

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO. **14-20-603-2168 A**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME **Navajo**

7. UNIT AGREEMENT NAME **N/A**

8. FARM OR LEASE NAME, WELL NO. **30505 NV Navajo 27 #2**

9. API WELL NO. **30-045-31040**

10. FIELD AND POOL OR WELDCAT **W. Kutz PC Ext.**

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA **C 27-29n-14w NMPM**

12. COUNTY OR PARISH **San Juan** 13. STATE **NM**

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 **695' FNL & 1885' FWL**
 At proposed prod. zone **Same**

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

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)
695'

16. NO. OF ACRES IN LEASE **1,440**

17. NO. OF ACRES ASSIGNED TO THIS WELL **NW/4 160**

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
101'

19. PROPOSED DEPTH **1,360'**

20. ROTARY OR CABLE TOOLS **Rotary**

21. ELEVATIONS (Show whether DF, RT, GR, etc.) **5,670' ungraded**

22. APPROX. DATE WORK WILL START* **Upon Approval**

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	1,360'	~245 cu. ft. & to surface

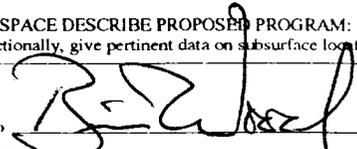
This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

Well name and number have changed from Notice of Staking (Navajo 27 #4) etc. to correspond with Richardson's new nomenclature.

cc: BIA, BLM, Kenson, NAPI, OCD (via BLM), Tribe, Van 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.  Consultant (505) 466-8120 3-15-02

SIGNED _____ TITLE _____ DATE _____

(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:

/s/ Charlie Beecham

ACTING

SEP - 5 2002

APPROVED BY _____ TITLE _____ DATE _____

*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

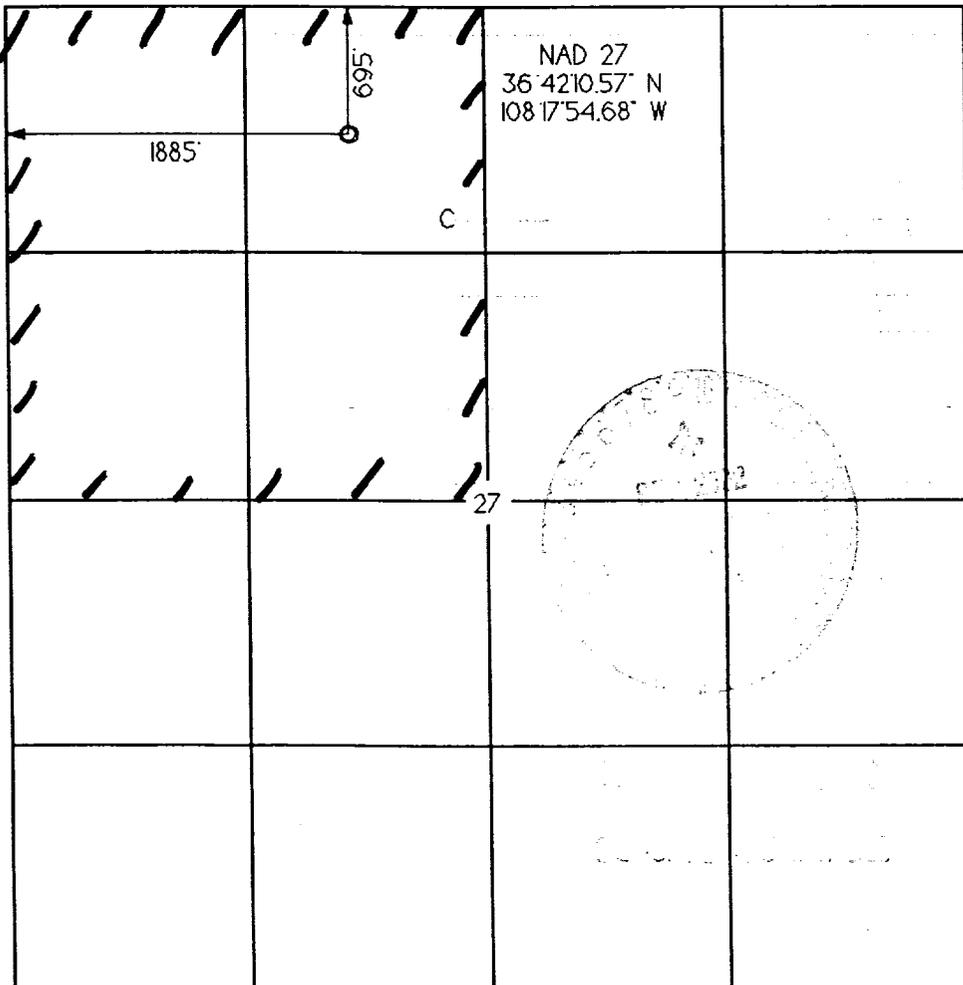
APA Number 30-065-31040	Pool Code 79680	Pool Name WEST KUTZ PC EXT.
Property Code 30505	Property Name NV Navajo 27	Well Number #2
OGRID No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5670'

Surface Location									
UL or Lot	Sec.	Top.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	County
C	27	29 N.	14 W.		695'	NORTH	1885'	WEST	SAN JUAN

Bottom Hole Location if Different From Surface									
UL or Lot	Sec.	Top.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	County

