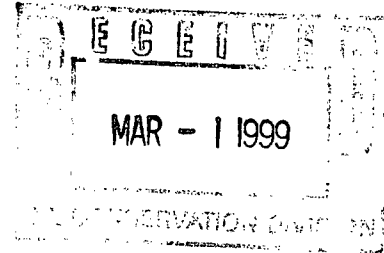


Patterson Petroleum, Inc.

410 N. Loraine, Suite B
Midland, Texas 79701
(915) 685-1414 • Fax 685-1133

NSL 3/22/99

February 26, 1999



Mike E. Stogner
Chief Examiner
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Re: Request for Administrative Approval of an Unorthodox Location
for the Patterson Petroleum, Inc., Tomahawk St. 19 #1, to be
Located 2,616' FNL & 1,148' FEL of Section 19, T-17-S, R-34-E,
Lea County, New Mexico

Dear Mr. Stogner:

Patterson Petroleum, Inc., hereby requests administrative approval of the captioned. The subject location was derived by the use of extensive 3-D seismic data and analysis thereof. This location was determined, in the opinion of our geologic and geophysical staff and Phillips Petroleum's staff, to be the best location within the subject Section 19 to encounter economic recoverable reserves. We are drilling this well pursuant to a farmout agreement with Phillips. Enclosed for your review is our geologic write-up along with our Morrow and Cisco structure maps. The geologic information supplied herewith was prepared by our Geologist, Truitt Matthews. Truitt may be reached at (214) 369-2020 if you have any questions concerning same.

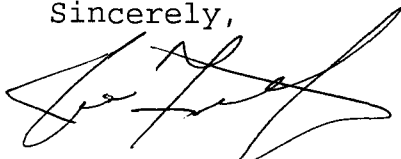
The subject location is at an unorthodox location, but only as to interior location. We are not moving toward the outside lease lines; therefore, it is my understanding no offset waiver letters or notices are required for approval. Patterson, through its farmout from Phillips, has all of the subject Section 19, T-17-S, R-34-E plus much of the adjacent acreage under lease. To evidence same I am enclosing a copy of the title opinion we had prepared covering said Section 19. Also enclosed is a land plat indicating the Patterson/Phillips Farmout acreage and off set owner/operators to our location.

We have filed with the NMOCD's Hobbs office the enclosed C-101, C-102, BOP, drilling fluid, casing and cementing information. An original and one copy of the application package are enclosed for your review and file.

The subject well is to be drill to a depth of 13,600' as an Atoka/Morrow test in the N. Vacuum Pool. The Pool Rules for same require 320 acres, with wells located 1,650' from the short side and 660' from the long side. We are also permitting the subject well as a Wolfcamp (Gas) Wildcat; for which the rules call for 320 acres. We are designating the E/2 of Section 19 as our pool unit. Secondary possibilities from which we may encounter productive intervals are the Paddock (Wildcat 40 acre oil), Abo (N. Vacuum 40 acre oil), Wolfcamp (Wildcat 40 acre oil), the Cisco (Vacuum 40 acre oil or gas).


Please let me know you decision concerning this matter. Should you have any question or need further information do not hesitate to call, my toll free phone number is 1-800-470-4200.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Joe Fitzgerald', with a stylized, sweeping flourish at the end.

Joe Fitzgerald
Land Manager

MEMORANDUM

TO: Michael Stogner, NMOCD
FROM: Truitt Matthews, Petroleum Geologist 
DATE: February 24, 1999
RE: **Location Exception**
Patterson Petroleum Inc. – Tomahawk St. 19#1 PTD 13,600'
2616' FNL & 1148' FEL, Sec. 19, T17S-R34E
Lea County, New Mexico

Please find enclosed the two structure maps, T/Morrow Lime and T/Cisco Leamex as supplemental to this brief geological discussion requesting a location exception for an Atoka/Morrow test (PTD 13,600') in Sec. 19, T17S-R34E (X = 726935, Y = 662896).

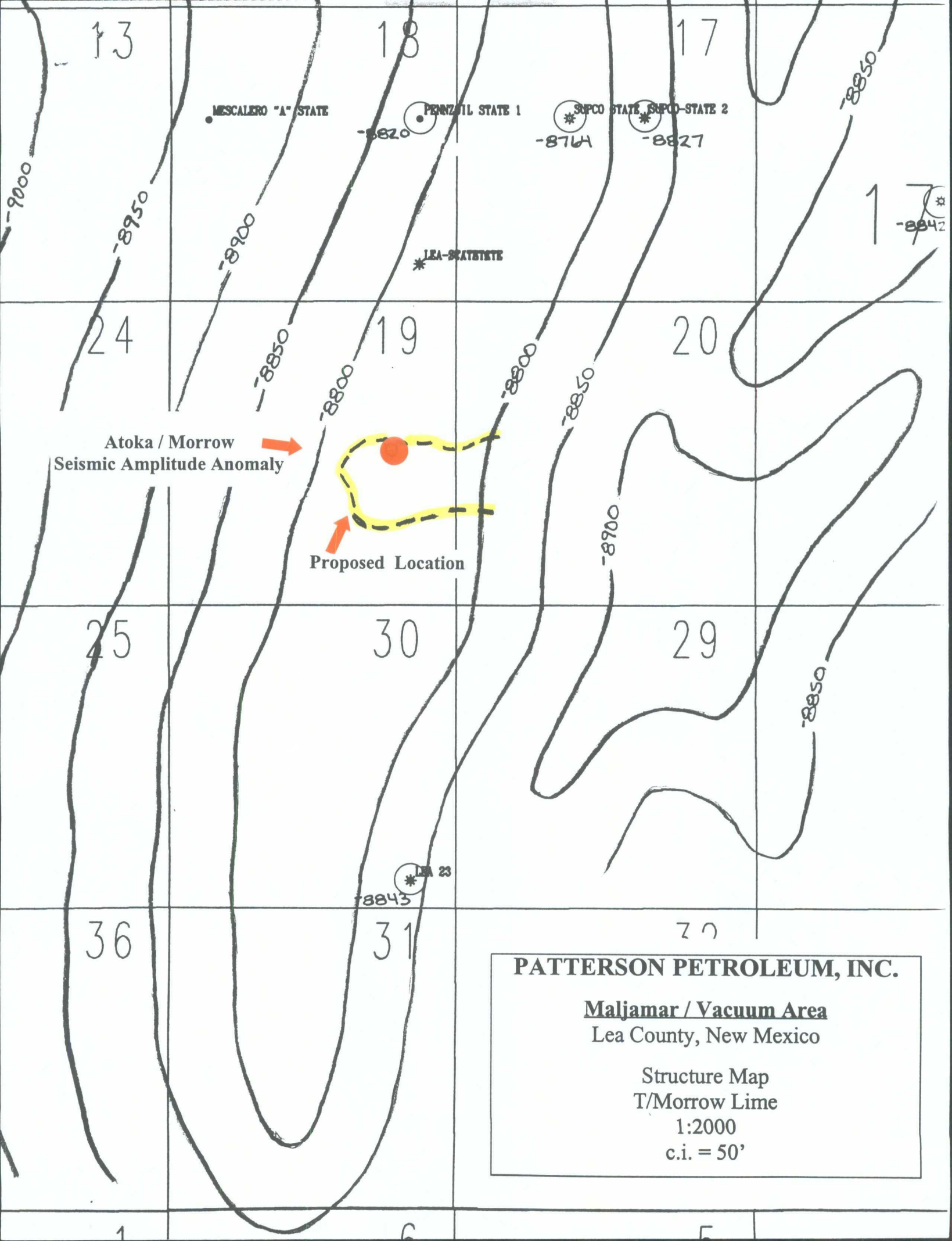
The Tomahawk Prospect is primarily a result of the interpretation of a 3D seismic shoot conducted in 1994. This combination structural stratigraphic trap lies along a dominant N-S trending ridge as evidenced by 3D seismic mapping on several deep horizons and subsurface mapping of the limited well control (Figs.). The primary objectives are the Atoka/Morrow clastics and the Pennsylvania Cisco carbonates, with the Paddock, Abo, and Wolfcamp as good secondary targets.

The potential for production from the Atoka/Morrow section is noted from seismic amplitude mapping showing the possible occurrence of sands overlying the N-S trending structure in a trapping position.

Production in the Cisco is from phylloid algal mounds and grainstone shoals. Seismic amplitude mapping of the Cisco horizon allowed for the definition of a lowstand shelf margin equivalent to the Leamex (Cisco) Field (1,342,662 BO + 2 BCFG), 2 ½ miles west of the proposed location. The structure exists due to mound growth and its position on the shelf.

It is felt that a legal location would result in a significant (20'-30') loss in structure at the Cisco level and would take us out of the Atoka/Morrow seismic amplitude anomaly, therefore resulting in the potential loss of reserves which could not be produced from any current orthodox location. Based upon the detailed interpretation of the 3D seismic data volume and subsurface mapping by both geological and geophysical personnel, it is believed that the best chance for recovering economic reserves on this prospect exists at the proposed unorthodox location. If I can be of further assistance, please feel free to call.

Encls.



