

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.
NMSF-079968

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

7. UNIT AGREEMENT NAME
2705 N/A

8. FARM OR LEASE NAME WELL NO.
Ropco 10 #1

9. API WELL NO.
30095-30494

10. FIELD AND POOL OR WILD
**Two-Mile-PC
Haupt Hill**

11. S.E.C., T., R., M., OR BLK. AND SURVEY OR AREA
D 10-29n-14w NMPM

12. COUNTY OR PARISH
San Juan

13. STATE
NM

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

20. ROTARY OR CABLE TOOLS
Rotary

22. APPROX. DATE WORK WILL START*
Dec. 20, 2000

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 **1272' FNL & 673' FWL**

At proposed prod. zone **Same**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
2 air miles NE of Kirtland

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
647'

16. NO. OF ACRES IN LEASE
2,523.72

17. NO. OF ACRES ASSIGNED TO THIS WELL
160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
1594'

19. PROPOSED DEPTH
1,000'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5,400' ungraded

22. APPROX. DATE WORK WILL START*
Dec. 20, 2000

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	1,000'	≈185 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"

On sited with Neel McBride.
Archaeology report: LPAC 2000-31n filed 11-22-00.



cc: BLM, Colby, OCD (via BLM)

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.

SIGNED *[Signature]* TITLE Consultant (505) 466-8120 DATE 11-25-00

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 10/5/01

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.

APPROVED BY *[Signature]* TITLE _____ DATE OCT - 5

*See Instructions On Reverse Side

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OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

2000-11-25
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

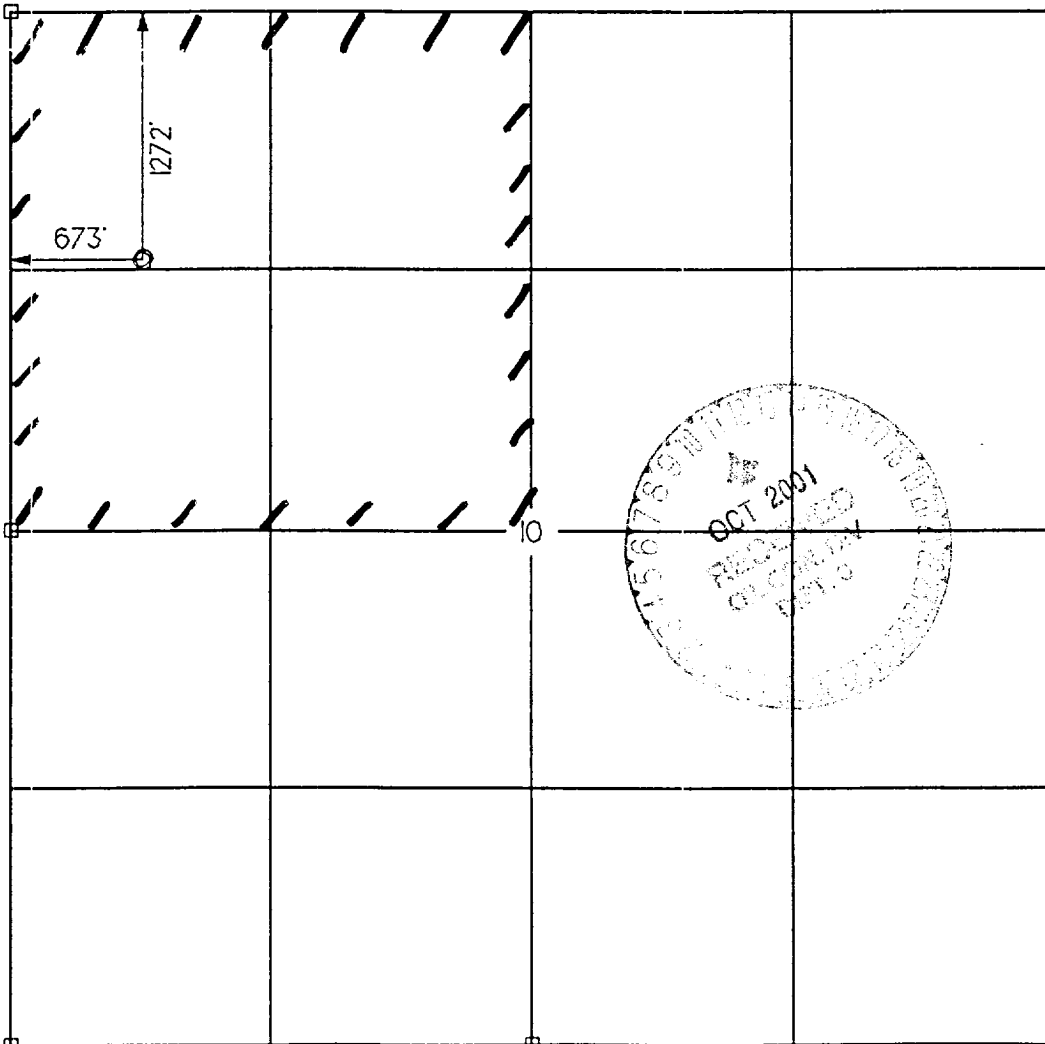
APA Number 30-045-30444	Pool Code 85020 78160	Pool Name TWIN MOUNDS BC EXT Fruitland Sand 1PL <i>Harper Hill</i>
Property Code 27015	Property Name ROPCO	Well Number 10 - 1
GRID No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5400'

