



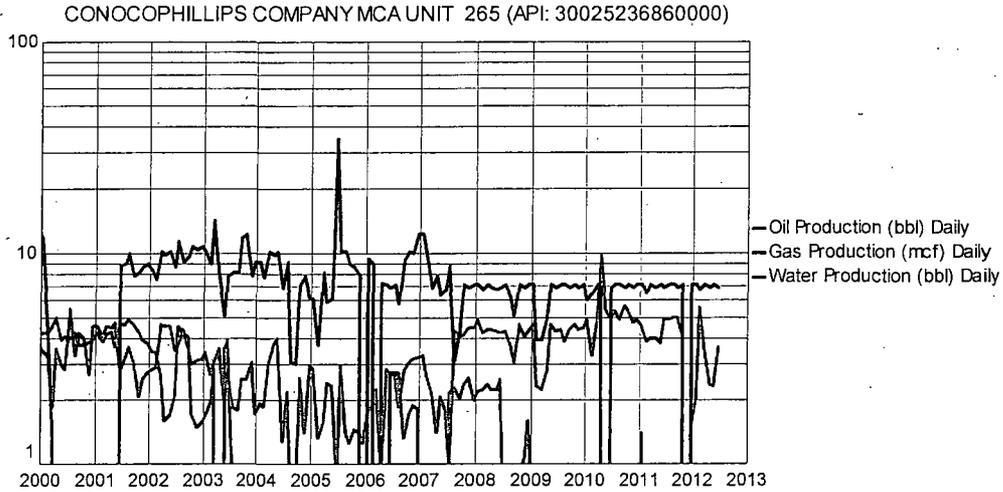


API #30-025-23686  
MCA 265:  
Maljamar Field  
Lea County, New Mexico

The subject workover consists of completing the Lower San Andres gross interval: 4015-4067 (-41/-93) in an effort to assist in the design of a CO2 pilot project scheduled for 2013-2014.

In addition, the Upper San Andres-9 gross interval: 3950-3980 will be perforated & acidized. Based on caliper and porosity considerations, the interval warrants testing.

MCA 265 is currently producing approximately 4 BOPD & 7 BWPD w/ less than 1 MCFPD of non-saleable associated gas.



**WELL CATEGORY, BOP CLASS AND EXCEPTIONS**

**Well Category One:**

H2S: 10,000 ppm  
Well Rate: 4 BOPD & 7 BWPD w/ less than 1 MCFPD

	<u>H2S</u>	<u>ROE- ft.</u>
	100 ppm	6
	500 ppm	3

**BOPE Class One:** Hydraulic BOP recommended.

PROCEDURE

- MI & RU service unit. ND well. POOH & LD rods & pump (in-service since 01.1986). NU hydril BOP. POOH & LD tbg (in-service since 11.21.85). Last well service: 01.1986.

The following is a well file source summary of current well configuration:

MCA 265 (API: 30-025-23686)	Depth (RKB)		
1416 FSL & 1224 FWL, 20L-17S-32E			
Elev.: 3974 KB; 3963 GL (KB - GL: 11 ft.)			
	top	btm	
8-5/8", 20#	surf	700	02.03.71: 8-5/8", 20# @ 700. Cmt w/ 225 sx. Circ cmt (40 sx) to surface.
5-1/2", 14#, J-55	surf	4100	02.10.71: 5-1/2", 14#, J-55 @ 4100. Cmt 250 sx. TOC: 2700 (temp survey).

5-1/2" x 8-5/8" Annulus	surf	261	01.30.91: Cmt 5-1/2" x 8-5/8" annulus down coil tbg w/ 50 sx: Surface -261
Completion Intervals:			
Grayburg	3664	3668	07.09.71: Perforate @ 1 spf: 3684, 3688 (2 perforations)
Upr San Andres (SA7)	3769	3801	07.09.71: Perforate @ 1 spf: 3769, 3783, 3786, 3789, 3798 & 3801 (6 perforations)
Lwr San Andres (SA9)	4007	4016	02.12.71: Perforate @ 1 spf: 4007, 4014, 4016 (3 perforations)
Possible 5-1/2" Casing Restriction			
	3600	3650	01-10.79:
PBD	4059	4100	02.12.71: SLB collar log
TD		4100	02.10.71: TD 7-7/8" hole @ 4100 (-126)

2. PU & RIH w/ 2-7/8", 6.5#, J-55 replacement tbg w/ 6: 3-1/2" DC & 4-3/4" bit (5", 14# csg ID: 5.012 in.)

Tag PBD @ 4059. RU reverse unit. Circ well w/ fresh water (well capacity w/ tbg: 90.0 bbl)

Note: Possible casing restriction interval: 3600-3650

01.25.79	POOH w/ rods & pump. Pull 65,000# to free tbg. POOH w/ 116 jts: 2-7/8" tbg (EOT: 3629 RGL)
	Reported: "Rods & tbg appeared to be in good condition".....suggesting restriction may be due to possible scaling rather than casing collapse
01.27.79	RIH w/ 115 jts: 2-7/8" tbg (EOT: 3597-RGL). RIH w/ 2" pump & rods.
10.22.79	POOH w/ rods & pump. POOH w/ 117 jts: 2-7/8" tbg (SN: 3632; EOT: 3661 RGL). Note: tbg stuck. Pulled 60,000# & jar tbg free.
10.23.79	RIH w/ 115 jts: 2-7/8" tbg (SN: 3570; EOT: 3598 RGL). RIH w/ insert pump (2") & rods. RD.

Drl out cmt: 4057-4090 (5-1/2", 14# csg shoe: 4100).

POOH w/ tbg. LD DC & bit.

