

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: SOUTHWEST ROYALTIES, INC. Well: MARACO STATE No 2
Contact: KATE ELISON Title: REGULATORY ASST. Phone: 915-686-9927 x 307
DATE IN 6-19-95 RELEASE DATE 7-3-95 DATE OUT 7-17-95

Proposed Injection Application is for: ☐ WATERFLOOD ☐ Expansion ☐ Initial

Original Order: R- ☐ Secondary Recovery ☐ Pressure Maintenance

☐ SENSITIVE AREAS

☒ SALT WATER DISPOSAL

☐ WIPP ☐ Capitan Reef ☐ Commercial Operation

Data is complete for proposed well(s)? YES Additional Data _____

AREA of REVIEW WELLS

4 Total # of AOR

2 # of Plugged Wells

YES Tabulation Complete

YES Schematics of P & A's

YES Cement Tops Adequate

☐ AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) SAN ANTONIO

Source of Water ALFA PRODUCERS Compatible YES

PROOF OF NOTICE

YES Copy of Legal Notice

YES Information Printed Correctly

YES Correct Operators

YES Copies of Certified Mail Receipts

NO Objection Received

☒ Set to Hearing _____ Date

NOTES: _____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL ☐

COMMUNICATION WITH CONTACT PERSON:

1st Contact: ☒ Telephoned ☐ Letter 7-17-95 Date

Nature of Discussion PYA SCHEMATICS

2nd Contact: ☒ Telephoned ☐ Letter 7-17-95 Date

Nature of Discussion VERBAL APPROVAL SWD-600

3rd Contact: ☐ Telephoned ☐ Letter _____ Date

Nature of Discussion _____

7-09-95

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: SOUTHWEST ROYALTIES, INC.
Address: P.O. BOX 11390, MIDLAND, TEXAS 79702
Contact party: KATE ELLISON Phone: 686-9927 EXT. 307
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: KATE ELLISONTitle REGULATORY ASST.Signature: Kate EllisonDate: 6-7-95

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

COMPLETION REPORTS WERE PREVIOUSLY FILED WITH OCD

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

SOUTHWEST ROYALTIES, INC.

III WELL DATA

A.

(1) MARALO STATE WELL #2, SECTION 28, T-18S, R-37E, LEA COUNTY, NM., 330 FSL AND 1650 FWL.

(2) SURFACE CASING - 8-5/8" SET @ 425' CEMENTED WITH 250 SX AND CIRCULATED TO SURFACE IN 12-1/4" HOLE.

LONG STRING - 5-1/2" SET @ 4223' CEMENTED WITH 1850 SX DETERMINED BY CEMENT BOND LOG IN 7-7/8" HOLE.

TOTAL DEPTH IS 4323'

(3) 2-7/8" I.P.C TUBING 4313'

(4) LOK-SET PACKER AT 4150'

B.

(1) INJECTION FORMATION IS SAN ANDRES

(2) INJECTION INTERVAL 4223' TO 4323' - OPEN HOLE.

(3) THE ORIGINAL PURPOSE THIS WELL WAS DRILL WAS FOR PRODUCTION

(4) PERFORATED INTERVALS - 3922', 3925', 3926', 3928', 3930', 3934', 3936', 3957', 3958', 3960', 3979' & 3980'. SQUEEZE PERFS 3922'-3980' WITH 50-100 SX CL "C" CEMENT.

(5) HIGHER - EUMONT YATES SEVEN RIVERS QUEEN - 3650'-3950'
LOWER - ABO 6000'-7000'

SOUTHWEST ROYALTIES, INC.
MARALO STATE WELL #2

VI. WELLS WITHIN A 1/2 MILE RADIUS:

- (1) OPERATOR-SOUTHWEST ROYALTIES, HOWARD STATE WELL #1,
SEC. 32, T-18S, R-37E.
COPY OF COMPLETION ATTACHED. PRODUCING.
- (2) OPERATOR-SOUTHWEST ROYALTIES, MARALO STATE WELL #1,
SEC.28, T-18S, R-37E
COPY OF COMPLETION ATTACHED. PRODUCING.
- (3) OPERATOR-HAL J RASMUSSEN, MARALO STATE WELL #3,
SEC.28, T-18S, R-37E
COPY OF COMPLETION ATTACHED. P&A
- (4) OPERATOR-SELL-RASMUSSEN , M. ANTWEIL ETAL WELL #1,
SEC. 33, T-18S, R-37E, TD 4070. P&A

VII. PROPOSED OPERATION:

- (1) PROPOSED DAILY RATE OF INJECTION - 400 BBLs
MAXIMUM DAILY RATE OF INJECTION - 2500 BBLs
- (2) CLOSED SYSTEM
- (3) PROPOSED AVERAGE INJECTION PRESSURE - 845#
MAXIMUM INJECTION PRESSURE - 865#
- (4) WATER INJECTED WILL BE REINJECTED WATER FROM
COMPATIBLE AND SAME FORMATION PRODUCED WATER.
- (5) ANTICIPATE RECEIVING OFF LEASE WATER FROM SAME
FORMATION, AREA PRODUCED WATER FOR INJECTION.

