

Form 3160-5  
(June 1990)

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

FORM APPROVED  
Budget Bureau No 1004-0135  
Expires March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT --" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well:  OIL WELL  GAS WELL  OTHER

2 Name of Operator: CHEVRON USA INC

3 Address and Telephone No: 15 SMITH RD, MIDLAND, TX 79705 432-687-737

4. Location of Well (Footage, Sec, T, R, M, or Survey Description)  
Unit Letter J : 2310 Feet From The SOUTH Line and 2310 Feet From The  
EAST Line Section 26 Township 24S Range 37E

5 Lease Designation and Serial No. NM-14218

6 If Indian, Alottee or Tribe Name

7 If Unit or CA, Agreement Designation

8 Well Name and Number C.C. FRISTOE 'B' FEDERAL NCT-2

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9 API Well No 30-025-22032

10 Field and Pool, Exploaratory Area LANGLIE MATTIX 7 RVR QN GRAYBURG

11. County or Parish, State LEA, NM

12 Check Appropriate Box(s) To Indicate Nature of Notice, Report, or Other Data

| TYPE OF SUBMISSION                                   | TYPE OF ACTION  |
|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Abandonment                            |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Recompletion                           |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Plugging Back                          |
|  | <input type="checkbox"/> Casing Repair                          |
|  | <input type="checkbox"/> Attering Casing                        |
|  | <input checked="" type="checkbox"/> OTHER <u>FRAC STIMULATE</u> |
|  | <input type="checkbox"/> Change of Plans                        |
|  | <input type="checkbox"/> New Construction                       |
|  | <input type="checkbox"/> Non-Routine Fracturing                 |
|  | <input type="checkbox"/> Water Shut-Off                         |
|  | <input type="checkbox"/> Conversion to Injection                |
|  | <input type="checkbox"/> Dispose Water                          |

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form)

13 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work).\*

CHEVRON U.S.A.INC. INTENDS TO FRAC STIMULATE THE GRAYBURG FORMATION.

THE INTENDED PROCEDURE AND CURRENT & PROPOSED WELLBORE DIAGRAMS ARE ATTACHED FOR YOUR APPROVAL.



14 I hereby certify that the foregoing is true and correct  
SIGNATURE Denise Pinkerton TITLE Regulatory Specialist  
TYPE OR PRINT NAME Denise Pinkerton

(This space for Federal or State office use)

APPROVED \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY \_\_\_\_\_

APPROVED DATE 8/9/2007

AUG 22 2007

DATE Wesley W. Ingram

PETROLEUM ENGINEER

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false statement or representation as to any matter within its jurisdiction

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**C. C. Fristoe B Federal (NCT-2) # 12**  
**Langlie Mattix Field**  
**T24S, R37E, Section 26**  
**Job: Frac Stimulate Grayburg Formation**

**Procedure:**

1. *This procedure is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland Office well files and computer databases as of 6/12/2007. Verify what is in the hole with the well file in the Dollarhide Field office. Discuss w/ WEO Engineer, Workover Rep, OS, ALS, and FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.*
2. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. 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 Darryl Ruthardt for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.
3. MI & RU workover unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. POH with rods and pump. Remove WH. Install BOP's and test as required. POH with production tbg string.
4. PU 3 7/8" MT bit and GIH on 2 3/8" work string to approximately 4200'. Reverse circulate well clean from 4200', if necessary. POH with 3 7/8" bit and tbg string. LD bit.
5. PU and GIH with 4 1/2' RBP and pkr to approximately 3325'. Set RBP at 3325'. PUH and set Pkr at 2500'. Pressure test casing from 2500 – 3325' to 2000 psi. Release pkr. LD and engage RBP at 3325'. Release RBP at 3325'. POH with work string, RBP, and pkr. LD RBP and packer.
6. PU and GIH w/ 4 1/2" PPI pkr (with 12' element spacing) and SCV on 2 3/8" work string to approximately 3700'. Test tbg to 5500 psi while GIH.
7. MI & RU Halliburton Services. Acidize perms 3352-3698' with 5,000 gals anti-sludge 15% Ferchek SC HCl acid (0.3%) \* at a maximum rate **as shown below** and a maximum surface pressure of **2500 psi**. Spot acid to bottom of tbg at beginning of each stage. Pump job as follows:

| Interval | Amt. Acid | Max Rate | PPI Setting  |
|----------|-----------|----------|--------------|
| 3694-98' | 200 gals  | 1/2 BPM  | 3692-3704'   |
| 3686-90' | 200 gals  | 1/2 BPM  | 3682-94'     |
| 3676-82' | 200 gals  | 1/2 BPM  | 3672-84'     |
| 3656-66' | 200 gals  | 1/2 BPM  | 3655-67'     |
| 3641-49' | 200 gals  | 1/2 BPM  | 3639-51'     |
| 3620-30' | 200 gals  | 1/2 BPM  | 3619-31'     |
| 3612-16' | 200 gals  | 1/2 BPM  | 3607.5-19.5' |

|            |          |       |            |
|------------|----------|-------|------------|
| 3598-3607' | 200 gals | ½ BPM | 3597-3609' |
| 3582-92'   | 200 gals | ½ BPM | 3581-93'   |
| 3570-78'   | 200 gals | ½ BPM | 3568-80'   |
| 3546-58'   | 200 gals | ½ BPM | 3546-58'   |
| 3522-32'   | 200 gals | ½ BPM | 3521-33'   |
| 3511-14'   | 200 gals | ½ BPM | 3508-20'   |
| 3496-3505' | 200 gals | ½ BPM | 3495-3507' |
| 3473-83'   | 200 gals | ½ BPM | 3472-84'   |
| 3462-66'   | 200 gals | ½ BPM | 3458-70'   |
| 3448-56'   | 200 gals | ½ BPM | 3447-59'   |
| 3434-40'   | 200 gals | ½ BPM | 3432-44'   |
| 3417-25'   | 200 gals | ½ BPM | 3416-28'   |
| 3408-12'   | 200 gals | ½ BPM | 3402-14'   |
| 3392-98'   | 200 gals | ½ BPM | 3390-3402' |
| 3384-88'   | 200 gals | ½ BPM | 3380-92'   |
| 3374-80'   | 200 gals | ½ BPM | 3370-82'   |
| 3360-66'   | 200 gals | ½ BPM | 3358-70'   |
| 3352-56'   | 200 gals | ½ BPM | 3346-58'   |

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 Halliburton services. **Note: Pickle tubing in 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only ¼ gal HAI-OS and ½ gal Lo-Surf-300M. 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 HAI-OS                | Corrosion Inhibitor |
| 2 GPT LoSurf-300M           | Surfactant          |
| 20 GPT Musol A              | Mutual Solvent      |
| 15% Fercheck SC Acid (0.3%) |                     |

8. Release PPI pkr and LD to approximately 3725'. Set pkr at 3725'. Pressure test casing from 3725' – 5065' to 2000 psi. Release PPI pkr and PUH to approximately 3325'. 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. Release PPI pkr. POH with 2 3/8" work string and PPI pkr. LD PPI pkr.
9. PU and GIH w/ 4 ½" 10K treating pkr & On-Off tool w/ 2.25" "F" profile on approximately 81 jts. of 2 7/8" EUE 8R L-80 work string, testing to 8500 psi. Set pkr at approximately 2500'. Install 10K frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication. Have frac tanks filled with 2% KCl water.
10. MI & RU Halliburton Services and Tracer-Tech Services (Mike Mathis (866) 595-3115). Frac well down 2 7/8" tubing at **40 BPM** with 88,000 gals of Delta Frac 140 R (21), 176,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR1630 proppant. Observe a maximum surface treating pressure

of **8000 psi**. Tag frac with 2 radioactive isotopes (1 in regular sand stages, and 1 in resin-coated proppant stage). Pump job as follows:

Pump 1,000 gals 2% KCL water spacer

Pump 2,000 gals 2% KCL water containing 55 gals Baker RE 4777-SCW Scale Inhibitor

Pump 1,000 gals 2% KCL water spacer

Pump 14,000 gals Delta Frac 140 R (21) pad containing 20 PPT WLC-7 Fluid Loss Additive

Pump 14,000 gals Delta Frac 140 R (21) containing 0.5 PPG 16/30 mesh Jordan Sand & 20 PPT WLC-7

Pump 12,000 gals Delta Frac 140 R (21) containing ramped 1 - 2 PPG 16/30 mesh Jordan Sand

Pump 12,000 gals Delta Frac 140 R (21) containing ramped 2 - 3 PPG 16/30 mesh Jordan Sand

Pump 14,000 gals Delta Frac 140 R (21) containing ramped 3 - 4 PPG 16/30 mesh Jordan Sand

Pump 16,000 gals Delta Frac 140 R (21) containing ramped 4 - 5 PPG 16/30 mesh Jordan Sand

Pump 6,000 gals Delta Frac 140 R (21) containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

Flush to 3275' with 1,113 gals Water Frac G – R (21). **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release Halliburton Services and Tracer-Tech Services. **Leave well SI overnight.**

11. Open well. Bleed pressure from well, if any. Release pkr. POH LD 2 7/8" work string, on-off tool, and pkr.
12. PU and GIH with 3 7/8" MT bit on 2 3/8" work string to 4200'. If fill is tagged above 4100', cleanout to 4100' using 8.6 PPG cut brine water and air unit if necessary. POH with 2 3/8" work string and bit. LD bit.
13. PU & GIH with 4 1/2" pkr on 2 3/8" work string to 3250'. Set pkr at 3250'. Open well. GIH and swab well until there is no sand inflow. Swab well for at least 3 hours before logging. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct after-frac PRISM GR/Temp/CCL log from 4100' up to 2800'. POH. RD & release electric line unit. **Note: Correlate logs and run flat with Baker Atlas GR/CBL/CCL Log conducted 11/26/2003.**
14. Release pkr. POH LD 2 3/8" work string and pkr.
15. PU and GIH w/ slotted mud anchor jt of 2 7/8" tbg, SN, 1 jt 2 3/8" EUE 8R J-55 IPC tbg, 14 jts 2 3/8" EUE 8R J-55 tbg, TAC, and 105 jts 2 3/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3300', with EOT at 3805' and SN at 3780'.
16. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS (John Bermea , telephone (432) 967-3420) recommended design. RD & release pulling unit.
17. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH

6/29/2007

Well C. C. Fristoe Fed B (NCT-2) # 12

Field Langlie Mattix

Reservoir Grayburg

**Location:**  
 2310' FSL & 2310' FEL  
 Section 26  
 Township 24S  
 Range 37E  
 County Lea State NM

**Elevations:**  
 GL 3181'  
 KB 3194'  
 DF 3193'

**Current Wellbore Diagram**

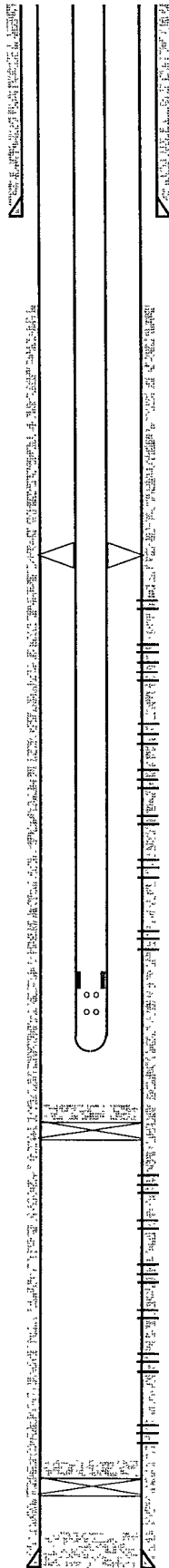
**Well ID info:**  
 Cheveno FG0188  
 API No 30-025-22032  
 L5/L6 UCU727600  
 Spud Date 2/17/1967  
 Compl Date 3/22/1967

