

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

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

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

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-101
Revised February 10, 1999
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copie
Fee Lease - 5 Copie
☐ AMENDED REPORT

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

| | | |
|--|--|---|
| ¹ Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 15 SMITH ROAD, MIDLAND, TX 79705 | | ² OGRID Number 022351 |
| ⁴ Property Code 011114 | | ³ API Number 30 025 10039 |
| ⁵ Property Name STICHER, E. A. | | ⁶ Well No. 2 |

| 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 |
| L | 4 | 22S | 37E | | 1980 | SOUTH | 660 | WEST | 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 PENROSE SKELLY GRAYBURG | | | | | ¹⁰ Proposed Pool 2 | | | | |

| | | | | |
|-----------------------------------|---------------------------------------|--|-------------------------------------|--|
| ¹¹ Work Type Code P | ¹² WellType Code O | ¹³ Rotary or C.T. ROTARY | ¹⁴ Lease Type Code LP | ¹⁵ Ground Level Elevation 3429' GL |
| ¹⁶ Multiple No | ¹⁷ Proposed Depth 6580' | ¹⁸ Formation GRAYBURG | ¹⁹ Contractor | ²⁰ Spud Date 6/15/2002 |

²¹ Proposed Casing and Cement Program

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | SACKS OF CEMENT | EST. TOP |
|--------------|----------------|-----------------|---------------|-----------------|----------|
| NO CHANGE | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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.

TEXACO E&P INTENDS TO PLUGBACK THE SUBJECT WELL TO THE GRAYBURG FORMATION, ACIDIZE & FRAC.

THE INTENDED PROCEDURE, CURRENT WELL BORE DIAGRAM, AND PROPOSED WELL BORE DIAGRAM IS ATTACHED FOR YOUR APPROVAL.

Permit Expires 1 Year From Approval
Date Unless ~~Drilling~~ Underway

Plug-Back

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature *J. Denise Leake*

Printed Name J. Denise Leake

Title Regulatory Specialist

Date 5/28/2002

Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By:

ORIGINAL SIGNED BY

Title:

PAUL F. KAUTZ

Approval Date:

JUL 05 2002

PETROLEUM ENGINEER

Expiration Date:

Conditions of Approval:

Attached ☐

E. A. Sticher # 2
Penrose Skelly Field
T22S, R37E, Section 4
Job: PB To Grayburg Formation, Acidize, And Frac

Procedure:

1. MI & RU pulling unit. Bleed pressure from well, if any. Pump down csg with 2% KCl water, if necessary to kill well. Remove WH. Install BOP's and test to 1000 psi.
2. PU and GIH with 4 1/4" MT bit and 2 7/8" work string to PBTD at 5865'. POH with work string and 4 1/4" bit. LD bit.
3. PU and GIH with 5" tbg-set CIBP to 5200'. Set CIBP at 5200'. Reverse circulate well clean from 5200' using 2 % KCl water. POH with 2 7/8" work string.
4. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CBL/CCL log from 5200' up to 3000'. POH. Inspect logs for good cement bond from approximately 4300' up to 3500'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding. Cmt squeeze as necessary to obtain good cmt across completion interval. GIH with 3 1/8" DP slick casing gun and perforate from 3752-3885' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit.
5. PU and GIH w/ 5" PPI pkr (with 20' element spacing) and SCV on 2 7/8" work string to approximately 3750'. Test tbg to 5500 psi while GIH.
5. MI & RU DS Services. Acidize perfs 3752-3885' with 3,400 gals anti-sludge 15% HCl acid * at a maximum rate of **1BPM** and a maximum surface pressure of **4000 psi**. Spot acid to bottom of tbg at beginning of each stage. Displace acid with 2% KCl water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS Services. **Note: Pickle tubing in 2 runs of 250 gals acid each, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal CI-25 and 1 gal NE-13. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 1000 psi csg pressure. If cannot, then save remaining acid for high rate combined acid treatment of all zones after completion of the PPI job.**

* Acid system is to contain:

| | |
|---------------|-----------------------|
| 1 GPT CI-25 | Corrosion Inhibitor |
| 2 GPT FE-270L | Iron Control |
| 1 GPT FE-271L | Iron Control Catalyst |
| 1 GPT FAW-18 | Binding Agent |
| 1 GPT NE-13 | Non-Emulsifier |

