

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1998

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

5. Lessee Designation and Serial No.

14-20-603-2198

6. If Indian, Allottee or Tribe Name

Navajo Tribal

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Navajo H #12

9. API Well No.

30-045-08363

10. Field and Pool, or Exploratory Area

W Kutz Pictured Cliffs

11. County or Parish, State

San Juan County, NM

SUBMIT IN TRIPLICATE

1. Type of Well

Oil Well

Gas Well

Other

2. Name of Operator

Richardson Operating Company

3. Address and Telephone No.

1700 Lincoln, Suite 1700, Denver, Colorado 80203 (303) 830-8000

4. Location of Well (Footage, T, R, M, or Survey Description)

1830' FNL, 810'FWL

Section 14-T29N-R14W

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

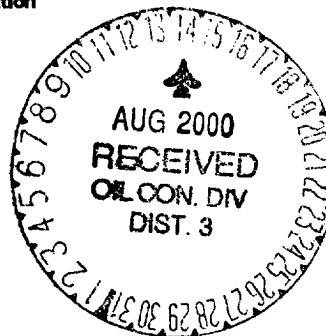
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/>	Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/>	Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/>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

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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 markets and zones pertinent to this work.)\*

Refer to attachment for plugging and abandonment of Cha Cha Gallup formation



14. I hereby certify that the foregoing is true and correct.

Signed:

*Cathleen Colby*

Title: Land Manager

Date:

July 24, 2000

(This space for Federal or State office use)

Approved by:

Title:

Date:

Conditions of approval, if any:

FOR RECORD

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

11G 11 2000

- 05/23/00 Pulled one 20' jt 2 3/8" tbi from well. No tbg string in 4 1/2" csg. TIH with 3.92" gauge ring. Could not get below 100'. RD gauge ring. Fluid level at 620'. RU 4 1/2" cement retainer & TIH. Miss fired and TOO. Re-tool head & TIH for 2nd attempt to set cement retainer. Set cement retainer at 4439' KB.
- 05/30/00 PU 30 jts tbg and TIH. Hauled 80 bbls water to location. PU 144 jts tbg & TIH. Tagged cement retainer at 4439' KB. Unable to pump into cement retainer. Pressured up tbg to 2400 psi at 0 bpm injection rate. Stung out of retainer & pumped down tbg at 500 psi & 1 bpm. Stung back into retainer & pressured up to 2000 psi at 0 bpm. Shut down for night pending BLM instructions.
- 05/31/00 Obtained approval from S. Mason of BLM to not squeeze Gallup & spot minimum of 100' of cement on top of retainer. RU tbg boards. Could not get stripping rubber to seal. Unable to reverse circulate. Spotted 200' equalized plug w/ 20 sxs Class B neat cement from 4437'KB to 4237'KB in 4 1/2" casing. Cement retainer set at 4439'KB. Circulate 2 bbls to clear tbg. Spotted 1082' cement plug in 4 1/2" csg from 3396'KB to 2314'KB w/ 81 sxs Class B neat. Displaced tbg w/ 8 bbls. Spotted 50 sxs Class B neat cement plug from 2314'KB to 1699'KB. Pumped 25 bbls down tbg & flushed tbg & annulus of cement.
- 06/01/00 TIH with 2 3/8" tbg & tag cement top at 1699'KB. Ran CBL at 1600'-1500' and 1200'-1100'. Pipe was 100% free. TIH & shot four 0.41" squeeze holes at 1020'. TIH & shot 2nd set of four 0.41" squeeze holes at 1018'. Pumped down 4 1/2" casing attempting to circulate out of 8 5/8" bradenhead. Pumped at 3.5 bpm and 500 psi down 4 1/2" csg. Pumped 28 bbls PC production water, 2 bbls red dye & 29 bbls production water with no returns. RU to pump down 8 5/8" bradenhead valve. Unable to pump down 8 5/8" annulus through bradenhead. Will not be able to circulate to surface from 4 1/2" - 5/8" annulus to cement. Set 4 1/2" retainer at 990' KB CBL measurements, 969'KB.
- 06/02/00 TIH with retainer stinger on 32 jts 2 3/8" tbg. Sting into retainer at 969' KB, 990' CBL. Unload 80 bbls fresh water, pumped into tbg with water at 1.5 bpm at 500 psi. Bullheaded 40 sxs Class B with 2% metasilicate and 50 sxs Class B neat. Pumped 4 bbls flush & sting out of retainer. Took wet samples of both slurries. Didn't see pressure increase from 500 psi when displacing cement. TOO with 32 jts.
- 06/05/00 Run CBL from 990' - 700'. Free pipe below 800' & above 730'. 730' - 800' maximum of 60% bond. Perforated 812'-814' KB with 2 spf with 0.41" holes. RD wireline. RU completion tools. TIH with 4 1/2" x 2 3/8" tension packer, 16 jts 2 3/8" tbg, 2 3/8" x 2 7/8" EUE X-over, 8' 2 7/8" pup jt, 2 7/8" X-over. Landed & set packer at 513' KB. RU cement crew. Pressure test lines to 2000 psi. Put 500 psi on 4 1/2" x 2 3/8" annulus. Held ok. Broke down perforations at 1 1/2 bpm & 1200 psi. Broke back to 1000 psi. Increased rate to 3 bpm at 900 psi. Mixed 150 sxs Class B neat & pumped at 3 bpm at 500 psi. Pumped 3 bbls flush & placed cement top at 60' below packer at 573' KB. Pumped 1/2 bbls flush total at 1/2 bpm and 600 psi. No pressure increase during hesitation squeeze. Cement top at 603' KB. Tried to pump into formation. Formation locked up. Pressure up to 2300 psi at 0 bpm. 0 psi pressure bleed off in 2 minutes. Unseated packer at 513'. TOO & release completion tools. TIH open ended with 2 3/8" tbg & reverse circulated green cement to 770' KB. TOO with 25 jts 2 3/8" tbg.
- 06/12/00 Run 21 jts 2 3/8" tbg. Tag up at 623'. TOO. ND BOP NU 4 1/2" valve. Shut well in.
- 06/16/00 ND frac valve. NU BOP. TIH with bit & bit sub 3 drill collars, 18 jts tbg. RU power swiver to drill cement. SD.
- 06/17/00 Drill cement & clean out well to 803'. TOO. Lay down collars. Shut well in.
- 06/20/00 RUN CBL. Shut in. No bond across FC or PC.
- 06/22/00 Shoot squeeze holes at 508'. Shut down.
- 06/23/00 Pump 5 bbls water. Establish rate of 3.5 bpm at 600 psi. Mix & pump 110 sx of Class B cement. Started showing psi increase. Pump 50 sxs. Pressure at 800 psi. Went to flush pump 3 bbls water. Let set 10 minutes. Pressure 1000 psi. Pump 6.5 bbls, flush pressure at 1500 psi RD. Shut down.
- 06/26/00 ND frac valve. NU BOP. TIH with bit, collars & pipe. Tag cement at 405'. Drill through cement. Circulated out to 803'. Test casing to 2000' psi. Held for 30 minutes.
- 06/27/00 TOO with bit. Run CBL to 760'. Top of cement 310'. Good bond from 360' to 710'. 90% bond from 710' to 760'. Pull out logging tools. TIH with tbg. Clean well out to 803'.

