



# GREENHILL PETROLEUM CORPORATION

Incorporated in Delaware, U.S.A.

OIL CONSERVATION DIVISION

RECEIVED

91 JUN 13 AM 9 27

J-31-165-37E  
12777 JONES ROAD, SUITE 375  
HOUSTON, TEXAS 77070  
TELEPHONE (713) 955-1146  
FAX (713) 955-5105

June 6, 1991

Oil Conservation Division  
State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mike Stogner

Re: Unorthodox Location and Drilling Permit  
Proposed Well No. 113  
Lovington Paddock  
Lea County, New Mexico

Greenhill Petroleum Corporation respectfully requests the State of New Mexico Oil Conservation Division grant approval of the proposed unorthodox location and the attached permit to drill Well Number 113 in the Lovington Paddock Unit, located in Lea County, New Mexico.

The Lovington Paddock Unit is presently developed and being waterflooded utilizing a 40-acre well density. It is believed that infill development using a 20-acre well density will improve waterflood sweep efficiency and will increase secondary oil recovery. The proposed location for Well No. 113 is located in the interior of the unit and is not competitive with offset wells outside the unit. Information gathered as a result of drilling this infill well will be utilized in evaluating additional infill development potential in the unit and ultimately may be used to evaluate the feasibility of tertiary recovery.

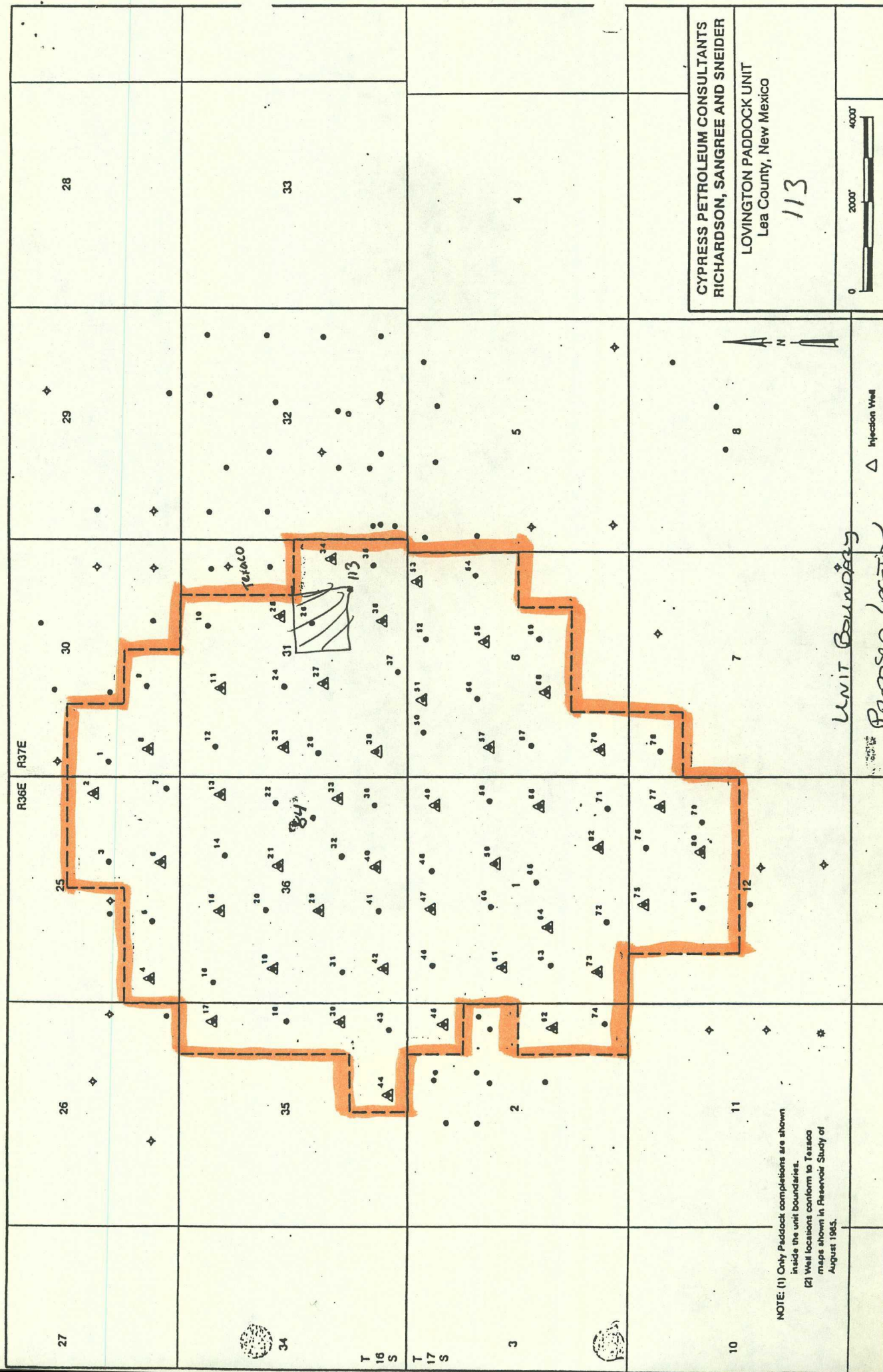
Greenhill Petroleum Corporation wishes to commence drilling operations on the proposed well as soon as possible and would appreciate a response to this request at your earliest convenience.

