New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

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

5. Lease Designation and Serial No.: NMLC-057509
6. If Indian, Alottee or Tribe Name:
7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ OIL WELL ☑ GAS WELL ☐ OTHER
8. Well Name and Number: G.L. ERWIN 'B' FEDERAL NCT-2 7
2. Name of Operator: CHEVRON USA INC
3. Address and Telephone No.: 15 SMITH RD, MIDLAND, TX 79705 432-687-737
9. API Well No.: 30-025-32949
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Unit Letter O : 990 Feet From The SOUTH Line and 2250 Feet From The EAST Line Section 35 Township 24S Range 37E
10. Field and Pool, Exploaratory Area: Langlie Mattix Seven River Queen 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	
☑ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☑ OTHER: ADD PERFS & FRAC	☐ 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 INTENDS TO ADD PERFS IN THE GRAYBURG FORMATION AND FRAC STIMULATE TO INCREASE PRODUCTION FROM THE GRAYBURG RESERVOIR.

THE INTENDED PROCEDURE, AND CURRENT AND 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 DATE 9/21/2005

TYPE OR PRINT NAME Denise Pinkerton

(This space for Federal or State office use)

APPROVED BY /S/ DAVID R. GLASS TITLE PETROLEUM ENGINEER DATE SEP 22 2005

CONDITIONS OF APPROVAL, IF ANY:

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, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DeSoto/Nichols 12-93 ver 1.0

G. L. Erwin Federal B (NCT-2) # 7
Langlie Mattix Field
T24S, R37E, Section 35
Job: Add Perfs In Grayburg Formation And Frac Stimulate

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 Tejay Simpson 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 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 to 1000 psi. Release TAC. POH with 2 7/8" tbg string. LD TAC.

3. PU and GIH with 4 ¾" MT bit and 2 7/8" work string to 3450'. Establish reverse circulation using 8.6 PPG cut brine water. LD and drill out CIBP at 3450'. LD and cleanout casing to approximately 4900'. Reverse circulate well clean from 4900' using 8.6 PPG cut brine water. POH with work string and bit. LD bit. **Note: If well will not circulate, use air unit and clean out using foam.**

4. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CBL/CCL log from 4900' up to 2600'. POH. Inspect logs for good cement bond from approximately 3900' up to 3100'. 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 3356-64', 3374-82', 3388-94', 3422-26', 3432-40', 3450-60', 3516-20', 3526-30', 3540-50', 3560-68', 3574-80', 3588-94', 3600-06', 3614-24', 3632-40', 3660-66', 3672-78', 3688-94', 3702-08', and 3717-27' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Use Halliburton Spectral Density Dual Spaced Neutron Log dated 5/26/95 for depth correlation.**

5. PU and GIH w/ 5 ½" PPI pkr (with 12' element spacing) and SCV on 2 7/8" work string to approximately 3350'. Test tbg to 5500 psi while GIH.

6. MI & RU DS Services. Acidize perfs 3356-3727' with 4,400 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi.** Spot acid across perfs at beginning of each stage and let soak to lower breakdown pressure and prevent communication. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3717-27'	200 gals	½ BPM	3716-28'
3702-08'	200 gals	½ BPM	3700-12'
3688-94'	200 gals	½ BPM	3686-98'
3672-78'	200 gals	½ BPM	3668-80'
3660-66'	200 gals	½ BPM	3656-68'
3632-40'	200 gals	½ BPM	3630-42'
3614-24'	200 gals	½ BPM	3613-25'
3600-06'	200 gals	½ BPM	3596-3608'
3588-94'	200 gals	½ BPM	3586-98'
3574-80'	200 gals	½ BPM	3570-82'
3560-68'	200 gals	½ BPM	3558-70'
3540-50'	200 gals	½ BPM	3539-51'
3526-30'	200 gals	½ BPM	3522-34'
3516-20'	200 gals	½ BPM	3512-24'
3468-75'	200 gals	½ BPM	3466-78'
3450-60'	200 gals	½ BPM	3449-61'
3432-40'	200 gals	½ BPM	3430-42'
3422-26'	200 gals	½ BPM	3418-30'
3404-14'	200 gals	½ BPM	3403-15'
3388-94'	200 gals	½ BPM	3386-98'
3374-82'	200 gals	½ BPM	3372-84'
3356-64'	200 gals	½ BPM	3354-66'

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 1000 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

7. 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. **Note: Selectively swab perfs as directed by Engineering if excessive water is produced.**

8. Open well. Release PPI pkr. LD and set PPI pkr at 3750'. Pressure test casing from 3750 – 4965' to 2500 psi. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.

9. PU and GIH w/ 5 ½" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 104 jts. of 3 ½" EUE 8R L-80 work string, testing to 8500 psi. Set pkr at approximately 3250'. 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 and Tracer-Tech Services (Mike Mathis (866) 595-3115). Frac well down 3 ½" tubing at **40 BPM** with 85,000 gals of YF130, 160,000 lbs. 16/30 mesh Jordan Sand, and 35,000 lbs **resin-coated** 16/30 mesh CR1630 proppant. Observe a maximum surface treating pressure of **8400 psi**. Tag frac with 3 radioactive isotopes (1 in ½ PPG pad stage, 1 in main proppant stages, and 1 in resin-coated proppant stage). Pump job as follows:

    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 YF130 pad containing 5 GPT J451 Fluid Loss Additive
    Pump 14,000 gals YF130 containing 0.5 PPG 16/30 mesh Jordan Sand & 5 GPT J451 FL Additive
    Pump 12,000 gals YF130 containing 1.5 PPG 16/30 mesh Jordan Sand
    Pump 12,000 gals YF130 containing 2.5 PPG 16/30 mesh Jordan Sand
    Pump 12,000 gals YF130 containing 3.5 PPG 16/30 mesh Jordan Sand
    Pump 14,000 gals YF130 containing 4.5 PPG 16/30 mesh Jordan Sand
    Pump 7,000 gals YF130 containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

    Flush to 3279' with 1,218 gals WF130. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services and Tracer-Tech Services. **Leave well SI overnight.**

11. Open well. Release pkr and POH with 3 ½" work string. Lay down work string and pkr.

12. PU and GIH with 4 ¾" MT bit on 2 7/8" work string to 4000'. If fill is found above 4000', clean out fill to 4000' using 8.6 PPG cut brine water and air unit (if necessary). POH with 2 7/8" work string and bit. LD bit.

13. PU & GIH with 5 ½" pkr on 2 7/8" work string to 3300'. Set pkr at 3300'. Open well. GIH and swab well until there is no sand inflow. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct after-frac GR/Temp/CCL log from 4000' up to 2000'. POH. RD & release electric line unit. **Note: Correlate logs and run flat with Baker Atlas GR/CBL/CCL Log conducted in Step # 4.**

14. Release pkr. POH LD 2 7/8" work string and pkr.

15. PU and GIH w/ BP slotted mud anchor jt of 3 ½" tbg, SN, 1 jt. 2 7/8" EUE 8R J-55 IPC tbg, 14 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 106 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3300', with EOT at 3800' and SN at 3765'.

16. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release workover unit.

17. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH
6/15/2005

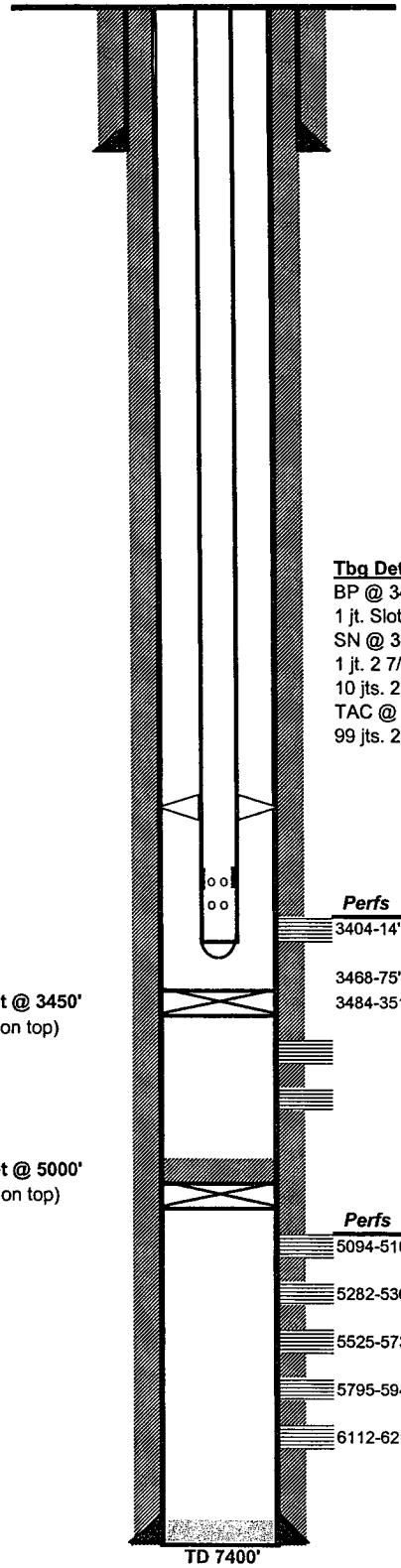
CURRENT
WELLBORE DIAGRAM

Lease/Well No. G. L. Erwin Fed B (NCT-2) #7 **Field:** Langlie Mattix **Formation:** Seven Rivers/Queen/Grayburg
Location: 990' FSL 2250' FEL **Section:** 35 **Tsp:** 24S **Range:** 37E
County: Lea **State:** New Mexico **Lot:** O **API:** 30-025-32949 **Refno:** BC4546
Classification: Gas well **Status:** PR

Surface Csg.

Size:	8-5/8"
Wt.:	24#
Set @:	995'
Sx cmt:	525
Circ:	106 sx cmt
TOC:	surface
Hole Size:	11"

GL:	3169'
DF:	3183'
KB:	3184'
Spud Date:	5/13/1995
Released Rig:	5/28/1995
Compl. Date:	6/25/1995



Tbg Detail:
BP @ 3444'
1 jt. Slotted 3 1/2" tbg
SN @ 3400'
1 jt. 2 7/8" EUE 8R J-55 IPC tbg
10 jts. 2 7/8" EUE 8R J-55 tbg
TAC @ 3059'
99 jts. 2 7/8" EUE 8R J-55 tbg

Perfs	*Status*
3404-14'	Grayburg - open
3468-75'	Grayburg - Below CIBP
3484-3510'	Grayburg - Below CIBP

CIBP set @ 3450'
(No cmt on top)

CIBP set @ 5000'
(35' cmt on top)

Perfs	*Status*
5094-5165'	Upper Blinebry - below CIBP
5282-5304'	Upper Blinebry - below CIBP
5525-5739'	Lower Blinebry - below CIBP
5795-5943'	Tubb - below CIBP
6112-6213'	Drinkard - below CIBP

TD 7400'

Production Csg.

Size:	5-1/2"
Wt.:	17# & 15.5#
Set @:	7400'
Sx Cmt:	1700
Circ:	129 sx cmt
TOC:	surface
Hole Size:	7-7/8"