VIII. INFORMATION LITHO FROM OIL CONSERVATION DIVISION

IX. STIMULATION - NONE

X. LOGS HAVE BEEN FILED WITH OCD

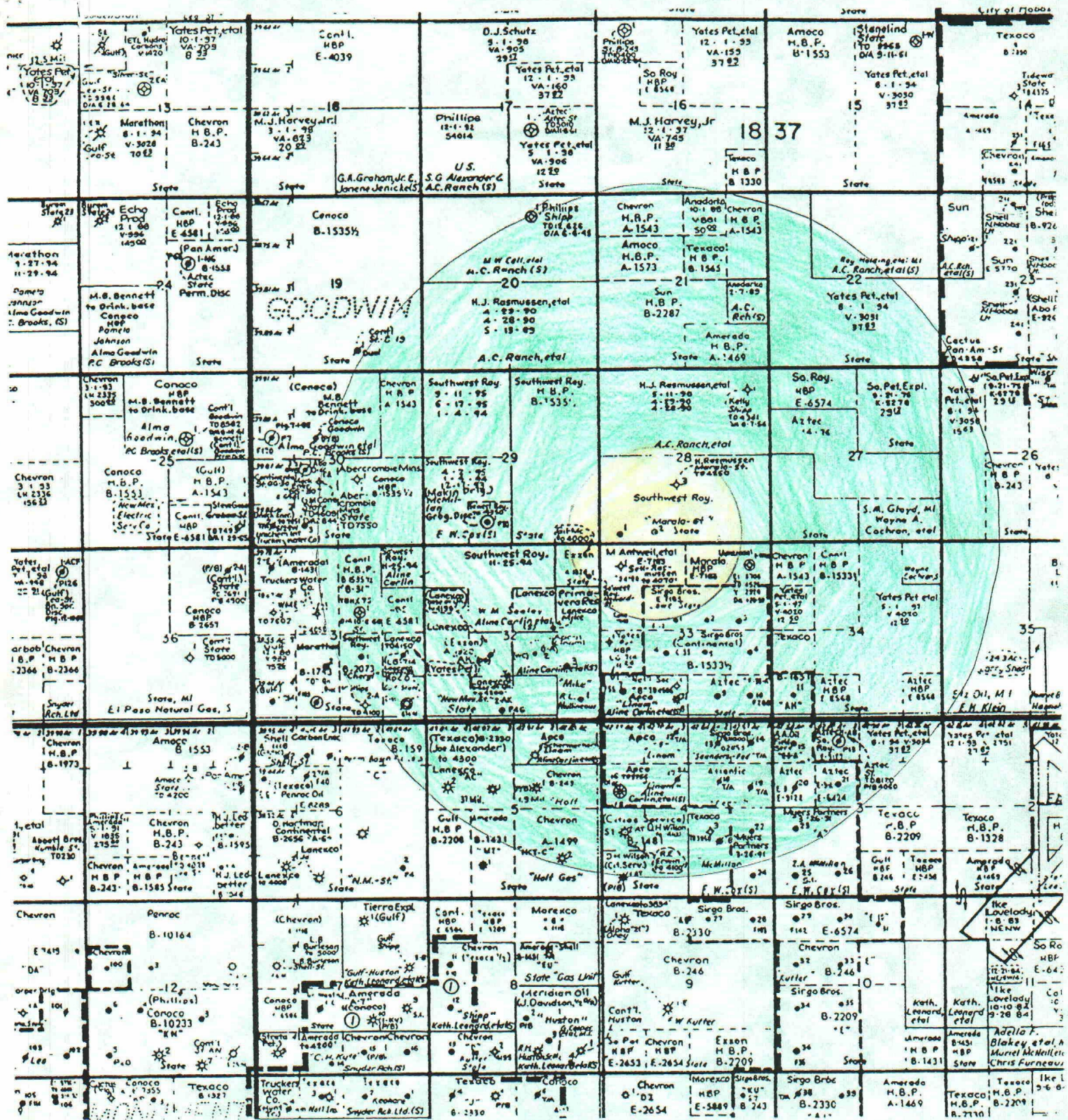
XI. WATER ANALYSIS ATTACHED. PLEASE SEE ATTACHED COPY OF MAP.

XII. AFFIRMATIVE STATEMENT ON GEOLOGIC AND ENGINEERING DATA
ATTACHED.

XIV. AFFIDAVIT OF PUBLICATION AND PROOF OF NOTICE TO SURFACE
OWNERSHIP AND LEASEHOLD OPERATORS ATTACHED.

SURFACE OWNERSHIP: A.C. RANCH, A NEW MEXICO GENERAL
PARTNERSHIP

LEASEHOLD OPERATORS: HAL J. RASMUSSEN
AMERADA HESS CORP.
EXXON
OXY USA INC.



Southwest Royalties, Inc.

V. WELL'S AREA OF REVIEW

10227

MARALO STATE #1, #2

S/2 SW/4 SEC 28-18S-37E
LEA CO, NM

SOUTHWEST OIL & GAS IF VII-A
SOUTHWEST ROYALTIES INST VII-B

TOTAL:

2 MILE RADIUS
1/2 MILE RADIUS

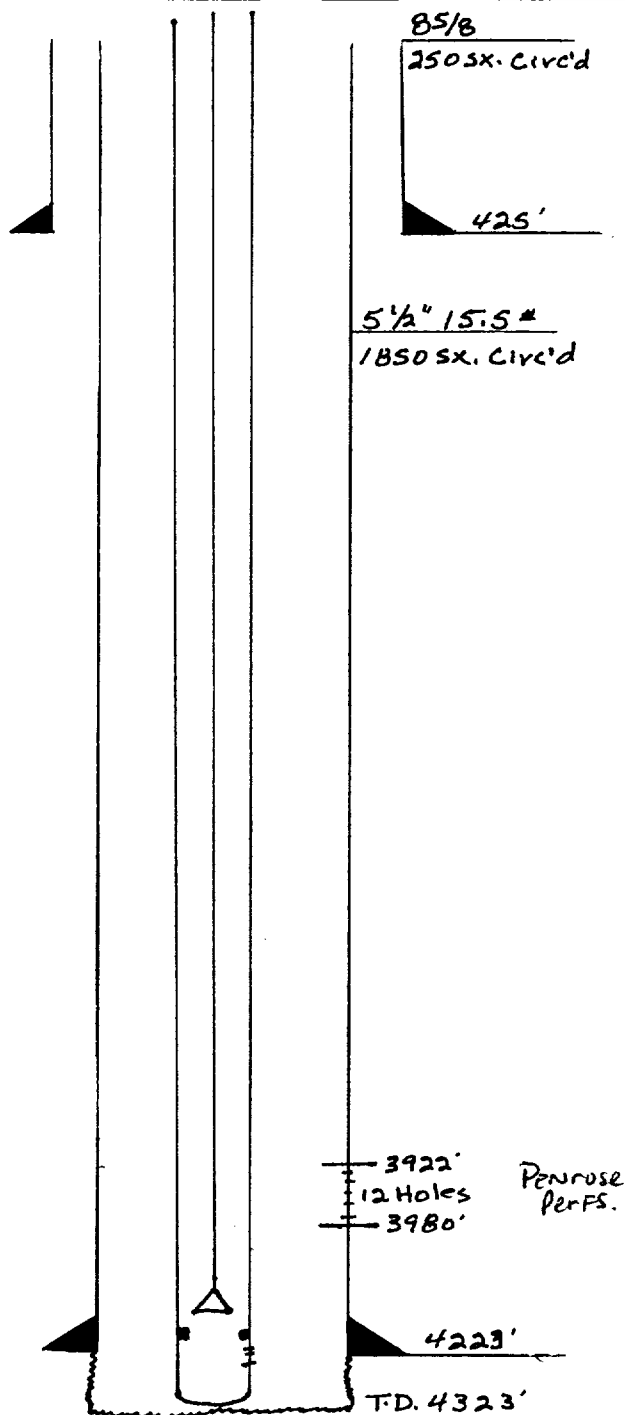
WI	38500000	29837500
WI	38500000	29837500

77000000	59675000
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111

SOUTHWEST ROYALTIES, INC.
Well History Summary Sheet

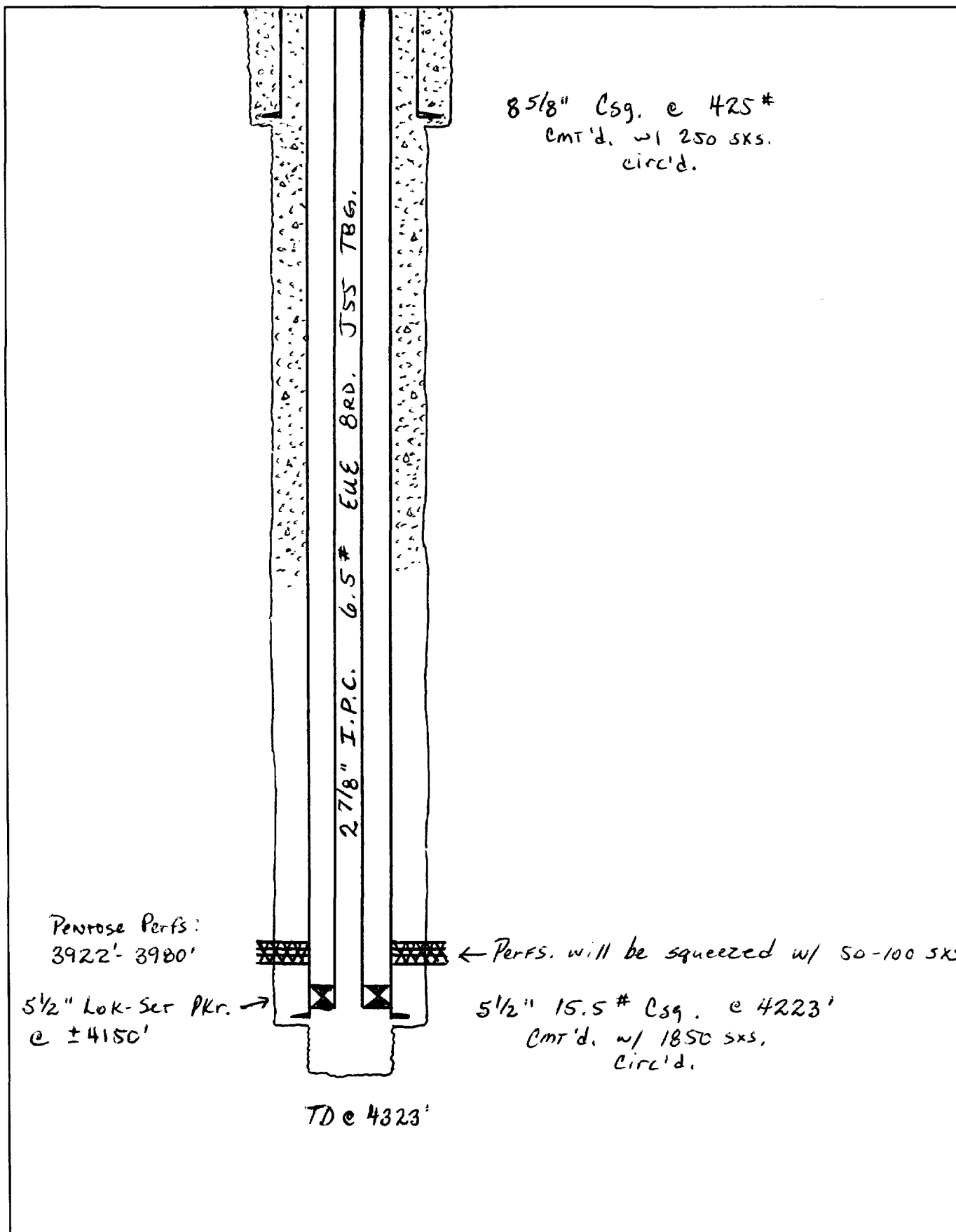
Operator SWR Well Name & # MARALO State #2 Lease # _____
Location 330' FSL & 1650' FWL, Sec. 28-T7B3-R37E County Lea State N. Mex.
Spud Date _____ Compl. Date _____ TD 4323' PBD _____
Type Well: Oil X Gas _____ Other _____ Field Eumont-Y-SR-Queen

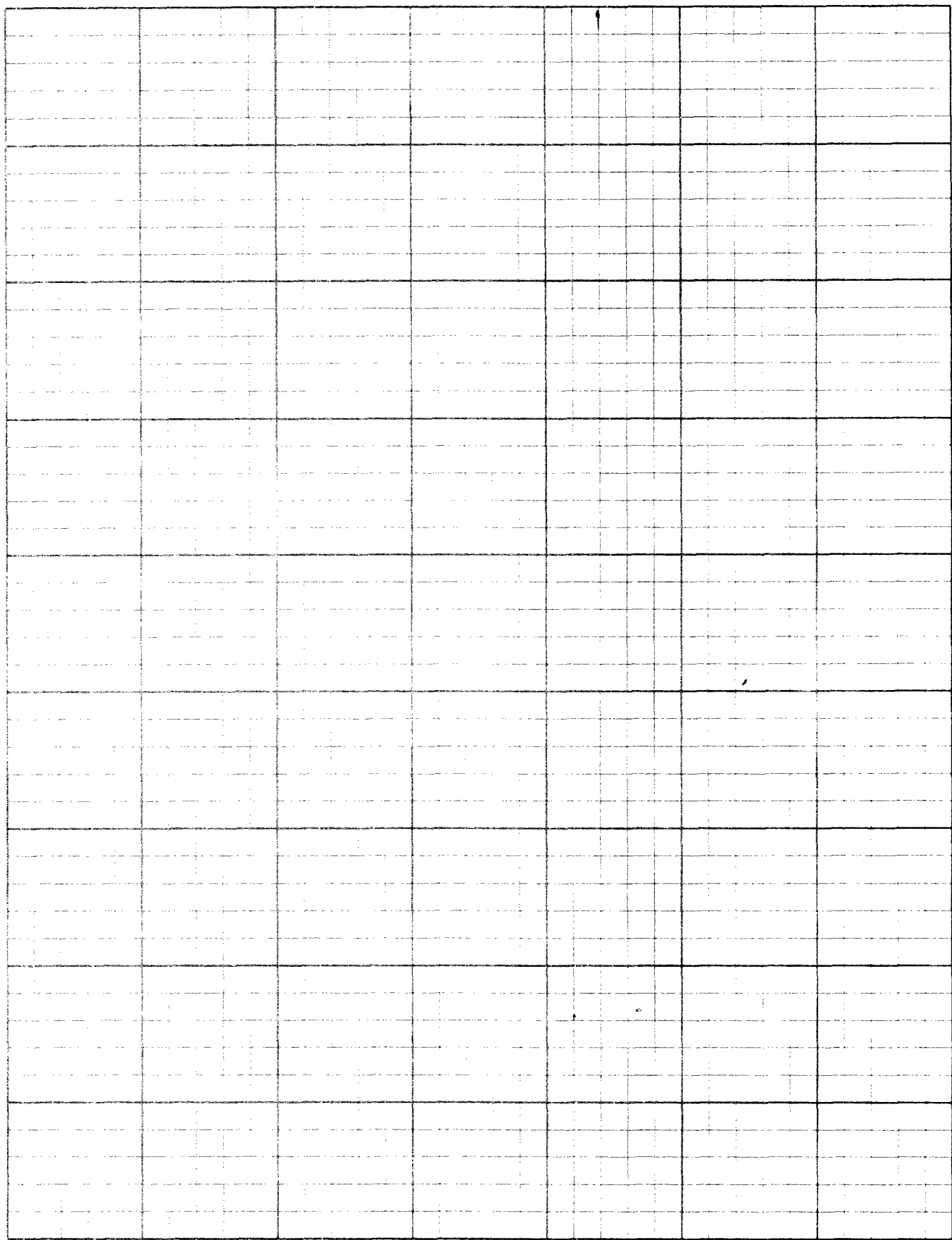


SOUTHWEST ROYALTIES

PROJECT MARALO State #2

PAGE 1 OF 1
BY NWP DATE 5/19/95





Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-105
Revised 1-1-89

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.	30-025-31847
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	A-1320

