

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☐ MULTIPLE ZONE ☒

2. NAME OF OPERATOR
Richardson Operating Co. (303) 830-8000

3. ADDRESS AND TELEPHONE NO.
1700 Lincoln St., Suite 1700, Denver, Co. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface 762' FSL & 660' FWL
At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
1 air miles S of Farmington

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
660'

16. NO. OF ACRES IN LEASE
760

17. NO. OF ACRES ASSIGNED TO THIS WELL
320 & 160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
1+ mile 1,200'

19. PROPOSED DEPTH
1,200'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5,290' ungraded

22. APPROX. DATE WORK WILL START*
4-30-02

5. LEASE DESIGNATION AND SERIAL NO.
NMNM-0468128

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME, WELL NO.
F-RPC 21 #3

9. API WELL NO.
30-045-31079

10. FIELD AND POOL, OR WILDCAT
B Fruit Coal & W Kutz PC

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
21-29n-13w NMPM

12. COUNTY OR PARISH
San Juan

13. STATE
NM

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	K-55 7"	20	120'	~36 cu. ft. & to surface
6-1/4"	K-55 4-1/2"	10.5	1,200'	~235 cu. ft. & to surface

Well name & number have changed from Notice of Staking ("Ropco 21 #2") etc. to correspond with Richardson's new nomenclature ("F-RPC 21 #3").

Archaeology report LAC 2001-28p filed 1-22-02.

cc: BLM, OCD (via BLM), V&S Blaricom

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Consultant (505) 466-8120 DATE 4-15-02

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [Signature] TITLE _____ DATE 4-15-02

*See Instructions On Reverse Side

NMOCD

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

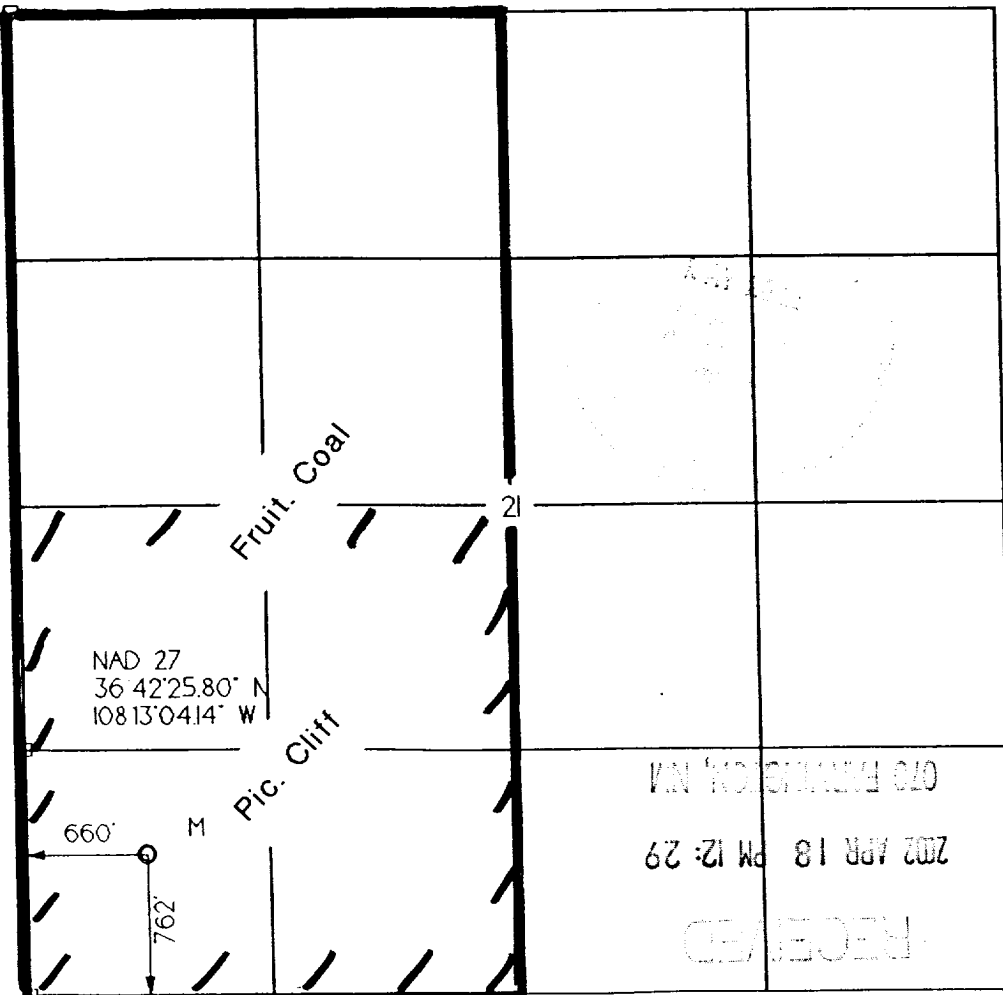
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045-31079	Pool Code 71629 & 79680	Pool Name BASIN FRUIT. COAL & WEST KUTZ PC
Property Code 29676	Property Name RPC 21	Well Number 3
OGPD No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5290'