Prepared by: K. M. Jackson
Date: 2/24/2004

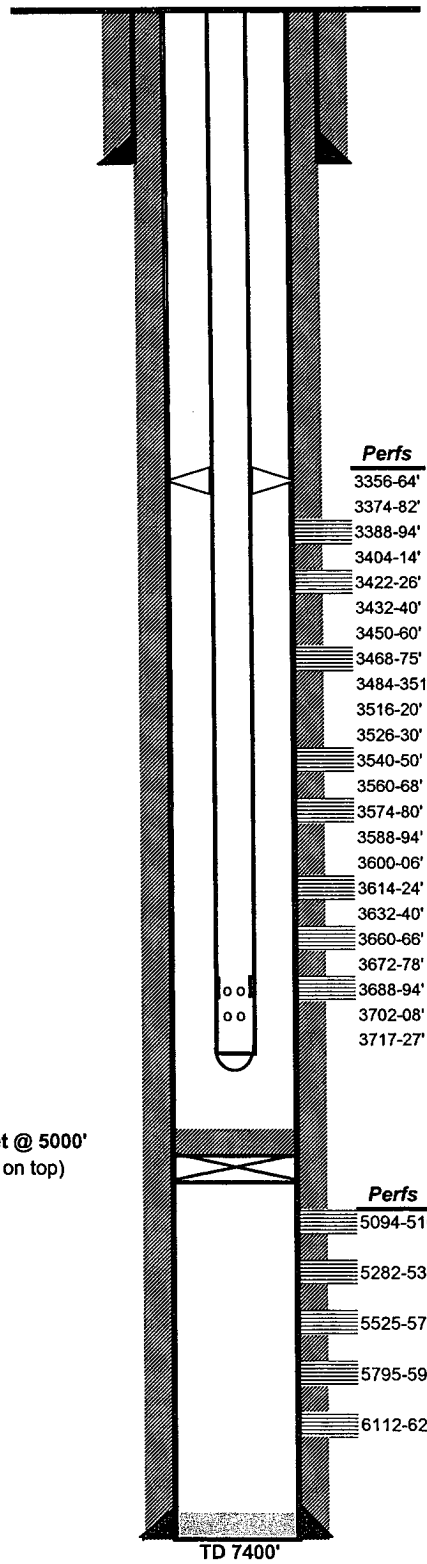
PROPOSED
WELLBORE DIAGRAM

Lease/Well No. G. L. Erwin Fed B (NCT-2) #7 **Field:** Langlie Mattix **Formation:** Seven Rivers/Queen/Grayburg
Location: 990' FSL 2250' FEL **Section:** 35 **Tsp:** 24S **Range:** 37E
County: Lea **State:** New Mexico **Lot:** O **API:** 30-025-32949 **Refno:** BC4546
Classification: Gas well **Status:** PR

Surface Csg.

Size:	8-5/8"
Wt.:	24#
Set @:	995'
Sx cmt:	525
Circ:	106 sx cmt
TOC:	surface
Hole Size:	11"

GL:	3169'
DF:	3183'
KB:	3184'
Spud Date:	5/13/1995
Released Rig:	5/28/1995
Compl. Date:	6/25/1995



Perfs	*Status*
3356-64'	Grayburg - open
3374-82'	Grayburg - open
3388-94'	Grayburg - open
3404-14'	Grayburg - open
3422-26'	Grayburg - open
3432-40'	Grayburg - open
3450-60'	Grayburg - open
3468-75'	Grayburg - open
3484-3510'	Grayburg - open
3516-20'	Grayburg - open
3526-30'	Grayburg - open
3540-50'	Grayburg - open
3560-68'	Grayburg - open
3574-80'	Grayburg - open
3588-94'	Grayburg - open
3600-06'	Grayburg - open
3614-24'	Grayburg - open
3632-40'	Grayburg - open
3660-66'	Grayburg - open
3672-78'	Grayburg - open
3688-94'	Grayburg - open
3702-08'	Grayburg - open
3717-27'	Grayburg - open

Tbg Detail:
BP @ 3800'
1 jt. Slotted 3 1/2" tbg
SN @ 3765'
1 jt. 2 7/8" EUE 8R J-55 IPC tbg
14 jts. 2 7/8" EUE 8R J-55 tbg
TAC @ 3300'
106 jts. 2 7/8" EUE 8R J-55 tbg

CIBP set @ 5000'
(35' cmt on top)

Perfs	*Status*
5094-5165'	Upper Blinebry - below CIBP
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TD 7400'

Production Csg.

Size:	5-1/2"
Wt.:	17# & 15.5#
Set @:	7400'
Sx Cmt:	1700
Circ:	129 sx cmt
TOC:	surface
Hole Size:	7-7/8"

Prepared by: A. M. Howell
Date: 9/19/2005