8. I hereby certify that the BIGNED (This space for Federal APPROVED BY CONDITIONS OF APPR	foregoing is	T IT	Pres:		NOV OIL CO	DATE 11/06	/86
SIGNED J.C.	foregoing of	rue and correct	Drog		NOV OIL CO	DATE 11/06	/86
4/1	7	rue and correct	Drog			12 1986 DN. DIV.	
	7	story attached	, 10/23/86			12 1986, DN. DIV.)	
	Well His	story attached	, 10/23/86			12 1986 DN. DIV.J	
	Well His	story attached	, 10/23/86			121986	
	Well His	story attached	, 10/23/86	through 10	/29/86.		•*
	Well His	story attached	, 10/23/86	through 10	/29/86.		•*
	Well His	story attached	, 10/23/86	through 10	/29/86.		
,							
	e **						-
17 DESCRIPE PROPOSED OF C	OMPLETED OPER rell is direction	ATIONS (Clearly state s ally drilled, give subst	ill pertinent detai irface locations as	Compretion	or Recomple	tion Report and Log for including estimated date depths for all markers	m.)
REPAIR WELL (Other)	c	HANGE PLANS		(Other)(Norn : Res	port results 4	of multiple completter of	
SHOOT OR ACIDIZE		BANDON*		SHOOTING OR ACT	i -	ALTERING CA	-
TEST WATER SHUT-OFF PRACTURE TREAT		CLL OR ALTER CASING ULTIPLE COMPLETE		WATER BRUT-OFF		REPAIRING W	
	TICE OF INTENT				#UB#BQU	ENT REPORT OF:	
16.		propriate Box To li	ndicate Nature	of Notice, Re	port, or O	ther Data	
		7316' GR	FARM	INGTON RESOUR	CE AREA	Rio Arriba	New Mexico
14. PERMIT NO.		15. BLEVATIONS (Show			_	Section 14,	T23N, R4W
Unit	'B', 523'	FNL & 2149'		NOV 07 198		South Lindri 11. BBC, T, R, M, OR B SURVEY OR AREA	th Gallup Dako
313 Washingt Location of Well (Re See also space 17 below At surface Unit	on SE, Al port location el	buquerque, NM early and in accordance	87108 with any State	ጛ <mark>፟</mark> ፟ዸ፝ፘ፝ቔዂ፞፞፞፞ዾ	<u>. D</u>	47-26 10. FIELD AND POOL, O	R WILDCAT
Chace Oil Co			····			Jicarilla Tr	ribal Cont. #47
2. NAME OF OPERATOR						8. PARM OR LEASE HAT	MB.
OIL X GAB WELL	ОТЕВЕ					7. UNIT AGREEMENT NA	AME
1.	Um "APPLICA	TION POR PERMIT	" for such propose	w a widerest resei	rvolr.	Jicarilla Ap	ache
(NO NOT AND THE	DRY NOT	ICES AND REF	PORTS ON	WELLS		6 IF INDIAN, ALLOTTE	E OR TRIBE MANE
SUNI (Do not use this i		O O LAND MAIN				5. LEASE DESIGNATION Jicarilla Co	ontract #47
SUNI (Do not use this i	BUREA	U OF LAND MAN	IM I PLANTA	(Other instruct verse side)	IPLICATES	Expires August	No. 1004-0135 t 31, 1985

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

JICARILLA APACHE 47-26 COMPLETION

10/23/86: Rig up Spartan Well Service.

Pick up 2 3/8" tubing.

Tag cement on top of D. V. tool with 88 joints of tubing.

Drill out D. V. @ 3208' KB with 100 joints with a 30.48' stickup.

Tag cement approximately 60' above float collar.

Clean out casing to float collar @ 7459' KB with 231 joints with a 13 1/2' stickup.

10/27/86:

7:40 a.m. Pressure test casing to 4000 PSI.

Circulate casing clean with 104 bbls treatment water.

8:25 a.m. Spot 250 gal 7 1/2% acetic acid from 7333' up hole.

Trip out of hole with tubing.

10:30 a.m. Go in hole with logging tools. Loggers' T. D. = 7441'.

Run CBL and Gamma Ray from

5750' KB TD

5350' - 5000' KB

3250' - 2900' KB

1:00 p.m. Perforate Dakota 'D' zone @ 7313', 7315', 7317', 7319', 7321', 7323', 7325', 7327', 7329', 7331', 7333', 4 SPF, 44 holes.