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Well completed as per attached treatment report



14. I hereby certify that the foregoing is true and correct

Signed: Cathleen Collins

Title: Land Manager

Date: 9/1/00

(This space for Federal or State office use)

Approved by:

Title:

Date:

Conditions of approval, if any:

ACCEPTED FOR RECORD

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statements or representations as to any matter within its jurisdiction.

# RICHARDSON OPERATING COMPANY

## FRACTURE TREATMENT REPORT

Operator: Richardson Operating Company Well Name: Navajo Tribal H#12  
Date: July 28, 2000  
Field: \_\_\_\_\_ Location: 14-29N-14W County: San Juan State: NM  
Stimulation Company: American Energy Supervisor: \_\_\_\_\_

Stage #: 1/1

Sand on location (design): 41,240 Weight ticket: 41,240 Size/type: 20/40 Brady Sand

Fluid on location: No. of Tanks: 2 Strap: 38 Amount: 760 Usable: 720

### Perforations

Depth: 750'-755', 760'-769' Total Holes: 38 PBTB: 803'  
Shots per foot: 2 EHD: 0.41

### Breakdown

Acid: N/A  
Balls: N/A  
Pressure: N/A Rate: \_\_\_\_\_

### Stimulation

ATP: 2250 AIR: 25.2  
MTP: 2659 MIR: 26.5

	Sand Stage	Pressure	Breaker test
ISIP: <u>430</u>	pad	1780	cps break in
5 min: <u>376</u>	1 ppg	2240	45 mins
10 min: <u>331</u>	2 ppg	1760	
15 min: <u>314</u>	3 ppg	1710	
	4 ppg	1930	

Job Complete at: 15:34 hrs. Date: 7/28/00 Start flow back: N/A

Total Fluid Pumped: 478 bbls

Total Sand Pumped: 41,240 Total Sand on Formation: 41,240

Total Nitrogen Pumped: N/A

Notes: