

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, 199
Instructions on bac
Submit to Appropriate District Office
State Lease - 6 Copy
Fee Lease - 5 Copy
☐ AMENDED REPORT

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

¹ Operator Name and Address CHEVRON USA INC 15 SMITH RD, MIDLAND, TX 79705		² OGRID Number 4323
		³ API Number 30-025-32107
⁴ Property Code	⁵ Property Name B.F. HARRISON 'B'	⁶ Well No. 11

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
C	9	23-S	37-E		560	N	2100	W	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 LANGLIE MATTIX;7 RIVERS QUEEN-GRAYBURG					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² WellType Code O	¹³ Rotary or C.T.	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation GL-3312'
¹⁶ Multiple No	¹⁷ Proposed Depth 5400'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date

²¹ Proposed Casing and Cement Program

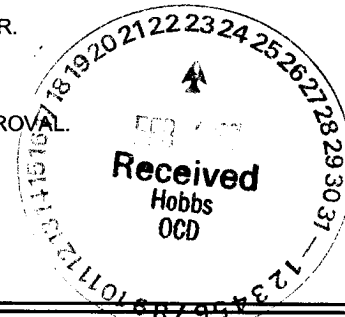
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP

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.

CHEVRON U.S.A. INC. INTENDS TO RECOMPLETE THE SUBJECT WELL TO THE GRAYBURG RESERVOIR.

A PIT WILL NOT BE USED FOR THIS PLUGBACK. A STEEL FRAC TANK WILL BE UTILIZED.

THE INTENDED PROCEDURE, AND PROPOSED WELLBORE DIAGRAM ARE ATTACHED FOR YOUR APPROVAL.



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

Denise Pinkerton

Printed Name Denise Pinkerton

Title Regulatory Specialist

Date 2/20/2007

Telephone 432-687-7375

OIL CONSERVATION DIVISION

Approved By:

Title:

Approval Date:

Expiration Date: 3/12/08

Conditions of Approval:

Attached

MAR 12 2007

B.F. Harrison B #11
Langlie Mattix
T23S, R37E, Section 9
Job: PB To Grayburg Formation, Acidize, And Frac

02/09/2007

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 2/09/2007. 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. POH and LD 2-7/8" tbg.**
- 4. PU and GIH with 4 3/4" MT bit, 4000' of 2 7/8" Class "A" production tbg, and WS as needed to 5100'. Reverse circulate well clean from 5100' using 8.6 PPG cut brine water, if possible. POH with tbg string and bit. LD bit.**
- 5. MI & RU WL. GIH w/ CIBP to 5075'. Set 5 1/2" CIBP at 5075'. Pressure test casing and CIBP to 500 psi. POH. LD setting tool.**
- 6. GIH and conduct GR/CBL/CCL log from 5075' up to 2200'. Run log with 500 psi on casing. POH. Inspect logs for good cement bond from approximately 4100' up to 3400'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding.**
- 7. 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 Perf	Bottom Perf	Net Feet	Total Holes
3932	3940	8	32
3920	3927	7	28
3895	3900	5	20
3880	3888	8	32
3852	3858	6	24
3841	3848	7	28
3832	3838	6	24

3818	3824	6	24
3805	3809	4	16
3791	3798	7	28
3776	3780	4	16
3763	3770	7	28
3752	3760	8	32
3740	3745	5	20
3730	3737	7	28

8. POH. GIH and dump bail 35' of cement on top of CIBP at 5075'. POH RD & release WL.
Note: Use Halliburton Depth Control Log dated 11/22/93 for depth correction.
9. RIH w/ 5-1/2" PPI packer w/ SCV and 10' element spacing. Test PPI packer in blank pipe. Mark Settings.
10. MI & RU DS Services. Acidize perfs 3730-3940' with 3,000 gal 15% NEFE HCl acid* at a maximum rate of $\frac{1}{2}$ BPM and a maximum surface pressure of 4000 psi as follows:

Perfs	Acid Volume	Max Rate	PPI Setting
3932-3940	200	1/2 bpm	3931-3941
3920-3927	200	1/2 bpm	3919-3929
3895-3900	200	1/2 bpm	3894-3904
3880-3888	200	1/2 bpm	3879-3889
3852-3858	200	1/2 bpm	3850-3860
3841-3848	200	1/2 bpm	3840-3850
3832-3838	200	1/2 bpm	3829-3839
3818-3824	200	1/2 bpm	3815-3825
3805-3809	200	1/2 bpm	3803-3813
3791-3798	200	1/2 bpm	3790-3800
3776-3780	200	1/2 bpm	3774-3784
3763-3770	200	1/2 bpm	3762-3772
3752-3760	200	1/2 bpm	3751-3761
3740-3745	200	1/2 bpm	3739-3749
3730-3737	200	1/2 bpm	3729-3739

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 $\frac{1}{2}$ 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 to contain:

1 GPT A264
8 GPT L63
2 PPT A179

Corrosion Inhibitor
Iron Control Agents
Iron Control Aid

20 GPT U66
2 GPT W53

Mutual Solvent
Non-Emulsifier

11. 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. **Note: Selectively swab perfs as directed by engineering if excessive water is produced.**
12. Open well. Release PPI pkr. POH w/ tbg and PPI pkr. LD PPI tool.
13. PU and GIH w/ 5-1/2" Arrow-Set 10k pkr & On-Off tool w/ 2.25" "F" profile and 117 jts of 3-1/2" EUE 8R L-80 work string, testing to 8500 psi. Set pkr at approximately 3600'. 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.
14. 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 3600' with 1,315 gal 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.**
15. Open well. Bleed pressure from well, if any. Release pkr. POH LD 3 1/2" work string, on-off tool, and pkr.
16. PU and GIH with 4 3/4" MT bit on 2 7/8" Class "A" tubing to approximately 4200'. If fill is tagged above 4200', cleanout to 4200' using 8.6# PPG cut brine water using air unit if necessary. POH with 2 7/8" tbg and bit. LD bit.
17. PU & GIH with 5 1/2" 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 4200' to 3300'. POH. RD & release electric line unit. **Note:**
Correlate logs and run flat with Baker Atlas GR/CBL/CCL Log conducted in Step # 67.

18. Release pkr. POH 2-7/8" tubing and pkr.
19. RIH w/ 2-7/8" production tubing and hang off per ALS recommendation. NDBOP. NUWH.
RIH w/ rods and pump per ALS.
20. 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: **B.F. Harrison B #11**

37240
Reservoir: **Grayburg**

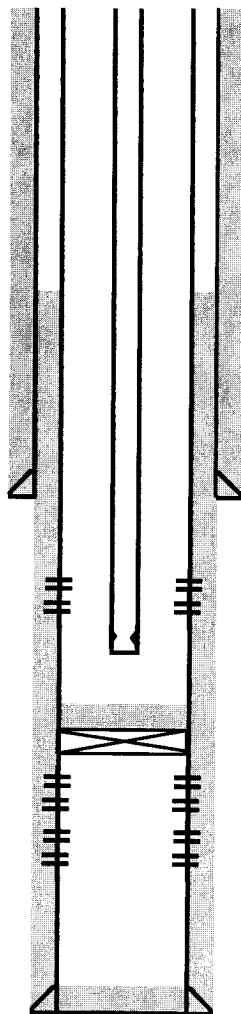
Location:
560' FNL & 2100' FWL
Section: 9
Township: 23S
Range: 37E
County: Lea, NM.

Proposed

Well ID Info:
Refno: QU2349
API No: 30-025-32107
L5/L6: UCU728800
Spud Date: 10/19/1993
Compl. Date: 10/27/1993

Elevations:
GL: 3312'
DF:
KB: 3326'

TOC @ 400'



Surface Csg: 8-5/8" 24#
Set: @ 1180' w/ 450 sks
Hole Size: 12-1/4"
Circ: Yes
TOC By: Circulation

TOC: Surface

Perfs **Status**
3730'-3940' Grayburg - Open

CIBP @ 5075 w/ 35' cmt

Perfs **Status**
5123'-5136' Glorieta - Open Below CIBP
5204'-5212' Upper Paddock - Open Below CIBP

COTD: 5040'
PBTD: 5040'
TD: 5400'

Prod Csg: 5-1/2" 15.5#
Set: @ 5400' w/ 1220 sks
Hole Size: 7-7/8"
Circ: No
TOC By: Temperature Survey

TOC: 400'

Updated: 2/8/2007

By: rjdg

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.

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Form C-102

Revised February 10, 199

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copie

Fee Lease - 3 Copie

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

¹ API Number 30-025-32107	² Pool Code 37240	³ Pool Name LANGLIE MATTIX;7 RIVERS QUEEN-GRAYBURG
⁴ Property Code	⁵ Property Name B.F. HARRISON 'B'	⁶ Well No. 11
⁷ OGRID Number 4323	⁸ Operator Name CHEVRON USA INC	⁹ Elevation GL-3312'

¹⁰ Surface Location

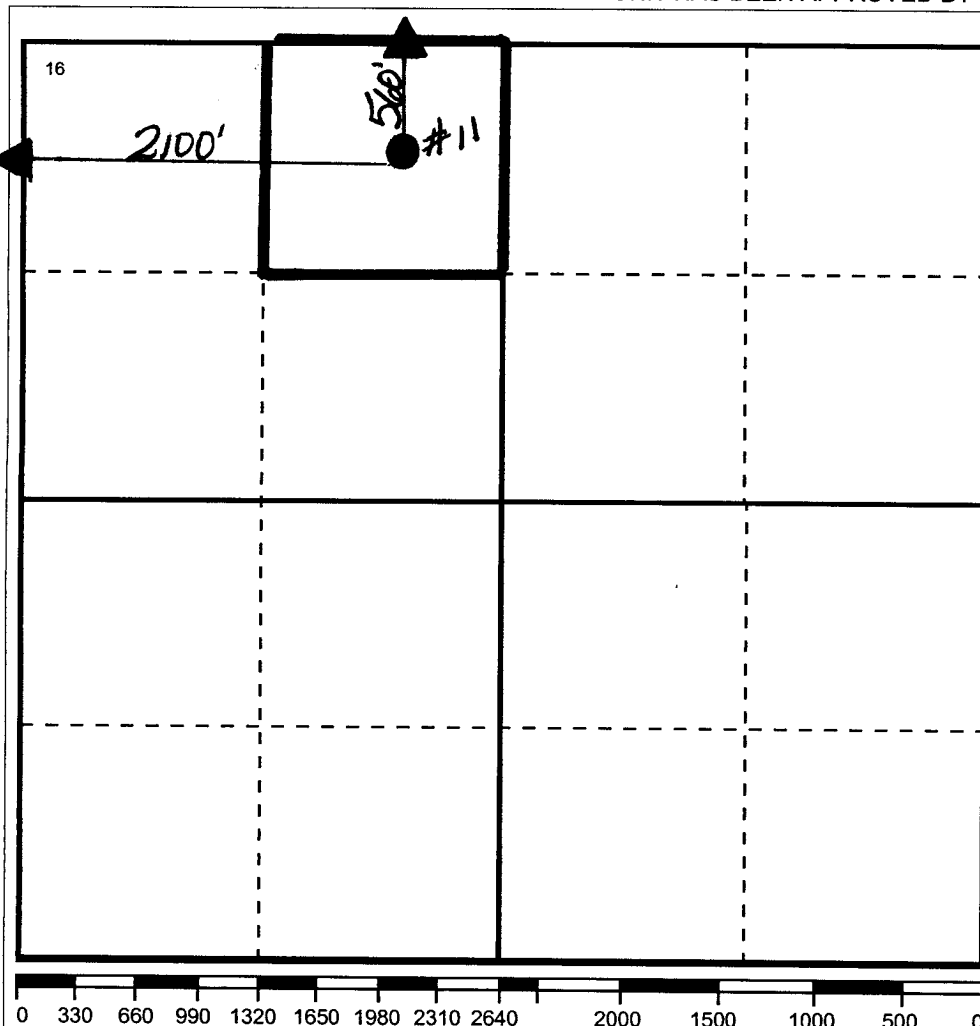
Ul or lot no C	Section 9	Township 23-S	Range 37-E	Lot.Idn	Feet From The 560	North/South Line N	Feet From The 2100	East/West Line W	County LEA
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¹¹ Bottom Hole Location If Different From Surface

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
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¹² Dedicated Acre 40	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.
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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

Denise Pinkerton

Positio

Regulatory Specialist

Date

2/20/2007

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.