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐	7. Lease Name or Unit Agreement Name Howard 32 State
b. Type of Completion: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER ☐	
2. Name of Operator Southwest Royalties, Inc.	8. Well No. 1
3. Address of Operator c/o Box 953, Midland, Texas 79702	9. Pool name or Wildcat Eumont/Yates SR-Queen

4. Well Location
Unit Letter A : 990 Feet From The North Line and 330 Feet From The East Line

Section 32 Township 18-S Range 37-E NMPM Lea County

10. Date Spudded 1-24-93	11. Date T.D. Reached 1-29-93	12. Date Compl. (Ready to Prod.) 2-21-93	13. Elevations (DF & RKB, RT, GR, etc.) 3716' GL	14. Elev. Casinghead 3716'
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15. Total Depth 4000'	16. Plug Back T.D. 3920'	17. If Multiple Compl. How Many Zones? N/A	18. Intervals Drilled By Rotary Tools XX Cable Tools
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19. Producing Interval(s), of this completion - Top, Bottom, Name 3878' - 3936' - Penrose	20. Was Directional Survey Made No
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21. Type Electric and Other Logs Run Cased hole GR/Neutron & GR/CBL	22. Was Well Cored No
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CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24 #	460'	12-1/4"	270 sx	-
5-1/2"	15.5 #	4000'	7-7/8"	740 sx	-

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
N/A					2-3/8"	3946'	N/A

26. Perforation record (interval, size, and number) 3878 - 94', 3890 - 3904', 3916 - 20', 3926 - 28', 3931 - 36'. 67 holes. .5" diameter holes.				27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
				DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
				3878 - 3936'	1800 gals. 15% NEFE
				3878 - 3936'	105,000 # 12/20 sd,
					40,000 gal. frac

PRODUCTION

28. Date First Production 2-21-93		Production Method (Flowing, gas lift, pumping - Size and type pump) Pumping				Well Status (Prod. or Shut-in) Producing	
Date of Test 3-07-93	Hours Tested 24	Choke Size N/A	Prod'n For Test Period	Oil - Bbl. 8	Gas - MCF 42	Water - Bbl. 0	Gas - Oil Ratio 5250
Flow Tubing Press. N/A	Casing Pressure 40	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.) 36.6	

29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold	Test Witnessed By Al Perry
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30. List Attachments

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Ann E. Ritchie Printed Name Ann E. Ritchie Title Regulatory Agent Date 3-9-93

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____ 2904	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____ 2980	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____ 3632	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____ 3774	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Otzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. _____	T. Delaware Sand _____	T. Todilto _____	T. _____
T. Brinkard _____	T. Bone Springs _____	T. Entrada _____	T. _____
T. Abo _____	T. _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn "A" _____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from.....3056	to.....3068	No. 3, from.....3878'	to.....3936'
No. 2, from.....3630	to.....3707	No. 4, from.....	to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from..... to..... feet.....
 No. 2, from..... to..... feet.....
 No. 3, from..... to..... feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness in Feet	Lithology
2750	2904'	154'	Salt, Shale, Anhydrite
2904	4000'	1096'	Shale, Dolomite, Sand Sequences

VI

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.O.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease
State ☒ Fee ☐

5. State Oil & Gas Lease No.
E 7183

1a. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐

b. TYPE OF COMPLETION
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐

7. Unit Agreement Name

8. Farm or Lease Name
Maralo State

2. Name of Operator
Steve Sell & Hal Rasmussen

9. Well No.
1

3. Address of Operator
P. O. Box 5061, Midland, Texas 79704

10. Field and Pool, or Wildcat S.A.
Eunice Monument-Grayburg

4. Location of Well
UNIT LETTER M LOCATED 330 FEET FROM THE South LINE AND 660 FEET FROM

12. County
Lea

THE West LINE OF SEC. 28 TWP. 18 RGE. 37 NMPM

15. Date Spudded 7-14-87	16. Date T.D. Reached 7-24-87	17. Date Compl. (Ready to Prod.) 8-20-87	18. Elevations (DF, RKB, RT, GR, etc.) 3713 G.L.	19. Elev. Casinghead -
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20. Total Depth 4610	21. Plug Back T.D. 4100	22. If Multiple Compl., How Many -	23. Intervals Drilled By Rotary Tools X	Cable Tools
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24. Producing Interval(s), of this completion - Top, Bottom, Name
3930-3990 Grayburg

25. Was Directional Survey Made
Yes

26. Type Electric and Other Logs Run
GR Neutron, CNL, LDT

27. Was Well Cored
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8"	32.0	415	12 1/4"	280 sks.	
5 1/2"	15.5	4600	7 7/8"	250/800 sks.	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

31. Perforation Record (Interval, size and number)
3938-3949
.041"
22 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
3938-3949	22 holes
	1500 gal. 20% MSR 100 Acid
	Frac 143,000 # 20/20 Sand

33. PRODUCTION

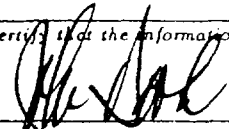
Date First Production 9-3-87	Production Method (Flowing, gas lift, pumping - Size and type pump) Pumping	Well Status (Prod. or Shut-in) Producing
Date of Test 9-8-87	Hours Tested 24	Choke Size -
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate
		Oil - Bbl. 80
		Gas - MCF 100
		Water - Bbl. 5
		Oil Gravity - API (Corr.) 38

34. Disposition of Gas (Sold, used for fuel, vented, etc.)
Vented

Test Witnessed By Gary Miller
Moore, Miller & Associates

35. List of Attachments

6. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED  TITLE Production Foreman DATE 9/15/87

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

T. Anhy _____
 T. Salt 985 _____
 B. Salt 1140 _____
 T. Yates 2750 _____
 T. 7 Rivers 3120 _____
 T. Queen 3641 _____
 T. Grayburg 3940 _____
 T. San Andres 4145 _____
 T. Glorieta _____
 T. Paddock _____
 T. Blinberry _____
 T. Tubb _____
 T. Drinkard _____
 T. Abo _____
 T. Wolfcamp _____
 T. Penn. _____
 T. Cisco (Bough C) _____

Northwestern New Mexico

T. Ojo Alamo _____
 T. Kirtland-Fruitland _____
 T. Pictured Cliffs _____
 T. Cliff House _____
 T. Menefee _____
 T. Point Lookout _____
 T. Mancos _____
 T. Gallup _____
 Base Greenhorn _____
 T. Dakota _____
 T. Morrison _____
 T. Todilto _____
 T. Entrada _____
 T. Wingate _____
 T. Chinle _____
 T. Permian _____
 T. Penn. "A" _____

OIL OR GAS SANDS OR ZONES

No. 1, from 3940 to 3990
 No. 2, from _____ to _____
 No. 3, from _____ to _____
 No. 4, from _____ to _____
 No. 5, from _____ to _____
 No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet
 No. 2, from _____ to _____ feet
 No. 3, from _____ to _____ feet
 No. 4, from _____ to _____ feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
985	1140	155	Salt				
2750	3120	370	Yates				
3120	3641	521	7 Rivers				
3641	3940	299	Queen				
3940	4145	205	Grayburg				
4145	-		San Andres				

