

Mallon Oil Company

Denver/Colorado ♦ Carlsbad/New Mexico

a Mallon Resources subsidiary

September 9, 1997

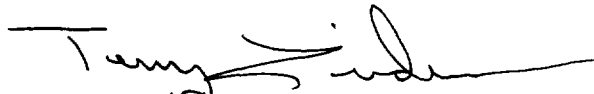
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Gentlemen:

Mallon Oil Company is requesting an amendment to Administrative Order SWD-665 approved by your office on July 7, 1997. This order granted Mallon Oil approval to inject produced water from the Picture Cliffs, Ojo Alamo, and Fruitland Coal formation into the Entrada formation at approximately 9300 feet.

Mallon Oil Company is presently operating an Amine Plant in this field to remove the H₂S from the gas production of the Ojo Alamo formation. This production contains .22% H₂S (see attached analysis) which is presently being flared under approval from the EPA. In an effort to promote a more environmentally sound and safer operation we are requesting approval to inject 4 MCFD of 100% H₂S gas into the disposal stream to the Entrada formation. The produced water from the Ojo Alamo formation contains some H₂S in solution, therefore, there will be no additional compounds introduced into the Entrada that was not previously permitted. Thank you for your consideration of this proposal.

Sincerely,



Terry Lindeman
Exploration/Production Superintendent

Approved at Santa Fe, New Mexico on this _____ day of September, 1997.

CDS Laboratories
75 Suttle Street
PO Box 2605
Durango, CO 81302

Phone: (970)-247-4220
Fax : (970)-247-4227

Report Date: 04/26/97

ANALYSIS REPORT

Attn:

MALLON OIL CO
ATTN: TERRY LINDEMAN
PO BOX 3256
CARLSBAD NM 98320

Our Lab #: A97-132324
Sample ID: J 459 #8
Date Login: 04/08/97
Date Rec'd: 04/07/97

COLLECTION INFORMATION

Date/Time/By: 04/07/97 1345 J.B.
Location:

Lab#	Testname	Result	Units
A97-132324	N2	2.60	%
	O2	0.00	%
	CO	0.00	%
	CH4	91.11	%
	CO2	0.00	%
	C2H6	5.55	%
	C3H8	0.42	%
	C4H10	0.23	%
	C5H12	0.08	%
	C6+ (approx)	0.00	%
	Total	100.0	%
	Compressibility Factor	0.9978	
	Specific Gravity @ 60°F	0.6020	
	BTU/cu.ft. @ 60°F Wet	1026.21	BTU/cu.ft.
	BTU/cu.ft. @ 60°F Dry	1044.68	BTU/cu.ft.
	H2S, laboratory	2225.0	ppm
	H2S, field	2410.0	ppm
	Mercaptan Sulfur in Fuel, ASTM D-3227	105.0	ppm
	Calculated as Butyl Mercaptan	295.0	ppm
	Calculated as Ethyl Mercaptan	203.0	ppm
	Zone 4 sampling, up to 5 hours		mi/trip

Approved By:



Checked By:





NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 12, 1997

Mallon Oil Company
P.O. Box 3256
Carlsbad, New Mexico 88220

Attention: Mr. Terry Lindeman

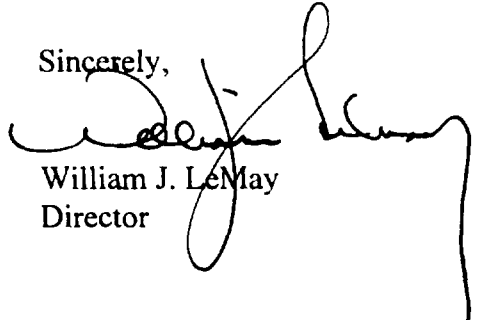
Re: Permit Modification
SWD-665

Dear Mr. Lindeman:

Reference is made to your request dated September 9, 1997, for authorization to inject approximately 4 MCF per day of .22% H₂S into the Simms Well No. 1, located in Unit J of Section 13, Township 30 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, a disposal well permitted by Division Order No. SWD-665.

Pursuant to Division and/or Federal UIC Rules and Regulations, your request is hereby granted.

Sincerely,



William J. LeMay
Director

xc: File-SWD-665
OCD-Aztec

Mallon Oil Company

Denver/Colorado ♦ Carlsbad/New Mexico

a Mallon Resources subsidiary

September 15, 1997

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Gentlemen:

Mallon Oil Company is requesting an amendment to Administrative Order SWD-665 approved by your office on July 7, 1997. This order granted Mallon Oil approval to inject produced water from the Picture Cliffs, Ojo Alamo, and Fruitland Coal formation into the Entrada formation at approximately 9300 feet.

Mallon Oil Company is presently operating an Amine Plant in this field to remove the H_2S from the gas production of the Ojo Alamo formation. This production contains .22% H_2S (see attached analysis) which is presently being flared under approval from the EPA. In an effort to promote a more environmentally sound and safer operation we are requesting approval to inject 100 MCFD of 100% H_2S gas into the disposal stream to the Entrada formation. The produced water from the Ojo Alamo formation contains some H_2S in solution, therefore, there will be no additional compounds introduced into the Entrada that was not previously permitted. Thank you for your consideration of this proposal.

Sincerely,



Terry Lindeman
Exploration/Production Superintendent



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 16, 1997

Mallon Oil Company
P.O. Box 3256
Carlsbad, New Mexico 88220

Attention: Mr. Terry Lindeman

Re: Permit Modification
SWD-665

Dear Mr. Lindeman:

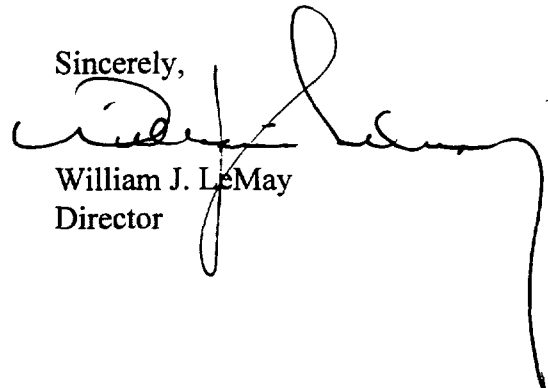
Reference is made to your request dated September 15, 1997, for authorization to inject approximately 100 MCF per day of H₂S gas into the Simms Well No. 1 located in Unit J of Section 13, Township 30 North, Range 4 West, NMPM, Rio Arriba County, New Mexico, a disposal well permitted by Division Order No. SWD-665.

Pursuant to Division and/or Federal UIC Rules and Regulations, your request is hereby approved subject to the following conditions:

- a) the volume of injected H₂S gas shall be limited to 100 MCF per day; and,
- b) the operator shall conduct a mechanical integrity pressure test on an annual basis, and shall notify the Aztec district office of the Division prior to testing.

Division Order No. SWD-665 is hereby amended to include these conditions.

Sincerely,



William J. LeMay
Director

xc: NMOCD-Aztec
File-SWD-665

Mallon Oil Company

a Mallon Resources Subsidiary

Denver/Colorado ♦ Durango/Colorado ♦ Carlsbad/New Mexico

February 16, 2000

Mr. Charlie Perrin
New Mexico Oil & Gas Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Simms Federal #1 Water Disposal Well
NW SE Sec.13, T30N, R4W
East Blanco Field
Rio Arriba County, NM

Dear Mr. Perrin,

Mallon Oil Company is requesting an exemption to running a coated/lined tubing in the Simms Federal #1 water disposal well. The approved water disposal permit (SWD-665) requested that coated/lined tubing be ran in this well. Under normal injection operations, we are injecting approximately 1,800 BWPD with the addition of approximately 30 MCFD of hydrogen sulfide gas. A recent workover on this well indicated that our 2 7/8", L-80 tubing held up quit well to this hydrogen sulfide gas environment where as the 2 1/16", J-55 tubing showed server corrosion which resulted in a hole in the tubing. During the workover operations we were allowed to run the L-80 tubing back into the well and return to injection so that we could investigate the best coating for this environment. After questioning different companies that provide coating or lined tubing we have not come up with any that will guarantee the products in this well. Duroline fiberglass lining seems to be the best product and would be the product of choice if I cannot get the wavier that I am requesting. When we ran the temporary tubing string into this well, we went back into the well with all L-80 tubing for the 2 7/8" and 2 1/16" tubing string. The cross-overs and packer are nickel plated which holds up very well to the hydrogen sulfide gas. It is my best engineering judgment that the L-80 tubing will hold up quit well to this environment and thus I am asking for the permit variance. I am afraid that any coated or lined tubing will result in pealing or blistering and would ultimately result in injectivity problems. Please refer to the attached diagrams and sundry notice.

Sincerely,



John Zellitti
Senior Production Engineer
(970-382-9100)

CC: Mark Ashley

Form 3010-A
(JPR 1999)

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT --" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other

2. Name of Operator

Mallon Oil Company

3. Address and Telephone No.

P.O. Box 2797 Durango, CO 81302

(970)382-9100

4. Location of Well (Fountain, Sec., T., R., M., or Survey Description)

1,730' FSL and 1,820' FEL, (NW SE), Unit J
Sec. 13, T030N, R04W

FORM APPROVED

Bureau Order No. 1004 0135

Expires March 31, 1993

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Simms Federal No. 1

9. Well API No.

30--039-22756

10. Field and Pool, or Exploratory Area

Cast Blanco Field

11. County or Parish, State

Rio Arriba County, NM

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
- ☒ Subsequent Report
- ☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
- ☐ Recompletion
- ☐ Plugging Back
- ☒ Casing Repair
- ☐ Altering Casing
- ☐ Other
- ☐ Change of Plans
- ☐ New Construction
- ☐ Non-Routine Fracturing
- ☐ Water Shut Off
- ☐ Conversion to Injection
- ☐ Dispose Water

(Note: Report results of wireline completion on Well)

(Completion or Perforation Report and Log Form)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give approximate locations and measured and true vertical depth for all markers and zones pertinent to this zone.)

The Simms Federal No. 1 water disposal well was showing casing annulus pressure which indicated an integrity failure with the equipment or casing string. A workover rig was moved in and the tubing and packer was pulled from the well. A hole was found in the 2-1/16", J-55 tbg just above the packer. The casing string was tested and would not hold pressure. A retrievable bridge plug and packer was used to isolate the casing leak and two leaks were found. The leaks occurred in old squeezed Gallup and Dakota perms and were squeezed again to achieve casing integrity. Please refer to the attached workover summary and wellbore diagrams for details.

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

Signed

John Zolitti

Title

Production Engineer

Date

2/15/00

(USE SPACE FOR FEDERAL OR STATE OFFICE USE)

Approved By

Title

Date

Conditions of approval, if any.

This U.S.C. Section 1094, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Simms Federal #1

NW Sec. 13, T30N, R4W
1,820' FCL & 1,730' FNL
East Blanco Field, Unit-J
Rio Arriba County, NM

Elev. GL @ 7,023'
Elev. KB @ 7,033' (10' KB) Est.

Surface Casing

9 5/8", 32.3#, J-55, ST&C, set @ 277' KB.
Cmt w/ 275 sx / Hole @ 12 1/4".

Production Casing

5 1/2", 15.5#, K-55, LT&C, set @ 8,731' KB.
DV tools @ 4,201' & 6,605' KB.
Cmt w/ 640 sx / Hole @ 7 7/8".

Liner Casing

3 1/2", 9.3#, L-80, IJ Hydrill, set @ 9,731' KB.
Arrow Liner Hanger/Pkr @ 8,523' KB.
Cmt w/ 65 sx 50/50 POZH / Hole @ 4 3/4".

Tubing

2 7/8", 6.5#, L-80, EUE (256 jnts @ 7,821.20', Org. tbg).
2 7/8", 6.5#, L-80, EUE (21 jnts @ 800.83', New tbg).
2 7/8" x 2 1/16" Cross-over @ 0.55' (Nickel Plated).
2 1/16", 3.25#, L-80, IJ (6 jnts @ 199.58', New tbg).
3 1/2" Arrow Set-1 10K Pkr @ 4.96' (Nickel Plated).
2 1/16" Re-entry guide (Plastic coated).
Pkr set @ 8,639' KB.

Squeezed Perforations

Pictured Cliffs: Squeezed w/ 45 sx cmt.

- 1) 3,709' - 3,715'
- 2) 3,722' - 3,945', 3,972'

Gallup: Squeezed w/ 75 sx cmt.

- 3) 7,541' - 7,634'

Dakota: Squeezed w/ 155 sx cmt.

- 4) 8,367' - 8,375'
- 5) 8,484' - 8,530'
- 6) 8,633' - 8,636'
- 7) 8,670' - 8,683'

Liner Top/Dakota: Squeezed w/ 50 sx cmt.

- 8) 8,427' - 8,543'

Gallup: Squeezed w/ 25 sx cmt.

- 9) 7,462' - 7,736'

Injection Perforations

Morrison: Perf w/ 2 spf.

- 8) 8,950' - 8,982'
- 9,020' - 9,064'
- 9,098' - 9,220'

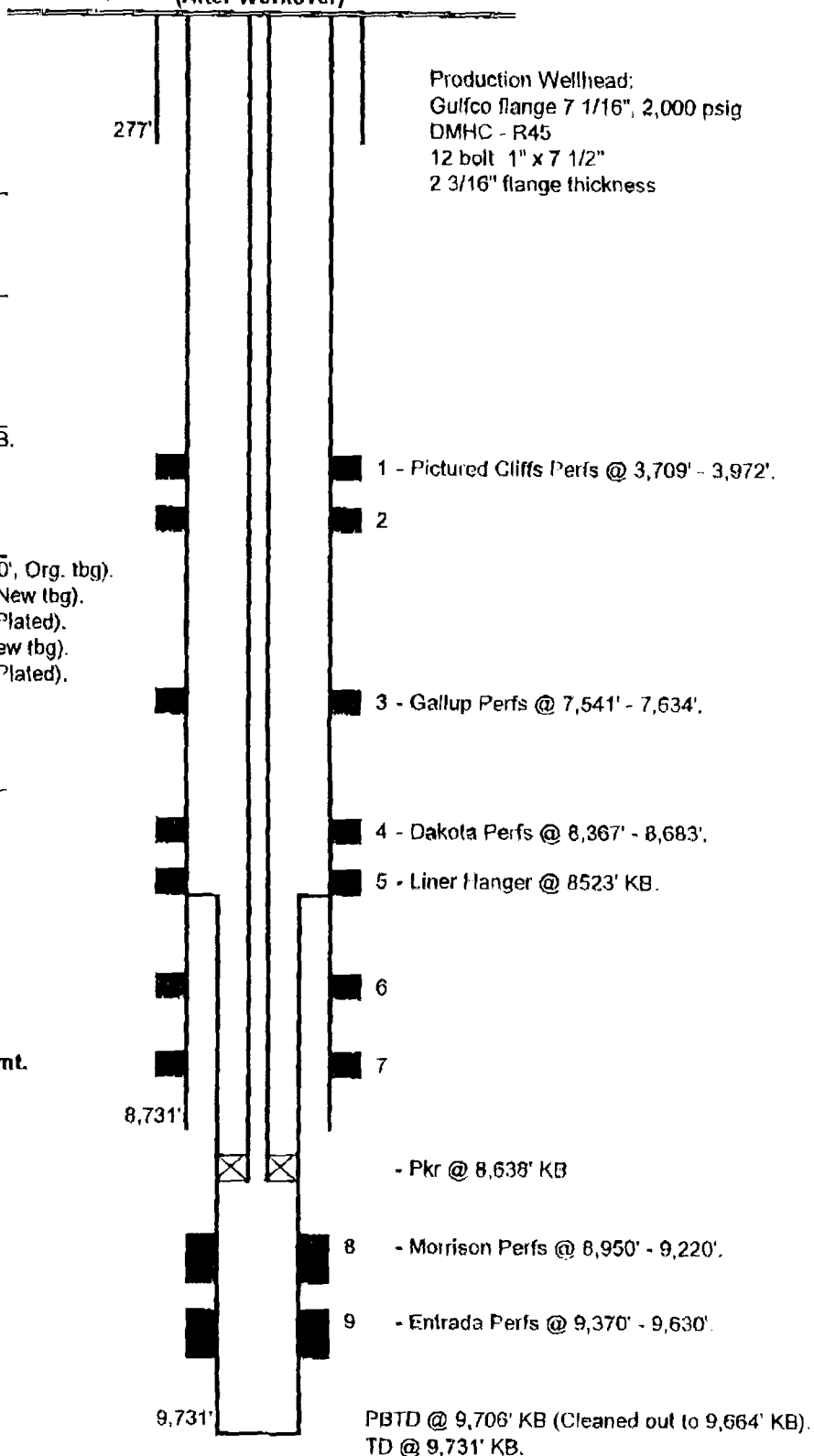
Entrada: Perf w/ 2 spf.