Respectfully yours,

GREENHILL PETROLEUM CORPORATION

Michael J. Newport  
Landman

MJN:JB  
Enclosures

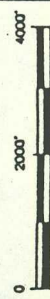


NOTE: (1) Only Padlock completions are shown inside the unit boundary.  
 (2) Well locations conform to Texas maps shown in Reservoir Study of August 1963.

CYPRESS PETROLEUM CONSULTANTS  
 RICHARDSON, SANGRE AND SNIDER

LOVINGTON PADDOCK UNIT  
 Lea County, New Mexico

113



UNIT BOUNDARY  
 Progress Location

Injection Well

Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

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

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

API NO. (assigned by OCD on New Wells)

5. Indicate Type of Lease  
STATE ☒ FEE ☐

6. State Oil & Gas Lease No. B7896

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL <input checked="" type="checkbox"/> RE-ENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		7. Lease Name or Unit Agreement Name Lovington Paddock Unit			
b. Type of Well: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER <input type="checkbox"/> WELL <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Well No. 113			
2. Name of Operator Greenhill Petroleum Corporation		9. Pool name or Wildcat Lovington Paddock			
3. Address of Operator 11490 Westheimer, Ste., 200, Houston, TX 77077					
4. Well Location Unit Letter <u>J</u> : <u>1417</u> Feet From The <u>South</u> Line and <u>1508</u> Feet From The <u>East</u> Line Section <u>31</u> Township <u>16S</u> Range <u>37E</u> NMPM <u>Lea</u> County					
10. Proposed Depth 6600		11. Formation Paddock	12. Rotary or C.T.		
13. Elevations (Show whether DF, RT, GR, etc.) 3815	14. Kind & Status Plug. Bond on file	15. Drilling Contractor TBD	16. Approx. Date Work will start		
17. PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4	8 5/8	24	2050	900	Surface
7 7/8	5 1/2	15.5	6600	to be determined	Surface
by fluid caliper					

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. 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.

SIGNATURE Michael J. Newport TITLE Land Manager-Permian Basin DATE 6-6-91

TYPE OR PRINT NAME Michael J. Newport TELEPHONE NO. 955-1146

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

# OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

## 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 GREENHILL PETROLEUM CORP.			Lease LOVINGTON PADDOCK UNIT		Well No. 113
Unit Letter J	Section 31	Township 16 SOUTH	Range 37 EAST	County LEA	

### Actual Footage Location of Well:

1417 feet from the SOUTH line and 1508 feet from the EAST line

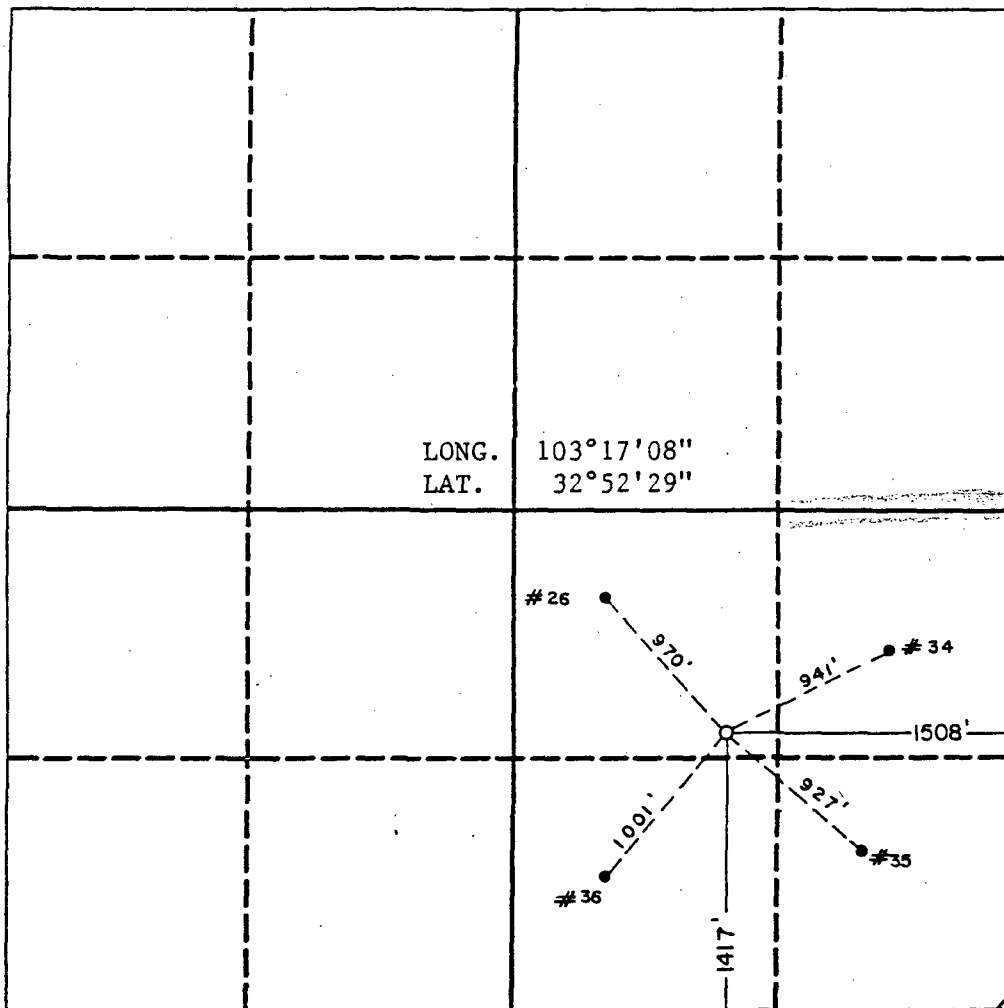
Ground level Elev. 3815.1	Producing Formation Lovington Paddock	Pool Lovington Paddock	Dedicated Acreage: 40 Acres
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1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease 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 interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☒ Yes ☐ No If answer is "yes" type of consolidation unitized

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 <i>Michael J. Newport</i>
Printed Name Michael J. Newport
Position Landman
Company Greenhill Petroleum Corp
Date 6/5/91

### 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 5-23-91
Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i>
Professional Surveyor Seal RONALD J. EIDSON NEW MEXICO 1676 3239



# GREENHILL PETROLEUM CORPORATION

Incorporated in Delaware, U.S.A.

CERTIFIED MAIL

June 7, 1991

Texaco USA  
P.O. Box 3109  
Midland, TX 79702

Attn: Keith Williams

Re: Lovington Paddock  
Well No. 113  
Lea County, NM

This letter is to hereby notify you that Greenhill Petroleum will be drilling Well No. 113 to a depth of 6420' to test the Paddock Formation, 1417 FSL and 1508 FEL in Section 31, T16S-R37E, Lea County, NM. We are obligated by the New Mexico Oil Commission to notify all offset operators that we are applying for an unorthodox location within our West Lovington Unit.

Please sign and return to the above address in the event you do not object to our proposed well.

Sincerely,

Michael J. Newport  
Land Manager-Permian Basin

MJN:jb

Agreed to and accepted this \_\_\_\_ day of \_\_\_\_\_, 1991.