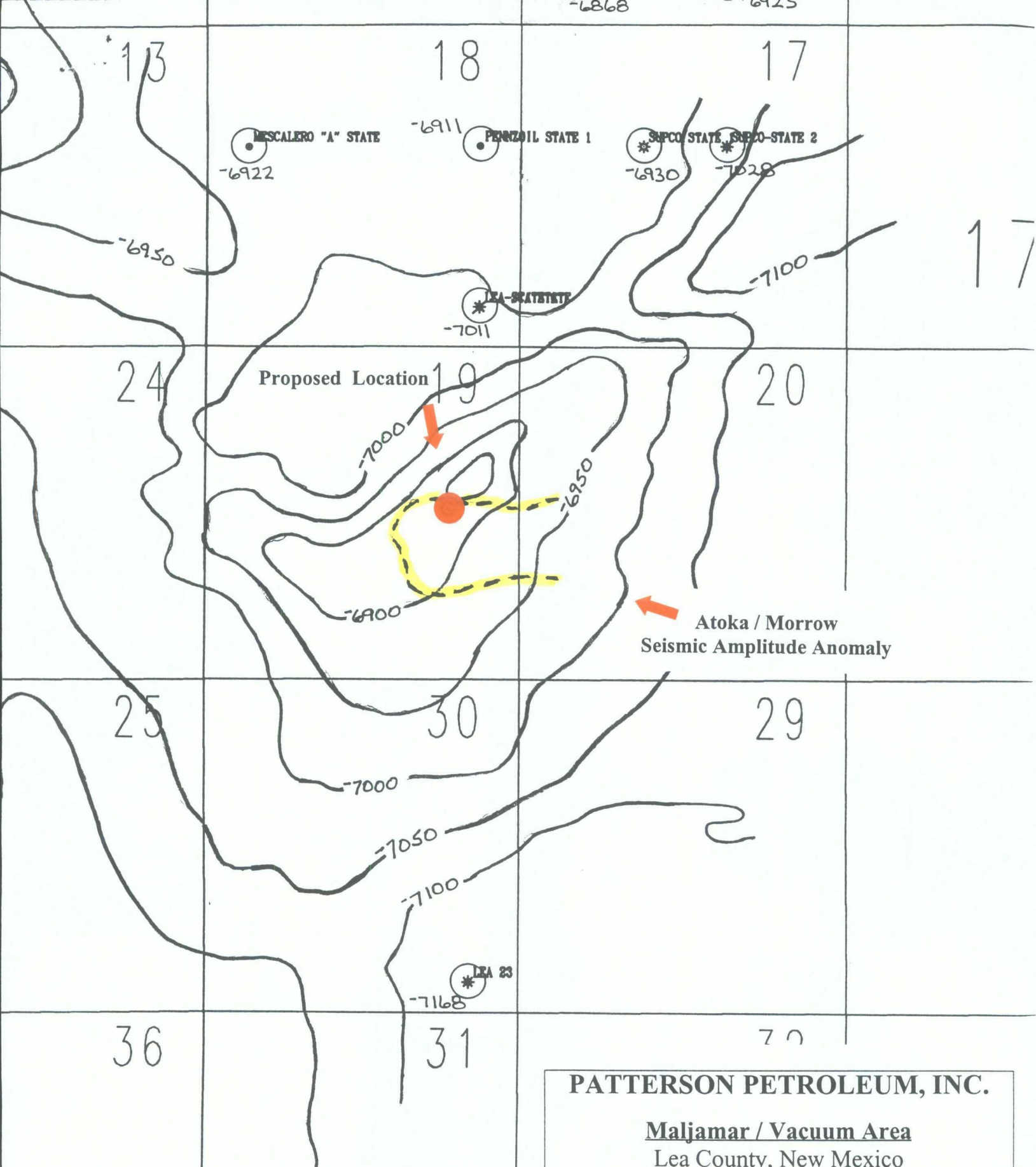
Atoka / Morrow
Seismic Amplitude Anomaly

Proposed Location

PATTERSON PETROLEUM, INC.

Maljamar / Vacuum Area
Lea County, New Mexico

Structure Map
T/Morrow Lime
1:2000
c.i. = 50'



PATTERSON PETROLEUM, INC.

Maljamar / Vacuum Area
Lea County, New Mexico

Structure Map
T/Cisco Leamex Zone
1:2000
c.i. = 50'

COTTON, BLEDSOE, TIGHE & DAWSON

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

500 W. ILLINOIS

SUITE 300

MIDLAND, TEXAS 79701-4337

P.O. BOX 2776 ZIP 79702-2776

TELEPHONE (915) 684-5782

FAX (915) 682-3672

1415 LOUISIANA

SUITE 2100

HOUSTON, TEXAS 77002-7351

TELEPHONE (713) 759-9281

FAX (713) 759-0458

email: therd@cbtd.com

TEVIS HERD
OF COUNSEL
BOARD CERTIFIED
OIL, GAS AND MINERAL LAW
TEXAS BOARD OF LEGAL SPECIALIZATION
ALSO LICENSED IN NEW MEXICO

January 13, 1999

No. 9987

Patterson Petroleum, Inc.
410 North Loraine, Suite B
Midland, Texas 79701

Attn: Mr. Joe Fitzgerald

ORIGINAL TITLE OPINION RE: State of New Mexico Lease No. B-4118-1 covering the following described lands located in Lea County, New Mexico:

Township 17 South, Range 34 East, N.M.P.M.

Section 19: Lots 1 (34.30 acres), 2 (34.42 acres), 3 (34.54 acres),
4 (34.66 acres), E/2 W/2, E/2, containing 617.92 acres,
more or less.

Gentlemen:

For the purpose of rendering an original title opinion covering the captioned lease and lands, we have examined the following:

ABSTRACTS

1. Abstract of Title No. 7240 certified by Schutz Abstract Co., Inc., as covering the records in the office of the Commissioner of Public Lands of the State of New Mexico affecting the captioned lease and lands from inception of the records to December 23, 1998, at 8:00 a.m., containing 47 pages.

2. Abstract of Title No. 99-102 certified by Elliott & Waldron Title & Abstract Co., Inc., as covering the records of Lea County, New Mexico, affecting the captioned lands as to the mineral estate only from inception of the records to December 21, 1998, at 7:00 a.m., containing 46 pages.

FEE TITLE TO OIL AND GAS

Based upon our examination of the foregoing abstracts, it is our opinion that title to the oil and gas estate in the captioned land is vested in the State of New Mexico, subject to State Lease No. B-4118-1, analyzed below.

EFFECTIVE OIL AND GAS LEASE

Lease No: B-4118-1.

Date of Lease: April 10, 1935.

Recorded: Unrecorded, and recording is not necessary.

Lessor: State of New Mexico.

Original and Present
Record Lessee: Phillips Petroleum Company.

Land Covered: T-17-S, R-34-E
Section 19: All
Section 20: W/2 and SE/4
Section 21: N/2 SW/4
Section 29: All
Section 30: All
Section 31: NW/4 NE/4

T-18-S, R-34-E
Section 5: NW/4, W/2 NE/4, SE/4 NE/4
Section 6: NE/4 NW/4, NE/4

containing 2,956.58 acres, more or less.

Interest Covered: Full interest lease.

Primary Term: Five (5) years with right to extension of additional five years upon payment of double rental, which was accomplished.

Royalty: 1/8 on oil and gas measured in the manner prescribed in the lease.

Shut-In Gas Royalty: None provided for.

Rentals: \$2.00 per acre per year (\$5,913.16) and payable regardless of production.

Status of Lease: Maintained by rental payments up to the next rental paying date, April 10, 1999, and also maintained by production.

Outstanding Overriding
Royalties or Production
Payments: None.

Assignment: By Partial Assignment of Record Title dated August 29, 1983, approved by the Commissioner of Public Lands effective October 4, 1983, recorded Book 367, Page 440, Oil and Gas Records, Phillips Petroleum Company assigned record title to the lease to Phillips Oil Company as to the lands now contained in Lease B-4118-1.

Phillips Oil Company merged into Phillips Petroleum Company by corporate merger effective August 1, 1985, reflected at Book 451, Page 113, Misc. R. of Lea County, New Mexico.

OIL AND GAS LEASEHOLD ESTATE

Phillips Petroleum Company All of 7/8 WI

LIENS AND ENCUMBRANCES

None reflected of record.

SURFACE RIGHTS

Captioned lands are subject to Agricultural Lease GR-1210 to Williams & Son Cattle Company, P. O. Box 30, Maljamar, New Mexico 88264, which expires September 30, 2001. This Agricultural Lease is subordinate to your Oil and Gas Lease and you have the absolute right to enter and conduct drilling operations. However, Para. 11 of the Oil and Gas Lease makes the lessee liable for injury to the range, livestock, growing crops or improvements of the agricultural lessee caused by your operations, and this clause creates absolute liability and you must pay for such damages whether your operations are negligent or unreasonable.

EASEMENTS

Right-of-Way No. 17032 dated April 29, 1968, issued to Natural Gas Pipeline Company of America crosses portions of Lots 1 and 3, E/2 W/2 and SW/4 SE/4 Section 19.

Right-of-Way No. 22052 dated March 28, 1933, issued to Phillips Petroleum Company crosses Lot 4 of Section 19.

Right-of-Way No. 22729, which expires November 21, 2020, issued to Lea County Electric Cooperative, Inc., crosses Lot 1, N/2 NE/4 and NE/4 NW/4 Section 19.

Right-of-Way No. 22885, which expires August 6, 2021, issued to Leaco Rural Telephone Cooperative, Inc., crosses Lot 4, SE/4 SW/4 and N/2 SE/4 Section 19.

TITLE REQUIREMENTS

1.

We have not examined any farmout or other agreement from Phillips Petroleum Company to Patterson Petroleum, Inc.

REQUIREMENT In the event that you desire our analysis of your agreement with Phillips Petroleum Company, please submit the same for our examination.

COMMENTS

This opinion does not cover such matters as actual acreage, location upon the ground, boundaries, or conflicts of boundary lines or survey lines, since these matters can be determined only by an actual ground survey. We assume that prior to commencing drilling operations you will have the captioned land carefully surveyed upon the ground by a competent surveyor or engineer.

This opinion cannot cover the question of possible dedication of gas underlying the captioned land to interstate commerce nor the price of either oil or gas produced and marketed.

This opinion is limited in its coverage of the mineral estate to oil and gas underlying the captioned land and does not cover other minerals.

This opinion does not cover the question of potential liability for environmental contamination caused by past spills, leaks, operations, or disposal of hazardous waste. State and federal statutes may impose liability for such occurrences on past, present and subsequent owners of real property, without evidence of culpability or actual contribution to the contamination.

The abstracts submitted for examination are returned herewith.

Very truly yours,

COTTON, BLEDSOE, TIGHE & DAWSON

By:

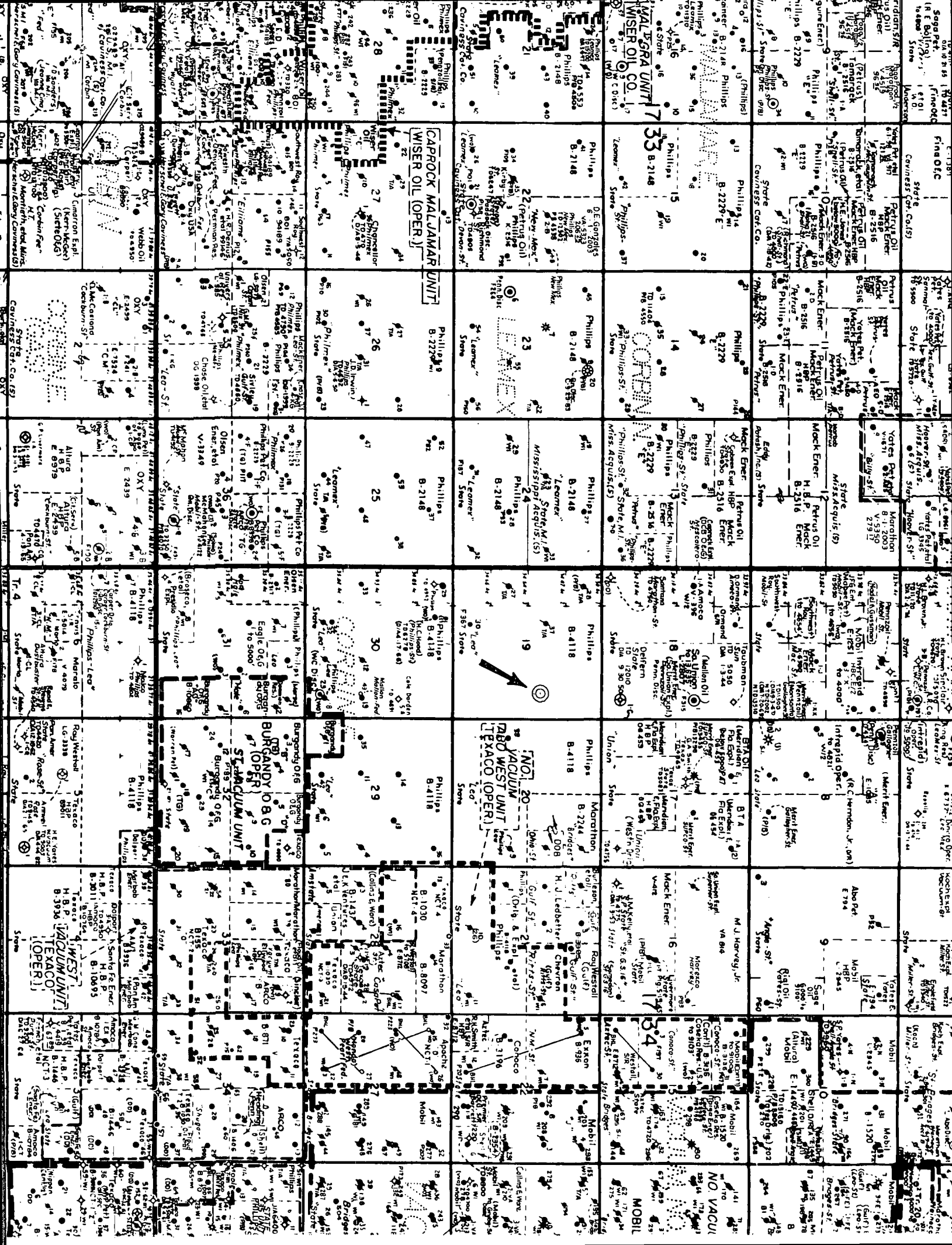

Tevis Herd

TH:cm
Encl.

**PATTERSON PETROLEUM INC.
TOMAHAWK PROSPECT
E/2 SECTION 19, T-17-S, R-34-E
LEA COUNTY, NEW MEXICO**

**OWNERSHIP PLAT AS TO SECTION 19, T-17-S, R-34-E AND CONTIGUOUS SECTIONS
(ONLY AS TO RIGHTS BELOW THE BASE OF THE SAN ANDRES)**

<div>13</div> <div>Chase</div> <div>Patterson (Phillips)</div>	<div>Altura</div> <div>Mallon</div>	<div>17</div> <div>Merit</div>
<div>24</div> <div>Patterson (Phillips)</div> <div>B-2148</div>	<div>19</div> <div>Patterson (Phillips)</div> <div>B-4118</div>	<div>20</div> <div>Patterson (Phillips)</div> <div>B-4118</div>
<div>25</div> <div>Patterson (Phillips)</div> <div>B-2148</div>	<div>30</div> <div>Patterson (Phillips)</div> <div>B-4118</div>	<div>29</div> <div>Patterson (Phillips)</div> <div>B-4118</div>



District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address. PATTERSON PETROLEUM, INC. P.O. DRAWER 1416 SNYDER, TEXAS 79550		² OGRID Number 141928
		³ API Number 30 - 0
⁴ Property Code	⁵ Property Name Tomahawk St. 19	⁶ Well No. 1

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	19	17S	34E		2616	North	1148	East	Lea

⁸ Proposed 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
⁹ Proposed Pool 1 N. Vacuum - Atoka/Morrow					¹⁰ Proposed Pool 2 Wildcat - Wolfcamp				

¹¹ Work Type Code N	¹² Well Type Code O & G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4092'
¹⁶ Multiple No	¹⁷ Proposed Depth 13,600	¹⁸ Formation Morrow	¹⁹ Contractor Patterson Drilling	²⁰ Spud Date Upon Approval

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	48#	400'	440 sx	Surface
11"	8-5/8"	24# & 32#	4,800'	1300 sx	Surface
7-7/8"	5-1/2"	17# & 20#	13,600'	1200 sx	5000'

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Drilling Fluid Synopsis attached
BOP: Series 900 5000# WP - See Figure 2.5 attached
Additional casing & cementing information attached

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief:

Signature:



Printed name:

Nolan von Roeder

Title:

Petroleum Engineer

Date:

02/24/99

Phone:

915/573-1938

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

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

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

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

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		N. Vacuum - Atoka/Morrow
Property Code	Property Name	Well Number
	TOMAHAWK ST. 19	1
OGRID No.	Operator Name	Elevation
141928	PATTERSON PETROLEUM, INC.	4092

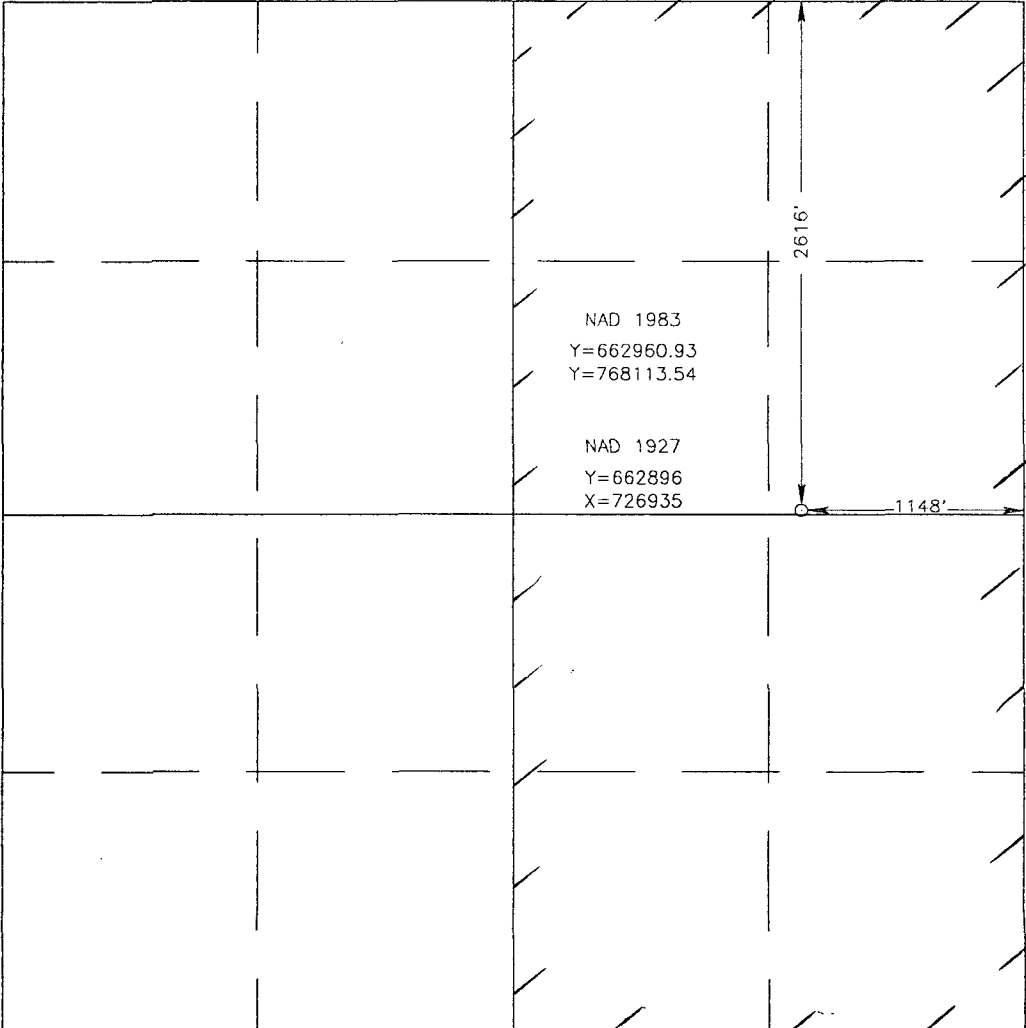

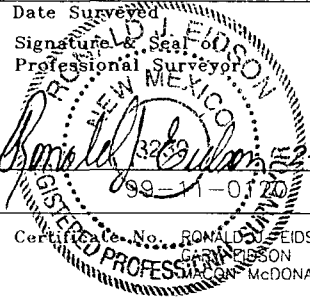
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	19	17 S	34 E		2616	NORTH	1148	EAST	LEA

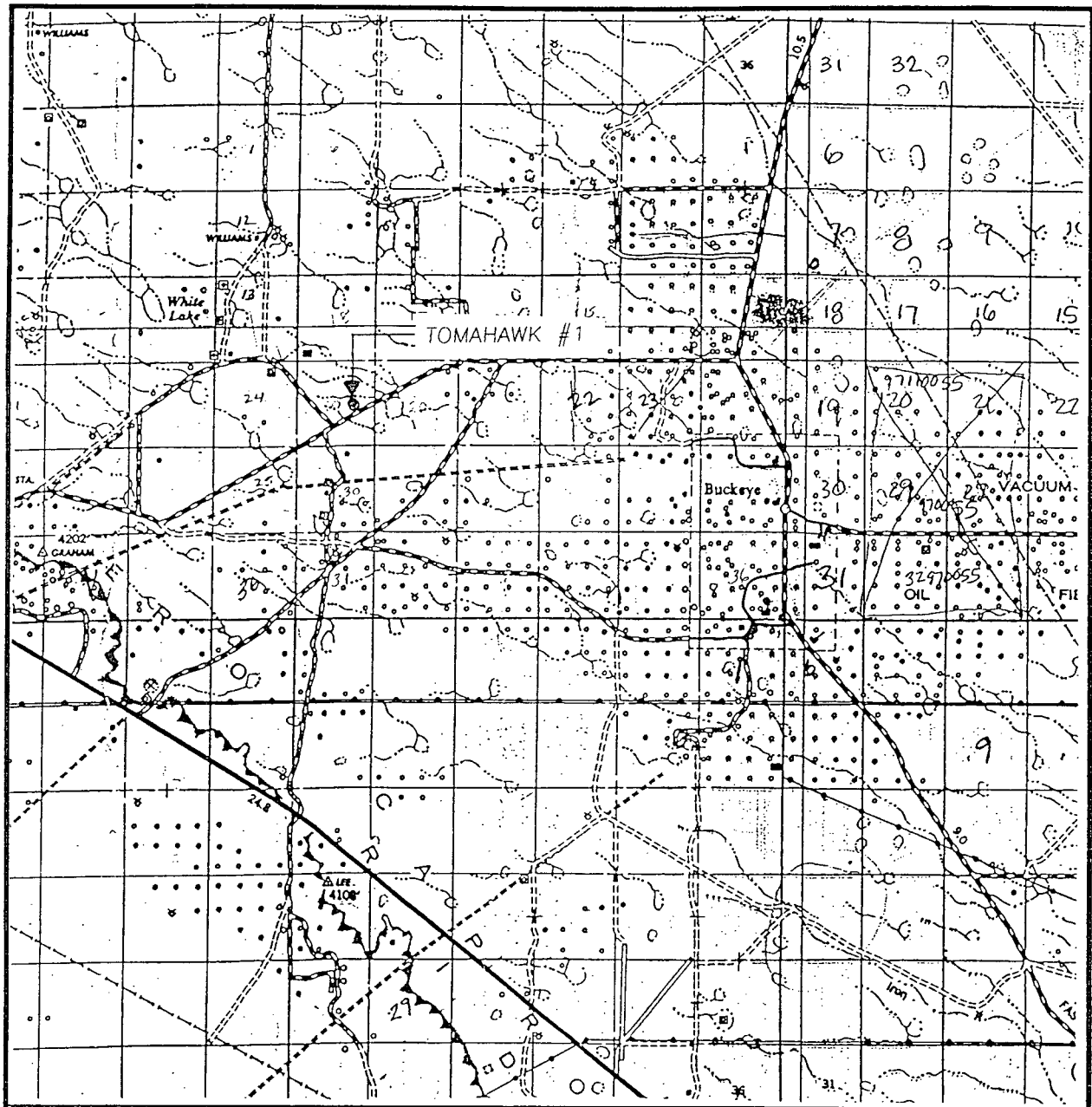
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p> Signature</p> <p>Nolan von Roeder Printed Name</p> <p>Petroleum Engineer Title</p> <p>February 26, 1999 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>FEBRUARY 17, 1999 Date Surveyed</p> <p> Signature & Seal Professional Surveyor</p> <p>DMCC</p> <p>Certificate No. RONALD J. EIDSON 3239 GARY L. EIDSON 12641 McDONALD 12155</p>
---	--

