

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

**OIL CONSERVATION DIVISION**

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.

30-025-04770

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil / Gas Lease No.

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMITS  
(FORM C-101) FOR SUCH PROPOSALS.

7. Lease Name or Unit Agreement Name

H.T. MATTERN NCT-A

1. Type of Well: OIL WELL ☒ GAS WELL ☐ OTHER

2. Name of Operator  
CHEVRON USA INC

8. Well No.  
3

3. Address of Operator  
15 SMITH ROAD, MIDLAND, TX 79705

9. Pool Name or Wildcat  
PENROSE SKELLY GRAYBURG

4. Well Location  
Unit Letter P : 660' Feet From The SOUTH Line and 660' Feet From The EAST Line  
Section 24 Township 21-S Range 36-E NMPM LEA COUNTY

10. Elevation (Show whether DF, RKB, RT, GR, etc.)  
3509' GL

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

**NOTICE OF INTENTION TO:**

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐  
OTHER: ADD PERFS, ACIDIZE & FRAC ☒

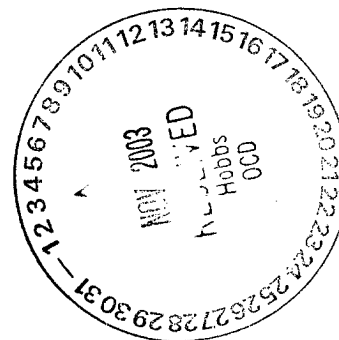
**SUBSEQUENT REPORT OF:**

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPERATION ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

CHEVRON U.S.A. INTENDS TO ADD PERFS IN THE GRAYBURG FORMATION, ACIDIZE & FRAC.

THE INTENDED PROCEDURE AND WELLBORE DIAGRAMS IS ATTACHED FOR YOUR APPROVAL.



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

SIGNATURE Denise Leake TITLE Regulatory Specialist

DATE 10/30/2003

TYPE OR PRINT NAME Denise Leake

Telephone No. 915-687-7375

(This space for State Use)

APPROVED Harry W. Wink  
CONDITIONS OF APPROVAL, IF ANY:

TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER

NOV 10 2003

**H. T. Mattern (NCT-A) # 3**

**Penrose Skelly Field**

**T21S, R36E, Section 24**

**Job: Add Perfs In Grayburg Formation, Acidize, And Frac**

**Procedure:**

1. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. AGU, EMSU, and EMSUB buried fiberglass lines will be tested with 300 psi. All polypipe (SDR7 and SDR11) will be tested w/100 psi. All steel lines will be tested w/500 psi. If a leak is found, contact Larry Williams for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.
2. MI & RU pulling unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. Remove WH. Install BOP's and test to 1000 psi.
3. PU and GIH with 6 1/4" MT bit and 2 7/8" work string to 3650'. Pressure test csg to 500 psi. **Note: If csg leaks, repair will be performed after adding Grayburg perfs and swab testing. If added perfs are non-productive, well will be P&A.** LD and drill out CIBP at 3650'. GIH with 6 1/4" bit to 5100'. Reverse circulate well clean from 5100' using 8.6 PPG cut brine water, if possible. POH with work string and bit. LD bit.
4. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/Neutron/CCL log from 5100' up to 3100'. POH. **Note: Fax log to Robert Martin ((432) 687-7905) for correlation and picking perfs.** GIH and conduct GR/CBL/CCL log from 5100' up to 2400'. 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 4 1/2" Predator casing gun and perforate from 3642-50', 3684-88', 3712-15', 3728-32', 3741-45', 3764-70', 3792-96', 3802-06', 3815-20', 3824-30', 3836-41', 3852-56', 3862-68', 3874-80', and 3892-94' with 4 JSPF at 120 degree phasing, using 38 gram premium charges. POH. RD & release electric line unit. **Note: Exact intervals to be perforated may be adjusted after conducting logs.**
5. PU and GIH w/ 7" PPI pkr (with 10' element spacing) and SCV on 2 7/8" work string to approximately 3700'. Test tbg to 5500 psi while GIH.
6. MI & RU DS Services. Acidize perfs 3642-3894' with 3,600 gals anti-sludge 15% HCl acid \* at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi**. Spot acid to bottom of tbg at beginning of each stage. Pump job as follows:

| Interval | Amt. Acid | Max Rate | PPI Setting |
|----------|-----------|----------|-------------|
| 3892-94' | 200 gals  | ½ BPM    | 3890-3900'  |
| 3874-80' | 200 gals  | ½ BPM    | 3872-82'    |
| 3862-68' | 200 gals  | ½ BPM    | 3860-70'    |
| 3852-56' | 200 gals  | ½ BPM    | 3850-60'    |
| 3836-41' | 200 gals  | ½ BPM    | 3834-44'    |
| 3824-30' | 200 gals  | ½ BPM    | 3822-32'    |
| 3815-20' | 200 gals  | ½ BPM    | 3812-22'    |
| 3802-06' | 200 gals  | ½ BPM    | 3800-10'    |
| 3792-96' | 200 gals  | ½ BPM    | 3790-3800'  |
| 3781-83' | 200 gals  | ½ BPM    | 3780-90'    |
| 3764-70' | 200 gals  | ½ BPM    | 3762-72'    |
| 3754-56' | 200 gals  | ½ BPM    | 3750-60'    |
| 3741-45' | 200 gals  | ½ BPM    | 3740-50'    |
| 3728-32' | 200 gals  | ½ BPM    | 3726-36'    |
| 3712-15' | 200 gals  | ½ BPM    | 3710-20'    |
| 3706-08' | 200 gals  | ½ BPM    | 3700-10'    |
| 3684-88' | 200 gals  | ½ BPM    | 3680-90'    |
| 3642-50' | 200 gals  | ½ BPM    | 3641-51'    |

