

District I
1625 N French Dr. Hobbs, NM 88240
Phone: (575) 393-6161 Fax (575) 393-0720
District II
811 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources **HOBBS OCD**
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505
MAR 23 2012
RECEIVED

Form C-101
Revised August 1, 2011

Permit

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

¹ Operator Name and Address ConocoPhillips Company 3300 N "A" St Midland, TX 79705		² OGRID Number 217817
		³ API Number 025-01435
⁴ Property Code 31118	⁵ Property Name Leamex	⁶ Well No 9

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	16	17S	33E		659'	South	1975'	East	LEA

⁸ Pool Information

Maljamar; Grayburg-San Andres (43329)	
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Additional Well Information

⁹ Work Type re-enter & re-comp	¹⁰ Well Type O	¹¹ Cable/Rotary R	¹² Lease Type S	¹³ Ground Level Elevation 4177'
¹⁴ Multiple No	¹⁵ Proposed Depth 4645' Cmt plug	¹⁶ Formation Grayburg-San Andre	¹⁷ Contractor TBD	¹⁸ Spud Date 08/12/1960
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

¹⁹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
surf	17 1/2"	13 3/8"	48#, H-40	324'	350 sx	surf
interm	12 1/4"	9 5/8"	36/40#, J-55/H-40	4530'	1900 sx	surf
prod	8 3/4"	5 1/2"	23#, N-80	11,523'	635 sx	6900'

Casing/Cement Program: Additional Comments

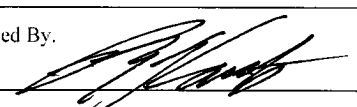
Proposed to re-enter this P&A wellbore & recomplete from the Wolfcamp to the Grayburg-San Andres by perforating @ 4345'-4440', perform acid job and fracture treat & return to production.

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

Permit Expires 2 Years From Approval Date Unless Drilling Underway

Re-Entry

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOC guidelines <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Rhonda Rogers		Approved By. 	
Title: Staff Regulatory Technician		Title: REGULATORY ENGINEER	
E-mail Address: rogerr@conocophillips.com		Approved Date. MAR 27 2012	
Date: 03/19/2012	Phone: (432)688-9174	Conditions of Approval Attached	

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State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-102
August 1, 2011

Permit 145871

HOBBS OCD**MAR 23 2012****RECEIVED****WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number	2 Pool Code 43329	3 Pool Name MALJAMAR;GRAYBURG-SAN ANDRES
4 Property Code 31118	5 Property Name LEAMEX	6 Well No 009
7 OGRID No 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 4177

10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	16	17S	33E		659	S	1975	E	LEA

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12 Dedicated Acres 40.00		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

	<p align="center">OPERATOR CERTIFICATION</p> <p><i>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(s) 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</i></p> <p>E-Signed By: <i>Shonda J. Jorgensen</i> Title: <i>Staff Regulatory Tech</i> Date: <i>3/20/2012</i></p> <hr/> <p align="center">SURVEYOR CERTIFICATION</p> <p><i>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</i></p> <p>Surveyed By: Date of Survey: Certificate Number:</p>
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PROCEDURE

1. Prior to move-in of well service unit:

Weld 5-1/2", 23# casing extension to surface (Leamex-9 is cased w/ 5-1/2", 23#, N-80).

Weld 3000# slip-on tubing head.

Install & test anchors.

Move-in rat-hole machine. Drl-out surface cmt plug to 30-40 ft. Move-out rig.

2. MI & RU service unit. NU hydril BOP. The following is a partial well file source summary of current well configuration.
3. PU & RIH 4-3/8" bit, 4 3-1/2" DC & 2-3/8", J-55 tbg (5-1/2", 23# ID 4.670", Drift ID: 4.545"), Drill-out following cmt plugs to 4470 (cmt retainer @ 4480):

Interval (RKB)			
top	btm	Ftg	
surf	400	400	Perforation @ 400
1332	1450	118	Perforation @ 1450
2675	2800	125	Perforation @ 2800
4090	4480	390	Cmt retainer @ 4480
		1033	

Close pipe-rams. Test 5-1/2", 23#, N-80 csg @ 500#. POOH. Close blind-rams & re-test @ 500#

4. RU SLB.

Pull Cement Isolation Tool (CIT) from PBD @ 4470 to surface:

5-1/2" x 9-5/8" annular cement column unknown

5-1/2", 23# internal casing condition unknown

RD SLB.

5. If CIT log indicates void-free 5-1/2" x 9-5/8" cmt column over interval 4250-4470:

- a. RIH w/ workstring. POOH & LD workstring.
- b. ND BOP. NU well. Prep to recomplete to Grayburg per supplemental procedure.