6. Release PPI pkr and PUH to approximately 3700'. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered fluid volumes, pressures, and/or swabbing fluid levels.
Note: Selectively swab perfs as directed by Engineering if excessive water is produced.
8. Open well. Release PPI pkr. POH with tbg and PPI packer. LD 2 7/8" work string and PPI tool.
9. PU and GIH w/ 5" Lok-Set pkr & On-Off tool w/ 1.78" "F" profile and 118 jts. of 3 1/2" EUE 8R L-80 work string, testing to 7000 psi. Set pkr at approximately 3700'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.
10. MI & RU DS Services. Frac well down 3 1/2" tubing at **40 BPM** with 56,500 gals of SpectraFrac G3500, 6,000 lbs. 100 mesh White Sand, 133,500 lbs. 16/30 mesh White Sand, and 24,500 lbs **resin-coated** 16/30 mesh proppant. Observe a maximum surface treating pressure of **6500 psi**. Pump job as follows:
 - Pump 6,000 gals SpectraFrac G3500 pad
 - Pump 6,000 gals SpectraFrac G3500 pad containing 1 PPG 100 mesh sand
 - Pump 6,000 gals SpectraFrac G3500 pad
 - Pump 3,500 gals SpectraFrac G3500 containing 1 PPG 16/30 mesh Ottawa Sand
 - Pump 5,500 gals SpectraFrac G3500 containing 2 PPG 16/30 mesh Ottawa Sand
 - Pump 6,000 gals SpectraFrac G3500 containing 3 PPG 16/30 mesh Ottawa Sand
 - Pump 6,000 gals SpectraFrac G3500 containing 4 PPG 16/30 mesh Ottawa Sand
 - Pump 7,000 gals SpectraFrac G3500 containing 5 PPG 16/30 mesh Ottawa Sand
 - Pump 7,000 gals SpectraFrac G3500 containing 6 PPG 16/30 mesh Ottawa Sand
 - Pump 3,500 gals SpectraFrac G3500 containing 7 PPG **resin-coated** 16/30 mesh proppant

Flush to 3700' with 1,350 gals AquaFrac 3500. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release BJ Services. Leave well SI overnight.
11. Open well and swab/backflow until well cleans up with no frac sand in returns and a stabilized flow rate is obtained. Report recovered fluid volumes, choke sizes and flowing pressures. SWI.
12. If well flows, GIH and set tbg plug in "F" profile. Release on-off tool and POH with 3 1/2" work string and top half of on-off tool. Lay down work string. PU and GIH w/ top half of on-off tool on 2 3/8" tbg, testing to 5000 psi. Displace annulus with inhibited packer fluid. Re-engage on-off tool. Remove BOP's and install flanged WH rated at 3000 psi WP. Pressure test tbg and WH to 3000 psi. Pressure test casing to 500 psi. GIH and swab fluid level in tubing down until differential across tbg plug is balanced. GIH and retrieve tbg plug from "F" nipple. Swab well if necessary to initiate flow. RD & release pulling unit.

13. If well does not flow, release pkr and POH with 3 1/2" work string. Lay down work string and pkr.
14. PU and GIH w/ BP mud anchor jt of 2 3/8" tbg, 2 3/8" x 4' perforated sub, SN, and 126 jts 2 3/8" EUE 8R J-55 tbg, testing to 5000 psi. Suspend tbg with EOT at 3935' and SN at 3900'.
15. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.
16. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH
5/23/2002



WELL DATA SHEET

OPERATOR: TEXACO

[Initially drilled to 3721' w/ OH inter. 3561-3721']

FIELD: Paddock

WELL NAME: E. A. Sticher #2

FORMATION: Paddock BCU48

LOCATION: 1980' FSL 660' FWL

TOWNSHIP: 22S

SEC: 4

GL: 3429'

CURRENT STATUS: PR

RANGE: 37E

COUNTY: Lea

KB:

API NO: 30-025-10039

LOT: L

STATE: NM

DF: 3445'

REFNO:

Spud Date: 9/18/37
Rig Released: 10/25/37
Date Completed: 11/1/37

TOC set @ 824' by calculation

Top of salt @ 1270'

Base of salt @ 2430'

Tubing Detail 3/30/88:

Ran 2-3/8" x 31' MA, perf sub,
168 jts 2-3/8" tbg, SN @ 5275'.

