Form 3160-5 ▼ (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD-HOBBS

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5. Lease Serial No.

LC	031	695B

SUNDRY N Do not use this fo abandoned well. U	6. If Indian, Allottee or Tribe Name 7. If Unit of CA/Agreement, Name and/or No.						
SUBMIT	7. If Unit of CA/Agreen	nent, Name and/or No.	*				
I. Type of Well ✓ Oil Well ✓ Gas W	8. Well Name and No. Warren Unit #4	/					
2. Name of Operator ConocoPhillips Company	_/				9. API Well No. 30-025-07850	·	
3a, Address P.O. Box 51810 Midland, Texas 79710-1810		3b. Phone No. (432-688-6913		de)	10. Field and Pool or Ex Warren McKee S imp	30n-	
4. Location of Well (Footage, Sec., T. J. 1980' FSL & 660' FWL, Section 29, T20S, R38E	R.,M., or Survey Description)	<i>/</i>		11. Country or Parish, State Lea County, NM		
12. CHEC	K THE APPROPRIATE BO	X(ES) TO INDI	CATE NATURI	E OF NOTIO	CE, REPORT OR OTHE	R DATA	
TYPE OF SUBMISSION			TY	PE OF ACT	ION		
✓ Notice of Intent	Acidize Alter Casing		en are Treat Construction	Recl	uction (Start/Resume) amation omplete	Water Shut-Off Well Integrity Other	
Subsequent Report	Casing Repair Change Plans	Plug a	and Abandon	Tem	porarily Abandon		
Final Abandonment Notice 13. Describe Proposed or Completed O	Convert to Injection	Plug I			er Disposal		4
determined that the site is ready for ConocoPhillips respectfully submits Formation with perforation from 786 Recomplete by 10/01	the attached procedure for 2-7912.	or review and a	pproval to atter		mplete the above refer		nian
AFTER RECOMPLETION AN PLEASE SUBMIT 3160-4 CREPORT FOR THE Devo	OMPLETION		-	•	MAR 0,4 ZONS		
INTERVAL(S) WITHIN 30 D	AYS		. **				· ·
						, , , , , ,	,
TA approved until aft	for well is rec		Т				
Justin C. Firkins	The and correct. Name (1711)	eu Typeuj	Title Regula	tory Specia	list		
Signature with	(John	·, ·, ·, ·	Date 01/29/2	2009		10	
	THIS SPACE	FOR FEDE	RAL OR S	TATE OF	FICE USE	KE	
Approved by Rom D. 1	fall		Title P	etrole	ım Engineer	FEB 2 8 2009	,
Conditions of approval, if any, are attached that the applicant holds legal or equitable entitle the applicant to conduct operations.	title to those rights in the subj	es not warrant or of ect lease which w	certify ould Office	CAFILS	BEAD FIELD OFFICE	j	

Title 18 U S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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

WARREN UNIT #004

WBS ELEMENT - WA5.CNM.

Well View Well Name - WARREN UNIT #004

Recompletion Procedure

December 16, 2008

Objective: Recomplete to the Devonian formation.

COPC WI: 37.5%

COPC NRI: 32.55%

Well Status: TA'd Area: Permian

Well Type: Oil Well

Field: Warren

Flaring: Permit not required

Venting: Permit not required Well Control: Class 2 Category 1 (post perforating & post stimulation) County: Lea

Team: Permian Oil Possible H₂S:

IMPORTANCE OF SAFETY

Safe operations are of utmost importance at all ConocoPhillips properties and facilities. To further this goal, the ConocoPhillips Supervisor at the location shall request tailgate safety meetings prior to initiation of work and also prior to any critical operations. All company, contract, and service personnel then present shall attend these tailgate safety meetings at the location. All parties shall review the proposed upcoming steps, procedures, and potentially hazardous situations. Occurrence of these meetings shall be recorded in the WellView daily report.

History / Justification

The purpose of the proposed project is to recomplete the Warren Unit #004, a temporarily abandoned well, to the Devonian formation. The subject well was originally drilled to 9230' in 1950 and completed in the McKee from 9046-9144'. Perfs were added from 9018-9034' in November 1981. The McKee produced 712,424 BO, 380,672 MCFG with 1,430,825 BW during its lifetime. The well was TA'd in June 2005 with an RBP set at 7681'.

An initial rate of 20 BOPD with 50 MCFD is projected based upon offset production in the SEMU #58, Warren Unit #7 and SEMU #10. Economics were performed using an exponential decline rate of 25% per year, a recompletion cost of \$395,000, a facilities cost of \$100,000, and an operating cost of \$7.35/BOE per year. ConocoPhillips owns a 37.5% WI and an NRI of 32.55% in the Devonian formation. This project yields an ATAX ROR of 25.2% with an NPV of \$41M at 13%.

Warren Unit #004 Recomplete to Devonian Zone

AFE Number:

WA5.CNM.____

API Number:

30-025-07850

Field:

Warren-McKee

Location:

1980' FSL & 660' FWL, Sec. 29, T-20-S, R-38-E, Lea County, NM

Depths:

TD = 9.230'

PBTD = 8,947'

Elevation:

GR = 3,517' KB = 3,530'

Casing Data:

Existing & Proposed Casing, Tubing and Packer Information

	OD (in)	Depth (ft)	ID/Drift (inches)	Weigh t	Grade	Burst	Burst w/ 1.15 D.F.	Collapse (psi)	Collapse w/ 1.05 D.F.	Volume (Bbis/Ft)
Int. Csq.	95/8"	2624'	8.835/8.679	36#/40	J-55/N-80	5750	5000	3090	2943	.0758
Prod. Csq	7"	1889'	6.276/6.151	26#	J-55	4980	4330	4320	4114	.0382
riou. Csg	7"	9225'	6.366/6.241	23#	N-80	6340	5513	3830	3648	.0393
Prod. Tbg	27/8"	5570'±	2.441/2.347	6.5#	L-80	10570	9191	11170	10638	.00579

Top of Cement:

7300' (Temperature Survey)

Casing Fluid: 2% KCI (0.438 psi/ft)

Proposed Cased Hole Perforations

Perforations (MD)	Frac Grad	Perf Feet	SPF	Phase	Zero Hole	Holes	Anticipated Reservoir Pressure	Reservoir Temp
7862-7866'	.85	4	4	60°	No	16	3656	115°
		16	4	60°	No	64	3664	115°
		4	4	<u> </u>	No	16	3677	115°
	1	(MD) Grad 7862-7866' .85 7880-7896' .85	(MD) Grad 7862-7866' .85 4 7880-7896' .85 16	(MD) Grad 7862-7866' .85 4 4 7880-7896' .85 16 4	(MD) Grad 60° 7880-7896' .85 16 4 60° 7880-7896' .85 16 4 60°	(MD) Grad Hole 7862-7866' .85 4 4 60° No 7880-7896' .85 16 4 60° No	(MD) Grad Fraction Hole 7862-7866' .85 4 4 60° No 16 7880-7896' .85 16 4 60° No 64	(MD) Grad Fract of the period

Correlation Log: Schlumberger Compensated Neutron SGTE/CAL-R log dated 12/4/08 Gun Type: 3% High Shot Density, 34JL Ultrajet, HMX 22.7g, (API 19B: Pen – 28.94", EHD - 0.37")

Prepared by: David McPherson: Contract Production Engineer, Panhandle/Permian Group

