

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐GAS WELL ☐

OTHER SWD

SINGLE ZONE ☒MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Richardson Operating Company

3. ADDRESS AND TELEPHONE NO.

3100 LaPlata Highway, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface
850' FNL & 770' FEL, Sec 28, T30N, R14W, NMPM, San Juan County, NM

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT. 770'
(Also to nearest drilg. unit line, if any.)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED, 45'
OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE

1120

19. PROPOSED DEPTH

7200'

17. NO. OF ACRES ASSIGNED

TO THIS WELL N/A - SWD

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5572' GL

22. APPROX. DATE WORK WILL START*

December 9, 2002

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.25"	J-55, 8 5/8"	24.0#	420' KB	300 sx or 300 ft3
7.875"	J-55, 5 1/2"	15.5#	7200' KB	1155 sx or 1903 ft3, 2 stages

The surface of this location is on BLM land.

No new surface disturbance is required.

Archaeological: This location has be previously covered by arch surveys - See letter of 6/28/02 to Dave Simons from Steven Fuller, La Plata Archaeological Consultants.

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

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

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 true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE Operations Manager

DATE 12-3-02

(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:

/s/ David J. Mankiewicz

DEC - 6 2002

APPROVED BY _____

TITLE _____

DATE _____

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-31274		2 Pool Code 96436	3 Pool Name SWD; Entrada
4 Property Code 24806	5 Property Name Salty Dog SWD		6 Well Number 3
7 OGRID No. -185142 19219	8 Operator Name RICHARDSON OPERATING COMPANY		9 Elevation 5572'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
A	28	30 N.	14 W.		850	North	770	East	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres NA	13 Joint or Infill	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

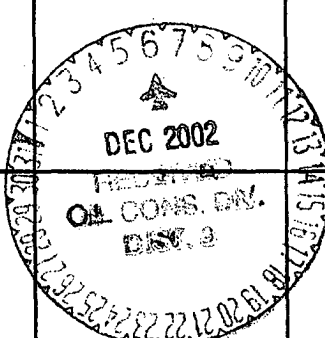
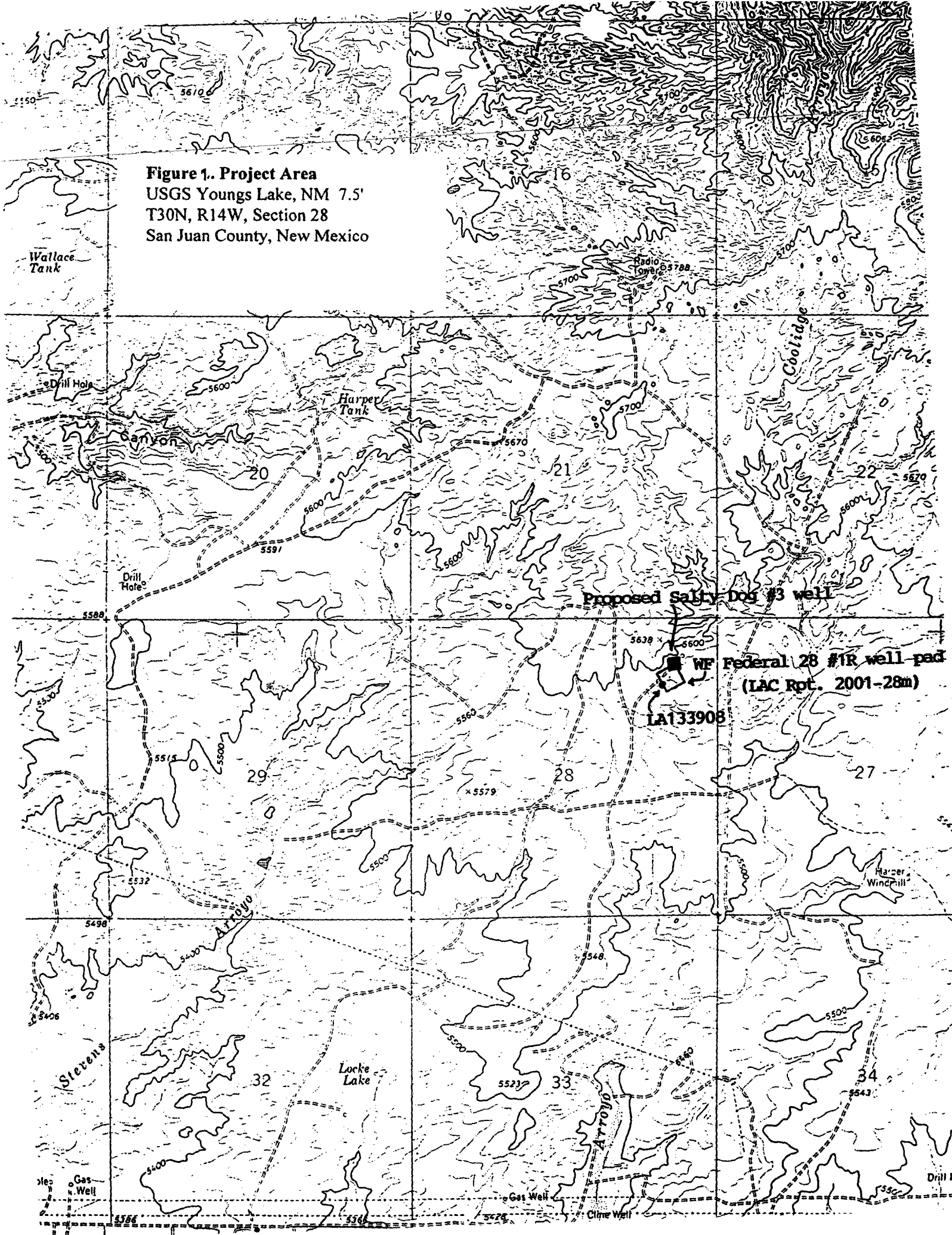
<div>16</div> 	<div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p>Signature: <u>DREN CARNES</u></p> <p>Printed Name: <u>OPERATIONS MANAGER</u></p> <p>Title: <u></u></p> <p>Date: <u>12-5-02</u></p>	
	<div>18 SURVEYOR CERTIFICATION</div> <p>I hereby certify that the well location shown 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.</p> <p>Date of Survey: <u>12-5-02</u></p> <p>Signature: <u>[Signature]</u> Registered Professional Surveyor</p> <p>Certificate Number: <u>6844</u></p>	

Figure 1. Project Area
USGS Youngs Lake, NM 7.5'
T30N, R14W, Section 28
San Juan County, New Mexico



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NM 97843

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.8. Well Name and No.
SALTY DOG SWD 3R

9. API Well No.

30045 31274

10. Field and Pool, or Exploratory
SWD; ENTRADA

11. County or Parish, and State

SAN JUAN COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original APD
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Formation tops and expected fluids are as follows:

Fruitland 360' Gas/Water
Pictured Cliffs 1122' Gas/Water
Lewis 1220'
Cliffhouse 2692' Water
Menefee 2774' Gas/Water
Point Lookout 3544' Water
Upper Mancos 3912' Water
Gallup 4884' Oil/Gas/Water
Greenhorn 5624'
Graneros 5688'
Dakota 5734' Oil/Gas/Water



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

**Electronic Submission #16635 verified by the BLM Well Information System
For RICHARDSON OPERATING CO, sent to the Farmington**

Name (Printed/Typed) DREW CARNES

Title MANAGER

Signature (Electronic Submission)

Date 12/04/2002

THIS SPACE FOR FEDERAL OR STATE OFFICE USEApproved By /s/ David J. Mendenhall

Title

DEC 16 2002

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

NWOCN

Richardson Operating Company
Salty Dog SWD No. 3R
850' FNL & 770' FEL
Section 28, T30N, R14W, NMPM
San Juan County, New Mexico

DRILLING PROGRAM

1. **Surface Formation:** Kirtland
2. **Surface Elevation:** 5572' as graded
3. **Estimated Formation Tops:**

<u>Formation</u>	<u>Top -- feet</u>	<u>Zone</u>
Kirtland	Surface	
Fruitland	500'	
Pictured Cliffs	1122'	
Lewis	1220'	
Cliff House	2692'	
Menefee	2774'	
Pt. Lookout	3544'	
Upper Mancos	3912'	
Gallup	4884'	
Greenhorn	5624'	
Graneros	5688'	
Dakota	5734'	
Morrison	5966'	
Bluff	6730'	
Summerville	6855'	
Todilto	6925'	
Entrada	6965'	Proposed Injection Zone
Chinle	7090'	
Total Depth	7200'	

4. **Casing and Cementing Program:**

<u>Hole Size</u>	<u>Casing O.D.</u>	<u>Weight (#/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Setting Depth (GL)</u>
12 1/4"	8 5/8"	24	J-55	New	420'
7 7/8"	5 1/2"	15.5	J-55	New	7200'

Surface casing will be cemented to surface with approximately 300 cu.ft. (254 sx) Class B with 2% CaCl.
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.

Drilling Program
Richardson Operating Company
Salty Dog SWD No. 3

Page Two

4. Casing and Cementing Program: (Continued)

*Production CSG cement must tie into
Surface CSG by $\geq 100'$*

Production casing will be set to 7200' with a DV Tool set at approximately 5300'. The first cement stage will be 380 sx (547 cu.ft.) of 50/50 Class G/Poz Mix. Density will be 13.0 ppg; yield = 1.44 cu.ft./sk. The second stage will be 775 sx (1356 cu.ft.) of 65/35 Class G/Poz mix with additives. Density will be 12.8 ppg; yield = 1.75 cu.ft./sk.

Casing will have a 5 1/2" guide shoe and float collar. Centralizers will be run.

5. Pressure Control Equipment:

A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 600 psig before drilling out cement from surface casing and then will be checked daily as to mechanical operation condition.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections in use.

6. Mud Program:

Fresh water will be used to drill surface hole to 420'.

Fresh water combined with polymer will be used to drill to the Gallup formation at 4884'. From this point to TD a fresh water based gel with an expected maximum weight of 9.2 ppg will be used. Sufficient materials will be on location at all times to maintain volume and to control any lost circulation problem or unforeseen abnormal pressures. The volume in the rig pit will be visually monitored on a routine basis.

7. Coring, Logging, and Testing Program:

No cores, open hole logs, or DST's are planned.

8. Abnormal Pressure:

No abnormal pressures, temperatures or hydrogen sulfide are expected. Maximum pressure will be 3600 psi.

9. Operations Schedule:

The anticipated spud date is December 9, 2002. It is expected to take 14 days to drill the well.