2:00 p.m. Break down Dakota 'D' perforations.

Broke @ 2500 PSI.

Establish rate

40 BPM @ 3700 PSI

ISIP = 1000 PSI

Drop balls; 2 balls/bbl for 33 bbls. (Total of 66 balls)

Increase rate to

40 BPM @ 2800 PSI

Have a ball off @ 4000 PSI.

Go in hole with junk basket. Retrieve balls. Recover 65 balls.

Jicarilla Apache 47-26 Completion (Continued)

5:57 p.m. Start pad. 51 BPM @ 3320 PSI 6:06 p.m. Start 1/2 ppg sand 51 BPM @ 3350 PSI 1/2 ppg sand on formation 49 BPM @ 3620 PSI 6:10 p.m. Start 1 ppg sand 47 BPM @ 3600 PSI 1 ppg sand on formation 51 BPM @ 3500 PSI 6:15 p.m. Shut one pump truck down. (mechanical problem) 46 BPM @ 3060 PSI 6:24 p.m. Start 1 1/2 ppg sand 45 BPM @ 3170 PSI 6:26 p.m. 1 1/2 ppg sand on formation 45 BPM @ 3200 PSI 6:36 p.m. On 1 1/2 ppg sand 43 BPM @ 3450 PSI 6:47 p.m. Cut sand. Go to flush 42 BPM @ 3600 PSI

6:50 p.m. Flush away. Shut down.

ISIP = 2200 PSI

Total sand = 90,000 lbs

Total water = 2,298 bbls

 $5 \min = 1900$

 $10 \min = 1850$

Go in hole with Howco speed-e-line bridge plug.

7:34 p.m. Set plug @ 7226 1/2 ft.

8:00 p.m. Pressure test plug to 4000 PSI.

Trip in hole with tubing.

Spot 300 gal 7 1/2% Hcl from 7170' up hole.

10/28/86:

12:59 a.m. Perforate Tocito zone @ 6758', 6802', 6804', 6822', 6828', 6857', 6867', 6871', 3 SPF, 24 holes.

Perforate Greenhorn @ 7084', 7088', 7091', 7094', 7098', 7103', 3 SPF, 18 holes.

1:28 a.m. Perforate Dakota 'A' zone @ 7156', 7158', 7160', 7162', 7164', 7166', 7168', 7170', 3 SPF, 24 holes.

Jicarilla Apache 47-26 Completion (Continued):

1:47 a.m. Break down formation.

Broke at 1650 PSI.

Establish rate

40 BPM @ 3200 PSI

Shut down.

ISIP = 1300 PSI

1:53 a.m. Start balls. 3 balls/bbl for 33 bbls.

Increase rate to

54 BPM @ 3130 PSI

Have good ball action, but no ball off.

Pressure up to 3400 PSI.

Used 234 bbls for breakdown and ball off.

Surge balls off perforations.

Go in hole with junk basket.

Recover 97 balls.

TOCITO, GREENHORN, AND DAKOTA 'A' FRAC:

2:57 a.m. Start pad. 53 BPM @ 3400 PSI

On pad. 55 BPM @ 3260 PSI

3:05 a.m. Now on

1/2 ppg sand 54 BPM @ 3500 PSI

3:07 a.m. 1/2 ppg sand on formation 54 BPM @ 3480 PSI

3:09 a.m. Start 1 ppg sand 54 BPM @ 3390 PSI

3:11 a.m. 1 ppg sand on formation 55 BPM @ 3340 PSI

3:12 a.m. A pump truck bites the dust.

Rate now 45 BPM @ 2890 PSI

3:22 a.m. Start 1 1/2 ppg sand 44 BPM @ 3110 PSI

3:25 a.m. 1 1/2 ppg sand on formation 44 BPM @ 3080 PSI

On 1 1/2 ppg pressure climbing 43 BPM @ 3790 PSI

Back off sand to approximately 1 1/4 ppg.

Jicarilla Apache 47-26 Completion Procedure (Continued):

3:32 a.m. Ease sand concentration back to 1 1/2 ppg.

