



**Southland Royalty Company**

June 21, 1983

Mr. Joe D. Ramey  
New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Attached is Southland Royalty Company's Application for Administrative Approval to dispose of produced water in the Point Lookout Formation. The proposed disposal well is located in Section 34, T30N, R12W, San Juan County, New Mexico.

Sincerely,

SOUTHLAND ROYALTY COMPANY

R. E. Fielder  
District Engineer

REF/eg

Attachments

/XC: NMOCD-Aztec, NM

**RECEIVED**  
JUN 22 1983  
OIL CON. DIV.  
DIST. 3

APPLICATION FOR AUTHORIZATION TO INJECT

**RECEIVED**  
JUN 22 1983  
OIL CON. DIV.

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ yes ☒ no

II. Operator: Southland Royalty Company

Address: P. O. Drawer 570, Farmington, New Mexico 87499

Contact party: R. E. Fielder Phone: (505) 325-1841<sup>3</sup>

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 \_\_\_\_\_

Attachment #1

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. Attachment #2

\* 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. Attachment #3

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.). Attachment #4

\*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. Attachment #5 and #6

IX. Describe the proposed stimulation program, if any.

Attachment #7

\* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.) Attachment #8

\* 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. Attachment #9

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. Attachment #10

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. Attachment #11

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: R. E. Fielder Title District Engineer

Signature: R. E. Fielder Date: June 21, 1983

\* 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.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

## 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 a 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.

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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.

CERTIFIED MAIL



**Southland Royalty Company**

June 21, 1983

Bureau of Land Management  
P. O. Drawer 600  
Farmington, New Mexico 87499

Dear Gentlemen:

Attached for your reference is a subsurface water disposal application filed with the New Mexico Oil Conservation Division on June 21, 1983.

A copy of this application is being submitted to all offset operators by certified mail. Objections to this proposal must be filed with the New Mexico Oil Conservation Division, Santa Fe Office, within 15 days.

Sincerely,

SOUTHLAND ROYALTY COMPANY

R. E. Fielder  
District Engineer

REF/eg

Attachments

✓XC: NMOCD-Aztec, NM

**RECEIVED**

JUN 22 1983

**OIL CON. DIV.  
DIST. 3**



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

OIL CONSERVATION DIVISION  
BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE June 22, 1963

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated June 22, 1963  
for the Southwest Energy Co. McGough #4 McGough #4  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Referred to the Board  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

John A. Sanchez  
JAS

CERTIFIED MAIL



**Southland Royalty Company**

June 21, 1983

Beta Development Company  
238 Petroleum Plaza  
Farmington, New Mexico 87401

Dear Gentlemen:

Attached for your reference is a subsurface water disposal application filed with the New Mexico Oil Conservation Division on June 21, 1983.

A copy of this application is being submitted to all offset operators by certified mail. Objections to this proposal must be filed with the New Mexico Oil Conservation Division, Santa Fe Office, within 15 days.

Sincerely,

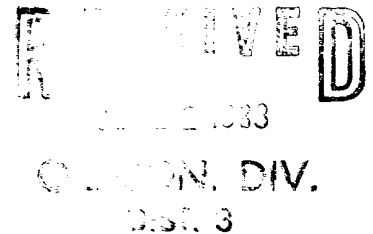
SOUTHLAND ROYALTY COMPANY

R. E. Fielder  
District Engineer

REF/eg

Attachments

✓XC: NMOCD-Aztec, NM



CERTIFIED MAIL



**Southland Royalty Company**

June 21, 1983

Amoco Production Company  
501 Airport Drive  
Farmington, New Mexico 87401

Dear Gentlemen:

Attached for your reference is a subsurface water disposal application filed with the New Mexico Oil Conservation Division on June 21, 1983.

A copy of this application is being submitted to all offset operators by certified mail. Objections to this proposal must be filed with the New Mexico Oil Conservation Division, Santa Fe Office, within 15 days.

Sincerely,

SOUTHLAND ROYALTY COMPANY

R. E. Fielder  
District Engineer

REF/eg

Attachments

✓ XC: NMOCD-Aztec, NM

**RECEIVED**

JUN 22 1983

**OIL CON. DIV.**  
DIST. 3

CERTIFIED MAIL



**Southland Royalty Company**

June 21, 1983

Merrion Oil & Gas Corporation  
P. O. Box 1017  
Farmington, New Mexico 87409

Dear Gentlemen:

Attached for your reference is a subsurface water disposal application filed with the New Mexico Oil Conservation Division on June 21, 1983.