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 19 TWP. 17-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2616' FNL & 1148' FEL

ELEVATION 4092

OPERATOR PATTERSON PETROLEUM, INC.

LEASE TOMAHAWK St. 19

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO

(505) 393-3117

This is a topographic map of a mountainous region. The map features contour lines indicating elevation, with labels such as 4079, 4082, 4084, 4085, 4086, 4087, 4088, 4089, 4090, 4091, 4094, 4095, 4096, 4097, 4098, 4099, 4100, 4101, 4102, 4103, 4104, 4105, 4106, 4107, 4108, 4109, 4110, 4111, 4112, 4113, 4114, 4115, 4116, 4117, 4118, 4119, 4120, 4121, 4122, 4123, 4124, 4125, 4126, 4127, 4128, and 4129. The map includes several symbols: 'I' for a specific feature, 'UPL' for a ridge or peak, 'OW' for a water feature, 'DH' for a depression, 'WW' for a wetland, and 'I' for a specific feature. A grid system is overlaid on the map, with labels for 'TOMAHAWK #1', 'UPL', 'OW', 'DH', 'WW', and 'I'. Elevation values range from 4079 to 4129. A grid system is overlaid on the map.

CONTOUR INTERVAL:
BUCKEYE - 5'

BUCKEYE, N.M.

(505) 393-3117

415 W. WALL, SUITE 530
MIDLAND, TEXAS 79701



24 HOUR SERVICE
915-684-7446

DRILLING FLUID SYNOPSIS

PATTERSON PETROLEUM
TOMAHAWK # 1

SECTION 19
T-17-S
R-34-E
LEA COUNTY, NEW MEXICO

CASING		
13 3/8"	at	400'
8 5/8"	at	4,800'
5 1/2"	at	13,500'

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	DRILL SOLIDS	COMMENTS
0-400'	8.6 to 9.5	32 to 45	No Control	<5%	Spud Mud, Paper
400'-4,800'	10.0 to 10.1	28 to 29	No Control	<1%	Brine Water, Paper, Caustic
4,800'-12,500'	8.4 to 9.2	28 to 29	No Control	<1%	Fresh Water, Caustic, Paper, (Brine if needed)
12,500'-13,500'	9.0 to 9.5	36 to 42	<10cc	<5%	Xanthan Gum, White Starch, PAC, Caustic

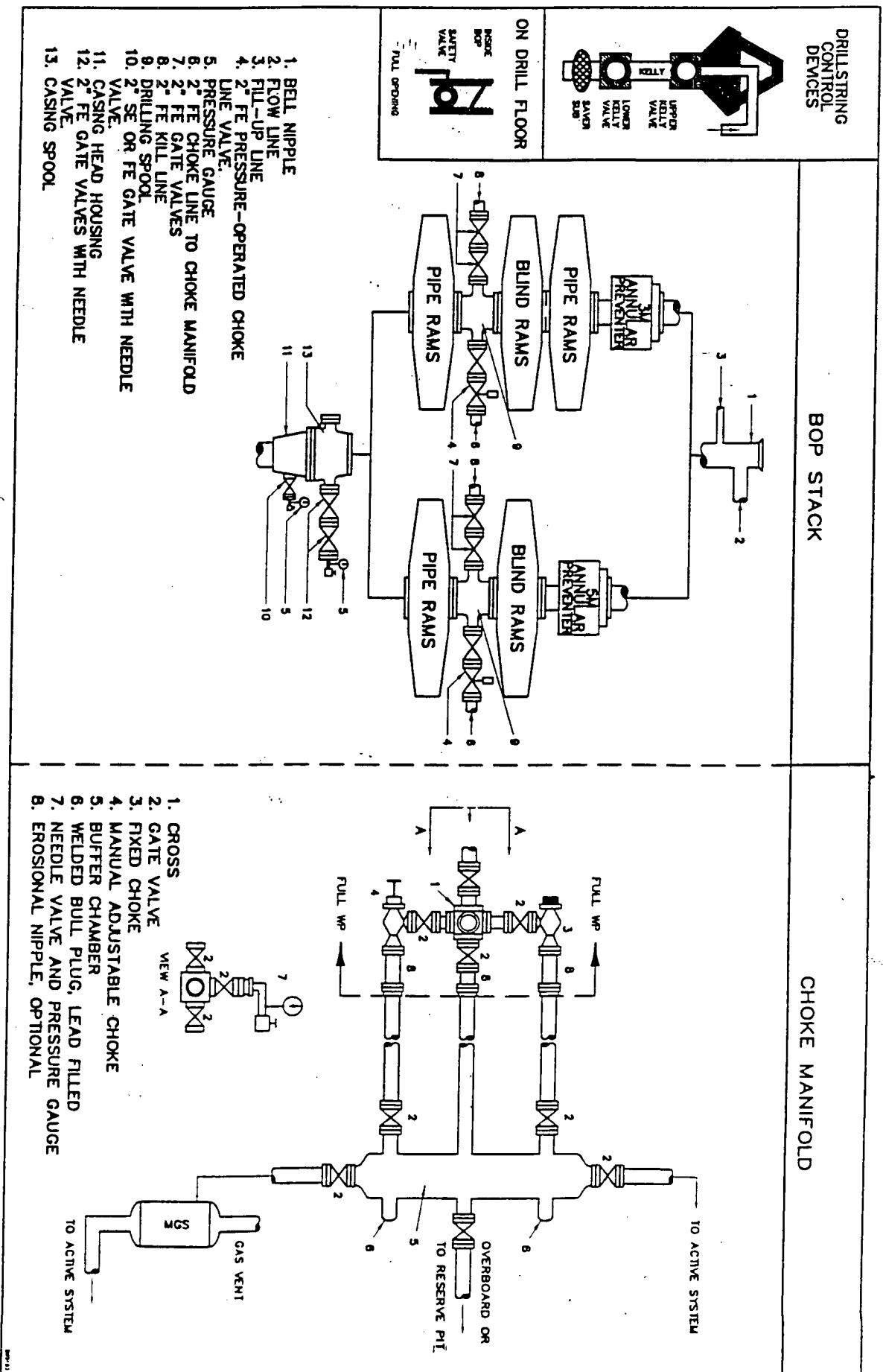


Fig. 2.5. Class 3 BOP and Choke Manifold.

PROPOSED CASING & CEMENTING PROGRAM

TOMAHAWK ST. 19 WELL NO. 1

13 3/8", 48 lb/ft, H-40 Surface Casing Set at 400' - in a 17 1/2" Hole

Circulate to surface with 440 sacks of Class "C" + 2% CaCl₂

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 cu.ft/sk
Water Requirement:	6.3 gal./sk

8 5/8", 24 & 32 lb/ft, J-55 Intermediate Casing Set at 4800' - in a 11" Hole

Lead : 1000 sx of 35:65 Poz Class "C" + 5% salt + 6% gel + 1/4 lb/sk celloflake
+ 2/10 % antifoamer

Desired TOC = Surface

Slurry Weight:	12.4 ppg
Slurry Yield:	2.15 cu.ft/sk
Water Requirement:	11.99 gal/sk

Tail : 300 sx of Class "C" Neat

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 cu.ft/sk
Water Requirement:	6.31 gal/sk

5 1/2", 17 & 20 lb/ft, N-80 Production Casing Set at 13,500' - in a 7 7/8" Hole

Set stage tool at approximately 9500'

1 st Stage : 500 sx of 50:50 Poz Class "H" + 5% salt + 2 % gel + 3/10% retarder
+ 2/10% dispersant + 2/10% antifoamer

Slurry Weight:	14.6 ppg
Slurry Yield:	1.27 cu.ft/sk
Water Requirement:	5.67 gal/sk

2 nd Stage : Lead - 500 sx of 35:65 Poz Class "H" + 5% salt + 6% gel
+ 3/10 % retarder + 2/10% antifoamer
Desired TOC = 4750'

Slurry Weight:	12.8 ppg
Slurry Yield:	1.95 cu.ft/sk
Water Requirement:	10.49 gal/sk

PROPOSED CASING & CEMENTING PROGRAM

TOMAHAWK ST. 19 WELL NO. 1

2 nd Stage : Tail - 200 sx of 50:50 Poz Class "H" + 5% salt + 2% gel
+ 3/10% retarder + 2/10% dispersant & antifoamer

Slurry Weight:	14.6 ppg
Slurry Yield:	1.27 cu.ft/sk
Water Requirement:	5.67 gal/sk

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PO Box 1980, Hobbs, NM 88241-1980
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District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

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☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address. PATTERSON PETROLEUM, INC. P.O. DRAWER 1416 SNYDER, TEXAS 79550		² OGRID Number 141928
		³ API Number 30 - 0
⁴ Property Code	⁵ Property Name Tomahawk St. 19	⁶ Well No. 1

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
H	19	17S	34E		2616	North	1148	East	Lea

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

⁹ Proposed Pool 1 N. Vacuum - Atoka/Morrow	¹⁰ Proposed Pool 2 Wildcat - Wolfcamp
--	---