3:34 a.m. On 1 1/2 ppg sand

44 BPM @ 3800 PSI

3:41 a.m. On $1 \frac{1}{2}$ ppg sand

44 BPM @ 3780 PSI

3:46 a.m. Cut sand. Go to flush.

44 BPM @ 3810 PSI

3:48 a.m. Flush away. Shut down.

ISIP = 1900 PSI

Total sand = 90,000 lbs

Total fluid = 2,293 bbls

5 min shut in = 1700 PSI

10 min shut in = 1650 PSI

4:47 a.m. Set Baker retrievable bridge plug @ 6358'

Pressure test plug to 3750 PSI.

The BOP blew a seal.

Shut down.

Trip in hole with tubing while waiting for seals for BOP.

Spot 400 gal 7 1/2% Hcl from 6311' up hole.

Trip out of hole with tubing.

9:32 a.m. Perforate Gallup @ 6021', 6026', 6064', 6066', 6076', 6109', 6118', 6122' 6134', 6140', 6163', 4 SPF, 44 holes.

9:55 a.m. Perforate Gallup @ 6166', 6169', 6192', 6196', 6255', 6264', 6267', 6272', 6301', 6303', 6305', 4 SPF, 44 holes.

10:27 a.m. Perforate Gallup @ 6307', 6309', 6311', 4 SPF, 12 holes.
100 total perforations.

11:09 a.m. Break down formation.

Broke at 750 PSI.

Establish rate

71 BPM @ \$750 PSI

Shut down. ISIP = 850 PSI

11:12 a.m.	Start balls. 4 balls/bbl for 40	bbls.				
	Total of 162 balls.					
	Increase rate to	53	BPM	6	1960	PSI
	Have good ball action, but no bal					
	Go in hole with junk basket.					
	Recover 82 balls in two runs.					
12:39 p.m.	Start pad	90	BPM	@	3610	PSI
12:46 p.m.	Start 1/2 ppg sand	89	BPM	@	3590	PSI
12:47 p.m.	1/2 ppg sand on formation	89	BPM	9	3630	PSI
12:49 p.m.	Start 1 ppg sand	89	BPM	@	3600	PSI
12:50 p.m.	l ppg sand on formation	89	BPM	9	3580	PSI
	Well pressured up to 4000 PSI.					
	Slow rate to	68-70	BPM	9	3800	PSI
	Go back to 1/2 ppg sand.					
1:00 p.m.	Pressure back up to 4000 PSI.					
	Slow rate to	63	BPM			
1:01 p.m.	At 1795 bbls, increase sand to 1	ppg.				
1:03 p.m.	l ppg sand on formation	64	BPM	9	3770	PSI
1:06 p.m.	Start 1 1/2 ppg sand	63	BPM	9	3650	PSI
1:08 p.m.	1 1/2 ppg sand on formation	63	BPM	9	3650	PSI
1:09 p.m.	Pressure back up to 4000 PSI.					
	Take another truck off the line.	57	BPM	9	3640	PSI
1:12 p.m.	Running 1 1/4 ppg sand	57	BPM	9	3530	PSI
1:22 p.m.	On 1 1/2 ppg sand	57	BPM	9	3100	PSI
1:23 p.m.	Increase rate to	63	BPM	9	3600	PSI
1:28 P.m.	Increase sand concentration to					
	1 3/4 ppg	63	BPM	9	3350	PSI
	_ 5 _					

Jicarilla Apache 47-26 Completion (Continued):

1:30 p.m. 1 3/4 ppg sand on formation

64 BPM @ 3300 PSI

1:33 p.m. On 1 3/4 ppg sand

64 BPM @ 3140 PSI

1:34 p.m. Cut sand. Go to flush.

Flush away. Shut down.

ISIP = 600 PSI

 $5 \min = 460 PSI$

 $10 \min = 420 PSI$

Total sand = 125,000 lbs

Total water = 3,678 bbls

4:00 p.m. Open well up. Flow Gallup frac water back.

Pressure on well head = 300 PSI.

Retrieve Baker bridge plug set at 6358' KB.

10/29/86: Mill up Howco Speed-e-line bridge plug set at 7226' KB.

Clean out casing to 7453' KB.

Land 223 joints of production tubing with seating nipple at 7219.61' KB, with a 4' perforated sub and a 32.40' tail joint below seating nipple.

End of tubing @ 7256.01' KB.