Texaco USA

By: \_\_\_\_\_

Enclosures

P 375 330 421

## RECEIPT FOR CERTIFIED MAIL

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

U.S.G.P.O. 1989-234-555 PS Form 3800, June 1985	Sent to	TEXACO USA
	Street and No.	PO BOX 3109
	P.O. / State and ZIP Code	Midland TX 79702
	Postage	\$
	Certified Fee	
	Special Delivery Fee	
	Restricted Delivery Fee	
	Return Receipt showing to whom and Date Delivered	
	Return Receipt showing to whom, Date, and Address of Delivery	
	TOTAL Postage and Fees	\$
Postmark or Date 6/10/91		



OIL CONSERVATION DIVISION  
RECEIVED

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

6-14-91

BRUCE KING  
GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC \_\_\_\_\_  
DHC \_\_\_\_\_  
NSL X \_\_\_\_\_  
NSP \_\_\_\_\_  
SWD \_\_\_\_\_  
WFX \_\_\_\_\_  
PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

Greenhill Pet Corp. Lovington Paddock Unit #113-J 31-16-37  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton  
Jerry Sexton  
Supervisor, District 1

/ed

Sec. 31 Township No. 16 South of Range No. 37 East

84.93

① 49.80			
② 49.68			
③ 49.56			
④ 49.44			

84.69 14.



# GREENHILL PETROLEUM CORPORATION

L-6-17-37

12777 JONES ROAD, SUITE 375  
HOUSTON, TEXAS 77070  
TELEPHONE (713) 955-1146  
FAX (713) 955-5105

Incorporated in Delaware, U.S.A.

June 6, 1991

Oil Conservation Division  
State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Attn: Mike Stogner

Re: Unorthodox Location and Drilling Permit  
Proposed Well No. 124  
Lovington Paddock  
Lea County, New Mexico

---

Greenhill Petroleum Corporation respectfully requests the State of New Mexico Oil Conservation Division grant approval of the proposed unorthodox location and the attached permit to drill Well Number 124 in the Lovington Paddock Unit, located in Lea County, New Mexico.

The Lovington Paddock Unit is presently developed and being waterflooded utilizing a 40-acre well density. It is believed that infill development using a 20-acre well density will improve waterflood sweep efficiency and will increase secondary oil recovery. The proposed location for Well No. 124 is located in the interior of the unit and is not competitive with offset wells outside the unit. Information gathered as a result of drilling this infill well will be utilized in evaluating additional infill development potential in the unit and ultimately may be used to evaluate the feasibility of tertiary recovery.

Greenhill Petroleum Corporation wishes to commence drilling operations on the proposed well as soon as possible and would appreciate a response to this request at your earliest convenience.

Respectfully yours,

GREENHILL PETROLEUM CORPORATION

Michael J. Newport  
Landman

MJN:JB  
Enclosures



Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

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

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

API NO. (assigned by OCD on New Wells)

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒

RE-ENTER ☐

DEEPEN ☐

PLUG BACK ☐

b. Type of Well:

OIL  
WELL ☒

GAS  
WELL ☐

OTHER ☐

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

7. Lease Name or Unit Agreement Name

Lovington Paddock Unit

2. Name of Operator

Greenhill Petroleum Corporation

8. Well No.

124

3. Address of Operator

11490 Westheimer, Ste., 200, Houston, TX 77077

9. Pool name or Wildcat

Lovington Paddock

4. Well Location

Unit Letter L : 1450 Feet From The South Line and 120 Feet From The West Line

Section 6

Township 17S

Range 37E

NMPM Lea

County

10. Proposed Depth

6600'

11. Formation

Paddock

12. Rotary or C.T.

13. Elevations (Show whether DF, RT, GR, etc.)

3814

14. Kind & Status Plug. Bond

on file

15. Drilling Contractor

TBD

16. Approx. Date Work will start

17.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4	8 5/8	24#	2050	900 sxs	Surface
7 7/8	5 1/2	15.5#	6600	to be determined	Surface
				by the fluid	
				caliper	

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. 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.

