

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.  
NM-97843

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.  
WF Federal #28-1

9. API Well No.  
30-045-29880

10. Field and Pool, or Exploration Area  
Twin Mounds F15-APC & Basin Fruitland Coal

11. County or Parish, State  
San Juan County, N.M.

SUBMIT IN TRIPLICATE

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Richardson Operating Company 019219

3. Address and Telephone No. c/o Walsh Engr. & Prod. Corp.  
7415 E. Main Farmington, N.M. 87402 505 327-4892

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
985' FNL & 855' FEL Sec. 28, T30N, R14W

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

SEE ATTACHED FRACTURE TREATMENT REPORTS

RECEIVED  
JUL - 2 1999  
OIL CON. DIV.  
DIST. 3

I hereby certify that the foregoing is true and correct

Signed Paul C. Thompson Title Paul C. Thompson, Agent

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_

Conditions of approval, if any: \_\_\_\_\_

ACCEPTED FOR RECORD

JUN 30 1999

NMOGD

FARMINGTON FIELD OFFICE

## FRACTURE TREATMENT REPORT

Operator: Richardson Operating Well Name: WF Federal 28-1  
 Date: May 27, 1999  
 Field: Fruitland Coal Location: 28/30N14W County: San Juan State: NM  
 Stimulation Company: BJ Services Supervisor: John Thompson

Stage #: 2/2

Sand on location (design): 48,000# Weight ticket: 48,760# Size/type: 16/30 Arizona

Fluid on location : No. of Tanks: 1 Strap: 18.5' Amount: 340 Usable: 320

**Perforations:**  
 Depth: 1106' - 1118' Total Holes: 48 PBD: 1295'  
 Shots per foot: 4 spf EHD: 0.36"

**Breakdown:**  
 Acid: n/a  
 Balls: n/a  
 Pressure: Never saw break Rate: 2.5 bpm

**Stimulation:**  
 ATP: 1036# AIR: 25 bpm  
 MTP: 1356# MIR: 30 bpm

ISIP:	Sand Stage	Pressure	Stimulation
1220#	pad	1320# - 1280#	
5 min: 782#	1 ppg	1253# to	1# / 1000 gal broke in 40 min.
10 min: 763#	2 ppg	1182#	Increase to 1.5#
15 min: 748#	3 ppg	Change rate	Gel: 10 cps
	4 ppg	1355#	

Job Complete at: 9:30 hrs. Date: 5/27/99 Start flow back: 5/27/99 10:30  
 Total Fluid Pumped: 191 bbls  
 Total Sand Pumped: 48,760# Total Sand on Formation: 48,000#  
 Total Nitrogen Pumped: 200,000 scf

**Notes:**  
 Ramped sand 0 - 2 ppg (DH Conc.) then held constant until total of 24,000# pumped. Continued ramp for remaining sand (up to 4 ppg DH Conc.). Increased rate from 20 bpm to 30 bpm during 3 ppg stage, held sand constant briefly then continued ramp.  
**Additives:** Foamer - 3 gal/1000 gal  
 Breakers - 1#/1000 gal (GBW-10 Enzyme Breaker)  
 Pro-Technics tagged frac w/ Scandium

Signature John C. Thompson

## FRACTURE TREATMENT REPORT

Operator: Richardson Operating Well Name: WF Federal 28-1  
 Date: May 24, 1999  
 Field: Pictured Cliffs Location: 28/30N/14W County: San Juan State: NM  
 Stimulation Company: BJ Services Supervisor: John Thompson

Stage #: 1/2

Sand on location (design): 55,000# Weight ticket: 56,000# Size/type: 16/30 Arizona  
 Fluid on location : No. of Tanks: 1 Strap: 18.5' Amount: 370 bbls Usable: 350 bbls

**Perforations:**  
 Depth: 1124' - 1138' Total Holes: 42 PBD: 1295'  
 Shots per foot: 3 spf EHD: 0.28"

**Breakdown:**  
 Acid: n/a  
 Balls: n/a  
 Pressure: 1262# Rate: 2.5 bpm

**Stimulation:**  
 ATP: 800# AIR: 30 bpm  
 MTP: 1262# MIR: 30 bpm

	Sand Pump Pressure	Flow Rate	Time
ISIP: 700#	pad	898#	20 min
5 min: 568#	1 ppg	837#	20 cps
10 min: 560#	2 ppg	765#	
15 min: 559#	3 ppg	850#	
	4 ppg	874#	

Job Complete at: 9:15 hrs. Date: 5/24/99 Start flow back: 10:15 hrs. 5/24/99  
 Total Fluid Pumped: 260 bbls  
 Total Sand Pumped: 55,600# Total Sand on Formation: 55,100#  
 Total Nitrogen Pumped: 176,000 scf

**Notes:**

Additives: Foamer - 3 gal/1000 gal  
 Breakers - 1#/1000 gal (GBW-10 Enzyme Breaker)

Pro-Technics tagged frac w/ Iridium

Signature \_\_\_\_\_