A copy of this application is being submitted to all offset operators by certified mail. Objections to this proposal must be filed with the New Mexico Oil Conservation Division, Santa Fe Office, within 15 days.

Sincerely,

SOUTHLAND ROYALTY COMPANY

R. E. Fielder  
District Engineer

REF/eg

Attachments

XC: NMOCD-Aztec, NM

**RECEIVED**  
JUN 22 1983  
OIL CON. DIV.  
DIST. 3



## SOUTHLAND ROYALTY COMPANY

## Well History Summary Sheet

Operator Southland Royalty Co. Well Name & # McGrath #4 Lease # SF-077922  
SRC District Farmington Made By R. E. Fielder Date June 1, 1983  
Location 800' FNL & 1730' FEL, Section 34, T30N, R12W, San Juan County, New Mexico  
Spud Date n/a Compl. Date n/a TD 4700' PBDT n/a  
Type Well: Oil        Gas        Other Disposal Field n/a  
I P n/a Zone Point Lookout  
Perfs.: (Proposed) 4225'-4300' Total Holes (Proposed) 1 SPF  
Stimulation (Proposed) 1050 gals 15% HCl with 100 - 7/8" ball sealers to breakdown perfs.  
Cumul. Oil n/a MCF n/a Water n/a  
Recent Test n/a Lift Equipment n/a  
Misc.       

## WELL HISTORY

## Drive or Conductor

" @ \_\_\_\_\_'  
Surface: 8-5/8"  
24 # Gr. K-55  
@ 595 Cmt. w/  
491 cu.ft. Sx. TOC surf.  
Hole Size 12-1/4"  
Max Mud Wt. 8.4 #/G

## Intermediate:

" #  
Gr \_\_\_\_\_ @ \_\_\_\_\_'  
Cmt w/ \_\_\_\_\_ Sx.  
TOC @ \_\_\_\_\_, Hole  
Size \_\_\_\_\_" Max Mud  
Wt. \_\_\_\_\_ #/G

DV Tool @ 2150'

Liner: \_\_\_\_\_"  
From \_\_\_\_\_' To \_\_\_\_\_'  
#  
Gr, Cmt. w/  
Sx. TOC @  
Hole Size  
, Max Mud  
Wt. \_\_\_\_\_ #/G

Production: 4-1/2"  
10.5 #, K-55 Gr.  
@ 4700 Cmt. w/  
\* \_\_\_\_\_ Sx. TOC @  
\*\* \_\_\_\_\_ Hole Size  
7-7/8 Max Mud Wt.  
9.2 #/G

TD 4700

Propose to drill through Ojo Alamo formation and set 8-5/8" surface casing. Casing will be cemented with sufficient volume to circulate cement to surface. Test to 600 psi, then drill to TD of 4700'. Run mud logging unit. Cliff House interval at 3491'-3511' will be DST'd if gas show encountered. IES, FDC/CNL and BHC Sonic logs will be run at TD.  
Run 4-1/2" production casing with DV tool at 2150'. Cement first stage with sufficient cement to cover 4700'-3020' plus 50% excess. Cement 2nd stage with sufficient cement to cover interval 2150'-900' plus 50% excess. Each stage will use a 100 sack Class "B" neat tail slurry with remaining volume made up of 50/50 Class "B" Poz with 6% gel. Run GR-CCL/CBL and perforate proposed interval with 1 JSPF. Breakdown perforations with acid and balls. Swab back acid load fluid, swab test to collect formation fluid samples.  
Run injection tests.

This well is being drilled to evaluate the potential of the Pictured Cliffs and Cliff House intervals. If commercial production is indicated by DST and open hole logs it will be completed as a gas well and produced to depletion prior to injection into the Point Lookout.

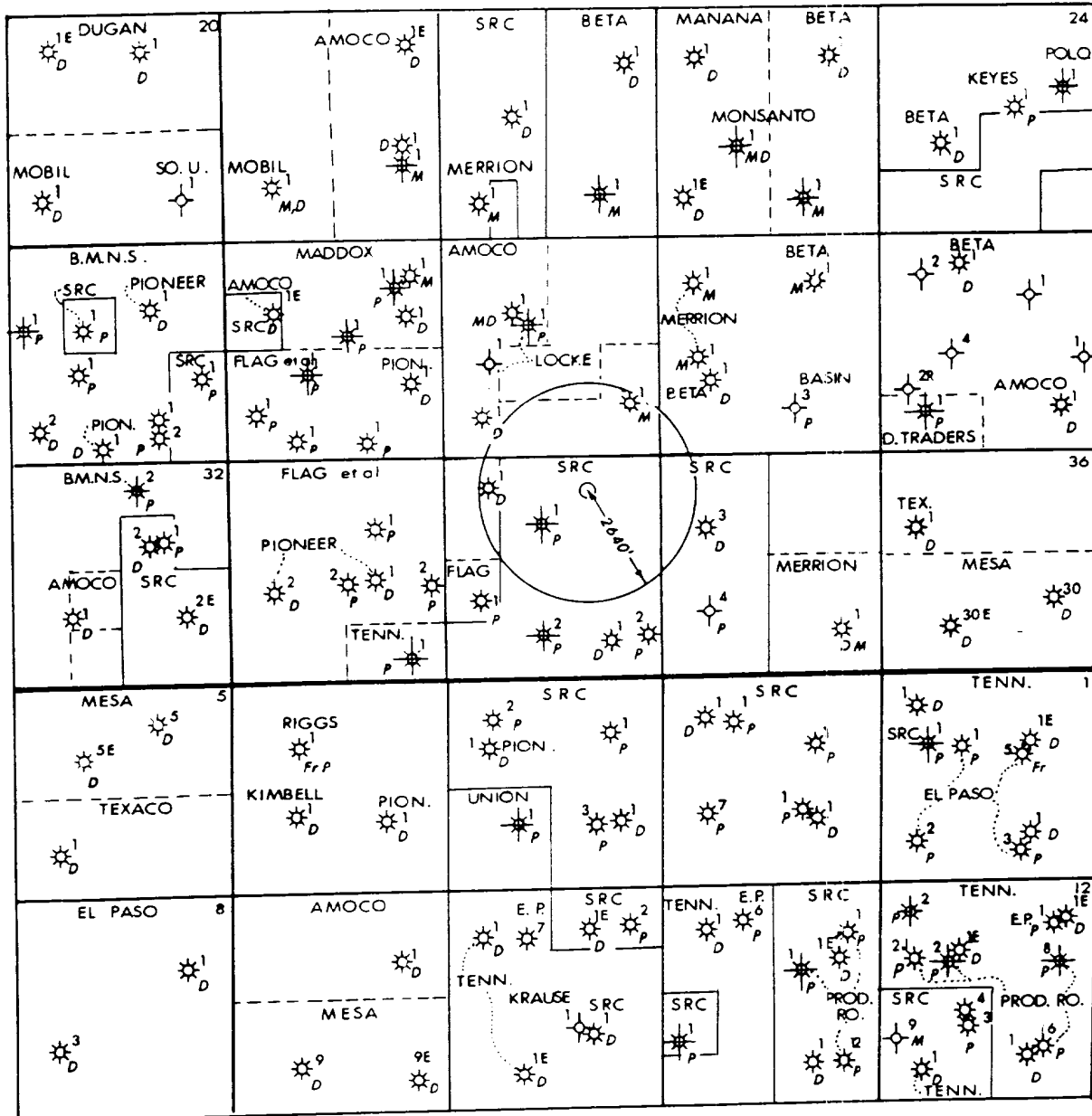
Tubing 2-3/8" 4.7 # J-55 Gr, @ 4200'Tubing \_\_\_\_\_" # \_\_\_\_\_ Gr, @  
Packer @ 4200' Baker Model R-3 double grip

\* Stage 1: 577 cu.ft. Stage 2: 429 cu.ft.  
\*\* Stage 1: 3021' (calc.) Stage 2: 900' (Calc.)