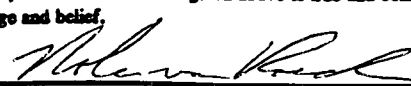
¹¹ Work Type Code N	¹² Well Type Code O & G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4092'
¹⁶ Multiple No	¹⁷ Proposed Depth 13,600	¹⁸ Formation Morrow	¹⁹ Contractor Patterson Drilling	²⁰ Spud Date Upon Approval

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimation TOC
17-1/2"	13-3/8"	48#	400'	440 sx	Surface
11"	8-5/8"	24# & 32#	4,800'	1300 sx	Surface
7-7/8"	5-1/2"	17# & 20#	13,600'	1200 sx	5000'

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Drilling Fluid Synopsis attached
BOP: Series 900 5000# WP - See Figure 2.5 attached
Additional casing & cementing information attached

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: 		OIL CONSERVATION DIVISION	
Printed name: Nolan von Roeder		Approved by:	
Title: Petroleum Engineer		Title:	
Date: 02/24/99		Approval Date:	Expiration Date:
Phone: 915/573-1938		Conditions of Approval: Attached <input type="checkbox"/>	

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

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

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

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

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

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		N. Vacuum - Atoka/Morrow
Property Code	Property Name	Well Number
	TOMAHAWK ST. 19	1
OGRID No.	Operator Name	Elevation
141928	PATTERSON PETROLEUM, INC.	4092

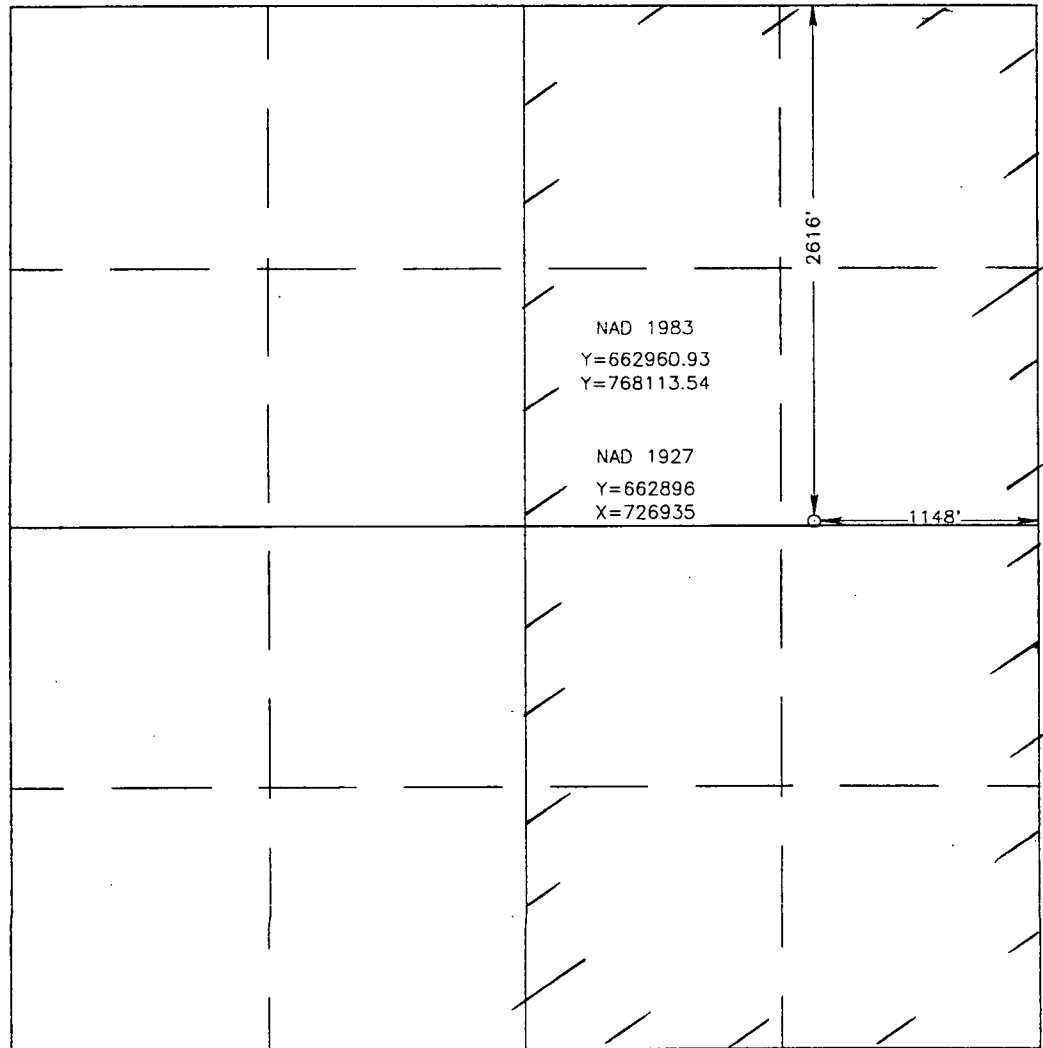
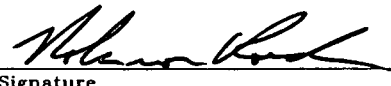
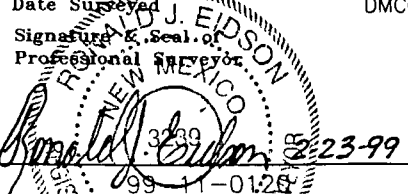
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	19	17 S	34 E		2616	NORTH	1148	EAST	LEA

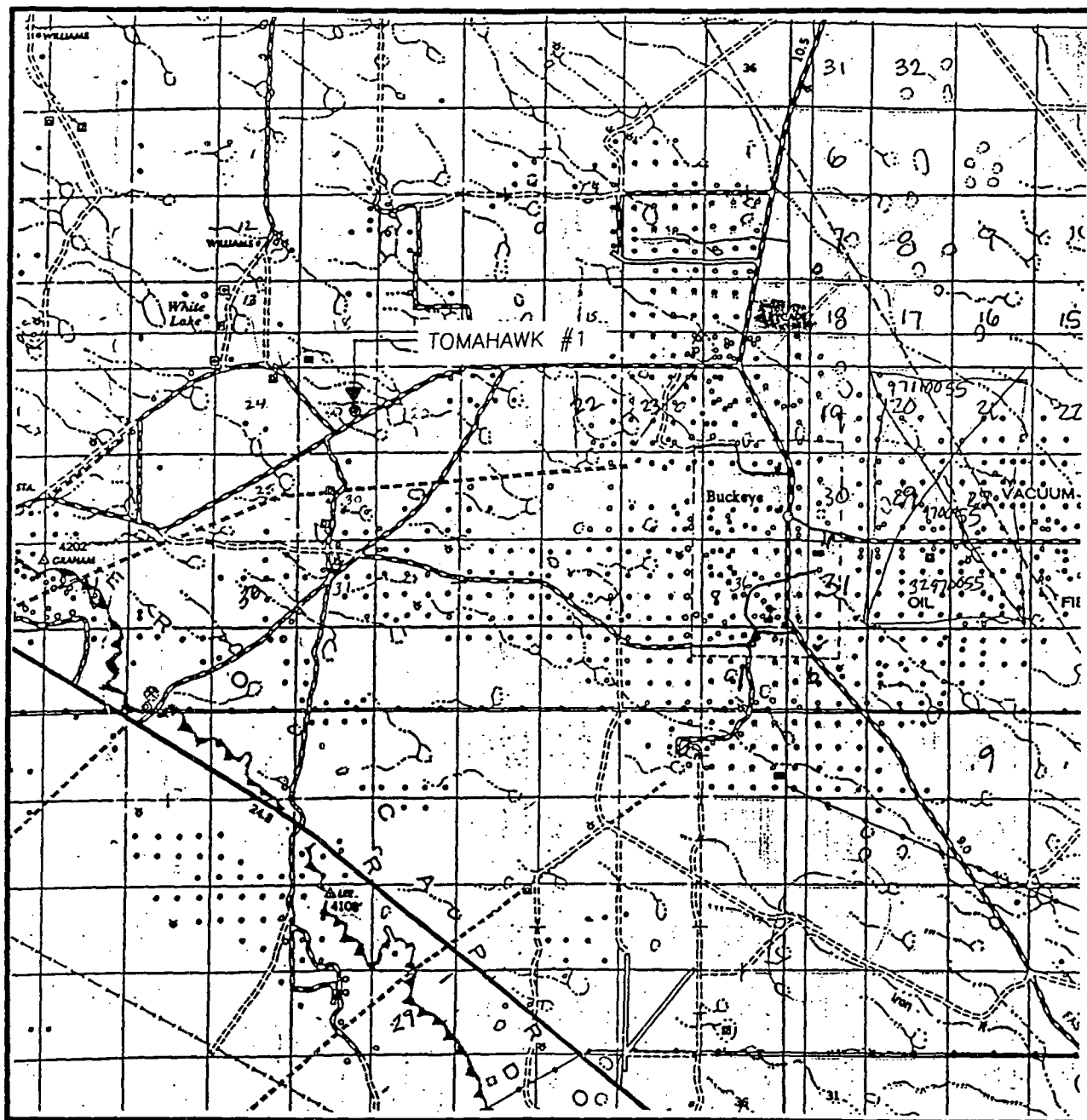
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

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

 <p>NAD 1983 Y=662960.93 Y=768113.54</p> <p>NAD 1927 Y=662896 X=726935</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p> Signature</p> <p>Nolan von Roeder Printed Name</p> <p>Petroleum Engineer Title</p> <p>February 26, 1999 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>FEBRUARY 17, 1999 Date Surveyed</p> <p> Signature & Seal of Professional Surveyor</p> <p>RONALD J. EIDSON Professional Surveyor</p> <p>3239 Certification No.</p> <p>RONALD J. EIDSON Professional Surveyor</p> <p>3239 Certification No.</p> <p>12641 McDONALD</p> <p>12185 McDONALD</p>
---	--

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 19 TWP. 17-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2616' FNL & 1148' FEL

ELEVATION 4092

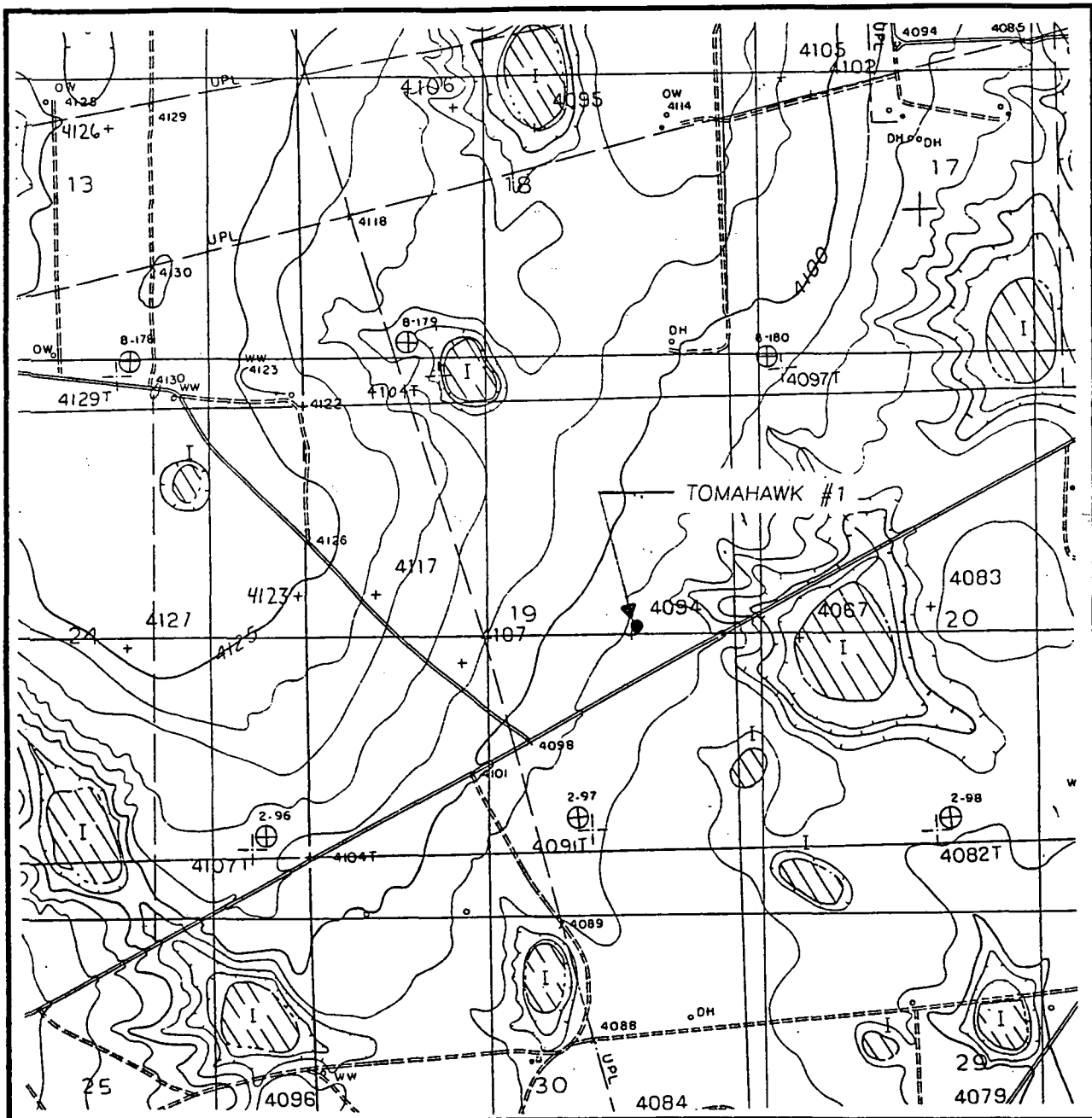
OPERATOR PATTERSON PETROLEUM, INC.

LEASE TOMAHAWK St. 19

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO

(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BUCKEYE - 5'

SEC. 19 TWP. 17-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2616' FNL & 1148' FEL

ELEVATION 4092

OPERATOR PATTERSON PETROLEUM, INC.

LEASE TOMAHAWK St. 19

U.S.G.S. TOPOGRAPHIC MAP

BUCKEYE, N.M.

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO

(505) 393-3117

415 W. WALL, SUITE 530
MIDLAND, TEXAS 79701



24 HOUR SERVICE
915-684-7446

DRILLING FLUID SYNOPSIS

PATTERSON PETROLEUM
TOMAHAWK # 1

SECTION 19
T-17-S
R-34-E
LEA COUNTY, NEW MEXICO

<u>CASING</u>		
13 3/8"	at	400'
8 5/8"	at	4,800'
5 1/2"	at	13,500'

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	DRILL SOLIDS	COMMENTS
0-400'	8.6 to 9.5	32 to 45	No Control	<5%	Spud Mud, Paper
400'-4,800'	10.0 to 10.1	28 to 29	No Control	<1%	Brine Water, Paper, Caustic
4,800'-12,500'	8.4 to 9.2	28 to 29	No Control	<1%	Fresh Water, Caustic, Paper, (Brine if needed)
12,500'-13,500'	9.0 to 9.5	36 to 42	<10cc	<5%	Xanthan Gum, White Starch, PAC, Caustic

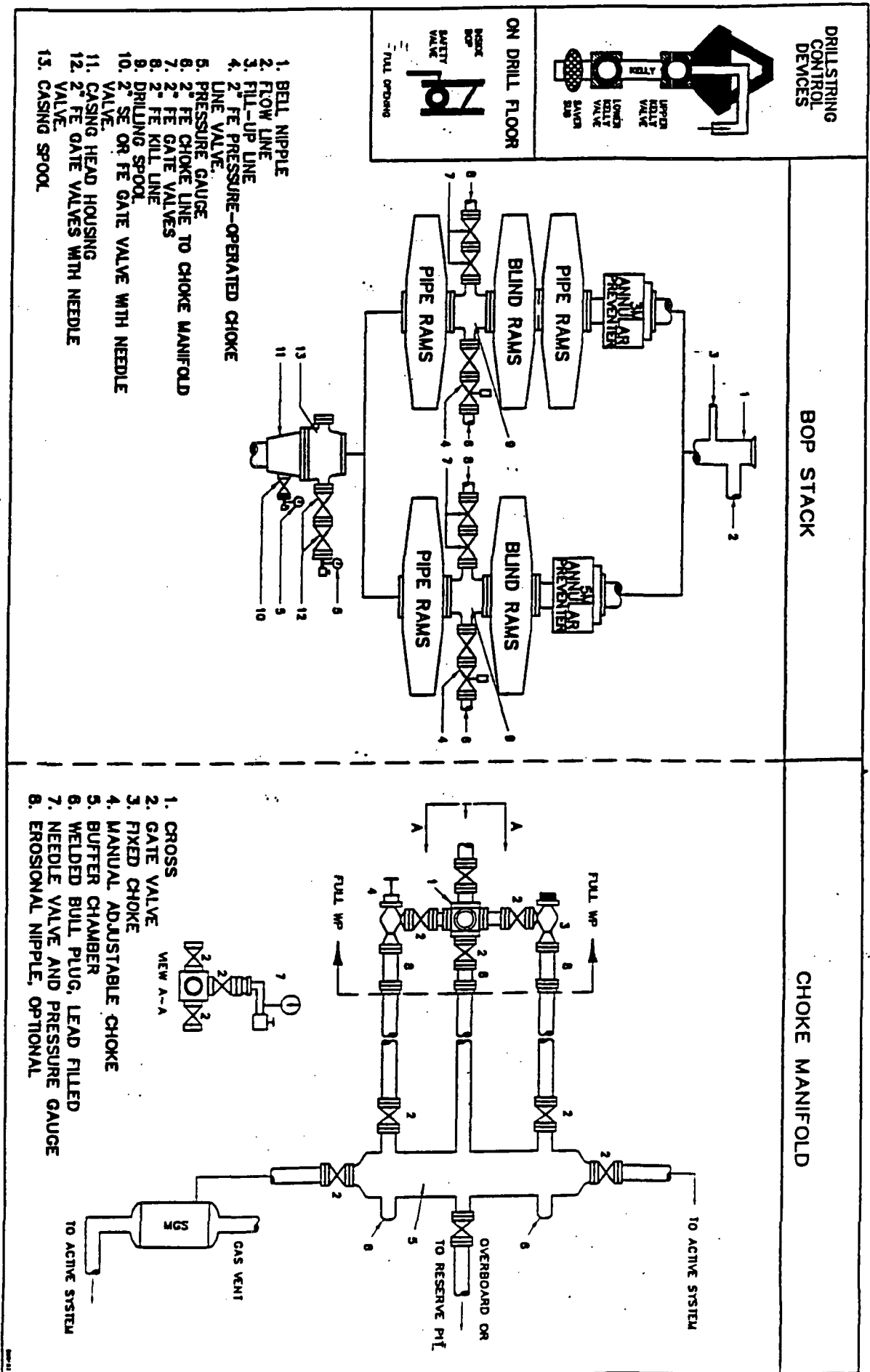


Fig. 2.5. Class 3 BOP and Choke Manifold.

PROPOSED CASING & CEMENTING PROGRAM

TOMAHAWK ST. 19 WELL NO. 1

13 3/8", 48 lb/ft, H-40 Surface Casing Set at 400' - in a 17 1/2" Hole

Circulate to surface with 440 sacks of Class "C" + 2% CaCl₂

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 cu.ft/sk
Water Requirement:	6.3 gal./sk

8 5/8", 24 & 32 lb/ft, J-55 Intermediate Casing Set at 4800' - in a 11" Hole

Lead : 1000 sx of 35:65 Poz Class "C" + 5% salt + 6% gel + 1/4 lb/sk celloflake
+ 2/10 % antifoamer

Desired TOC = Surface

Slurry Weight:	12.4 ppg
Slurry Yield:	2.15 cu.ft/sk
Water Requirement:	11.99 gal/sk

Tail : 300 sx of Class "C" Neat

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 cu.ft/sk
Water Requirement:	6.31 gal/sk

5 1/2", 17 & 20 lb/ft, N-80 Production Casing Set at 13,500' - in a 7 7/8" Hole

Set stage tool at approximately 9500'

1 st Stage : 500 sx of 50:50 Poz Class "H" + 5% salt + 2 % gel + 3/10% retarder
+ 2/10% dispersant + 2/10% antifoamer

Slurry Weight:	14.6 ppg
Slurry Yield:	1.27 cu.ft/sk
Water Requirement:	5.67 gal/sk

2 nd Stage : Lead - 500 sx of 35:65 Poz Class "H" + 5% salt + 6% gel
+ 3/10 % retarder + 2/10% antifoamer
Desired TOC = 4750'

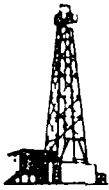
Slurry Weight:	12.8 ppg
Slurry Yield:	1.95 cu.ft/sk
Water Requirement:	10.49 gal/sk

PROPOSED CASING & CEMENTING PROGRAM

TOMAHAWK ST. 19 WELL NO. 1

2 nd Stage : Tail - 200 sx of 50:50 Poz Class "H" + 5% salt + 2% gel
+ 3/10% retarder + 2/10% dispersant & antifoamer

Slurry Weight:	14.6 ppg
Slurry Yield:	1.27 cu.ft/sk
Water Requirement:	5.67 gal/sk



Patterson Petroleum, Inc.