If CIT log indicates cmt void over 5-1/2" x 9-5/8" interval: 4250-4470:

- a. Perforate 5-1/2" csg 50 ft. above btm of CIT-indicated 5-1/2" x 9-5/8" cmt void interval
- b. Perforate 5-1/2" csg 50 ft. below top of CIT-indicated 5-1/2" x 9-5/8" cmt void interval
- c. RIH w/ tbg & PKR. Set PKR 50 ft. above lowermost perforation
- d. Establish circulation through 5-1/2" x 9-5/8" annulus. POOH w/ tbg & PKR
- e. RIH w/ tbg & cmt retainer Set retainer @ 50 ft. above lowermost perforation.
- f. Pump sufficient cmt to fill 5-1/2" x 9-5/8" annulus between perforations
(cmt requirements: 20 sx per 100 ft @ 1.32 cu.ft./sk...4.7 bbl cmt per 100 ft.)
- g. Pull out of retainer. Pull EOT to 50 ft below uppermost perforation. Circ down tbg w/ volume equivalent to 150% well capacity to EOT...(EOT x 0.03 bbl/ft). POOH w/ tbg

- h. Close in well w/ 500#.
- i. RIH w/ 2-3/8" tbg, 4: 3-1/2" DC & 3-3/8" bit. Drill out retainer. Clean out to 4470. POOH & LD work string.
- j. ND BOP. NU well. Prep to recomplete Grayburg per supplemental procedure

Supplemental PROCEDURE

6. RU SLB.

Pull USIT log from PBD @ 4470 to surface: 5-1/2" x 9-5/8" annular cement column unknown

Pull PMIT log from PBD @ 4470 to surface: 5-1/2", 23# internal casing condition unknown

Correlate logs to Schlumberger GR/N log of 01.24.61 (San Andres top: 4445)

If necessary, place cement behind 5-1/2" csg over interval: 4200-4470 (5-1/2" x 9-5/8", 40# : 20 sx per 100 ft.).

01.31.61: 5-1/2" @ 11523. TOC @ 6900
09.05.61: 9-5/8" @ 4530. TOC @ surface

Note:

5-1/2", 23# internal casing condition unknown

01.21.08: Set PKR @ 4670. Pump down tbg & comm w/ tbg/csg annulus
Set PKR @ 4039. Pump down tbg & comm w/ tbg/csg annulus
Set PKR @ 3408. Pump down tbg. No comm w/ tbg/csg annulus

5-1/2" x 9-5/8" annular cement column unknown

01.22.08: Pumped 480 sx (113 bbl) below retainer @ 4670. SITP & SICP: 1500#. 480 sx equivalent to a 5-1/2" x 9-5/8" annular column of approximately 2300 ft... may have placed some cmt in 5-1/2" x 9-5/8" annulus above retainer:

01.31.08: Unable to squeeze perforation @ 4580 (0 BPM @ 2000#)
01.31.08: Unable to squeeze perforation @ 2800 (0.25 BPM @ 2100#)

7. RU SLB

NU lubricator & test @ 500#.

Perforate following Grayburg intervals @ 60-degree phasing w/ 3-3/8", HSD PowerJet 3406, HMX, 22.8 gm (EHD: 0.37 in.; Penetration: 37 in.):

Interval	Feet	SPF	Perforations
4345-4450	5	2	11
4355-4360	5	2	11
4365-4370	5	2	11
4375-4380	5	2	11
4385-4390	5	2	11
4395-4400	5	2	11

4415-4420	5	2	11
4425-4430	5	2	11
4435-4440	5	2	11
Total	45		99

8. PU & RIH w/ 2-7/8", 4.7#, N-80 work string w/ PKR & RBP. Test tbg below slips @ 8500# while RIH (2-7/8", 6.5#, N-80 Internal Yield Prs: 10570#).

Acidize perforated intervals w/ total of 108 bbl (4500 gal) 15% NE Fe HCl:

Perforated Interval 4415-4440: Acidize w/ 36 bbl 15% NEFE HCl

Set RBP @ 4500 (between lowermost perforation @ 4440 & PBD @ 4470).

Pull EOT to 4440. Pump 24.5 bbl 15% NEFE HCl. SD & allow well to equalize.

Set PKR 4405 (between perforations: 4400-4415)

Pump remaining 11.5 bbl 15% NEFE HCl. Flush w/ 30 bbl fresh water.

(Anticipated treating prs: 3000# @ 3 BPM)

Record ISIP, SITP(5 min), SITP(10 min) & SITP(15 min)

Perforated Interval 4350-4395. Acidize w/ 72 bbl 15% NEFE HCl

Set RBP @ 4405 (between perforations: 4400-4415).

Pull EOT to 4395. Pump 25.2 bbl 15% NEFE HCl. SD & allow well to equalize.

Set PKR @ 4300 (above uppermost perforation: 4345).

Breakdown w/ water

Pump remaining 46.8 bbl 15% NEFE HCl. Flush w/ 30 bbl fresh water.

Record ISIP, SITP(5 min), SITP(10 min) & SITP(15 min).

Re-set RBP @ 4500 (between lowermost perforation @ 4440 & PBD @ 4470).

Re-set PKR @ 4200 (above uppermost perforation. 4345 & between csg collars...refer to USIT/PMIT log) Test 2-7/8" x 5-1/2" annulus & PKR @ 500#.

9. RU SLB. Set treating line pop-off to release @ 8800#.
Set pump trips @
Pump-1: 8200#, Pump-2: 8300#, Pump-3: 8400#, Pump-4: 8500#.
Install spring-operated relief valve on csg-tbg annulus. Pre-set @ 500#.
Load 2-7/8" x 5-1/2" annulus. Note annulus fill volume. Place 200# on csg.
Test surface lines @ 9000#.

Frac 4345-4440 down 2-7/8", 6.5#, N-80 tbg w/ 205,000 gal YF120ST & 250,000# 20/40 Premium White sand & 45,000# 20/40 Super LC. Mark flush @ 1#. Flush w/ 1100 gal WF110 (capacity to uppermost perforation: 1150 gal; 27 4 bbl). Anticipated treating rate. 25 BPM @ 7000#:

	Fluid	Proppant	Clean Vol		Proppant		Slurry Vol		Pump Time @ 25 BPM	
			gal	bbl	ppg	lbs	gal	bbl	min	cum min.
Pad	YF120ST		65000	1547.6	0.00	0	65000	1547.6	61.9	61.9
Stage	YF120ST	20/40 Premium White	5000	119.0	0.25	1250	5057	120.4	4.8	66.7
Stage	YF120ST	20/40 Premium White	5000	119.0	0.50	2500	5113	121.7	4.9	71.6
Stage	YF120ST	20/40 Premium White	5000	119.0	0.75	3750	5170	123.1	4.9	76.5
Stage	YF120ST	20/40 Premium White	5000	119.0	1.00	5000	5227	124.4	5.0	81.5
Stage	YF120ST	20/40 Premium White	10000	238.1	1.25	12500	10566	251.6	10.1	91.6

Stage	YF120ST	20/40 Premium White	10000	238.1	1 50	15000	10680	254 3	10.2	101.7
Stage	YF120ST	20/40 Premium White	10000	238.1	1 75	17500	10793	257.0	10.3	112 0
Stage	YF120ST	20/40 Premium White	10000	238.1	2 00	20000	10906	259 7	10.4	122 4
Stage	YF120ST	20/40 Premium White	15000	357.1	2 25	33750	16529	393.5	15.7	138 1
Stage	YF120ST	20/40 Premium White	15000	357.1	2 50	37500	16699	397.6	15.9	154 0
Stage	YF120ST	20/40 Premium White	15000	357.1	2.75	41250	16869	401 6	16.1	170.1
Stage	YF120ST	20/40 Premium White	20000	476.2	3 00	60000	22718	540 9	21 6	191 7
Stage	RCP YF120ST	20/40 Super LC	15000	357.1	3 00	45000	17039	405.7	16 2	208 0
Flush	WF110		1100	26.2	0	0	1100	26.2	1.0	209 0
			206100	4907.1		295000	219464	5225 3	209.0	

Report ISIP, SITP(5 min), SITP(10 min) & SITP(15 min). RD SLB.

SION to allow resin-coated sand to cure.

10. Flow back well until dead. POOH w/ 2-7/8", 6.5#, N-80 frac string & PKR.
11. RIH w/ 2-7/8" tbg & RBP retrieving tool. Wash sand off RBP POOH & LD 2-7/8" tbg & RBP.
12. Surface equip w/ surplus Leamex unit. Downhole equip w/ 1-1/2" pump. Anticipated surface production @100% runtime: 150 BPD. Estimated post-frac load volume 5,000 bbl.

	Capacity		Internal Diam. in.		Internal Yield (Burst): psi	
	bbl / ft	gal /ft	nom	drift	100%	80%
2-7/8", 6 5#, N-80	0 00579	0 2431	2 441	2 347	10570	8456
5-1/2", 23#, N-80	0 02110	0 8898	4.670	4 545	9880	7904
2-7/8" x 5-1/2", 23#	0 01570	0 6597				