Mobile: 1(903) 316-4272

Home: 1(903) 894-3547

GENERAL NOTES

- No project or task is to be performed unless it can be done safely and without harm to the environment. All work must comply with all State and Federal regulations and with COPC Safety and Environmental Policies.
- 2. Conduct daily safety meetings and review all procedures with all contractors prior to performing the operation.
- 3. Report all activity on the WellView Daily Completion Work-Over Report.
- 4. Insure contractors are familiar with and comply with all relevant COPC safety/environmental policies.
- 5. Spills are to be prevented. Utilize a vacuum truck as necessary.
- 6. All references to 2% KCl water is powdered 2% KCl.
- Throughout the entire completion process, any fluids from the well-bore that are displaced or produced must be sent through the flow-back equipment so that the fluids can be properly disposed.
- 8. Verify that all pressured lines and fittings meet or exceed the MPSP (Maximum Predicted Surface Pressure) for the treatment lines of **5500** psi for the pressure test during stimulation operations. Maximum treatment pressure during the frac jobs will be **5500** psi. MPSP from the zone should not be greater than 2000 psi before & after stimulation operations of the Devonian zone.
- 9. Well control for this well will be Class 2, Category 1 before and after stimulation. Expected Shut in Casing Pressures (SICP) before & after stimulation should not exceed 600 psi.

Mid-Continent / Permian / Hobbs East Contact List:

Reservoir Engineer: Geologist: Production Engineer: Facilities Engineer Tech: Operations Supervisor: Projects Planner: Production Foreman:	D. Pecore G. Borges J. Lowder L. Johansen J. Coy D. Garrett V. Mackey	832-486-2145 832-486-2606 432-368-1609 432-368-1223 575-391-3127 432-368-1410 575-391-3129
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Recommended Procedure

- 1. MIRU workover unit. ND wellhead and NU BOP's and test.
- 2. PU and RIH with 6½" bit on 2½", 6.5# production tubing as workstring to RBP @ 8947'±, circulating well clean with 2% KCL water. POOH with 2½" workstring and bit. Lay down drill bit.
- 3. MIRU Schlumberger wireline. RU 1000 psi lubricator. Correlate to Schlumberger Compensated Neutron SGTE/CAL-R log dated 12/4/08. Dump bail 35' of cement on top of RBP @ 8947'. Perforate the Devonian from 7862-7866', 7880-7896', and 7908-7912' using 33/8" High Shot Density, 34JL Ultrajet, HMX 22.7g, (API 19B: Pen 28.94", EHD 0.37") loaded 4 SPF with 60° phasing (96 holes),
- 4. RDMO wireline and lubricator.
- 5. PU 3½" workstring and RIH with 7½" packer. Test 3½" workstring to 8,000 psi while RIH. Set packer at 7800'±.
- 6. Spot 1 frac tank and fill with 2% KCL. MIRU Schlumberger pumping services equipment. RU and test all lines to 7,500 psi and monitor for 5 min. Make sure the pressure does not decrease more that 300 psi over the 5 min. Pressure up casing / tubing annulus to 300 psi and monitor during job.
- 7. Perform acid frac with 6000 gals of 20% gelled HCl acid and 10000 gals of SXE acid at 20-30 BPM with 116± 1.1 SG Bioballs as per schedule. Surge the well 2-3 times to dislodge balls. Shut down for 30 minutes to allow balls to fall.
 - Note: It is a ConocoPhillips policy to have shower facilities on location when using acid.
- 8. Obtain ISIP and 5 minute, 10 minute, and 15 minute shut-in pressures. Close Hydraulic Master Valve. RD Schlumberger Iron.
- 9. Unseat packer and reverse out any spent acid from tubing. Reset packer. RU swab unit and swab test the Abo. RD swab unit. Unseat packer and POOH with 5½" packer and 3½" workstring.

NOTE: Contact Jack Lowder with results of swab test before proceeding.

- 10. RIH with the 21/8" production tubing (per tubing design in WellView). Place the EOT at 7943± with the tubing anchor at 7812'±. Maintain a dynamic fluid column (DFC) while running tubing. (Trickle some 2% KCl water down the tubing head valve.)
- 11. ND BOPs and NU wellhead. RIH with pump and rods (per rod design in WellView). Space and hang well on. Load tubing and check pump action.
- 12. RDMO well service rig. Release any ancillary equipment. Clean up location.
- 13. Turn well over to Operations. Place well on production. Report well tests on morning report. Place stabilized well test in FieldView. Contact chemical representative to place well on corrosion inhibition and scale squeeze program if needed. Submit change of status report.