# ATTACHMENT #2

R 12 W



T  
30  
N

T  
29  
N



**Southland Royalty Company**  
FARMINGTON DISTRICT  
FARMINGTON, NEW MEXICO

**PROPOSED  
POINT LOOKOUT  
— WATER DISPOSAL WELL —**

SRC  
McGrath #4  
800' ENL. & 1730' F.E.L.  
SEC. 34 - T.30N. - R.12W.  
SAN JUAN COUNTY, NEW MEXICO

BY: Bob Fielder 1" = 4000' MAY 11, 1983

ATTACHMENT #3

WELL HISTORIES - AREA OF REVIEW

<u>Operator</u>	<u>Well Name &amp; No.</u>	<u>Footage Location</u>	<u>S-T-R</u>	<u>Elevation</u>	<u>Well Status</u>	<u>Date Drilled</u>	<u>Total Depth</u>	<u>Comp. Intv.</u>	<u>Perforations</u>	<u>Surf Csg Program</u>	<u>Surf Csg Cement</u>	<u>Frod. Csg Program</u>	<u>Prod. Csg Cement</u>
Amoco	Duff GC "B" #1	1190' FSL- 800' FEL	27-30-12	5629' RKB	PGW	2-28-62	3600'	CH*	3448'-71'	8-5/8"@490'	310 sxs-circ	7-7/8" OH DV @ 2007'	1st 350 sxs 2nd 450 sxs Circulate
Amoco	Duff GC "C" #1	925' FSL- 950' FWL	27-30-12	5553' RKB	PGW	1-30-64	6365'	DK	6228'-48' 6152'-62'	8-5/8"@383'	275 sxs	7-7/8" OH DV @ 16' 4-1/2" @ 6365'	1st 500 sxs 2nd 1100 sxs
Amoco	Duff Gas Com #1	790' FNL- 1015' FWL	34-30-12	5621' RKB	PGW	1-30-62	6425'	DK	6275'-81' 6313'-19'	12-1/4" OH 8-5/8"@354'	250 sxs-circ	7-7/8" OH DV @ 1994' 4-1/2" @ 6425'	1st 700 sxs 2nd 500 sxs
SRC	J. Hudson #3	1750' FNL- 990' FWL	35-30-12	5857' GL	PGW	7-22-66	6750'	DK	6460'-80' 6540'-62' 6567'-72' 6580'-85' 6661'-80'	12-1/4" OH 8-5/8", 24# @ 306'	250 sxs	7-7/8" OH DV @ 2148' 4-1/2", 10.5# @ 6750'	1st 200 sxs 2nd 300 sxs

\* Cliff House

#### ATTACHMENT #4

##### PROPOSED DISPOSAL OPERATION

1. The proposed injection well will be used to dispose of produced water from the following wells (leases). Water will be trucked from these wells to the injection well.

<u>Well Name &amp; Number</u>	<u>Location</u>	<u>Lease No.</u>	<u>BWPD (Max)</u>	<u>BWPD (Avg*)</u>
Frontier "C" #1	NW-16-27-11	SF-080382A	28	20 **
Creek #2	NE- 4-29- 5	NM-0558139	9	5
Burnt Mesa #3	SW-26-32- 7	NM-2995	6	1
Reese Mesa #9	NW-13-32- 8	NM-6892	13	1
Wilmer Canyon #3	NW-24-32- 8	NM-6893	12	7 **
Cozzens #6E	SE-18-29-11	SF-077056	8	5
Cooper #3E (MV)	SE- 6-29-11	SF-078813	63	63
Frontier "C" #2E	NE- 5-27-11	SF-080382	23	0 **
Cozzens "C" #1E (Chacra)	NW-20-29-11	SF-077056	6	1
Huber #1	NW-31-23- 1	NM-19147	14	5 **
Hanks #16E	NW- 6-27- 9	SF-077874	35	0 **
Grenier #23E	NW-31-31-11	SF-078115	4	4
Total			221	112

\* Based on low market demand gas production.

\*\* Currently shut in for excessive water production into unlined surface pits.

2. The produced water will be stored in a closed tank on the injection location. The pump suction will be piped to this storage tank and the pump will be operated by a head switch located on the tank. Pump discharge will be manifolded into wellhead.
3. Formation fracture gradient for the Point Lookout in the area is estimated to be .62 psi/ft based on a review of completion attempts in the township.

A review of bottom hole pressure data from DST's run in the township indicate an average formation pressure gradient of .43 psi/ft. These tests were primarily on Cliff House intervals but are assumed to be valid for the Point Lookout as well. This indicates that we should be able to pump into this formation with very little pressure since the head of water will overcome formation pressure and friction will be negligible due to the low daily rates of disposal. Maximum surface pressure will be held to 850 psig.

#### 4. Water Analysis: mg/l

<u>Well Name</u>	<u>Na</u>	<u>Ca</u>	<u>Mg</u>	<u>Fe</u>	<u>k</u>	<u>Cl</u>	<u>Bicarb</u>	<u>SO4</u>	<u>CO3</u>	<u>OH</u>	<u>TDS</u>
Frontier "C" #1	16668	757	130	NR	nil	26806	418	540	0	NR	45319
Creek #2	NR	821	175	20	NR	3030	3442	200	NR	NR	9474
Burnt Mesa #3	3755	52	12	1	90	4931	1689	9	68	<.05	10607
Reese Mesa #9	4244	46	15	.08	31	5666	1768	5	<1	<.5	11775
Wilmer Canyon #3	4356	40	23	.12	24	4467	3911	7	111	<.5	12939
Cozzens #6E	NR	616	764	18	NR	18483	355	200	NR	NR	30452
Cooper #3E (MV)	13414	218	73	2.4	84	18716	1562	2358	<1.	<.5	36427
Frontier "C" #2E	2753+	323	18	NR	NR	5384	1219	4493	0	NR	19190
Cozzens "C" #1E (Ch)	NR	547	366	8	NR	16059	522	190	NR	NR	27038
Huber #1	NR	205	158	10	NR	4242	417	63	NR	NR	7482
Hanks #16E	NR	547	241	42	NR	8484	751	140	NR	NR	15286
Grenier #23E	NR	3009	1346	46	NR	41814	668	170	NR	NR	68386

NR = Not recorded. These samples were run by a local company with limited testing facilities. The values obtained were from portable water analysis kits.

- The Point Lookout sandstone is not productive of oil and gas within the prescribed one mile radius. Water analysis are not available in the immediate vicinity. Water sample analysis of a Point Lookout/Menefee test in NW 15-30-12 yielded 33,200 ppm TDS.

The following tabulation gives the calculated  $R_w$  from offset electric logs. BHT was assumed to be 115 deg F in all cases.

<u>Well Name &amp; Number</u>	<u>Location</u>	<u>SSP</u>	<u>Rmfe/Rwe</u>	<u>Rw</u>	<u>TDS*</u>
Amoco-Duff Gas Com "C" #1	SW-27-30-12	-57 MV	2.8	.25	16000
Amoco-Duff Gas Com #1	NW-34-30-12	-48 MV	4.5	.25	16000
SRC-J. Hudson #3	NW-35-30-12	-51 MV	4.6	.43	8700
SRC-McGrath "C" #1	SE-34-30-12	-48 MV	4.5	.75	4900

\* NACL equivalent from Schlumberger log interpretation charts, page A-6.

LABORATORY WATER ANALYSIS

No. \_\_\_\_\_

To Southland Royalty

Date 9/12/84

Attn: Doug Harris

Box 570

Farmington, N.M. 87499

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

4255-4377

Submitted by Doug Harris

Date Rec. \_\_\_\_\_

Well No. McGrath #4

Depth \_\_\_\_\_

Formation \_\_\_\_\_

County \_\_\_\_\_

Field \_\_\_\_\_

Source DST #2

	Top Recovery	Bottom Recovery	Sample Chambers
Resistivity	3.16 @ 65°F	.97 @ 71°F	.68 @ 68°F
Specific Gravity			
pH	8.47	7.53	7.86
Calcium (Ca)	55	210	210 *MPL
Magnesium (Mg)	NT	NT	35
Chlorides (Cl)	2900	6950	9900
Sulfates (SO <sub>4</sub> )			
Bicarbonates (HCO <sub>3</sub> )	320	705	670
Soluble Iron (Fe)	NT	NT	NT

Remarks:

\*Milligrams per liter

Respectfully submitted,

Analyst: \_\_\_\_\_

HALLIBURTON COMPANY

cc:

By \_\_\_\_\_

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

#### ATTACHMENT #5

A sample log run on the J. Hudson #3, NW 35-30-12, indicates the Point Lookout in this area consists of sandstone-shale sequences typical of the Point Lookout. The shales are described as greenish gray, silty, soft to medium soft. The sandstones are predominately green to gray green colored, coarse large grained to conglomeratic quartz. The lowermost sandstones change to white to amber coarse grained, quartz. Some traces of coal were mentioned, but are probably remnants from the Menefee section.

There is a structural rise across section 34 from the NE to the SW of 10' which is typical of the slope into the central basin. There is no surface or subsurface evidence of faulting in the vicinity of this well.

Recent logs on Dakota infill wells in the area indicate porosity value ranges of 8 to 12%. The average for this site will be in the 9 to 10% range.

Average thickness of the proposed injection intervals within the Point Lookout is estimated as 68'. This interval is found in the depth range of 4000'-4400' in offset wells. A correlation cross-section for the proposed site is attached.

The only overlying sources of drinking water are the Nacimiento strata exposed at the surface. The Cjo Alamo is present at 456' to 595'. It is proposed to set surface casing through this interval for positive protection even though it contains non-potable water.



EF-028

## ATTACHMENT #7

### PROPOSED STIMULATION PROGRAM

An acid job breakdown will be the only stimulation done on this well initially. This will be done to insure adequate communication between the wellbore and injection zone. Rate and pressure will be maintained so that the frac gradient (.62 psi/ft) is not exceeded. Additional matrix acidizing may be required in the future but will not be considered until the injectivity tests are analyzed.

ATTACHMENT #8

LOGGING AND TEST DATA

The proposed logging program is:

- 1) Induction Electric Log from Total Depth to surface casing shoe.
- 2) One man mud logging unit from surface casing shoe to total depth.
- 3) Compensated Neutron/Formation Density Log from total depth to surface casing shoe.
- 4) Borehole Compensated Sonic Log from total depth to surface casing shoe.
- 5) Drillstem test of Cliff House interval if gas shows are present through this interval.

ATTACHMENT #9

The following water analysis were obtained from domestic water wells in the area on June 6, 1983.

<u>Well Owner</u>	<u>Location</u>	<u>Depth</u>	<u>TDS</u>	<u>H<sub>2</sub>S</u>	<u>Na</u>	<u>Cu</u>	<u>Mg</u>	<u>Fe</u>	<u>K</u>	<u>Cl</u>	<u>HCO<sub>3</sub></u>	<u>SO<sub>4</sub></u>	<u>CO<sub>3</sub></u>	<u>OH</u>
Dave Thomas	NE-33-30-12	40'	789	neg	44	117	41	<.05	1.04	19.6	286	280	<1	<.5
Randy Burson	SE-27-30-12	68'	859	neg	59.8	115	41	<.05	1.27	33.1	411	198	<1	<.5
R. D. Carter	SE-27-30-12	72'	1592	neg	27.6	370	44	<.05	1.6	22.4	165	961	<1	<.5

All values reported are mg/l.

ATTACHMENT #10

STATEMENT

I hereby certify that I have examined available geologic and engineering data and can find no evidence of connection between the disposal zone and underground drinking water sources.

                      
Date

                      
R. E. Fielder  
District Engineer

## AFFIDAVIT OF PUBLICATION

No. 13236STATE OF NEW MEXICO,  
County of San Juan:

Margaret Billingsley being duly  
sworn, says: That he is the Sec. to the Publisher of  
THE FARMINGTON DAILY TIMES, a daily newspaper of general circulation  
published in English at Farmington, said county and state, and that the  
hereto attached Legal Notice

was published in a regular and entire issue of the said FARMINGTON DAILY  
TIMES, a daily newspaper duly qualified for the purpose within the  
meaning of Chapter 167 of the 1937 Session Laws of the State of New  
Mexico for 1 consecutive (days) (weeks) on the same day as  
follows:

First Publication Sunday, June 5, 1983

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

Fourth Publication \_\_\_\_\_

and that payment therefor in the amount of \$ 7.60  
has been made.

Margaret Billingsley

Subscribed and sworn to before me this 5th day  
of June, 1983.

Virginia Timberling  
NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO

My Commission expires: 5-2-87

Copy of Publication

**INTENT TO DISPOSE  
OF WATER IN THE  
SUBSURFACE**

Southland Royalty Company pro-  
poses to dispose of produced water in  
the Point Lookout formation. The in-  
jection well will be the McGrath No. 4  
located 800' FNL & 1730' FEL of Sec-  
tion 34, T30N, R12W, NMPM, San Juan  
County, New Mexico. Depth of injection  
will be from 4225' to 4300'. Maximum  
anticipated rate is 250 BWPD at a max-  
imum surface injection pressure of 850  
psig.

Questions should be addressed to  
Southland Royalty Company, Attention:  
R. E. Fielder, P.O. Drawer 570, Farm-  
ington, New Mexico 87499 or call (505)  
325-1841. Objections to this proposal  
or request for hearing by interested  
parties must be filed with the New Mexi-  
co Oil Conservation Division, P.O. Box  
20688, Santa Fe, New Mexico 87501  
within 15 days.

Legal No. 13236 published in the  
Farmington Daily Times, Farmington,  
New Mexico on Sunday, June 5, 1983.