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease	
State ☒	Fee ☐
5. State Oil & Gas Lease No.	
E7183	

1a. TYPE OF WELL		7. Unit Agreement Name	
OIL WELL ☐ GAS WELL ☐ DRY ☒ OTHER _____			
b. TYPE OF COMPLETION		8. Farm or Lease Name	
NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER _____		Maralo State	

2. Name of Operator		9. Well No.	
Hal J. Rasmussen		3	

3. Address of Operator		10. Field and Pool, or Wildcat	
306 W. Wall, Suite 600 Midland, Texas 79701		Eumont Yates	

4. Location of Well		7-Rivers, Queen	
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UNIT LETTER <u>K</u> LOCATED <u>2310</u> FEET FROM THE <u>West</u> LINE AND <u>1750</u> FEET FROM		12. County	
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YRL <u>South</u> LINE OF SEC. <u>28</u> TWP. <u>18</u> RGE. <u>37</u> NMPM		Lea	
--	--	-----	--

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Casinghead
1-31-88	2-7-88	—	3710'	N/A

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
4250	—		→	X	

24. Producing Interval(s), of this completion — Top, Bottom, Name				25. Was Directional Survey Made
None				Yes

26. Type Electric and Other Logs Run				27. Was Well Cored
G.R. Neutron, CNL, Litho-Density				No

28. CASING RECORD (Report all strings set in well)					
--	--	--	--	--	--

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	38.0	542	11"	275 SK-"C"	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

31. Perforation Record (Interval, size and number)				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
				DEPTH INTERVAL			
				AMOUNT AND KIND MATERIAL USED			

33. PRODUCTION							
----------------	--	--	--	--	--	--	--

Date First Production		Production Method (Flowing, gas lift, pumping — Size and type pump)				Well Status (Prod. or Shut-in)	
-----------------------	--	---	--	--	--	--------------------------------	--

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio
--------------	--------------	------------	-------------------------	------------	-----------	--------------	-----------------

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)	
--------------------	-----------------	-------------------------	------------	-----------	--------------	---------------------------	--

34. Disposition of Gas (Sold, used for fuel, vented, etc.)						Test Witnessed By	
--	--	--	--	--	--	-------------------	--

35. List of Attachments							
-------------------------	--	--	--	--	--	--	--

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.							
---	--	--	--	--	--	--	--

SIGNED _____		TITLE General Manager		DATE March 7, 1988	
--------------	--	-----------------------	--	--------------------	--

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quadruplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

T. Anhy _____
 T. Salt 1210
 B. Salt 1480
 T. Yates 2787
 T. 7 Rivers 3168
 T. Queen 3692
 T. Grayburg 3930
 T. San Andres 4155
 T. Glorieta _____
 T. Paddock _____
 T. Blinbry _____
 T. Tubb _____
 T. Drinkard _____
 T. Abo _____
 T. Wolfcamp _____
 T. Penn. _____
 T. Cisco (Bough C) _____

Northwestern New Mexico

T. Ojo Alamo _____
 T. Kirtland-Fruitland _____
 T. Pictured Cliffs _____
 T. Cliff House _____
 T. Menefee _____
 T. Point Lookout _____
 T. Mancos _____
 T. Gallup _____
 Base Greenhorn _____
 T. Dakota _____
 T. Morrison _____
 T. Todilto _____
 T. Entrada _____
 T. Wingate _____
 T. Chinle _____
 T. Pennian _____
 T. Penn. "A" _____

OIL OR GAS SANDS OR ZONES

No. 1, from 3930 to 3995
 No. 2, from _____ to _____
 No. 3, from _____ to _____
 No. 4, from _____ to _____
 No. 5, from _____ to _____
 No. 6, from _____ to _____

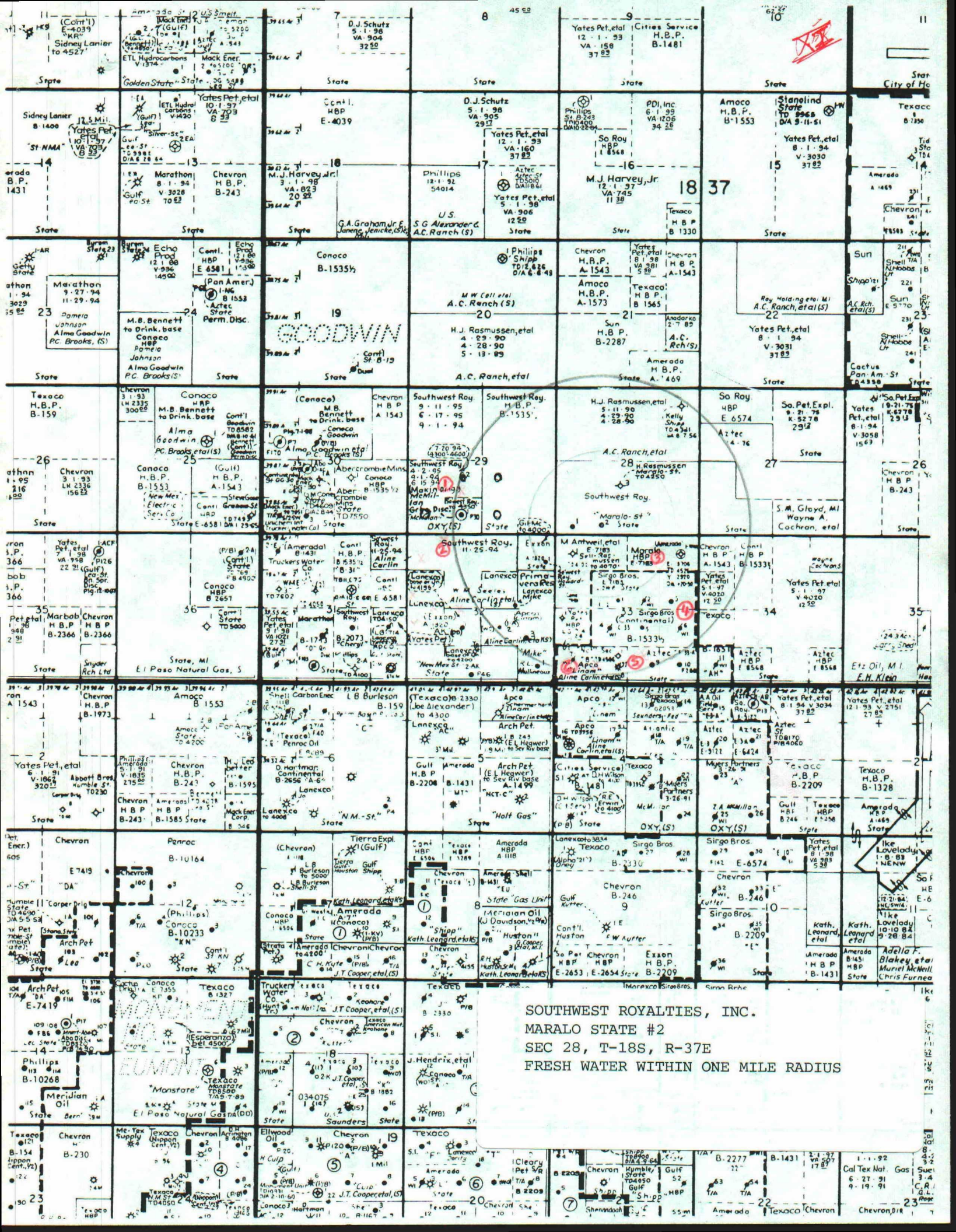
IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet
 No. 2, from _____ to _____ feet
 No. 3, from _____ to _____ feet
 No. 4, from _____ to _____ feet

