

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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-101
June 16, 2008

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

Submit to appropriate District Office

☐ AMENDED REPORT

MAR 12 2010

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

¹ Operator Name and Address CHEVRON U.S.A. INC 15 SMITH ROAD MIDLAND, TEXAS 79705		² OGRID Number 4323
		³ API Number 30 - 025-32495
³ Property Code 29938	⁵ Property Name F B DAVIS	⁶ Well No. 5
⁹ Proposed Pool 1 LANGLIE MATTIX SEVEN RIVERS QUEEN GRAYBURG		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no H	Section 8	Township 23-S	Range 37-E	Lot Idn	Feet from the 1980	North/South line NORTH	Feet from the 330	East/West line EAST	County LEA
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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
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Additional Well Information

¹¹ Work Type Code PLUGBACK	¹² Well Type Code O	¹³ Cable/Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3319' GL
¹⁶ Multiple NO	¹⁷ Proposed Depth 7250'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date

²¹ Proposed Casing and Cement Program

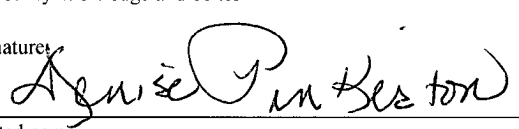

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
NO CHANGE					

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 RECOMLETE THE SUBJECT WELL INTO THE LANGLIE MATTIX 7 RIVERS QUEEN GRAYBURG, ACIDIZE & FRAC

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAM, C-102 PLAT, & C-144 PIT INFORMATION

Permit Expires 2 Years From Approval
Date Unless Drilling Underway
Plugback

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief		OIL CONSERVATION DIVISION	
Signature: 		Approved by: 	
Printed name: DENISE PINKERTON		Title: PETROLEUM ENGINEER	
Title: REGULATORY SPECIALIST		Approval Date: MAR 15 2010	Expiration Date:
E-mail Address: leakejd@chevron.com			
Date: 03-11-2010	Phone: 432-687-7375	Conditions of Approval Attached <input type="checkbox"/>	

F. B. Davis # 5
Langlie Mattix Field
T23S, R37E, Section 8
Job: PB To Grayburg Formation, Acidize, And Frac

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 3/9/2010. 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 with rods and pump. Remove WH. Install BOP's and test as required. Release TAC. POH LD 2 3/8" tbg string and TAC.
4. PU and GIH with 6 1/8" MT bit and 2 7/8" work string to approximately 6350'. POH with work string and bit. LD bit.
5. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CCL from PBTD up to 3000'. POH. GIH and set CIBP at 6300'. POH. GIH and dump bail 35' of cement on top of CIBP at 6300'. POH. GIH and set CIBP at 6050'. POH. GIH and dump bail 35' of cement on top of CIBP at 6050'. POH. Pressure test casing and CIBP to 500 psi. GIH with 3 3/8" RHSC Gunslinger casing guns (0.42" EH & 47" penetration) and perforate from 3711-17', 3719-23', 3728-32', 3774-82', 3807-16', 3821-27', 3834-42', 3850-54', 3860-66', and 3894-3902' with 4 JSPF at 120 degree phasing, using 25 gram premium charges. POH. RD & release electric line unit. **Note: Use Halliburton Spectral Density Dual Spaced Neutron Casing Log dated 9/18/1994 for depth correlation.**
6. PU and GIH w/ 7" PPI pkr (with 10' element spacing) and SCV on 2 7/8" work string to approximately 3900'. Test tbg to 5500 psi while GIH.
7. MI & RU DS Services. Acidize perfs 3711-3902' with 2,000 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
3894-3902'	200 gals	½ BPM	3893-3903'
3860-66'	200 gals	½ BPM	3858-68'
3850-54'	200 gals	½ BPM	3848-58'
3834-42'	200 gals	½ BPM	3833-43'
3821-27'	200 gals	½ BPM	3820-30'
3807-16'	200 gals	½ BPM	3806.5-16.5'
3774-82'	200 gals	½ BPM	3773-83'
3728-32'	200 gals	½ BPM	3726-36'
3719-23'	200 gals	½ BPM	3717.5-27.5'
3711-17'	200 gals	½ BPM	3708-18'

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

8. Release PPI pkr and PUH to approximately 3675'. Set pkr at 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 fluid volumes, pressures, and/or swabbing fluid levels. **Note: Selectively swab perfs as directed by Engineering if excessive water is produced.**
9. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.
10. PU and GIH w/ 7" Arrow-Set 10K pkr & On-Off tool w/ 2.25" "F" profile and 117 jts. of 3 ½" 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 observe for communication.
11. MI & RU DS Services and Tracer-Tech Services (Mike Mathis (866) 595-3115). Frac well down 3 ½" 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 **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 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 gals 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.**

12. Open well. Bleed pressure from well, if any. Release pkr. POH LD 3 ½" work string, on-off tool, and pkr.
13. PU and GIH with 6 1/8" MT bit on 2 7/8" work string to approximately 4300'. If fill is tagged above 4300', cleanout to 4300' using 8.6 PPG cut brine water and air unit if necessary. POH with 2 7/8" work string and bit. LD bit.
14. PU & GIH with 7" pkr on 2 7/8" work 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 log from 4300' up to 3300'. POH. RD & release electric line unit.
Note: Correlate logs and run flat with Baker Atlas GR/CCL Log conducted in Step # 5.
15. Release pkr. POH LD 2 7/8" work string and pkr.
16. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 1 jt 2 7/8" EUE 8R J-55 IPC tbg, 10 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 118 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3650', with EOT at 4050' and SN at 4015'.
17. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.
18. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH
3/9/2010

Well **F. B. Davis # 5**Field **Teague North**Reservoir **Tubb & Drinkard-Abo****Location:**

1980' FNL & 330' FEL
 Section 8
 Township 23S
 Range 37E
 County Lea State NM

Elevations:

GL 3319'
 KB 3331'
 DF 3330'

Current**Wellbore Diagram****Well ID Info:**

Chevron QZ6433
 API No 30-025-32495
 L5/L6 UCMK90300
 Spud Date 9/4/94
 Compl Date 10/24/94

Surf. Csg: 9 5/8", 36#, K-55

Set: @ 1180' w/ 550 sks

Hole Size: 12 1/4"

Circ: Yes TOC: Surface

TOC By: Circulated

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/ WED Engineer, WO Rep, OS, ALS, & FS prior to rigging up on well regarding any hazards or unknown issues pertaining to the well.

Tubing Detail:

#Jts:	Size:	Footage
	KB Correction	12.00
191	Jts 2 3/8" EUE 8R J-55 Tbg	6025.00
	TAC	2.70
31	Jts 2 3/8" EUE 8R J-55 Tbg	974.32
1	Jt 2 3/8" EUE 8R J-55 IPC Tbg	31.20
	SN	1.10
	2 3/8" x 4' Perf Tbg Sub	4.10
1	Jt 2 3/8" EUE 8R J-55 Tbg	31.83
	Bullplug	0.50
224	Bottom Of String >>	7082.75

Perfs: 6090-6241'
 (1 set of perfs)

Status: Tubb - Open

Perfs: 6353-7010'
 (36 sets of perfs)

Status: Drinkard-Abo - Open

COTD. 7162'
 PBDT. 7162'
 TD: 7250'

Updated: 3/9/2010

By: A. M. Howell

Prod. Csg: 7", 23# & 26#, J-55
 Set: @ 7250' w/ 3000 sks
 Hole Size: 8 3/4"
 Circ: Yes TOC: Surface
 TOC By: Circulated

Well **F. B. Davis # 5**Field **Langlie Mattix**Reservoir **Grayburg**

37240

Location:

1980' FNL & 330' FEL
 Section 8
 Township 23S
 Range 37E
 County Lea State NM

Elevations:

GL 3319'
 KB 3331'
 DF 3330'

Proposed
Wellbore Diagram

Well ID Info:

Chevron QZ6433
 API No 30-025-32495
 L5/L6 UCMK90300
 Spud Date 9/4/94
 Compl Date 10/24/94

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.

Tubing Detail:

#Jts:	Size:	Footage
	KB Correction	12 00
118	Jts 2 7/8" EUE 8R J-55 Tbg	3658 00
	TAC	2 70
10	Jts 2 7/8" EUE 8R J-55 Tbg	310 00
1	Jt 2 7/8" EUE 8R J-55 IPC Tbg	31 43
	SN	1 10
	2 7/8" x 4" Perf Tbg Sub	4 10
1	Jt 2 7/8" EUE 8R J-55 Tbg	30 14
	Bullplug	0 50
130	Bottom Of String >>	4049.97

Surf. Csg: 9 5/8", 36#, K-55
 Set: @ 1180' w/ 550 sks
 Hole Size: 12 1/4"
 Circ: Yes TOC: Surface
 TOC By: Circulated

Perfs: **Status:**
 3711-17' Grayburg - Open
 3719-23' Grayburg - Open
 3728-32' Grayburg - Open
 3774-82' Grayburg - Open
 3807-16' Grayburg - Open
 3821-27' Grayburg - Open
 3834-42' Grayburg - Open
 3850-54' Grayburg - Open
 3860-66' Grayburg - Open
 3894-3902' Grayburg - Open

CIBP @ 6050'
 (35' cmt on top)

Perfs: **Status:**
 6090-6241' Tubb - Open
 (1 set of perfs)

CIBP @ 6300'
 (35' cmt on top)

Perfs: **Status:**
 6353-7010' Drinkard-Abo - Open
 (36 sets of perfs)

COTD: 6015'
PBTD: 6015'
TD: 7250'

Updated: 3/9/2010

By: A. M. Howell

Prod. Csg: 7", 23# & 26#, J-55
 Set: @ 7250' w/ 3000 sks
 Hole Size: 8 3/4"
 Circ: Yes TOC: Surface
 TOC By: Circulated

District I

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District II

1301 W. Grand Avenue, Artesia, NM 88210

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1000 Rio Brazos Rd., Aztec, NM 87410

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State of New Mexico

RECEIVED
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

MAR 12 2010 1220 South St. Francis Dr.

HOBBSUCD Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-32495	² Pool Code 37240	³ Pool Name LANGLIE MATTIX 7 RIVERS QUEEN GRAYBURG
⁴ Property Code	⁵ Property Name F.B. DAVIS	⁶ Well Number 5
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3319' GL

¹⁰ Surface Location

UL or lot no. H	Section 8	Township 23-S	Range 37-E	Lot Idn	Feet from the 1980	North/South line NORTH	Feet from the 330	East/West line EAST	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
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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.

¹⁶ 	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division Signature <u>Denise Pinkerton</u> Date <u>03-11-2010</u> DENISE PINKERTON REGULATORY SPECIALIST Printed Name	
	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 belief Date of Survey _____ Signature and Seal of Professional Surveyor _____ Certificate Number _____	