410 N. Loraine, Suite B
Midland, Texas 79701
(915) 685-1414 • Fax 685-1133

March 3, 1999

Michael E. Stogner
Chief Examiner
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Fax #: (505) 827-1389

Re: Unorthodox Location Request for the Patterson Petroleum, Inc.,
Tomahawk St. 19 #1, to be Located 2,616' FNL & 1,148' FEL of
Section 19, T-17-S, R-34-E, Lea County, New Mexico

Dear Mr. Stogner:

Pursuant to our phone conversation yesterday concerning the captioned, please be advised that we may also encounter the Abo Formation at the proposed unorthodox location. Given the location of the subject well and if the Abo is capable of commercial production and a completion was successful, the well would qualify to be in the N. Vacuum Abo Pool. Pool rules for same call for 80 acre Pool Units. Therefore, should the subject well be completed in the Abo Formation we will make the Pool Unit for same the S/2 of the NE/4 of Section 19, T-17-S, R-34-E.

Please take this information into consideration for our request of administrative approval for the captioned well. Should you have any question or need further information do not hesitate to call, my toll free phone number is 1-800-470-4200.

Once you have reached your decision concerning our request, please fax me a copy of the written decision when available, **my fax number is (915) 685-1133**. Thank you for your time and the courtesy you have extended to Patterson in regards to this request.

Sincerely,



Joe Fitzgerald
Land Manager



Patterson Petroleum, Inc.

410 N. Loraine, Suite B
Midland, Texas 79701
(915) 685-1414 • Fax 685-1133

March 3, 1999

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Chief Examiner
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

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Once you have reached your decision concerning our request, please fax me a copy of the written decision when available, **my fax number is (915) 685-1133**. Thank you for your time and the courtesy you have extended to Patterson in regards to this request.

Sincerely,

A handwritten signature in black ink, which appears to read "Joe Fitzgerald".

Joe Fitzgerald
Land Manager

PATTERSON PETROLEUM, INC.

410-B N. Lorraine, Midland, Texas 79701, Phone (915)685-1414, Fax (915) 685-1133

Date: 3-3-99Pages (including cover): 2To: Michael StognerFrom: Joe FitzgeraldCompany: NM OGDCompany: Patterson Petroleum

Phone: _____

Phone: (915) 685-1414Fax: (505) 827-1389Fax: (915) 685-1133

Remarks: ☐ Urgent ☐ For Your Review ☒ Original to follow by mail ☐ Comments Please

Comments:

For your consideration

If you need confirmation or re-send of any page please call within 15 minutes. If no call is received we will assume that you have received all of the pages satisfactorily. This fax is confidential and if it is sent to you by mistake please destroy immediately.

COUNTY Lea

POOL East Corbin - Wolfcamp

40

TOWNSHIP 17 South

RANGE 34 East

NMPPM

A 36x36 grid with numbers 1-36 in the top row and 1-36 in the bottom row. A 3x3 subgrid is highlighted in the bottom-left corner, starting from the 33rd row and 1st column. The grid is composed of small squares, each containing a number. The numbers are arranged in a regular pattern, with the top row containing numbers 1-36 and the bottom row containing numbers 1-36. The 3x3 subgrid is highlighted in the bottom-left corner, starting from the 33rd row and 1st column.

Description: $\frac{SE}{4}$ Sec 30 (R-4041, 11-1-70)

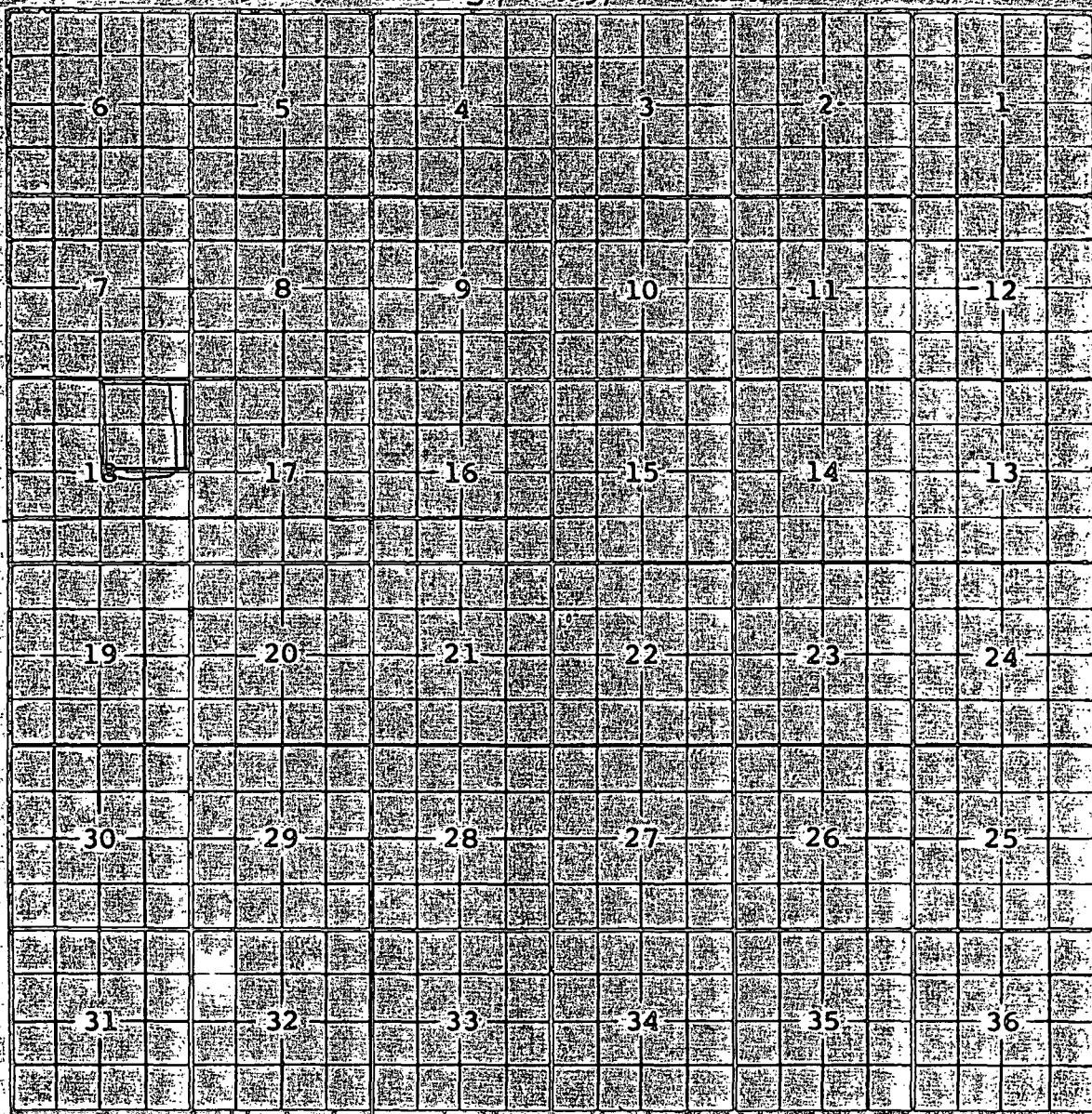
COUNTY *Lea*

POOL *Vacuum - Cisco*

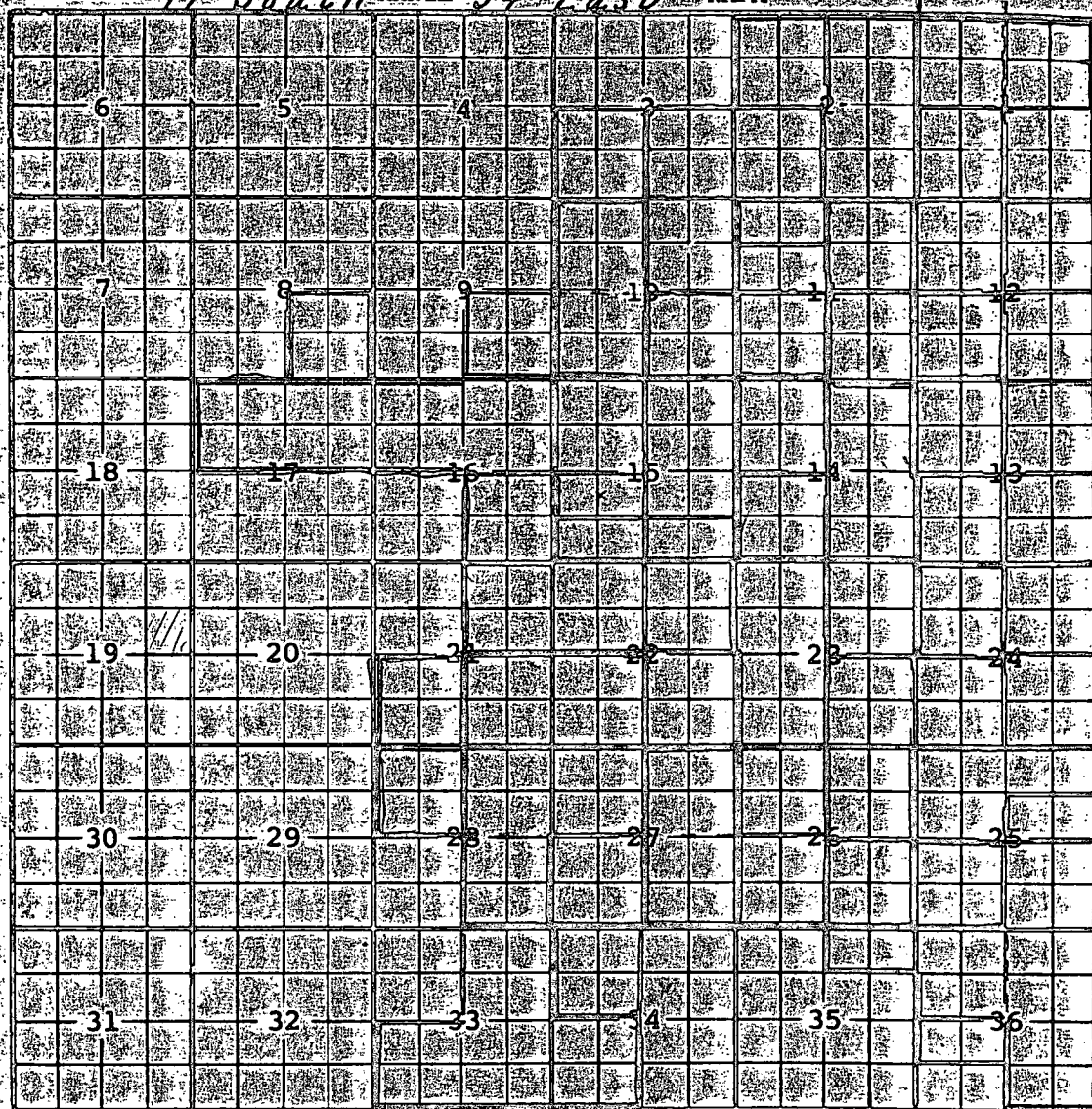
TOWNSHIP *17 South*

RANGE *34 East*

NMPM



Description: NE 1/4 Sec 18 (R-5334, 12-1-76)

