

MERIDIAN OIL

August 26, 1986

well file

Mr. Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: McGrath #4
~~NE/4, Sec. 34, T-30-N, R-12-W~~
~~San Juan County, New Mexico~~

Dear Mr. Chavez:

Meridian Oil, Inc., recently ran a step-rate test on the subject well. The data on the next page indicate that an injection pressure of 2,370 psi at a rate of 7 BBL/min. can be achieved without breakover. As a result of this test, Meridian Oil, Inc., requests administrative approval for an increase of injection pressure and rate to a maximum of 2,370 psi at 7 BBL/min. Average injection pressure and rate is expected to be 1,320 psi at 4 BBL/min.

If I can be of further assistance in this matter, or if you have questions regarding this application, I may be contacted at 327-0251 extension 3209.

Sincerely,

Scott H. Lindsay

Scott H. Lindsay
Production Engineer

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Attachments

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DIST. ?

Mr. Frank Chavez

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McGrath #4 (continued)

Wellhead Pressure = 50 psig

ISIP= 1150 psig

<u>Rate (BBL/min)</u>	<u>Pressure (psig)</u>
0.3	50
1.0	250
1.5	390
2.0	570
3.0	915
4.0	1320
5.1	1715
6.1	2050
6.5	2190
7.0	2370

ENGINEERING CALCULATION

Sheet: 1 of 1
 Date: 8/25/86
 By: S.H.L.
 File: _____

MS Grath # 4
 NE/4, Section 34, T-30-N, R-12-W
 San Juan County, New Mexico

MW	gals/mol
16.04	C ₁ 6.4
30.07	C ₂ 10.12
44.10	C ₃ 10.42
58.12	iC ₄ 12.38
58.12	nC ₄ 11.93
72.15	iC ₅ 13.85
72.15	nC ₅ 13.71
86.18	iC ₆ 15.50
86.18	C ₆ 15.57
100.21	iC ₇ 17.2
100.21	C ₇ 17.46
14.23	C ₈ 19.39
28.05	C ₂ 9.64
42.08	C ₃ 9.67

Pressure
 (psig) 2400

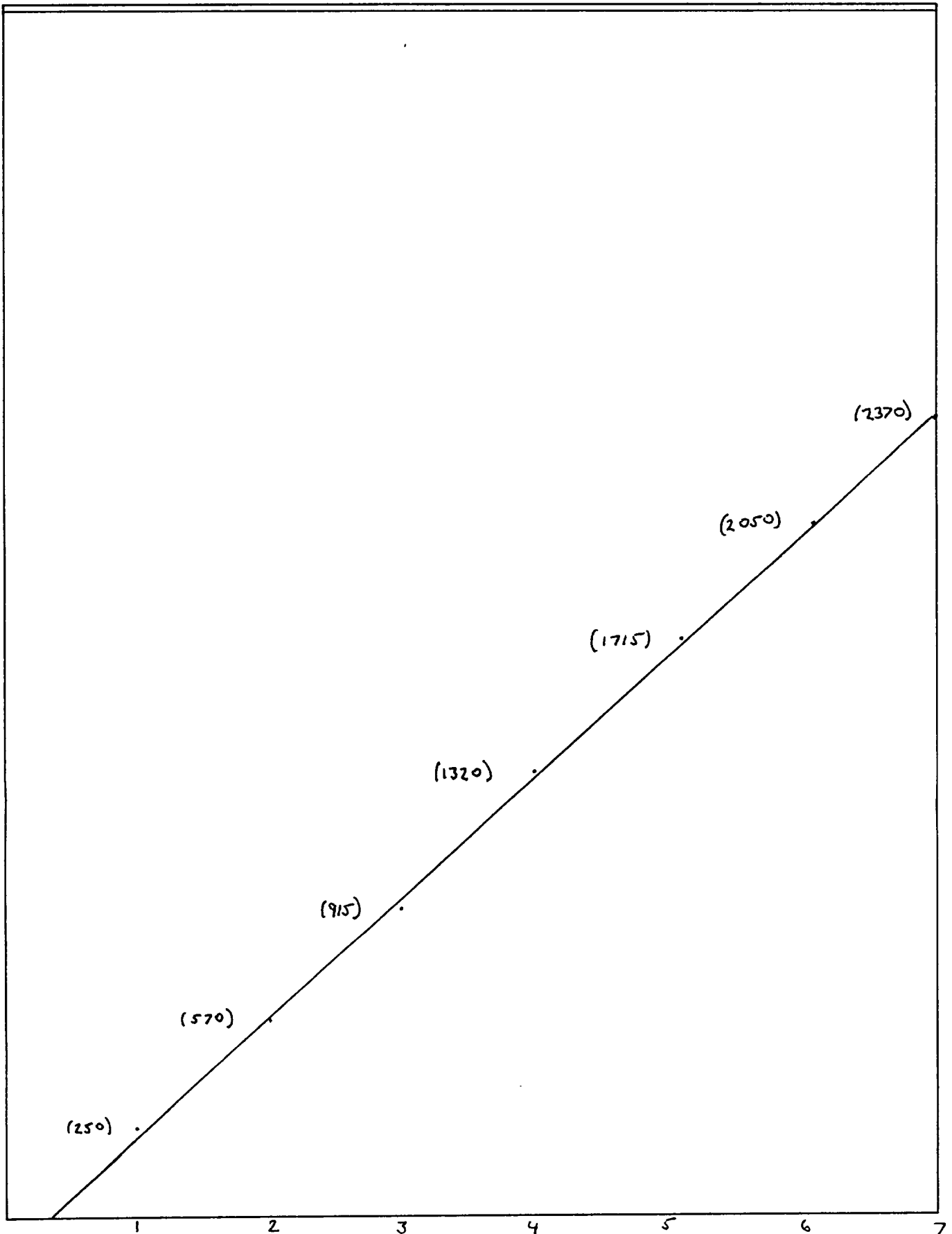
2000

MW	MISC.	gals/mol
32.00	O ₂	3.37
44.01	CO	4.19
44.01	CO ₂	6.38
64.06	SO ₂	5.50
34.08	H ₂ S	5.17
28.01	N ₂	4.16
2.02	H ₂	3.38

1200

800

400



OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

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OCT 13 1983

OIL CON. CASE NO. 7949
DIST. 3 Order No. R-7370

APPLICATION OF SOUTHLAND ROYALTY
COMPANY FOR SALT WATER DISPOSAL,
SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on August 31, 1983, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 11th day of October, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Southland Royalty Company, is the owner and operator of the McGrath Well No. 4, to be located 800 feet from the North line and 1730 feet from the East line of Section 34, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Point Lookout formation, with injection into the perforated interval from approximately 4,225 feet to 4,300 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 4,200 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 850 psi.

(6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Point Lookout formation.

(7) That the operator should notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(8) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(9) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Southland Royalty Company, is hereby authorized to utilize its McGrath Well No. 4 to be located 800 feet from the North line and 1730 feet from the East line of Section 34, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico, to dispose of produced salt water into the Point Lookout formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4,200 feet, with injection into the perforated interval from approximately 4,225 feet to 4,300 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 850 psi.

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Point Lookout formation.

(4) That the operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

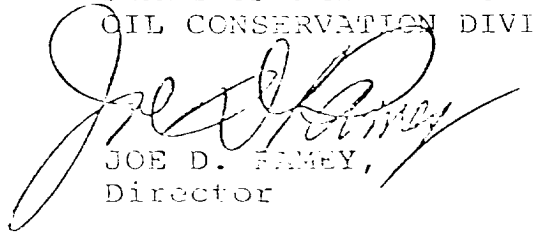
(5) That the operator shall immediately notify the supervisor of the Division's Aztec district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(6) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 701 through 708 and 1120 of the Division Rules and Regulations.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. FAMEY,
Director

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