3. NU lubricator & test @ 500#.

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

Zone	Interval	Feet	SPF	Perforations
SA8	3896-3900	4	1	4
Upr SA9	3950-3962	12	1	12
Upr SA9	3976-3980	4	1	4
Lwr SA9	4015-4035	20	1	20
Lwr SA9	4044-4052	8	1	8
Lwr SA9	4059-4067	8	1	8

Note: Collars per SLB Perforating Control Log of 02.12.71 (log interval 3800-4052 attached).

Collar Depth
(RKB)
3710
3740

3774
3807
3840
3872
3902.5
3935.5
3968
4001.5
4034

RD perforating service.

4. PU & RIH w/ RBP, PKR (5-1/2", 14#) & 2-7/8", 6.5#, J-55 tbg string.  
 Test tbg below slips @ 5000# while RIH (2-7/8", 6.5#, J-55 Internal Yield Prs: 7260#).  
 Acidize perforated intervals w/ total of 5300 gal (126.2 bbl) 15% NE Fe HCl:

Perforated Interval 4015-4067: Acidize w/ 1800 gal (42.9 bbl) 15% NEFE HCl  
 Set RBP @ 4080 (between lowermost perforation: 4067 & PBD: 4090).  
 Position EOT @ 4067.  
 Pump 16.8 bbl (707 gal) 15% HCl ( 8.95#/gal) followed by 5.0 bbl fresh water.  
 SD allow well to equalize.  
 Set PKR @ 3990 (between perforations: 3980 & existing perf 4007; collar: 4002)  
 Pump remaining 26.0 bbl (1093 gal) acid.  
 Flush w/ 35 bbl fresh water (anticipated treating prs: 1500# @ 1 BPM)  
 Record ISIP & SITP(5 min). Formation load: 57.9 bbl (42.9 bbl acid & 15 BW)

Perforated Interval 3976-3980: Acidize w/ 500 gal (11.9 bbl) 15% NEFE HCl  
 Set RBP @ 3990 (between perforations: 3980 & existing perf 4007; collar: 4002).  
 Position EOT @ 3980  
 Pump 11.9 bbl (500 gal) 15% HCl ( 8.95#/gal) followed by 10.4 bbl fresh water.  
 SD allow well to equalize.  
 Set PKR @ 3972 (between perforations: 3962 & 3976; collar: 3968)  
 Flush w/ 25 bbl fresh water (anticipated treating prs: 1600# @ 2 BPM)  
 Record ISIP & SITP(5 min). Formation load: 24.1 bbl (11.9 bbl acid & 12.2 BW)

Perforated Interval 3950-3962: Acidize w/ 1500 gal (35.7 bbl) 15% NEFE HCl  
 Set RBP @ 3972 (between perforations: 3962 & 3976; collar: 3968).  
 Position EOT @ 3962.  
 Pump 16.5 bbl (692 gal) 15% HCl ( 8.95#/gal) followed by 5.0 bbl fresh water.  
 SD allow well to equalize.  
 Set PKR @ 3925 (between perforations: 3900 & 3950; collar: 3936)  
 Pump remaining 19.2 bbl (808 gal) acid.  
 Flush w/ 35 bbl fresh water (anticipated treating prs: 1600# @ 2 BPM)  
 Record ISIP & SITP(5 min). Formation load: 52.1 bbl (35.7 bbl acid & 16.4 BW)

Perforated Interval 3896-3900: Acidize w/ 500 gal (11.9 bbl) 15% NEFE HCl  
 Set RBP @ (between perforations: 3900 & 3950; collar: 3936).  
 Position EOT @ 3900  
 Pump 11.9 bbl (500 gal) 15% HCl ( 8.95#/gal) followed by 10.8 bbl fresh water.  
 SD allow well to equalize.  
 Set PKR @ 3850 (between perforations: 3800 & 3896; collars: 3807, 3840 & 3872)  
 Flush w/ 25 bbl fresh water (anticipated treating prs: 1600# @ 2 BPM)  
 Record ISIP & SITP(5 min). Formation load: 24.2 bbl (11.9 bbl acid & 12.3 BW)

Perforated Interval 3769-3801: Acidize w/ 500 gal (11.9 bbl) 15% NEFE HCl  
 Set RBP @ 3850 (between perforations: 3801 & 3896; collar: 3840 & 3872).

Position EOT @ 3801

Pump 11.9 bbl (500 gal) 15% HCl (8.95#/gal) followed by 8.7 bbl fresh water.

SD allow well to equalize.

Set PKR @ 3720 (between perforations: 3668 & 3769; collars: 3710 & 3740)

Flush w/ 25 bbl fresh water (anticipated treating prs: 1600# @ 2 BPM)

Record ISIP & SITP(5 min). Formation load: 24.2 bbl (11.9 bbl acd & 10.2 BW)

Perforated Interval 3664-3668: Acidize w/ 500 gal (11.9 bbl) 15% NEFE HCl

Set RBP @ 3720 (between perforations: 3668 & 3769; collars: 3710 & 3740).

Position EOT @ 3668.

Pump 11.9 bbl (500 gal) 15% HCl (8.95#/gal) followed by 8.4 bbl fresh water.

SD allow well to equalize.

Set PKR @ 3600 (above perforation: 3664)

Flush w/ 25 bbl fresh water (anticipated treating prs: 1600# @ 2 BPM)

Record ISIP & SITP(5 min). Formation load: 24.2 bbl (11.9 bbl acd & 10.9 BW)

5. Release PKR. POOH w/ tbg; PKR & RBP.
6. Downhole equip per PROPOSED design.  
Surface equip w/ existing C160-169-64. Operate at:

SPM: 8

Stroke: 64"

RD well service unit. Place well on test.