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
1210	1480	270	Salt				
2787	3168	381	Yates				
3168	3692	524	7-Rivers				
3692	3930	238	Queen				
3930	4155	225	Grayburg				
4155			T- San Andres				



SOUTHWEST ROYALTIES, INC.
MARALO STATE #2
SEC 28, T-18S, R-37E
FRESH WATER WITHIN ONE MILE RADIUS

.O.BOX 2187
HOBBS, N.M. 88240



PHONE: (505) 393-7726

W A T E R A N A L Y S I S R E P O R T

Report for: Al Perry
cc: Allan Childs
cc: Mike Edwards
cc:
Company: SOUTHWEST ROYALTIES
Address:
Service Engineer: Mike Edwards

Date sampled: 06/02/95
Date reported: 06/03/95
Lease or well # : Cooper
County: State: N.M.
Formation: 1.2 Miles
Depth: Sec. 29
Submitted by: Al Perry

CHEMICAL COMPOSITION :

	mg/L	meq/L
Chloride (Cl)	60	2
Iron (Fe) (total)	0.0	
Total hardness	295	
Calcium (Ca)	84	4
Magnesium (Mg)	20	2
Bicarbonates (HCO ₃)	305	5
Carbonates (CO ₃)	0	
Sulfates (SO ₄)	91	2
Hydrogen sulfide (H ₂ S)	0	
Carbon dioxide (CO ₂)	87	
Sodium (Na)	62	3
Total dissolved solids	623	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	

Specific Gravity 1.000
Density (#/gal.) 8.334
pH 7.400
IONIC STRENGTH 0.01

Stiff-Davis (CaCO₃) Stability Index :
SI = pH - pCa - pAlk - K

SI @ 86 F = +0.71
104 F = +0.93
122 F = +1.16
140 F = +1.39
158 F = +1.64

This water is 2363 mg/l (%-100.00%) under ITS CALCULATED
CaSO₄ saturation value at 82 F.
SATURATION= 2363 mg/L PRESENT= 0 mg/L

REPORTED BY ROB MIDDLETON

TECHNICAL SERVICES REPRESENTATIVE

Rem

.O.BOX 2187
HOBBS, N.M. 88240



PHONE: (505) 393-7726

WATER ANALYSIS REPORT

Report for: Al Perry
cc: Allan Childs
cc: Mike Edwards
Company: SOUTHWEST ROYALTIES
Address:
Service Engineer: Mike Edwards

Date sampled: 06/02/95
Data ##### 06.00.00
Lease or well #: Howard
County: State: N.M.
Formation: 2 Mill Sec. 32
Depth:
Submitted by: Al Perry (2)

CHEMICAL COMPOSITION :

	mg/L	meq/L
Chloride (Cl)	60	2
Iron (Fe) (total)	0.0	
Total hardness	235	
Calcium (Ca)	72	4
Magnesium (Mg)	13	1
Bicarbonates (HCO3)	225	4
Carbonates (CO3)	0	
Sulfates (SO4)	57	1
Hydrogen sulfide (H2S)	0	
Carbon dioxide (CO2)	87	
Sodium (Na)	44	2
Total dissolved solids	473	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	

Specific Gravity 1.000
Density (#/gal.) 8.334
pH 7.400
IONIC STRENGTH 0.01

Stiff-Davis (CaCO3) Stability Index :
 $SI = pH - pCa - pAlk - K$

SI @ 86 F = +0.59
104 F = +0.81
122 F = +1.04
140 F = +1.28
158 F = +1.52

This water is 2358 mg/l (%-100.00%) under ITS CALCULATED
CaSO4 saturation value at 82 F.
SATURATION= 2358 mg/L PRESENT= 0 mg/L

REPORTED BY ROB MIDDLETON

TECHNICAL SERVICES REPRESENTATIVE

Ren

.O.BOX 2187
HOBBS, N.M. 88240



PHONE: (505) 393-7726

W A T E R A N A L Y S I S R E P O R T

Report for: Al Perry
cc: Allan Childs
cc: Mike Edwards
cc:
Company: SOUTHWEST ROYALTIES
Address:
Service Engineer: Mike Edwards

Date sampled: 06/02/95
Date reported: 06/03/95
Lease or well # : Howard
County: State: N.M.
Formation: 0.5 Mile
Depth: Sec 33
Submitted by: Al Perry ③

CHEMICAL COMPOSITION :

	mg/L	meq/L
Chloride (Cl)	80	2
Iron (Fe) (total)	0.0	
Total hardness	210	
Calcium (Ca)	62	3
Magnesium (Mg)	13	1
Bicarbonates (HCO3)	207	3
Carbonates (CO3)	0	
Sulfates (SO4)	94	2
Hydrogen sulfide (H2S)	0	
Carbon dioxide (CO2)	65	
Sodium (Na)	79	3
Total dissolved solids	537	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	

Specific Gravity 1.000
Density (#/gal.) 8.334
pH 7.200
IONIC STRENGTH 0.01

Stiff-Davis (CaCO3) Stability Index :
 $SI = pH - pCa - pAlk - K$

SI @ 86 F = +0.26
104 F = +0.48
122 F = +0.70
140 F = +0.94
158 F = +1.19

This water is 2399 mg/l (%-100.00%) under ITS CALCULATED
CaSO4 saturation value at 82 F.

SATURATION= 2399 mg/L PRESENT= 0 mg/L

REPORTED BY ROB MIDDLETON

TECHNICAL SERVICES REPRESENTATIVE

Ran

.O.BOX 2187
HOBBS, N.M. 88240



PHONE: (505) 393-7726

W A T E R A N A L Y S I S R E P O R T

Report for: Al Perry
cc: Allan Childs
cc: Mike Edwards
cc:
Company: SOUTHWEST ROYALTIES
Address:
Service Engineer: Mike Edwards

Date sampled: 06/02/95
Date reported: 06/03/95
Lease or well #: Cooper
County: State: N.M.
Formation: East by State Pit #2
Depth: 522.33
Submitted by: Al Perry

CHEMICAL COMPOSITION :	mg/L	meq/L
Chloride (Cl)	60	2
Iron (Fe) (total)	0.0	
Total hardness	310	
Calcium (Ca)	96	5
Magnesium (Mg)	17	1
Bicarbonates (HCO3)	292	5
Carbonates (CO3)	0	
Sulfates (SO4)	112	2
Hydrogen sulfide (H2S)	0	
Carbon dioxide (CO2)	87	
Sodium (Na)	61	3
Total dissolved solids	640	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	
Specific Gravity	1.000	
Density (#/gal.)	8.334	
pH	7.400	
IONIC STRENGTH	0.01	

Stiff-Davis (CaCO3) Stability Index :
 $SI = pH - pCa - pAlk - K$

SI @ 86 F = +0.73
104 F = +0.95
122 F = +1.18
140 F = +1.42
158 F = +1.67

This water is 2357 mg/l (%-100.00%) under ITS CALCULATED
CaSO4 saturation value at 82 F.
SATURATION= 2357 mg/L PRESENT= 0 mg/L

REPORTED BY ROB MIDDLETON

TECHNICAL SERVICES REPRESENTATIVE

R.m

.O.BOX 2187
HOBBS, N.M. 88240



PHONE: (505) 393-7726

W A T E R A N A L Y S I S R E P O R T

Report for: Al Perry
cc: Allan Childs
cc: Mike Edwards
cc:
Company: SOUTHWEST ROYALTIES
Address:
Service Engineer: Mike Edwards

Date sampled: 06/02/95
Date reported: 06/03/95
Lease or well # : Cooper
County: State: N.M.
Formation: Windmill by Hwy 62-
Depth: 180 #1
Submitted by: Al Perry

Sec. 33
(5)

CHEMICAL COMPOSITION :	mg/L	meq/L
Chloride (Cl)	200	6
Iron (Fe) (total)	0.0	
Total hardness	260	
Calcium (Ca)	78	4
Magnesium (Mg)	15	1
Bicarbonates (HCO3)	219	4
Carbonates (CO3)	0	
Sulfates (SO4)	69	1
Hydrogen sulfide (H2S)	0	
Carbon dioxide (CO2)	87	
Sodium (Na)	127	6
Total dissolved solids	710	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	
Specific Gravity	1.000	
Density (#/gal.)	8.334	
pH	7.500	
IONIC STRENGTH	0.01	

Stiff-Davis (CaCO3) Stability Index :
 $SI = pH - pCa - pAlk - K$

SI @ 86 F = +0.60
104 F = +0.82
122 F = +1.05
140 F = +1.28
158 F = +1.53

This water is 2337 mg/l (-99.15%) under ITS CALCULATED
CaSO4 saturation value at 82 F.
SATURATION= 2357 mg/L PRESENT= 20 mg/L

REPORTED BY ROB MIDDLETON

TECHNICAL SERVICES REPRESENTATIVE

Ran

.O.BOX 2187
HOBBS, N.M. 88240



PHONE: (505) 393-7726

W A T E R A N A L Y S I S R E P O R T

Report for: Al Perry
cc: Allan Childs
cc: Mike Edwards
cc:
Company: SOUTHWEST ROYALTIES
Address:
Service Engineer: Mike Edwards

Date sampled: 06/02/95
Date reported: 06/03/95
Lease or well # : Howard
County: State: N.M.
Formation: 1 Mile Ranch House
Depth:
Submitted by: Al Perry

Sec. 33
(6)

CHEMICAL COMPOSITION :	mg/L	meq/L
Chloride (Cl)	60	2
Iron (Fe) (total)	0.0	
Total hardness	230	
Calcium (Ca)	64	3
Magnesium (Mg)	17	1
Bicarbonates (HCO3)	219	4
Carbonates (CO3)	0	
Sulfates (SO4)	64	1
Hydrogen sulfide (H2S)	0	
Carbon dioxide (CO2)	87	
Sodium (Na)	47	2
Total dissolved solids	473	
Barium (Ba)	n/a	
Strontium (Sr)	n/a	
Specific Gravity	1.000	
Density (#/gal.)	8.334	
pH	7.550	
IONIC STRENGTH	0.01	

Stiff-Davis (CaCO3) Stability Index :
SI = pH - pCa - pAlk - K

SI @ 86 F = +0.68
104 F = +0.90
122 F = +1.13
140 F = +1.36
158 F = +1.61

This water is 2377 mg/l (%-100.00%) under ITS CALCULATED
CaSO4 saturation value at 82 F.
SATURATION= 2377 mg/L PRESENT= 0 mg/L

REPORTED BY ROB MIDDLETON

TECHNICAL SERVICES REPRESENTATIVE

Rom

MM



SOUTHWEST ROYALTIES

SOUTHWEST ROYALTIES, INC.
Southwest Royalties Building
407 N. Big Spring, Midland, TX. 79701-4326
P.O. Box 11390, Midland, TX. 79702-8390
(915) 686-9927, 1-800-433-7945

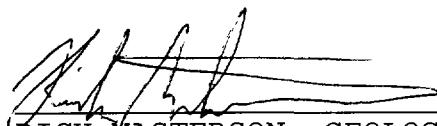
MAY 22, 1995

OIL CONSERVATION DIVISION
2040 SOUTH PACHECO
SANTA FE, NM 88240

RE: MARALO STATE #2
SEC. 28, T-18S, R-37E
LEA COUNTY, NM

TO WHOM IT MAY CONCERN;

IN REFERENCE TO THE ABOVE MENTIONED WELL LOCATED 330 FSL AND 1650 FWL, LEA COUNTY, NM, I HAVE EXAMINED THE AVAILABLE GEOLOGIC AND ENGINEERING DATA AND FIND NO EVIDENCE OF OPEN FAULTS OR ANY OTHER HYDROLOGIC CONNECTION BETWEEN THE DISPOSAL ZONE AND ANY UNDERGROUND SOURCE OF DRINKING WATER.



RICH MASTERSON, GEOLOGIST
SOUTHWEST ROYALTIES, INC.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of _____
_____ 1 _____ weeks.

Beginning with the issue dated

June 1, 1995 19____

and ending with the issue dated

June 1, 1995 19____

Kathi Bearden
General Manager

Saw and subscribed to before

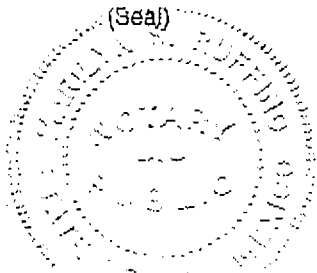
me this 6th day of

June 1995

Marilee S. Ruggino
Notary Public.

My Commission expires
March 24, 1998

(Seal)



This Newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE

June 1, 1995

NOTICE OF APPLICATION
FOR INJECTION
WELL PERMIT

Southwest Royalties, Inc.,
P.O. Box 11390, Midland,
Texas 79702 is seeking ad-
ministrative approval from
the New Mexico Oil Conser-
vation Division to complete
our Maralo State, well #2 as

a injection well. The well is located in Section 28, T-18S, R-37E, Lea County, New Mexico. The proposed injection zone is the San Andres formation. The injection interval is 4223' to 4323' open hole. Southwest Royalties, Inc. intends to inject a maximum of 2500 bbls of produced formation water per day at a maximum injection pressure of 860#.

Interested parties must file objections or request for hearing with the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 within 15 days of the notice.