SIGNATURE

*Michael J. Newport*

TITLE

Land Manager-Permian Basin

DATE

6-6-91

TYPE OR PRINT NAME

Michael J. Newport

TELEPHONE NO 955-1146

(This space for State Use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

# OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

## DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

## DISTRICT III

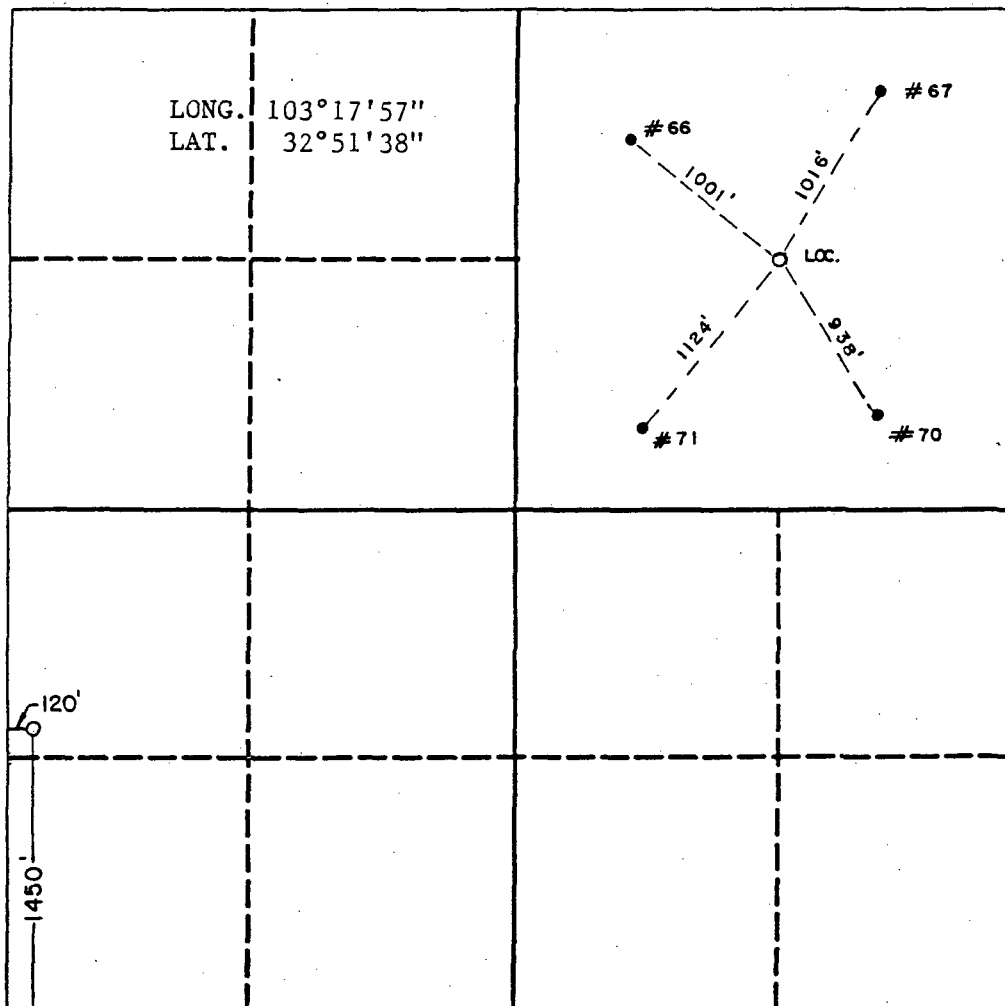
1000 Rio Brazos Rd., Aztec, NM 87410

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>GREENHILL PETROLEUM CORP.</b>			Lease <b>LOVINGTON PADDOCK UNIT</b>		Well No. <b>124</b>
Unit Letter <b>L</b>	Section <b>6</b>	Township <b>17 SOUTH</b>	Range <b>37 EAST</b>	County <b>LEA</b>	
Actual Footage Location of Well: <b>1450</b> feet from the <b>SOUTH</b> line and <b>120</b> feet from the <b>WEST</b> line					
Ground level Elev. <b>3814.1</b>	Producing Formation <b>Lovington Paddock</b>		Pool <b>Lovington Paddock</b>		Dedicated Acreage: <b>40</b> 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 **unitized**  
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 *Michael J. Newport*  
Printed Name **Michael J. Newport**  
Position **Landman**  
Company **Greenhill Petroleum**  
Date **6/4/91**

### 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 **5-23-91**  
Signature & Seal of Professional Surveyor  
Certificate No. **JOHN W. WEST, 676**  
**RONALD J. EDSON, 3239**  
**JOHN W. WEST**