Surface Location									
U. or Lot	Sec.	Twp.	Rge.	Lot Id.	Feet from >	North/South	Feet from >	East/West	County
M	21	29 N.	13 W.		762'	SOUTH	660'	WEST	SAN JUAN

Bottom Hole Location If Different From Surface									
U. or Lot	Sec.	Twp.	Rge.	Lot Id.	Feet from >	North/South	Feet from >	East/West	County
Dedication		Joint ?		Consolidation		Order No.			

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name **BRIAN WOOD**

Title **CONSULTANT**

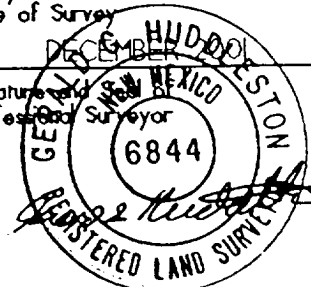
Date **APR. 15, 2002**

SURVEYOR CERTIFICATION

I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

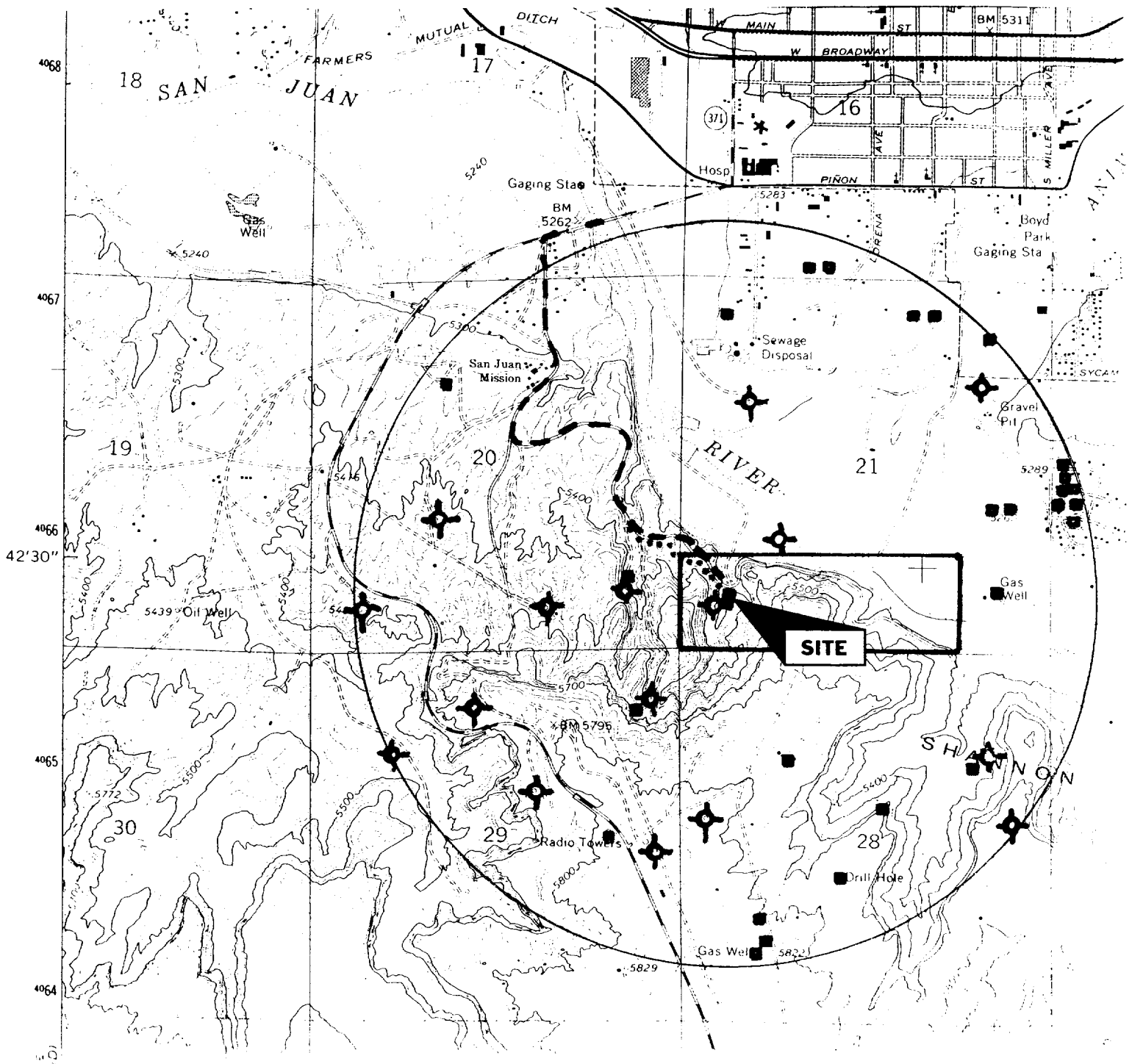
Date of Survey

Signature and Professional Surveyor



Richardson Operating Co.
 F-RPC 21 #3
 762' FSL & 660' FWL
 Sec. 21, T. 29 N., R. 13 W.
 San Juan County, New Mexico

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PROPOSED WELL: ■
 EXISTING WELL: ●
 P & A WELL: ⊕
 PROPOSED PIPELINES:
 EXISTING ROAD: - - -
 LEASE: ┌

PERMITS WEST INC.
 PROVIDING PERMITS FOR LAND USERS

Richardson Operating Co.
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762' FSL & 660' FWL
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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Kirtland Shale	000'	5'	+5,290'
Fruitland Fm	535'	540'	+4,755'
Pictured Cliffs Ss	1,050'	1,055'	+4,240'
Total Depth (TD)*	1,200'	1,205'	+4,090'

* all elevations reflect the ungraded ground level of 5,290'

2. NOTABLE ZONES

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland	Fruitland	Fruitland
Pictured Cliffs		