Surface Location									
UL or Lat	Sec.	Twp.	Rge.	Lot Idh.	Feet from >	North/South	Feet from >	East/West	County
D	10	29. N.	14 W.		. 1272	NORTH	673.	WEST	SAN JUAN

Bottom Hole Location IF Different From Surface									
UL or Lat	Sec.	Twp.	Rge.	Lot Idh.	Feet from >	North/South	Feet from >	East/West	County

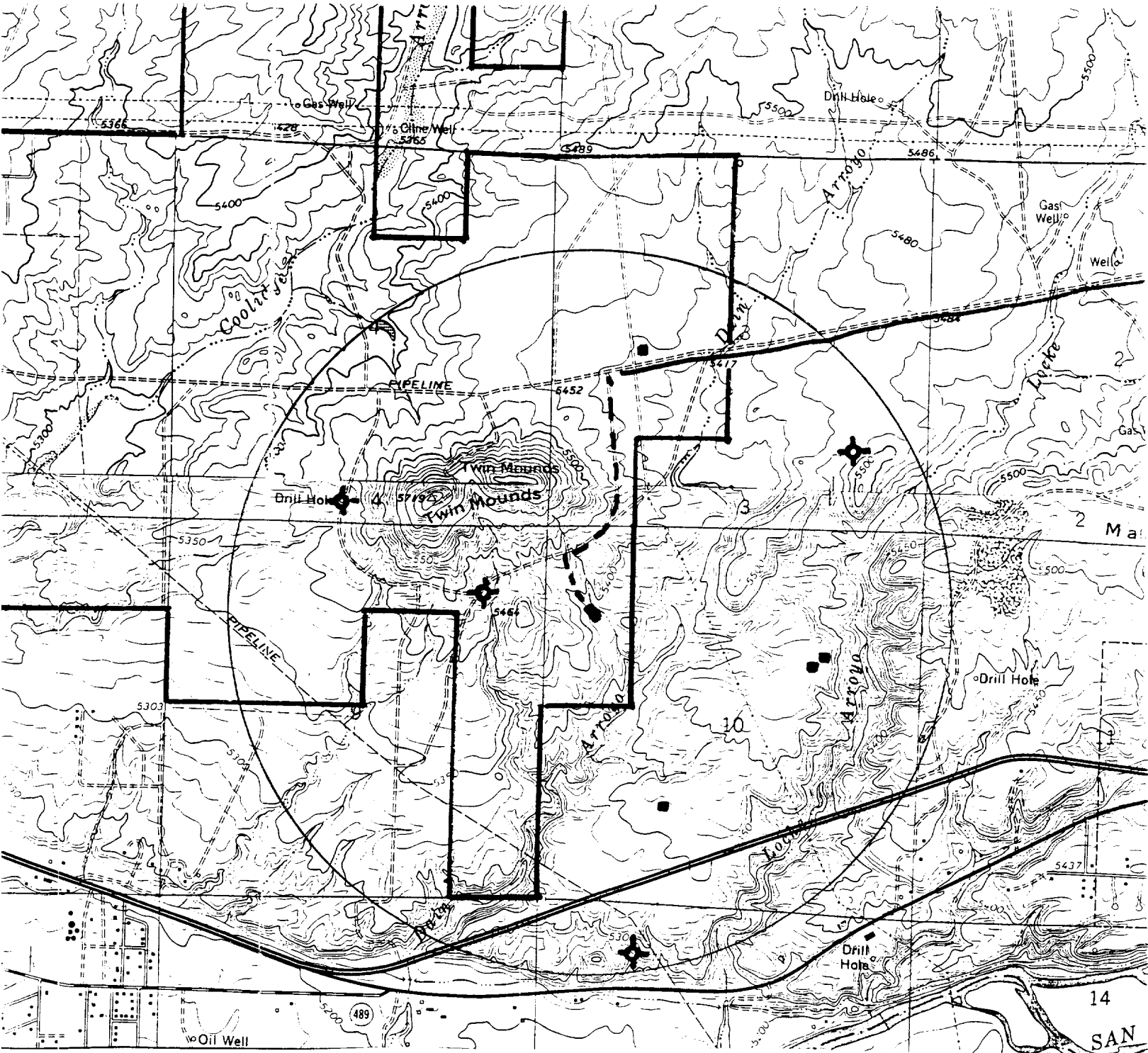
Dedication 1/60 NW 1/4	Joint ?	Consolidation	Order No.
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NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DMSION



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	NOV. 25, 2000
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 of Professional Surveyor	<i>Gerald Huddleston</i>

Richardson Operating Co.
 Ropco 10 #1
 1272' FNL & 673' FWL
 Sec. 10, T. 29 N., R. 14 W.
 San Juan County, New Mexico



- PROPOSED WELL:
- EXISTING WELL:
- P&A WELL:
- LEASE:
- EXISTING ROAD:
- ROAD UPGRADE & PIPES:

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
Kirtland Sh	000'	5'	+5,400'
Fruitland Coal	860'	865'	+4,545'
Pictured Cliffs Ss	875'	880'	+4,530'
Total Depth (TD)*	1,000'	1,005'	+4,400'

* all elevations reflect the ungraded ground level of 5,400'

2. NOTABLE ZONES

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland Coal (860')	Fruitland Coal (860')	Fruitland Coal (860')
Pictured Cliffs (875')		

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 been let, thus the exact BOP to be used is not yet known. A typical 2,000 psi model is on PAGE 3. A similar model meeting BLM standards will be used. Double ram or annular system with a rotating head will be used. All ram preventers and related equipment will be hydraulically tested at NU 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 400 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	1,000'

Surface casing will be cemented to surface with \approx 36 cu. ft. (\approx 30 sx) Class B + 2% CaCl₂. Volume is based on 100% excess, yield of 1.18 cu. ft./sk, and slurry weight of 15.6 PPG. 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 106 cu. ft. (\approx 52 sx) of Class B with 2% metasilicate (yield = 2.06 cu. ft./sk, slurry weight = 12.5 PPG). Tail with \approx 79 cu. ft. (\approx 67 sx) of Class B with 2% CaCl₂ (yield = 1.18 cu. ft./sk, slurry weight = 15.6 PPG). Total cement volume is \approx 185 cu. ft. 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.