Ran 2" x 1 1/2 x 12' pump
and 208 3/4" rods.

Set pump @ 5275'.

Production Casing

5", 15# csg
Set @ 6580' w/220 sx cmt
Hole size: 6-1/4"
Circ: No TOC: 4248'
TOC by: calculation

CURRENT

Surface Casing

16", 70# csg
Set @ 128' w/100 sx cmt
Hole size: 17"
Circ: Yes TOC: Surface
TOC by: circulation

8-5/8", 28# csg

Set @ 1157' w/100 sx cmt
Hole size: 11"
Circ: No TOC: 824'
TOC by: calculation

TOC set @ 1930' by calculation

7", 22# csg

Set @ 3561' w/200 sx cmt
Hole size: 8-1/4"
Circ: No TOC: 1930'
TOC by: calculation

Initial Pay Zone

3561-3721' (San Andres OH - Behind 5" Csg)

TOC set @ 4248' by calculation

Perfs

Status

5224-5270'

Paddock - open

CIBP set @ 5900' w/35' cmt on top

Perfs

Status

6444-6505'

Drinkard - below CIBP

CIBP set @ 6518' w/cmt on top

Perfs

Status

6520-6565'

Drinkard - below CIBP

PB 5865'

TD 6580'

WELL DATA SHEET

OPERATOR: TEXACO

[Initially drilled to 3721' w/ OH interval f/ 3561-3721']

FIELD: Penrose Skelly

WELL NAME: E. A. Sticher #2

FORMATION: Grayburg

LOCATION: 1980' FSL 660' FWL

TOWNSHIP: 22S

SEC: 4

GL: 3429'

CURRENT STATUS: PR

RANGE: 37E

COUNTY: Lea

KB:

API NO: 30-025-10039

LOT: L

STATE: NM

DF: 3445'

REFNO:

Spud Date: 9/18/37
Rig Released: 10/25/37
Date Completed: 11/1/37

TOC set @ 824' by calculation

Top of salt @ 1270'

Base of salt @ 2430'

Tubing Detail:

Run 2-3/8" x 31' MA, perf sub,
 126 jts 2-3/8" tbg, SN @ 3900'.

PROPOSED

Surface Casing

16", 70# csg
 Set @ 128' w/100 sx cmt
 Hole size: 17"
 Circ: Yes TOC: Surface
 TOC by: circulation

8-5/8", 28# csg

Set @ 1157' w/100 sx cmt
 Hole size: 11"
 Circ: No TOC: 824'
 TOC by: calculation

7", 22# csg

Set @ 3561' w/200 sx cmt
 Hole size: 8-1/4"
 Circ: No TOC: 1930'
 TOC by: calculation

Perfs

Status

3752-3885'

Grayburg - open

TOC set @ 4248' by calculation

CIBP set @ 5200' w/35' cmt on top

Perfs

Status

5224-5270'

Paddock - Below CIBP

CIBP set @ 5900' w/35' cmt on top

Perfs

Status

6444-6505'

Drinkard - below CIBP

CIBP set @ 6518' w/cmt on top

Perfs

Status

6520-6565'

Drinkard - below CIBP

Production Casing

5", 15# csg
 Set @ 6580' w/220 sx cmt
 Hole size: 6-1/4"
 Circ: No TOC: 4248'
 TOC by: calculation

KMJ 5/23/2002

TD 6580'

sticher2.xls

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State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1999

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Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|---|--|---|
| ¹ API Number 30-025-10039 | ² Pool Code 50350 | ³ Pool Name SKELLY PENROSE GRAYBURG |
| ⁴ Property Code 011114 | ⁵ Property Name STICHER, E.A. | ⁶ Well No. 2 |
| ⁷ OGRID Number 022351 | ⁸ Operator Name TEXACO EXPLORATION & PRODUCTION INC. | ⁹ Elevation 3429' GL |