COUNTY *Lea* POOL *North Vacuum - Abo*TOWNSHIP *17-South* RANGE *34-East* NMPM

Description: 1/4 Sec. 26 (R-2421, 2-13-63)
 Ext. SW 1/4 Sec. 25; NE 1/4 Sec. 26 (R-2527, 8-1-63) = SE 1/4 Sec. 25; NW 1/4 Sec. 35;
 NW 1/4 Sec. 36 (R-2569, 10-1-63) = SE 1/4 Sec. 25; NW 1/4 Sec. 36 (R-2771, 10-1-64)
 = NW 1/4 Sec. 25 (R-2985, 11-1-65) = SE 1/4 Sec. 23; SW 1/4 Sec. 24 (R-3182, 2-1-67)
 = NW 1/4 Sec. 24 (R-3280, 8-1-67) = SW 1/4 Sec. 23; NE 1/4 Sec. 24 (R-3329, 11-1-67) = SE 1/4 Sec. 13;
 E 1/2 Sec. 14 (R-3411, 6-1-68) = SE 1/4 Sec. 11 (R-3530, 11-1-68) = NE 1/4 Sec. 23; SE 1/4 Sec. 24 (R-3681, 3-1-69)
 = NE 1/4 Sec. 11; SW 1/4 Sec. 12; NW 1/4 Sec. 26 (R-3979, 7-1-70) = SW 1/4 Sec. 11; SW 1/4 Sec. 14;
 SW 1/4 Sec. 26 (R-4032, 10-1-70) = NW 1/4 Sec. 14; SE 1/4 Sec. 15; E 1/2 Sec. 27 (R-4063, 12-1-70)
 = NW 1/4 Sec. 3 (R-4086, 2-1-71) = SE 1/4 Sec. 10; S 1/2 Sec. 11; NW 1/4 Sec. 12;
 NE 1/4 Sec. 22 (R-4132, 5-1-71) = NW 1/4 Sec. 11; SE 1/4 Sec. 12; NE 1/4 Sec. 13; S 1/2 Sec. 15;
 W 1/2 Sec. 23 (R-4155, 7-1-71) = NE 1/4 Sec. 12; SE 1/4 Sec. 22 (R-4184, 9-1-71) = SW 1/4 Sec. 2; SE 1/4 Sec. 3;
 NE 1/4 Sec. 10 (R-4194, 10-1-71) = NE 1/4 Sec. 15; NW 1/4 Sec. 27; E 1/2 Sec. 28 (R-4219, 12-1-71)
 = SW 1/4 Sec. 1; W 1/2 Sec. 10; NE 1/4 Sec. 21; NW 1/4 Sec. 22; SW 1/4 Sec. 27 (R-4279, 4-1-72) = SE 1/4 Sec. 21;
 SW 1/4 Sec. 27; NW 1/4 Sec. 28; NW 1/4 Sec. 34 (R-4304, 6-1-72)

Continued Next Page

NORTH VACUUM-ABO POOL
Lea County, New Mexico

Order No. R-2421, Creating and Adopting Temporary Operating Rules for the North Vacuum-Abo Pool, Lea County, New Mexico, March 1, 1963.

Order No. R-2421-A, March 13, 1964, makes permanent the temporary rules adopted in Order No. R-2421.

Application of Socony Mobil Oil Company, Inc., to create a New Pool for Abo production and for Special Pool Rules, Lea County, New Mexico.

CASE NO. 2739
Order No. R-2421

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on January 23, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 13th day of February, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Socony Mobil Oil Company, Inc., seeks the creation of a new pool for Abo production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 80-acre spacing units.

(3) That a new oil pool for Abo production should be created and designated the North Vacuum-Abo Oil Pool. This pool was discovered by the Socony Mobil State Bridges Well No. 95, located in Unit P of Section 26, Township 17 South, Range 34 East, NMPM, Lea County, New Mexico. The top of the perforations in the Abo formation is at 9070 feet.

(4) That temporary special rules and regulations establishing 80-acre spacing should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the reservoir characteristics of the pool.

(5) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That the temporary special rules and regulations should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all

available information relative to drainage and recoverable reserves.

(7) That this case should be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool should appear and show cause why the North Vacuum-Abo Oil Pool should not be developed on 40-acre proration units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as an oil pool for Abo production is hereby created and designated the North Vacuum-Abo Oil Pool, consisting of the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 26: SE/4

(2) That special rules and regulations for the North Vacuum-Abo Oil Pool are hereby promulgated as follows, effective March 1, 1963.

**SPECIAL RULES AND REGULATIONS
FOR THE
NORTH VACUUM-ABO OIL POOL**

RULE 1. Each well completed or recompleted in the North Vacuum-Abo Oil Pool or in the Abo formation within one mile of the North Vacuum-Abo Oil Pool, and not nearer to or within the limits of another designated Abo pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the North Vacuum-Abo Oil Pool shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. The first well drilled on every standard or non-standard unit in the North Vacuum-Abo Oil Pool shall be located within 200 feet of the center of either the NW/4 or the SE/4 of a governmental quarter section.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an

(NORTH VACUUM-ABO POOL - Cont'd.)

objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) in the North Vacuum-Abo Oil Pool shall be assigned an 80-acre proportional factor of 4.77 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable in the North Vacuum-Abo Oil Pool as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That any well presently drilling to or completed in the Abo formation within the North Vacuum-Abo Oil Pool or within one mile of the North Vacuum-Abo Oil Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator shall notify the Hobbs District Office in writing of the name and location of the well on or before March 1, 1963.

(2) That any operator desiring to dedicate 80 acres to a well presently drilling or completed in the North Vacuum-Abo Oil Pool shall file a new Form C-128 with the Commission on or before March 1, 1963.

(3) That this case shall be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool may appear and show cause why the North Vacuum-Abo Oil Pool should not be developed on 40-acre proration units.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

SIMPSON-GALLUP POOL
San Juan County, New Mexico

Order No. R-2375, Creating and Adopting Temporary Operating Rules for the Simpson-Gallup Pool, San Juan County, New Mexico, December 1, 1962, Made Permanent by Order No. R-2375-A, January 29, 1964.

Application of Pan American Petroleum Corporation for the creation of a new Oil Pool and the establishment of Special Rules and Regulations, San Juan County, New Mexico.

CASE NO. 2682
Order No. R-2375

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on November 8, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of November, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Pan American Petroleum Corporation, seeks an order creating a new oil pool for Gallup production to be designated the Simpson-Gallup Oil Pool consisting of the following-described acreage in San Juan County, New Mexico:

TOWNSHIP 28 NORTH, RANGE 12 WEST, NMPM
Section 23: S/2 Section 25: N/2
Section 24: SW/4 Section 26: NE/4

(3) That the applicant proposes the promulgation of special rules and regulations to govern said pool with a provision for 80-acre oil proration units.

(4) That the Simpson-Gallup Oil Pool was discovered by the Pan American Gallegos Canyon Unit Well No. 83, located in Unit A of Section 26, Township 28 North, Range 12 West, NMPM, San Juan County, New Mexico. This well was completed February 29, 1959. The top of the perforations is at 5548 feet.

(5) That the evidence presently available establishes that the Simpson-Gallup Oil Pool can be efficiently and economically drained and developed on 80-acre oil proration units.

(6) That during the temporary period in which this order will be in effect, all operators in the subject pool should gather all available information relative to drainage and recoverable reserves in said pool.

CMD :
OG5SECTONGARD
INQUIRE LAND BY SECTION03/02/99 15:50:35
OGOMES -TPEF
PAGE NO: 1

Sec : 19 Twp : 17S Rng : 34E Section Type : NORMAL

1	C	B	A
34.30	40.00	40.00	40.00
CS	CS	CS	CS
B04118 0001 04/45	B04118 0001 04/45	B04118 0001 04/45	B04118 0001 04/45
PHILLIPS PETROLEU	PHILLIPS PETROLEU	PHILLIPS PETROLEU	PHILLIPS PETROLEU
A			
2	F	G	H
34.42	40.00	40.00	40.00
CS	CS	CS	CS
B04118 0001 04/45	B04118 0001 04/45	B04118 0001 04/45	B04118 0001 04/45
PHILLIPS PETROLEU	PHILLIPS PETROLEU	PHILLIPS PETROLEU	PHILLIPS PETROLEU
	A		

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

CMD :
OG5SECTONGARD
INQUIRE LAND BY SECTION03/02/99 15:50:55
OGOMES -TPEF
PAGE NO: 2

Sec : 19 Twp : 17S Rng : 34E Section Type : NORMAL

3 34.54 CS B04118 0001 04/45 PHILLIPS PETROLEU A	K 40.00 CS B04118 0001 04/45 PHILLIPS PETROLEU A	J 40.00 CS B04118 0001 04/45 PHILLIPS PETROLEU	I 40.00 CS B04118 0001 04/45 PHILLIPS PETROLEU
4 34.66 CS B04118 0001 04/45 PHILLIPS PETROLEU	N 40.00 CS B04118 0001 04/45 PHILLIPS PETROLEU A	O 40.00 CS B04118 0001 04/45 PHILLIPS PETROLEU	P 40.00 CS B04118 0001 04/45 PHILLIPS PETROLEU

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

Description: $\frac{N}{2}$ $\frac{NE}{4}$ Sec. 11 (R-3084 6-30-66)

Ext: $\frac{S}{2}$ $\frac{NE}{4}$ $\frac{SE}{4}$ Sec 11 (R-3562, 12-1-68)

Reclassified & Redefined: Reclassified as a gas pool and redesignated North Maximum-Morrow Gas Pool comprising All Sec. 11 (R-3792, 7-15-69)

$$\text{Exp. } \frac{N}{2} \text{ Sec. 14; } \frac{E}{2} \text{ Sec. 15 (R-4032, 10-1-70)} = \frac{S}{2} \text{ Sec. 12; } \frac{1}{2} \text{ Sec. 14; } \frac{N}{2} \text{ Sec. 23 (R-4994, 10-1-71)}$$

- $\frac{N}{2}$ Sec. 13; $\frac{5N}{4}$ Sec. 15; $\frac{3}{2}$ Sec. 16 (R-4351-9-1-72)

Ext. w/24 SE/4 Sec 9, E/2 Sec 17 (R-5215, 6-1-76)

Vertical limits extended to include Atoka formation and pool redesignated North Vacuum-Atoka-Morrow Gas (R-5334, 12-1-76)

Ext. NE 1/4 Sec 8, W 1/2 Sec 17 (R-5511, 9-1-77)

Ext. $\frac{E}{2}$ Sec. 1 $\frac{NE}{4}$ Sec. 12 (R-7307, 6-14-83)

35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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