GREENHILL PETROLEUM CORPORATION  
BOP PROGRAM FOR  
LOVINGTON PADDOCK WELL # 124

Casing Program

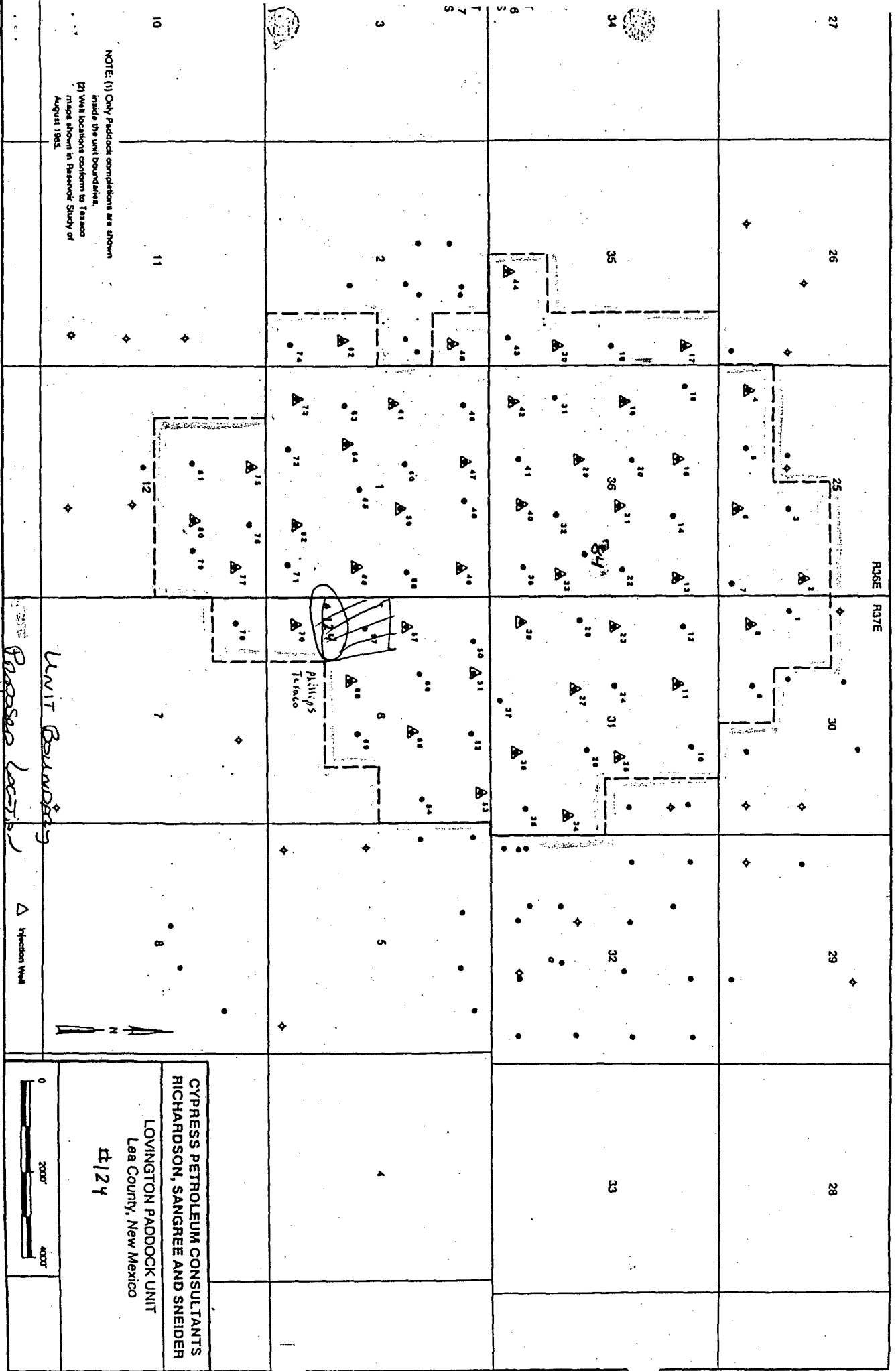
BOP Program

Size	Depth	Wt	Grade	Configuration	Test Pressure
8 5/8"	2050'	24	H40, STC	RA	200 psi
5 1/2"	6600'	15.5	K55, STC	RR	250/1500 psi

\* RR - Ram Ram

RA - Ram Annular

Diverter - Hydrill may be substituted for a diverter





# GREENHILL PETROLEUM CORPORATION

Incorporated in Delaware, U.S.A.

Mike

12777 JONES ROAD, SUITE 375  
HOUSTON, TEXAS 77070  
TELEPHONE (713) 955-1146  
FAX (713) 890-2405

## CERTIFIED MAIL

May 21, 1991

Texaco USA  
P.O. Box 3109  
Midland, TX 79702

Attn: Keith Williams

Re: Lovington Paddock  
Well No. 124  
Lea County, NM

This letter is to hereby notify you that Greenhill Petroleum will be drilling Well No. 124 to a depth of 6420' to test the Paddock Formation, 120 FWL and 1450 FSL in Section 6, T17S-R37E, Lea County, NM. We are obligated by the New Mexico Oil Commission to notify all offset operators that we are applying for an unorthodox location within our West Lovington Unit.

Please sign and return to the above address in the event you do not object to our proposed well.

Sincerely,

Michael J. Newport  
Land Manager-Permian Basin

MJN:jb

Agreed to and accepted this \_\_\_\_\_ day of \_\_\_\_\_, 1991.

Texaco USA

By: \_\_\_\_\_

Enclosures

PS Form 3800, June 1985

U.S.G.P.O. 153-506

Postmark or Date 5/21/91		Return Receipt: showing to whom and Date Delivered		Restricted Delivery Fee	Special Delivery Fee	Certified Fee	Postage	TEXACO USA P.O. Box 3109 Midland TX 79702
TOTAL Postage and Fees		Return Receipt: showing to whom, Date, and Address of Delivery						

RECEIPT FOR CERTIFIED MAIL  
SIGNATURE OF ADDRESSEE REQUIRED FOR INTERNATIONAL MAIL  
(See Reverse)  
P-496 477 415



# GREENHILL PETROLEUM CORPORATION

12777 JONES ROAD, SUITE 375  
HOUSTON, TEXAS 77070  
TELEPHONE (713) 955-1146  
FAX (713) 890-2405

Incorporated in Delaware, U.S.A.

## CERTIFIED MAIL

May 21, 1991

Phillips Petroleum  
P.O. Box 1967  
Houston, TX 77281-1967

Re: Lovington Paddock  
Well No. 124  
Lea County, NM

This letter is to hereby notify you that Greenhill Petroleum will be drilling Well No. 124 to a depth of 6420' to test the Paddock Formation, 120 FWL and 1450 FSL in Section 6, T17S-R37E, Lea County, NM. We are obligated by the New Mexico Oil Commission to notify all offset operators that we are applying for an unorthodox location within our West Lovington Unit.

Please sign and return to the above address in the event you do not object to our proposed well.

Sincerely,

Michael J. Newport  
Land Manager-Permian Basin

MJN:jb

Agreed to and accepted this \_\_\_\_\_ day of \_\_\_\_\_, 1991.

Phillips Petroleum

By: \_\_\_\_\_

Enclosures

PS Form 3800, June 1985

U.S.G.P.O. 153-506

Phillips Petroleum	
P.O. Box 1967	
Houston, TX 77281-1967	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	5/21/91

P-496 477 416  
RECEIPT FOR CERTIFIED MAIL  
NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL  
(See Reverse)



STATE OF NEW MEXICO

DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

'91 JUN 14 AM 9 23

6-10-91

BRUCE KING  
GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	_____
DHC	_____
NSL	<input checked="" type="checkbox"/> _____
NSP	_____
SWD	_____
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

*Greenhill Pet Corp. Lovington Padlock Unit #124-L 6-17-37*  
Operator \_\_\_\_\_ Lease & Well No. \_\_\_\_\_ Unit \_\_\_\_\_ S-T-R \_\_\_\_\_

and my recommendations are as follows:

*OK*

Yours very truly,

*[Signature]*  
Jerry Sexton  
Supervisor, District 1

/ed

Sec. 6 Township No. 17 South of Range No. 37 East

④ 37.33	③ 40.12	② 40.20	① 40.28
⑤ 37.33			
⑥ 37.35	630.00		
⑦ 37.39			

80 ch.

80.16 ch.

78.70 ch.