### State of New Mexico Energy, Minerals and Natural Resources Department

Form C-103 Revised 1-1-89

DISTRICT I

**OIL CONSERVATION DIVISION** 

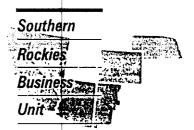
WELL API NO.

P.O. Box 1980, Hobbs, NM 88240	P.O.Box 2088		WELL API		ĺ
DISTRICT II P.O. Drawer DD, Artesia, NM 88210	Santa Fe, New Mexico 87	7504-2088	5. Indicate	3003921636 Type of Lease	
DISTRICT III				STATE FEI	E 🛛
1000 Rio Brazos Rd., Aztec, NM 87410			6. State Oi	l & Gas Lease No.	
(DO NOT USE THIS FORM FOR PROP DIFFERENT RESERVO	CES AND REPORTS ON WOSALS TO DRILL OR TO DEEPE DIR. USE "APPLICATION FOR POOR SUCH PROPOSALS.)	N OR PLUG BACK TO A	7. Lease N	Iame or Unit Agreement Name SAN JUAN 28-7 Unit	
1. Type of Well:`  OIL GAS WELL WELL WELL	OTHER			SAN SUAN 20-7 UNIC	
2. Name of Operator AMOCO PRODUCTION COMPANY	Attention: Kelly	y Stearns	8. Well No	249	
3. Address of Operator			9. Pool na	me or Wildcat	
P.O. Box 800 Denver	Colorado 80201	(303) 830-4457		Basin Fruitland Coal	
4. Well Location Unit Letter H: 1610	_ Feet From The North	Line and 830	) Fee	t From The East	Line
Section 30	Township 28 N R	ange 7 W NA	ирм	RIO ARRIBA Co	ounty
• •	10 Elevation (Show wheth	er DF, RKB, RT, GR, etc.) 5953" GR	•		
11. Check Appr	: opriate Box to Indicate N		ort. or	Other Data	
NOTICE OF INTE	•	_	1	IT REPORT OF:	
				ALTERING CASING	
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WORK			
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRILLING O	PNS.	PLUG AND ABANDONM	ENT L
PULL OR ALTER CASING		CASING TEST AND CEM	ENT JOB		
OTHER: Pressure Test	t X	OTHER:			[
12. Describe Proposed or Completed Operat work) SEE RULE 1103.	tions (Clearly state all pertinent detail	ils, and give pertinent dates, in	cluding estir	mated date of starting any propose	d
Amoco Production Company inte	ends to perform a pressure tra	ansient test on the subjec	t well to	determine reservoir propert	ies.
In the event that the pipeline con Amoco requests permission to fla		s during the flow back po	rtion of t	the test,	× ,
Original procedures accompanied these new procedures is attached		IAED	ures have	e since been revised. A copy	y of
	OIL CON				
I hereby certify that the information above	is true and complete to the				
SIGNATURE KILLY A HOW	W	Business A	nalyst	DATE08-02-199	3
TYPE OR PRINT NAME	Celly Stearns			TELEPIIONE NO. (303) 83	0-4457

APPROVED BY June British To light the flow on flow back of the valler or sealth on the air in atcil. Take fixed toward for flowers if the air in atcil. Take fixed toward for flowers if the air in atcil. Take fixed toward for the flowers in a flower of flowers in a flower of flowers in a flower of flowers in a flower for flowers for flowers for farmers for prevent for farmers for a flower for flowers for flowers for formation of five on the fire.



August 11, 1993



Bureau of Land Management 1235 La Plata Highway Farmington, NM 87401

Attn: Mr. Ray Hagar

Re: Pressure Transient Test for San Juan 28-7 Unit #404

In response to your question concerning the pressure transient test for the San Juan Unit #404, please find attached supporting documentation for our proposed injection pressures.

Additionally, revised procedures addressing the flaring of the produced gas have been attached. If you should have any additional questions, please contact myself at (303) 830-4118 or Raj Puri at (303) 830-5064.

Sincerely,

Cristina Zogorski

Engineer

CAZ/caz

Attachments

AUGI 6 1993 OIL CON. DIV.

cc: Ernie Busch, NMOCD Raj Puri, Denver Richard Volz, Denver

### Pressure Transient Analysis

Amoco Production Company's Tulsa Research Center has determined that just outside of the SE terminus of the fairway the minimum stress in the basal coal is 0.72 psi/ft.

