

Submit 3 Copies To Appropriate District  
Office  
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1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
June 19, 2008

<b>RECEIVED</b> <b>NOV 10 2008</b> <b>400RS(11)</b>		<b>OIL CONSERVATION DIVISION</b> 1220 South St. Francis Dr. Santa Fe, NM 87505	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-06620	
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
2. Name of Operator CHEVRON U.S.A. INC.		6. State Oil & Gas Lease No.	
3. Address of Operator 15 SMITH ROAD, MIDLAND, TEXAS 79705		7. Lease Name or Unit Agreement Name HARRY LEONARD E	
4. Well Location Unit Letter G: 1980 feet from the NORTH line and 1980 feet from the EAST line Section 16 Township 21-S Range 37-E NMPM County LEA		8. Well Number 1	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3494' GL		9. OGRID Number 4323	
		10. Pool name or Wildcat PENROSE SKELLY GRAYBURG	

12. 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 ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ADD PERFS & REFRAC GRAYBURG

OTHER:

13. 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. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

CHEVRON U.S.A. INC. INTENDS TO ADD PERFS & REFRAC THE GRAYBURG RESERVOIR.  
THE INTENDED PROCEDURE & CURRENT & PROPOSED WELLBORE DIAGRAMS ARE ATTACHED FOR YOUR APPROVAL.

Spud Date:

Rig Release Date:

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

SIGNATURE Denise Pinkerton TITLE REGULATORY SPECIALIST DATE 11-04-2008

Type or print name DENISE PINKERTON E-mail address: [leakejd@chevron.com](mailto:leakejd@chevron.com) PHONE: 432-687-7375

**For State Use Only**

APPROVED BY: [Signature] TITLE PETROLEUM ENGINEER DATE NOV 12 2008

Conditions of Approval (if any):

Harry Leonard E #1  
Penrose Skelly; Grayburg  
T21S, R37E, Section 16  
Job: Add Perfs and ReFrac Grayburg

9/12/2008

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 9/12/08. Verify what is in the hole with the well file in the Eunice 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 Donnie Ives 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 LD rods and pump. Remove WH. Install BOP's and test as required. Release TAC. POH w/ 2-7/8" tubing. Scan tubing using Tuboscope scanner while POH. LD all jts. but yellow band.
4. PU and GIH with 6 1/4" MT bit on production tbg, and WS as needed to 6400'. Reverse circulate well clean from 6400' using 8.6 PPG cut brine water, if possible. POH with tbg string and bit. LD bit.
5. MI & RU WL. GIH w/ 7" CIBP to 6380'. Set CIBP at 6380'. POH. LD setting tool. GIH and dump bail 35' cmt on top of CIBP at 6380'. POH. GIH w/ 7" CIBP to 5780'. Set CIBP at 5780' POH. LD setting tool.
6. GIH with 3 1/8" slick casing guns and perforate the following intervals with 4 JSPF at 120 degree phasing using 23 gram premium charges:

Top	Bottom	Net Ft.	No. Perfs
3994	4004	10	40
3977	3987	10	40
3950	3956	6	24
3938	3946	8	32
3884	3894	10	40

7. POH. GIH and dump bail 35' of cement on top of CIBP at 5780'. POH RD & release WL.  
Note: Use Baker Atlas Cement Bond Log dated 6/3/2002 for depth correction.

8. RIH w/ 7" PPI packer w/ SCV and 12' element spacing: Test PPI packer in blank pipe. Mark Settings.
9. MI & RU DS Services. Acidize perfs 3770-4004' with 3,600 gal 15% NEFE HCl acid\* at a maximum rate of **1 BPM** and a maximum surface pressure of **4000 psi** as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3994-4004'	200 gal	1 BPM	3993-4005'
3977-3987'	200 gal	1 BPM	3976-3988'
3960-3972'	200 gal	1 BPM	3959-3971'
3950-3956'	200 gal	1 BPM	3947-3959'
3938-3946'	200 gal	1 BPM	3935-3947'
3924-3934'	200 gal	1 BPM	3923-3935'
3912-3918'	200 gal	1 BPM	3911-3923'
3898-3908'	200 gal	1 BPM	3897-3909'
3884-3894'	200 gal	1 BPM	3883-3895'
3872-3880'	200 gal	1 BPM	3870-3882'
3860-3866'	200 gal	1 BPM	3856-3868'
3846-3854'	200 gal	1 BPM	3845-3857'
3833-3843'	200 gal	1 BPM	3832-3844'
3822-3824'	200 gal	1 BPM	3819-3831'
3812-3818'	200 gal	1 BPM	3809-3821'
3800-3808'	200 gal	1 BPM	3797-3809'
3781-3791'	200 gal	1 BPM	3780-3792'
3770-3774'	200 gal	1 BPM	3765-3777'

Displace acid with 8.6 PPG cut brine water -- do not over displace. 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 ½ 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 to contain:

1 GPT A264	Corrosion Inhibitor
8 GPT L63	Iron Control Agents
2 PPT A179	Iron Control Aid
20 GPT U66	Mutual Solvent
2 GPT W53	Non-Emulsifier

10. Release PPI & PU to approximately 3675'. Set pkr @ 3675'. Fish SCV. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered volumes, pressures, and/or swabbing fluid levels.
11. Open well. Release PPI pkr. POH w/ tbg and PPI pkr. LD PPI tool.

12. PU and GIH w/ 7" Arrow-Set 10k pkr & On-Off tool w/ 2.25" "F" profile and 3-1/2" EUE 8R L-80 work string, testing to 8500 psi. Set pkr at approximately 3670'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to aid in observing communication.
13. MI & RU DS Services and Tracer-Tech Services (Mike Mathis (866) 595-3115). Frac well down 3 1/2" tubing at **40 BPM** with 88,000 gals of YF125, 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 **8500 psi**. Tag frac with 2 radioactive isotopes (1 in regular sand 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 at **6 BPM**  
Pump 1,000 gals 2% KCL water spacer at **20 BPM**  
Pump 14,000 gals YF125 pad containing 5 GPT J451 Fluid Loss Additive at **40 BPM**  
Pump 14,000 gals YF125 containing 0.5 PPG 16/30 mesh Jordan Sand & 5 GPT J451 FL Additive  
Pump 12,000 gals YF125 containing 1.5 PPG 16/30 mesh Jordan Sand  
Pump 12,000 gals YF125 containing 2.5 PPG 16/30 mesh Jordan Sand  
Pump 14,000 gals YF125 containing 3.5 PPG 16/30 mesh Jordan Sand  
Pump 16,000 gals YF125 containing 4.5 PPG 16/30 mesh Jordan Sand  
Pump 6,000 gals YF125 containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

Flush to 3730' with WF125. **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.**

14. Open well. Bleed pressure from well, if any. Release pkr. POH LD 3 1/2" work string, on-off tool, and pkr.
15. PU and GIH with 6 1/4" MT bit on production tubing to 4500'. If fill is tagged above 4500', cleanout to 5745' using 8.6# PPG cut brine water using air unit if necessary. POH with 2 7/8" tbg and bit. LD bit.
16. PU & GIH with 7" pkr on 2 7/8" tbg string to 3600'. Set pkr at 3600'. 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 from 4300' to 3400'. POH. RD & release electric line unit. **Note: Use Baker Atlas Cement Bond Log dated 6/3/2002 for depth correction.**
17. Release pkr. POH 2-7/8" tubing and pkr.
18. RIH w/ 2-7/8" production tubing and hang off per ALS recommendation. NDBOP. NUWH. RIH w/ rods and pump per ALS.
19. RD Key PU & RU. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

Engineer – Richard Jenkins

432-687-7120 Office

432-631-3281 Cell

Well: Harry Leonard E #1

Reservoir: Grayburg

Location:

1980' FNL & 1980' FEL  
Section 16  
Township 21S  
Range 37 E  
County Lea, NM

Elevations:

GL 3494'  
DF 3506'  
KB 3507'

Current

Well ID Info:

Refno FA7724  
API No 30-025-06620  
L5/L6: UCU492000  
Spud Date 9/14/1947  
Compl Date 11/16/1947

Surf Csg: 13 3/8", 48 #, SS

Set: @ 294' w/ 300 sks

Hole Size: 17 1/4"

Circ: Yes

TOC By: Circulation

TOC: Surface

Interm Csg: 9 5/8", 36 #, H-40

Set: @ 2950' w/ 1300 sks

Hole Size: 12 1/4"

Circ: No

TOC By: Temp Survey

TOC: 1345'

This wellbore diagram 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 the update date below. Verify what is in the hole with the well file in the Eunice Field Office. Discuss w/ WEO Engineer, WO Rep, OS, ALS, & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.

Perfs	Status
3770-74'	Grayburg - Open
3781-91'	Grayburg - Open
3800-08'	Grayburg - Open
3812-18'	Grayburg - Open
3822-24'	Grayburg - Open
3833-43'	Grayburg - Open
3846-54'	Grayburg - Open
3860-66'	Grayburg - Open
3872-80'	Grayburg - Open
3898-3908'	Grayburg - Open
3912-18'	Grayburg - Open
3924-34'	Grayburg - Open
3960-72'	Grayburg - Open

3958-62'	Grayburg - Cmt Sqz'd
3966-71'	Grayburg - Cmt Sqz'd
3975-80'	Grayburg - Cmt Sqz'd
3984-90'	Grayburg - Cmt Sqz'd
3994-4004'	Grayburg - Cmt. Sqz'd

Perfs	Status
5822-24'	Blaine - Open
5835-37'	Blaine - Open
5883-85'	Blaine - Open
5920-22'	Blaine - Open
5958-60'	Blaine - Open

Perfs	Status
6438-40'	Drinkard - Open
6464-66'	Drinkard - Open
6495-97'	Drinkard - Open
6538-40'	Drinkard - Open
6571-73'	Drinkard - Open
6592-94'	Drinkard - Open

Prod Csg: 7", 23#, J-55/N-80

Set: @ 6610' w/ 700 sks

Hole Size: 8 3/4"

Circ: No

TOC By: Temp. Survey

TOC: 1360'

6610-70' 6-1/8" Openhole - Filled w/ Sand

CICR at 6600'

COTD: 6585'  
PBDT 6600'  
TD: 6670'

Updated 9/4/2008

By rjdg

Well: Harry Leonard E #1

Reservoir: Grayburg

Proposed

Location:

1980' FNL & 1980' FEL  
Section 16  
Township 21S  
Range 37 E  
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6610-70' 6-1/8" Openhole - Filled w/ Sand

CIBP at 5780' w/ 35' cmt

CIBP at 6380' w/ 35' cmt

CICR at 6600'

COTD 5745'  
PBTd 5745'  
TD 6670'

Updated 9/12/2008

By rjdg