Form 3160-5 (June 1990)

## UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED			
Budget Bureau No.	1004-0135		
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Lease	Designati	on and	Serial	Nο.

BUREAU OF LAND MANAGEMENT		5. Lease Designation and Serial No.		
		SF-Ø78863		
SUNDRY NOTICES AND REPORTS ON WELLS		6. If Indian, Allonee or Tribe Name		
Do not use this form for proposals to di	rill or to deepen or reentry to a different reservoir.			
Use "APPLICATION FO	R PERMIT—" for such proposals	7. If Unit or CA, Agreement Designation		
SUBMIT	TIN TRIPLICATE	7. If Unit or CA, Agreement Designation		
I. Type of Well Oil Well Swell Other		8. Well Name and No.		
2. Name of Operator		Krause #18		
R & G Drilling Company C/O KM P	roduction Company	9. API Well No.		
3. Address and Telephone No.	(505)325-6900	30-045-07234  10. Field and Pool, or Exploratory Area		
PO Box 2406, Farmington, NM 87499		Kutz Pictured Cliffs		
4. Location of Well (Footage, Sec., T., R., M., or Survey I	Description)	11. County or Parish, State		
7001 511 9 7001 551	Sec. 29, T28N, R11W			
790' FNL & 790' FEL	500. 25, 1200, 100 m	San Juan, NM		
THE COLUMN TO THE POLY	(s) TO INDICATE NATURE OF NOTICE, REPO	BT OR OTHER DATA		
CHECK APPROPRIATE BOX				
TYPE OF SUBMISSION	TYPE OF ACTION			
Notice of Intent	Abandonment	Change of Plans		
	Recompletion	New Construction		
Subsequent Report	Plugging Back	Non-Routine Fracturing		
	Casing Repair	Water Shut-Off Conversion to Injection		
Final Abandonment Notice	Altering Casing  Other Recompletion in	Dispose Water		
	X Other Recompletion in Fruitland Coal.	(Note: Report results of multiple completion on Well		
	all pertinent details, and give pertinent dates, including estimated date of starting	Completion or Recompletion Report and Log form in any proposed work. If well is directionally drilled.		
give subsurface locations and measured and true vert	ical depths for all markers and zones pertinent to this work.)*			
See attached morning report				
	MAY 2 4 1994 (5)	•		
	OL COU. DIV.	<b>:</b>		
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11 1/16				
14. I hereby certify that the foregoing is true and correct  Signed	Petroleum Engineer	5/18/94 Date		
(This space for Federal or State office use)		MAY 2 4 1994		
· t	THE FERUTY ON A GAS INSPECTOR, DIST, 43	CAPIPED FOR REAL		
Approved by	1100	FR. Blink - S. Forter - C. S. C. C. C. S. Sec. Co. S.		
		and the second A		
Title 19 II S.C. Seption 1001 makes it a serious for any more	on knowingly and willfully to make to any department or agency of the Unite	d States any lake, fictitiods or fraudulent statement		
or representations as to any matter within its jurisdiction.	• • • • • • • • • • • • • • • • • • • •	2		
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## R&G DRILLING COMPANY

## KRAUSE #18

790 FNL & 790 FEL NENE, SECTION 29, T28N R11W SAN JUAN COUNTY, NEW MEXICO

## FRUITLAND COAL RECOMPLETION

- 4-30-94 Move in and rig up Polanco Brothers service unit. No pressure on tubing or casing. Nipple down wellhead and nipple up BOP. Trip 60 joints of 1" tubing out of hole, laying down. Shutdown for the weekend.
- 5-1-94 Shutdown for Sunday.
- Fig up Blue Jet wireline. Ran GR-CLL-CNL log from PBTD of 1653 ft RKB to 900 ft RKB. Set cast iron bridgeplug at 1636 ft RKB (Pictured Cliffs perfs from 1638 to 1645 ft). From log analysis, there appear to be perforations from 1410 to 1415 and from 1031 to 1037 ft RKB. Rigged up the Western Company. Pressure tested bridgeplug and casing to 1000 psi. Lost 300 psi pressure in 10 minutes. Perforations do not appear to be open. Perforated entire Fruitland Coal interval with 0.50" holes at 4 JSPF using 4" casing gun as follows:

1510 -	1518	8	ft	32	holes
1562 -	1565	3	ft	12	holes
1595 -	1604	9	ft	36	holes
1629 -	1634	5	ft	20	holes
Tot	al	25	ft	100	holes

Picked up 5 1/2" Mountain States Oil Tools fullbore packer and 2 7/8" 6.5 #/ft N80 EUE tubing. Tagged CIBP at 1638 ft RKB (2.31' tubing correction to logged hole). Moved packer to 1448 ft RKB and set packer. Broke down entire Fruitland Coal interval at 1300 psi. Established injection rate into the perforations down tubing of 7.0 BPM at 1200 psi, ISIP was 600 psi (FG=.81 psi/ft). Pumped 150 gallons of 7 1/2% DI HCl acid into perforations. Fracture stimulated entire Fruitland Coal interval down the 2 7/8" tubing with 54,000 gallons of 70 quality foam (fluid is 20# linear guar gel) containing 5,000 lbs of 40/70 mesh sand fluid loss additive and 80,000 lbs 20/40 mesh sand proppant as follows:

10,000	gals	of	70 quality foam pad	20	BPM @	2100 psi
5,000	gals	of	1 ppg 40/70 sand	20	BPM @	2200 psi
5,000	gals	οf	70 quality foam spacer	20	BPM @	2100 psi
10,000	gals	of	1 ppg 20/40 sand	20	BPM @	2150 psi
10,000	gals	οf	2 ppg 20/40 sand	20	BPM @	2250 psi
8,000	gals	of	3 ppg 20/40 sand	20	BPM @	2350-2500 psi
4,000	gals	of	4 ppg 20/40 sand	20	BPM @	2800 psi
2,000	gals	of	5 ppg 20/40 sand	20	BPM @	3000 psi
400	gals	of	70 quality foam flush	20	BPM @	2800 psi

ISIP 2850 psi, 5 min 1340 psi, 10 min 1330 psi, 15 min 1330 psi. Avg rate 20 BPM, Avg pressure 2300 psi, Max pressure 3100 psi, Min pressure 2000 psi, Avg nitrogen rate 8500 SCFM, Total nitrogen pumped 559,000 SCF, Total fluid to recover 376 Bbls. Shut well in for 3 hours. Flow well to atmosphere through 1/2" tapped bullplug. Well flowing to cleanup.

- 5-3-94 Well flowing back after frac to cleanup.
- Well still flowing this morning. Pumped 15 barrels of water down the tubing to kill well and clear tubing and packer of sand. Released packer and tripped 2 7/8" tubing and packer out of hole, laying down tubing on float. Picked up 2 3/8" production tubing. Tagged sand fill in well at 1594 ft RKB. Circulated 42 feet of sand from casing cleaning out to bridge plug at 1636 ft RKB. Moved tubing up hole and landed as follows:

Description	Length	Depth
KB to landing point	5.00	0 – 5
52 jts of 2 3/8" 4.7 #/ft J55 EUE	1591.89	5 - 1597
1 seating nipple	1.10	1597 - 1598
1 jt of 2 3/8" 4.7 #/ft J55 EUE	31.08	1598 - 1629
	1629.07	

Nipple down BOP and nipple up wellhead. Rigged to swab. Made 36 swab runs and recovered approximately 138 barrels of fluid. Annulus pressure built to 340 psi while swabbing. Shut well in. Shut down for the night.

5-5-94 Tubing had 40 psi, annulus had 350 psi. Well blew down immediately. Rigged to swab. Made 19 swab runs and kicked well off flowing. Well flowing steadily. Rigged down completion unit. Released rig.