SOUTHWEST ROYAL

SOUTHWEST ROYALTIES, INC.
Southwest Royalties Building
407 N. Big Spring, Midland, TX 79701-4326
P.O. Box 11390, Midland, TX 79702-3390

Fold at line over top of envelope to the
right of the return address

CERTIFIED

Z 107 953 256

MAIL



A.C. RANCH, A NEW MEXICO
GENERAL PARTNERSHIP
P.O. BOX 918
HOBBS, NM 88240



SOUTHWEST ROYAL

SOUTHWEST ROYALTIES, INC.
Southwest Royalties Building
407 N. Big Spring, Midland, TX. 79701-4326
P.O. Box 11390, Midland, TX. 79702-8390

right of the return address

CERTIFIED

Z 107 953 257

MAIL



EXXON PIPELINE COMPANY
P.O. BOX 2220, EXXON BLDG;
HOUSTON, TEXAS 77252-2220



SOUTHWEST ROYA

SOUTHWEST ROYALTIES, INC.
Southwest Royalties Building
407 N. Big Spring, Midland, TX. 79701-4326
P.O. Box 11390, Midland, TX. 79702-8390

CERTIFIED

Z 107 953 255

MAIL



AMERADA HESS CORPORATION
1201 LOUISIANA #700
HOUSTON, TEXAS 77002

SOUTHWEST ROYALTIES, INC.



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right of the return address

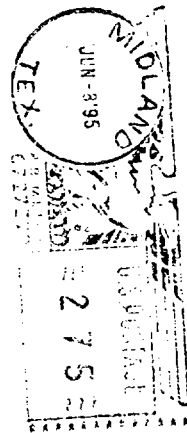
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MAIL

SOUTHWEST ROYALTIES, INC.
Southwest Royalties Building
407 N. Big Spring, Midland, TX. 79701-4326
P.O. Box 11390, Midland, TX. 79702-6390

OXY USA INC.
P.O. BOX 300
TULSA, OK 74102-0300



SOUTHWEST ROYALTIES, INC.
Southwest Royalties Building
407 N. Big Spring, Midland, TX. 79701-4326
P.O. Box 11390, Midland, TX. 79702-6390

HAL J. RASMUSSEN OPERATING
310 W. Wall St. Ste. 906
MIDLAND, TEXAS 79701-5111

MAIL

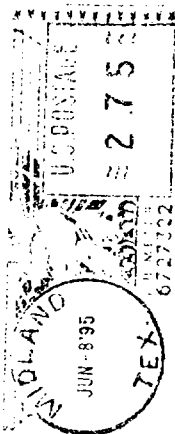
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CERTIFIED

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right of the return address



SOUTHWEST ROYALTIES, INC.





STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

6/13/95

GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD _____
WFX X _____
PMX _____

Gentlemen:

I have examined the application for the:

Southwest Royalties Inc. Marabo State #2-N 28-18s-37e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK as far as data we had is concerned but
did not have data on dry holes or F&A wells w/in
1/2 RAD

Yours very truly,

Jerry Sexton

Jerry Sexton
Supervisor, District 1

/ed

SOUTHWEST ROYALTIES

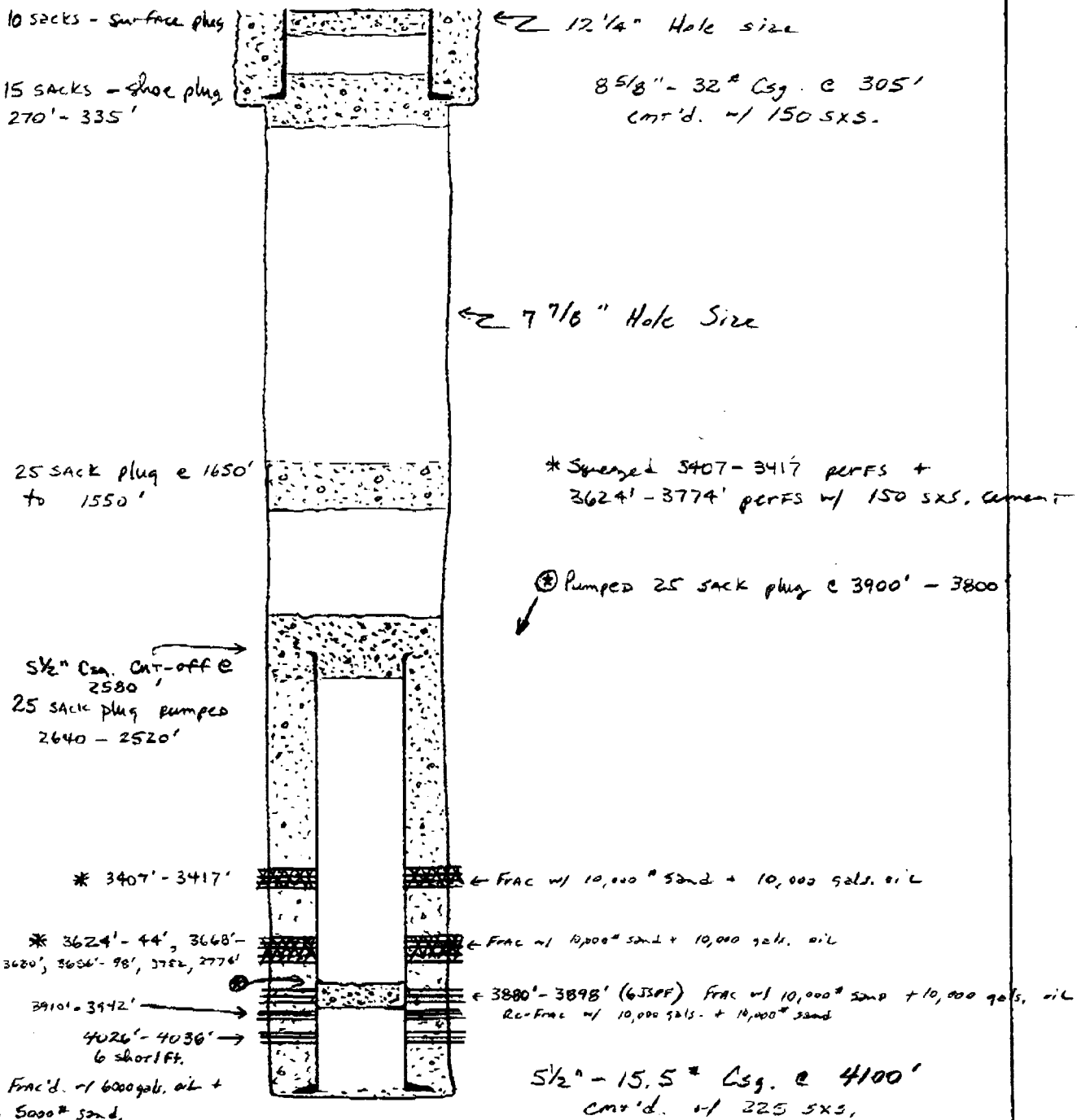
PROJECT _____

PAGE 1 OF 1
BY NWP DATE 7/17/95

Low State #1

Unit Letter D NW 1/4 NW 1/4 of Sec. 33, T-18-S, R-37E

660' FNL & 660' FNL



SOUTHWEST ROYALTIES

PROJECT _____

PAGE 1 OF 1

BY NWP DATE 7/17/95

MARALO State #3
 FUMONT YATES 7 RIVERS Queen
 Lea Co., NM
 Unit Letter K 2310' FWL - 1750' FSL Sec. 28, T7B5, R37E

Spud : 1-31-88

TD reached : 2-7-88

P+A'd : 2-9-88