¹⁰ Surface Location

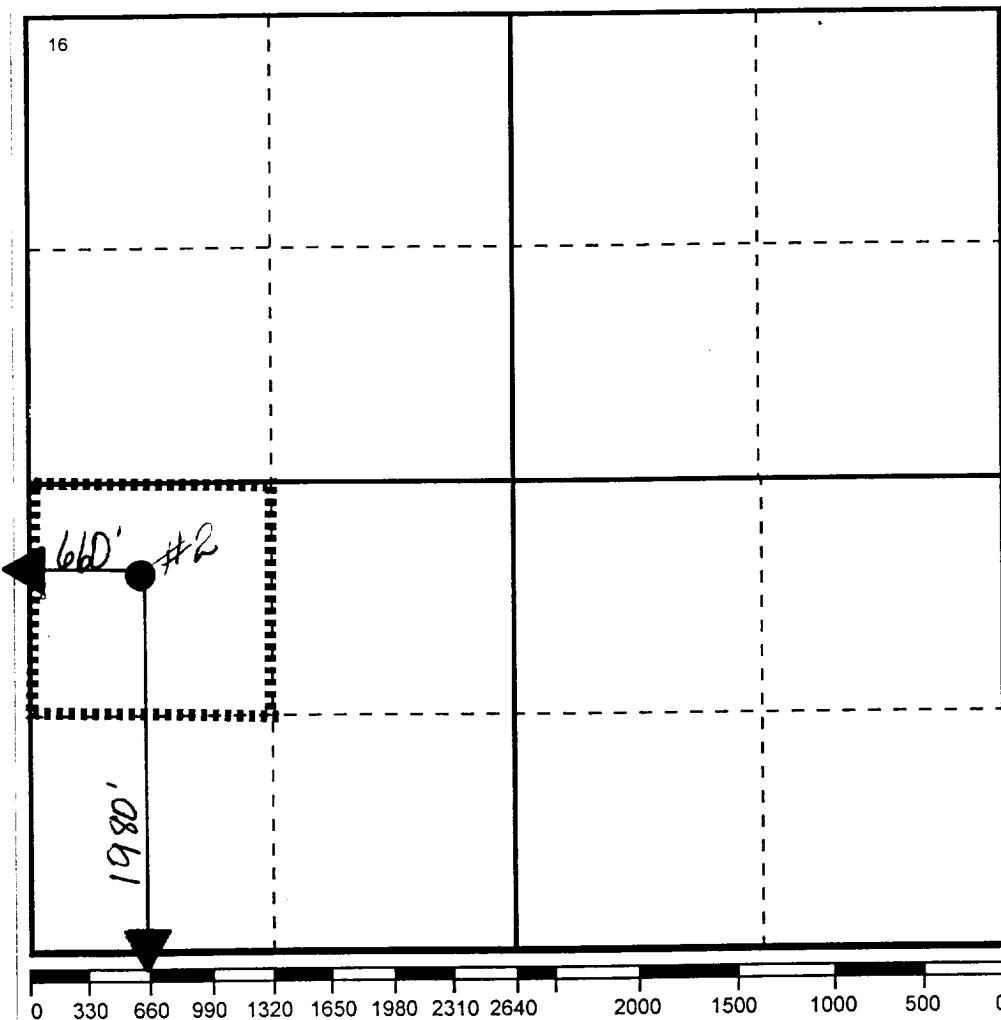
| UI or lot no | Section | Township | Range | Lot.Idn | Feet From The | North/South Line | Feet From The | East/West Line | County |
|--------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| L | 4 | 22S | 37E | | 1980 | SOUTH | 660 | WEST | LEA |

¹¹ Bottom Hole Location If Different From Surface

| UI or lot no. | Section | Township | Range | Lot.Idn | Feet From The | North/South Line | Feet From The | East/West Line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |

| | | | |
|------------------------------------|-------------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acre 40 | ¹³ Joint or Infill No | ¹⁴ Consolidation Code | ¹⁵ 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



17 OPERATOR CERTIFICATION

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

Signature

Printed Name

J. Denise Leake

Position

Regulatory Specialist

Date

5/28/2002

18 SURVEYOR CERTIFICATION

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

Date Surveyed

Signature & Seal of
Professional Surveyor

Certificate No.