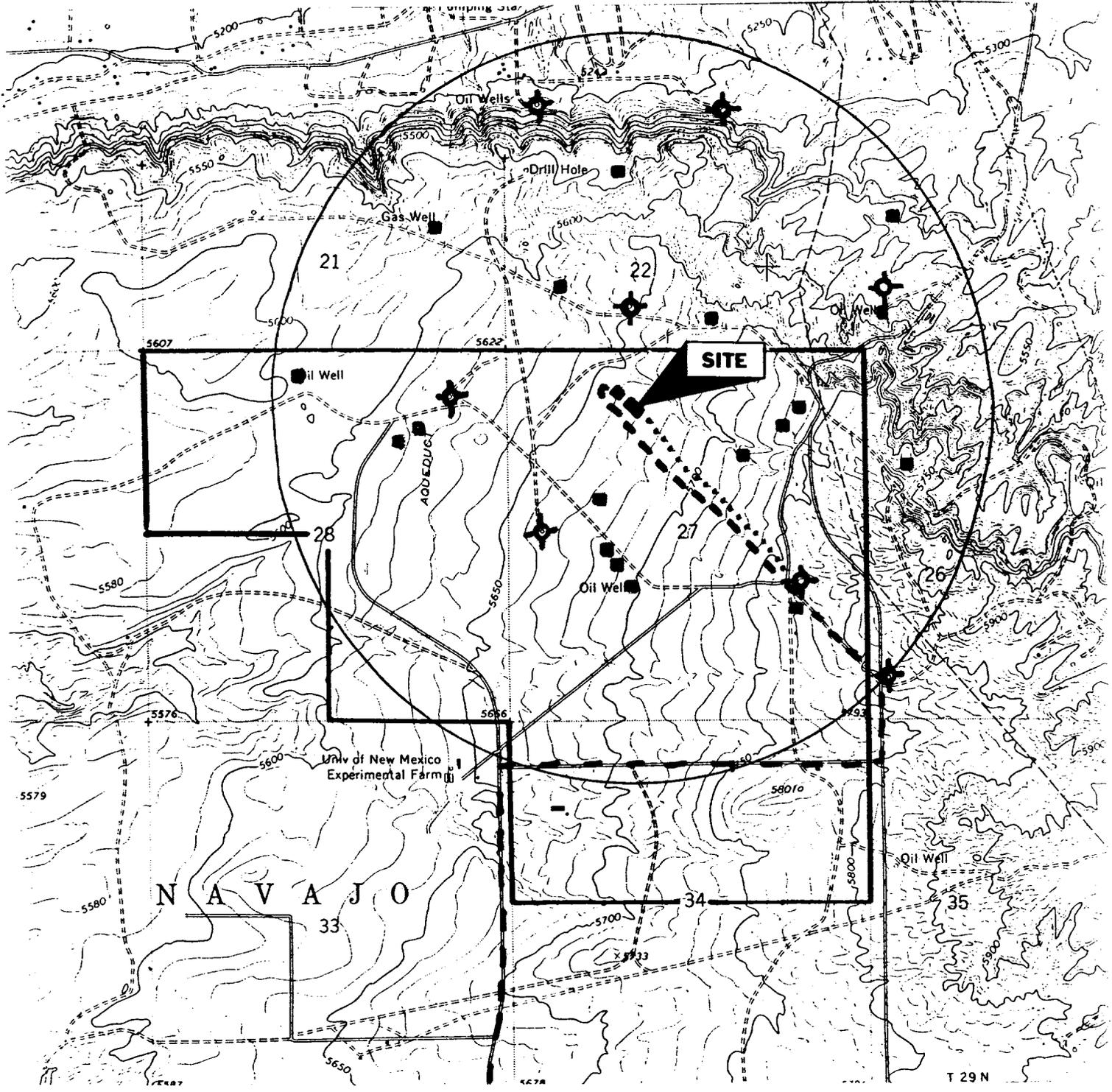
Dedication	Joint ?	Consolidation	Order No.

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	<i>Brian Wood</i>
Printed Name	BRIAN WOOD
Title	CONSULTANT
Date	MAR. 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	017 '02
Signature and Seal of Professional Surveyor	<i>Gerard Huddleston</i>

Richardson Operating Co.
 NV Navajo 27 #2
 695' FNL & 1885' FWL
 Sec. 27, T. 29 N., R. 14 W.
 San Juan County, New Mexico



- PROPOSED WELL: ◆
- EXISTING WELL: ■
- P & A WELL: ⊕
- PROPOSED PIPELINE: ····
- EXISTING ROAD: - - - -
- LEASE: ┌

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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'	+5,670'
Fruitland	800'	805'	+4,870'
Pictured Cliffs Ss	1,125'	1,130'	+4,545'
Total Depth (TD)*	1,360'	1,365'	+4,310'

* all elevations reflect the ungraded ground level of 5,670'

2. NOTABLE ZONES

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland (800')	Fruitland (800')	Kirtland Shale (000')
Pictured Cliffs (1,125')		Fruitland (800')

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 \approx 350 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	1,360'

Surface casing will be cemented to surface with \approx 36 cubic feet (\approx 30 sacks) Class B + 2% CaCl₂. Volume is based on 100% excess, yield of 1.18 cubic feet per sack, and slurry weight of 15.6 pounds per gallon. WOC = 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. Thirty barrels of fresh water will next be circulated. Lead with \approx 155 cubic feet (\approx 75 sacks) Class B with 2% metasilicate (yield = 2.06 cubic feet per sack, slurry weight = 12.5 pounds per gallon). Tail with \approx 90 cubic feet (\approx 76 sacks) of Class B with 2% CaCl₂ (yield = 1.18 cubic feet per sack, slurry weight = 15.6 pounds per gallon). Total cement volume is \approx 245 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. Five centralizers will be spaced on every other joint starting above the shoe. Five turbolizers will be placed on every other joint starting from the top of the well.