Surf. Csg: 8 5/8", 17 26#, SW  
 Set: @ 973' w/ 550 sks  
 Hole Size: 11"  
 Circ: Yes TOC: Surface  
 TOC By: Circulated

**Tubing Detail:**

| #Jts. | Size:                           | Footage |
|-------|---------------------------------|---------|
|       | KB Correction                   | 13 00   |
| 105   | Jts 2 3/8" EUE 8R J-55 Tbg      | 3295 55 |
|       | TAC                             | 3 00    |
| 14    | Jts 2 3/8" EUE 8R J-55 Tbg      | 438 90  |
| 1     | Jt 2 3/8" EUE 8R J-55 IPC Tbg   | 31 65   |
|       | SN                              | 1 10    |
| 1     | Jt 2 7/8" EUE 8R Stotted Mud Jt | 22 20   |
| 121   | Bottom Of String >>             | 3805 40 |

This wellbore diagram is based on the most recent information regarding wellbore configuration and equipment that could be found in the Midland well files and computer databases as of the update date below. I entry what is in the update date below. WFEQ Engineer, WFO Rep OS, ALS, & FS prior to tripping up on well regarding any hazards or unknown issues pertaining to this well.



**Perfs:**

| Perfs      | Status:         |
|------------|-----------------|
| 3352-56'   | Grayburg - Open |
| 3360-66'   | Grayburg - Open |
| 3374-80'   | Grayburg - Open |
| 3384-88'   | Grayburg - Open |
| 3392-98'   | Grayburg - Open |
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| 3620-30'   | Grayburg - Open |
| 3641-49'   | Grayburg - Open |
| 3656-66'   | Grayburg - Open |
| 3676-82'   | Grayburg - Open |
| 3686-90'   | Grayburg - Open |
| 3694-98'   | Grayburg - Open |

CIBP @ 5100'  
 (35' cmt on top)

**Blinery Perfs - Below CIBP**

|          |          |       |
|----------|----------|-------|
| 5120-54' | 5355'    | 5602' |
| 5160-74' | 5368'    | 5609' |
| 5205'    | 5386'    | 5622' |
| 5213'    | 5395'    | 5657' |
| 5219'    | 5411'    | 5669' |
| 5225'    | 5414-18' | 5681' |
| 5239'    | 5424-32' | 5690' |
| 5242-46' | 5440'    | 5702' |
| 5247'    | 5460-72' | 5722' |
| 5256'    | 5486'    | 5738' |
| 5265'    | 5501'    | 5756' |
| 5276-80' | 5528'    | 5790' |
| 5283'    | 5541'    | 5802' |
| 5302'    | 5559'    |       |
| 5335'    | 5576'    |       |

CIBP @ 5950'  
 (35' cmt on top)

COTD: 5065'  
 PBTD: 5065'  
 TD: 6140'

Prod. Csg: 4 1/2", 11 60#, J-55  
 Set: @ 6140' w/ 900 sks  
 Hole Size: 7 7/8"  
 Circ: No TOC: 2270'  
 TOC By: CBL

Updated: 6/12/2007

By: A M Howell

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**Proposed Wellbore Diagram**

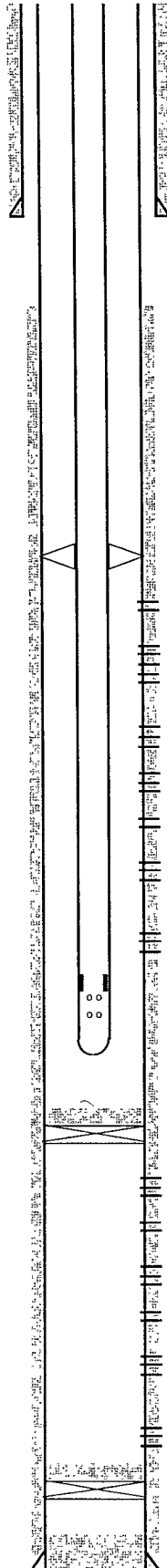
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