Displace acid with 8.6 PPG cut brine 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 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal A264 and 1 gal W53. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 500 psi csg pressure. If cannot, then move PPI to next setting depth and combine treatment volumes of the intervals.**

|                              |            |                     |
|------------------------------|------------|---------------------|
| * Acid system is to contain: | 1 GPT A264 | Corrosion Inhibitor |
|                              | 8 GPT L63  | Iron Control Agent  |
|                              | 2 PPT A179 | Iron Control Aid    |
|                              | 20 GPT U66 | Mutual Solvent      |
|                              | 2 GPT W53  | Non-Emulsifier      |

- Release PPI pkr and PUH to approximately 3600'. 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.**
- Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.
- PU and GIH w/ 7" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 116 jts. of 3 ½" EUE 8R L-80 work string, testing to 7500 psi. Set pkr at approximately 3610'.

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 ½" tubing at **40 BPM** with 66,000 gals of YF135, 138,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR4000 proppant. Observe a maximum surface treating pressure of **7400 psi**. Pump job as follows:

Pump 2,000 gals 2% KCL water containing 110 gals Baker SCW-358 Scale Inhibitor

Pump 1,000 gals 2% KCL water spacer

Pump 25,000 gals YF135 pad containing 5 GPT J451 Fluid Loss Additive

Pump 5,000 gals YF135 containing 1.5 PPG 16/30 mesh Jordan Sand

Pump 6,000 gals YF135 containing 2.5 PPG 16/30 mesh Jordan Sand

Pump 7,000 gals YF135 containing 3.5 PPG 16/30 mesh Jordan Sand

Pump 8,000 gals YF135 containing 4.5 PPG 16/30 mesh Jordan Sand

Pump 10,000 gals YF135 containing 5.5 PPG 16/30 mesh Jordan Sand

Pump 5,000 gals YF135 containing 6 PPG **resin-coated** 16/30 mesh CR4000 proppant

Flush to 3610' with 1,319 gals WF135. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services. **Leave well SI overnight.**

11. Open well. GIH and swab well until there is no sand inflow. Release pkr and POH with 3 ½" work string. Lay down 3 ½" work string and pkr.
12. PU 6 ¼" MT bit and GIH on 2 7/8" work string to 4500'. If sand fill is found covering perfs, establish circulation using 8.6 PPG cut brine water. LD and cleanout wellbore to 4500'. Reverse circulate well clean from 4500' using 8.6 PPG cut brine water. POH with 2 7/8" work string and bit. LD bit.

**If casing leak was detected in Step # 3, locate and repair leak by cement squeezing. Exact procedure will be determined after locating leak and establishing injection rate.**

13. LD 2 7/8" work string. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 9 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 117 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3625', with EOT at 3935' and SN at 3900'.
14. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.
15. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

**Location:**

660' FSL & 660' FEL  
 Section: 24  
 Township: 21S  
 Range: 36E  
 County: Lea State: NM

**Elevations:**

GL: 3509'  
 KB: 3519'  
 DF: 3520'

**Current**  
**Wellbore Diagram**

**Well ID Info:**

Refno: FA5910  
 API No: 30-025-04770  
 L5/L6: U491700  
 Spud Date: 9/26/62  
 Compl. Date: 12/27/62

**Surf. Csg:** 13 3/8", 48# H-40  
**Set:** @ 326' w/ 360 sks  
**Hole Size:** 17 1/2"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

**Interm. Csg:** 9 5/8", 36#, J-55  
**Set:** @ 3689' w/ 325 sks  
**Hole Size:** 12 1/4"  
**Circ:** No **TOC:** 2550'  
**TOC By:** Temperature Survey

**CIBP @ 3650'**

| <b>Perfs:</b> | <b>Status</b>   |
|---------------|-----------------|
| 3706-08'      | Grayburg - Open |
| 3754-56'      | Grayburg - Open |
| 3781-83'      | Grayburg - Open |

**Tbg Detail:**  
 None

**CIBP @ 5135'**  
 (18' cmt on top)

**CIBP @ 5535'**  
 (18' cmt on top)

| <b>Perfs:</b> | <b>Status:</b>       |
|---------------|----------------------|
| 5180-88'      | Paddock - Below CIBP |

**CIBP @ 6475'**  
 (18' cmt on top)

| <b>Perfs:</b> | <b>Status:</b>        |
|---------------|-----------------------|
| 5612'         | Blinebry - Below CIBP |
| 5638'         | Blinebry - Below CIBP |
| 5664'         | Blinebry - Below CIBP |
| 5684'         | Blinebry - Below CIBP |
| 5705'         | Blinebry - Below CIBP |
| 5721'         | Blinebry - Below CIBP |
| 5764'         | Blinebry - Below CIBP |
| 5768'         | Blinebry - Below CIBP |
| 5831'         | Blinebry - Below CIBP |
| 5845'         | Blinebry - Below CIBP |
| 5892'         | Blinebry - Below CIBP |

|       |                       |
|-------|-----------------------|
| 6548' | Drinkard - Below CIBP |
| 6584' | Drinkard - Below CIBP |
| 6606' | Drinkard - Below CIBP |
| 6624' | Drinkard - Below CIBP |
| 6636' | Drinkard - Below CIBP |
| 6654' | Drinkard - Below CIBP |

**COTD:** 3650'  
**PBTD:** 3650'  
**TD:** 6714'

**Liner:** 7" OD 23# K-55  
**Set:** @ 6714' w/ top @ 3599'  
**Hole Size:** 8 3/4"  
**Circ:** No **TOC:** 3599' (Top of liner)  
**TOC By:** Liner Top Cmt Sqzd

**Updated:** 10/29/03**By:** A. M. Howell

**Location:**

660' FSL & 660' FEL  
 Section: 24  
 Township: 21S  
 Range: 36E  
 County: Lea State: NM

**Elevations:**

GL: 3509'  
 KB: 3519'  
 DF: 3520'

### Proposed Wellbore Diagram

**Well ID Info:**

Refno: FA5910  
 API No: 30-025-04770  
 L5/L6: U491700  
 Spud Date: 9/26/62  
 Compl. Date: 12/27/62

**Surf. Csg:** 13 3/8", 48# H-40**Set:** @ 326' w/ 360 sks**Hole Size:** 17 1/2"**Circ:** Yes **TOC:** Surface**TOC By:** Circulated**Interm. Csg:** 9 5/8", 36#, J-55**Set:** @ 3689' w/ 325 sks**Hole Size:** 12 1/4"**Circ:** No **TOC:** 2550'**TOC By:** Temperature Survey**Tbg Detail:****BP @** 3935'

1 jt. 2 7/8" tbg

2 7/8" x 4" perf sub

**SN @** 3900'

9 jts. 2 7/8" EUE 8R J-55 tbg

**TAC @** 3625'

117 jts. 2 7/8" EUE 8R J-55 tbg

**CIBP @** 5135'

(18' cmt on top)

**CIBP @** 5535'

(18' cmt on top)

**CIBP @** 6475'

(18' cmt on top)

**COTD:** 5117'**PBTD:** 5117'**TD:** 6714'**Updated:** 10/29/03**By:** A. M. Howell**Perfs:**

|          |                 |
|----------|-----------------|
| 3642-50' | Grayburg - Open |
| 3684-88' | Grayburg - Open |
| 3706-08' | Grayburg - Open |
| 3712-15' | Grayburg - Open |
| 3728-32' | Grayburg - Open |
| 3741-45' | Grayburg - Open |
| 3754-56' | Grayburg - Open |
| 3764-70' | Grayburg - Open |
| 3781-83' | Grayburg - Open |
| 3792-96' | Grayburg - Open |
| 3802-06' | Grayburg - Open |
| 3815-20' | Grayburg - Open |
| 3824-30' | Grayburg - Open |
| 3836-41' | Grayburg - Open |
| 3852-56' | Grayburg - Open |
| 3862-68' | Grayburg - Open |
| 3874-80' | Grayburg - Open |
| 3892-94' | Grayburg - Open |

**Status****Perfs:**

|          |                      |
|----------|----------------------|
| 5180-88' | Paddock - Below CIBP |
|----------|----------------------|

**Status:****Perfs:**

|       |                       |
|-------|-----------------------|
| 5612' | Blinebry - Below CIBP |
| 5638' | Blinebry - Below CIBP |
| 5664' | Blinebry - Below CIBP |
| 5684' | Blinebry - Below CIBP |
| 5705' | Blinebry - Below CIBP |
| 5721' | Blinebry - Below CIBP |
| 5764' | Blinebry - Below CIBP |
| 5768' | Blinebry - Below CIBP |
| 5831' | Blinebry - Below CIBP |
| 5845' | Blinebry - Below CIBP |
| 5892' | Blinebry - Below CIBP |

**Status:**

|       |                       |
|-------|-----------------------|
| 6548' | Drinkard - Below CIBP |
| 6584' | Drinkard - Below CIBP |
| 6606' | Drinkard - Below CIBP |
| 6624' | Drinkard - Below CIBP |
| 6636' | Drinkard - Below CIBP |
| 6654' | Drinkard - Below CIBP |

**Liner:** 7" OD 23# K-55**Set:** @ 6714' w/ top @ 3599'**Hole Size:** 8 3/4"**Circ:** No **TOC:** 3599' (Top of liner)**TOC By:** Liner Top Cmt Sqzd