#### San Juan 28-7 Unit #404

Assumptions:

Mid-perfs = 2800'

Temperature = 200 deg F

Air

Calculations:

Parting pressure = 2800 ft \* 0.70 psi/ft = 1960 psi

BHP (psi)	Surface Pressure (psi)		
	1.0 mmcfd	1.5 mmcfd	2.0 mmcfd
1800	2000	2003	2008
1700	1888	<b>18</b> 91	1896
1600	1775	1779	1786

Comments:

Surface pressure is not to exceed 1800 psig.

If surface pressure < 1800 psig, BHP is always < parting pressure.

#### San Juan 28-7 Unit #249

Assumptions:

Mid-perfs = 2460'

Temperature = 200 deg F

Air

Calculations:

Parting pressure = 2460 ft \* 0.70 psi/ft = 1722 psi

BHP (psi)	Surface Pressure (psi)		
	1.0 mmcfd	1.5 mmcfd	2.0 mmcfd
1800	1976	1978	1982
1700	1864	1866	1872
1600	1754	1756	1761

Comments:

Surface pressure is not to exceed 1700 psig.

If surface pressure < 1700 psig, BHP is always < parting pressure.

# PTA Procedure San Juan 28-7 #404 SEC 15-28N-7W

Following is the procedures to perform a pressure transient test on well San Juan 28-7 #404:

- 1. Shut-in well for 2 weeks to stabilize near wellbore pressures.
- 2. Inject oxygen depleted air (oxygen concentration approximately 5%) at a constant injection rate of 1.00 MMSCFD, for no more than 5 days.

  Montinor surface injection pressure, not exceeding 1800 psig.
- 3. Inject air at a constant injection rate of 1.00 MMSCFD, for no more than 5 days. Monitor surface injection pressure, not exceeding 1800 psig.
- 4. Inject air at a constant injection rate of 2.00 MMSCFD, for no more than 11 days, with surface pressure not exceeding 1800 psig. Monitor surface injection pressure.
- 5. TIH with electronic pressure gauges.
- 6. Initate pressure recording at least 5 hours prior to stopping air injection.
- 7. Stop air injection and shut-in downhole. Conduct a pressure fall off test for a minimum period of 14 days.
- 8. Record surface pressures simultaneously during the fall off test.
- 9. Flow back well while maintaining a constant flow rate, and monitor surface pressures. Return well to normal production. Monitor produced gas composition frequently, at least once every day. Vent gas until inerts content declines to less than 30% by volume. If gas venting period exceeds 10 days, or if gas flaring is deemed necessary, contact governmental authorities (BLM or NMOCD).

RP:rp 93211DEN0074

# PTA Procedure San Juan 28-7 #249 SEC 30-28N-7W

Following is the procedures to perform a pressure transient test on well San Juan 28-7 #249:

- 1. Shut-in well for 2 weeks to stabilize near wellbore pressures.
- 2. Inject oxygen depleted air (oxygen concentration approximately 5%) at a constant injection rate of 1.00 MMSCFD, for no more than 5 days. Montinor surface injection pressure, not exceeding 1700 psig.
- 3. Inject air at a constant injection rate of 1.00 MMSCFD, for no more than 5 days. Monitor surface injection pressure, not exceeding 1700 psig.
- 4. Inject air at a constant injection rate of 2.00 MMSCFD, for no more than 11 days, with surface pressure not exceeding 1700 psig. Monitor surface injection pressure.
- 5. TIH with electronic pressure gauges.
- 6. Initate pressure recording at least 5 hours prior to stopping air injection.
- 7. Stop air injection and shut-in downhole. Conduct a pressure fall off test for a minimum period of 14 days.
- 8. Record surface pressures simultaneously during the fall off test.
- 9. Flow back well while maintaining a constant flow rate, surface pressures. Return well to normal production. Monitor produced gas composition frequently, at least once every day. Vent gas until inerts content declines to less than 30% by volume. If gas venting period exceeds 10 days, or if gas flaring is deemed necessary, contact governmental authorities (BLM or NMOCD).

RP:rp 93223DEN0052