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) Double ram or annular system with a rotating head will be used. All ram preventers and related equipment will be hydraulically tested at nipple up and after any use under pressure to 1000 psi.

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Blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi. Maximum expected pressure is ≈ 415 psi.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>GL Setting Depth</u>
8-3/4"	7"	20	K-55	New	120'
6-1/4"	4-1/2"	10.5	K-55	New	1,200'

Surface casing will be cemented to surface with ≈ 36 cu. ft. (≈ 30 sacks) Class B + 2% CaCl_2 . Volume is based on 100% excess, yield of 1.18 cu. ft./sk, and slurry weight of 15.6 PPG. W.O.C. = 12 hours. Pressure test surface casing to 600 psi for 30 minutes.

Production casing hole will first be cleaned of rock chips by circulating at least 150% of hole volume with mud to the surface. Forty barrels of fresh water will next be circulated. Lead with ≈ 145 cu. ft. (≈ 71 sacks) of Class B with 2% metasilicate (yield = 2.06 cu. ft./sk, slurry weight = 12.5 PPG). Tail with ≈ 90 cu. ft. (≈ 77 sacks) of Class B with 2% CaCl_2 (yield = 1.18 cu. ft./sk, slurry weight = 15.6 PPG). Total cement volume is ≈ 235 cubic feet based on 75% excess and circulating to surface.

Production casing will have 4-1/2" cement guide shoe and self fill float collar. Float will be placed one joint above the shoe. Six centralizers will be spaced on every other joint starting above the shoe. Six turbolizers will be placed on every other joint starting from the top of the well.