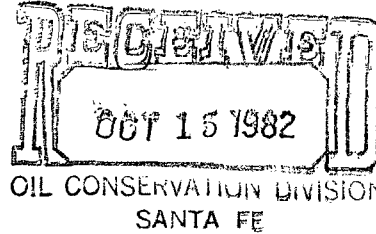


STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

P.O. BOX 1980
HOBBS, NEW MEXICO 88240
(505) 383-6161



October 12, 1982

TO: Jerry Sexton

FROM: Paul Kautz

SUBJECT: Shell's application for an unorthodox location
Shell State 6 #1

In this area most Pennsylvanian and Wolfcamp pools occur in a combination trap; that is, the occurrence of oil and gas is controlled by both structure and stratigraphy.

The absence of this sand in Texaco, Inc. well New Mexico "DK" State Com #1 located in Unit F of Section 18 Township 17S Range 35 East and the presence of a thin sand in Elk Oil Company well Diamond State #1 located in Unit J of Section 16 Township 16S Range 34E suggest a NW-SE trend for these sand channels. A well in this location might penetrate the sand near where it pinches out up-dip in a structurally favorable location.

PK/mb

cc: Dick Staments