- 9) 9,370' - 9,410'
- 9,460' - 9,630'

**Mallon Oil Company
Wellbore Diagram
(After Workover)**

2/15/00

JZ



Simms Federal #1

NW SE Sec.13, T30N, R4W
1,820' FEL & 1,730' FNL
(East Blanco Field, Unit-J
Rio Arriba County, NM

Elev. GL @ 7,023'
Elev. KB @ 7,033' (10' KB) Est.

Surface Casing

9 5/8", 32.3#, J-55, ST&C, set @ 277' KB.
Cmt w/ 275 sx / Hole @ 12 1/4".

Production Casing

5 1/2", 15.5#, K-55, LT&C, set @ 8,731' KB.
DV tools @ 4,201' & 6,005' KB.
Cmt w/ 640 sx / Hole @ 7 7/8"

Liner Casing

3 1/2", 9.3#, L-80, IJ Hydrill, set @ 9,731' KB.
Arrow Liner Hanger/Pkr @ 8,523' KB.
Cmt w/ 65 sx 50/50 POZH / Hole @ 4 3/4".

Tubing

2 7/8", 6.5#, L-80, EUE (276 jnts @ 8,427')
2 7/8" x 2 1/16" Cross-over
2 1/16", 3.25#, J-55, IJ (6 jnts @ 203')
Arrow on/off tool w/ 1.25" F- Profile SS Nipple
3 1/2" Arrow Set-1 10K Pkr (Nickel Plated Mandrel)
2 1/16", 3.25#, J-55, IJ (1 jnt @ 33.5')
Pkr set @ 8,646' KB.
EOT @ 8,680' KB.

Squeezed Perforations

Pictured Cliffs: Squeezed w/ 45 sx cmt.

- 1) 3,709' - 3,715'
- 2) 3,722' - 3,945', 3,972'

Gallup: Squeezed w/ 75 sx cmt.

- 3) 7,541' - 7,634'

Dakota: Squeezed w/ 155 sx cmt.

- 4) 8,367' - 8,375'
- 5) 8,484' - 8,530'
- 6) 8,633' - 8,636'
- 7) 8,670' - 8,683'

Injection Perforations

Morrison: Perf w/ 2 spf.

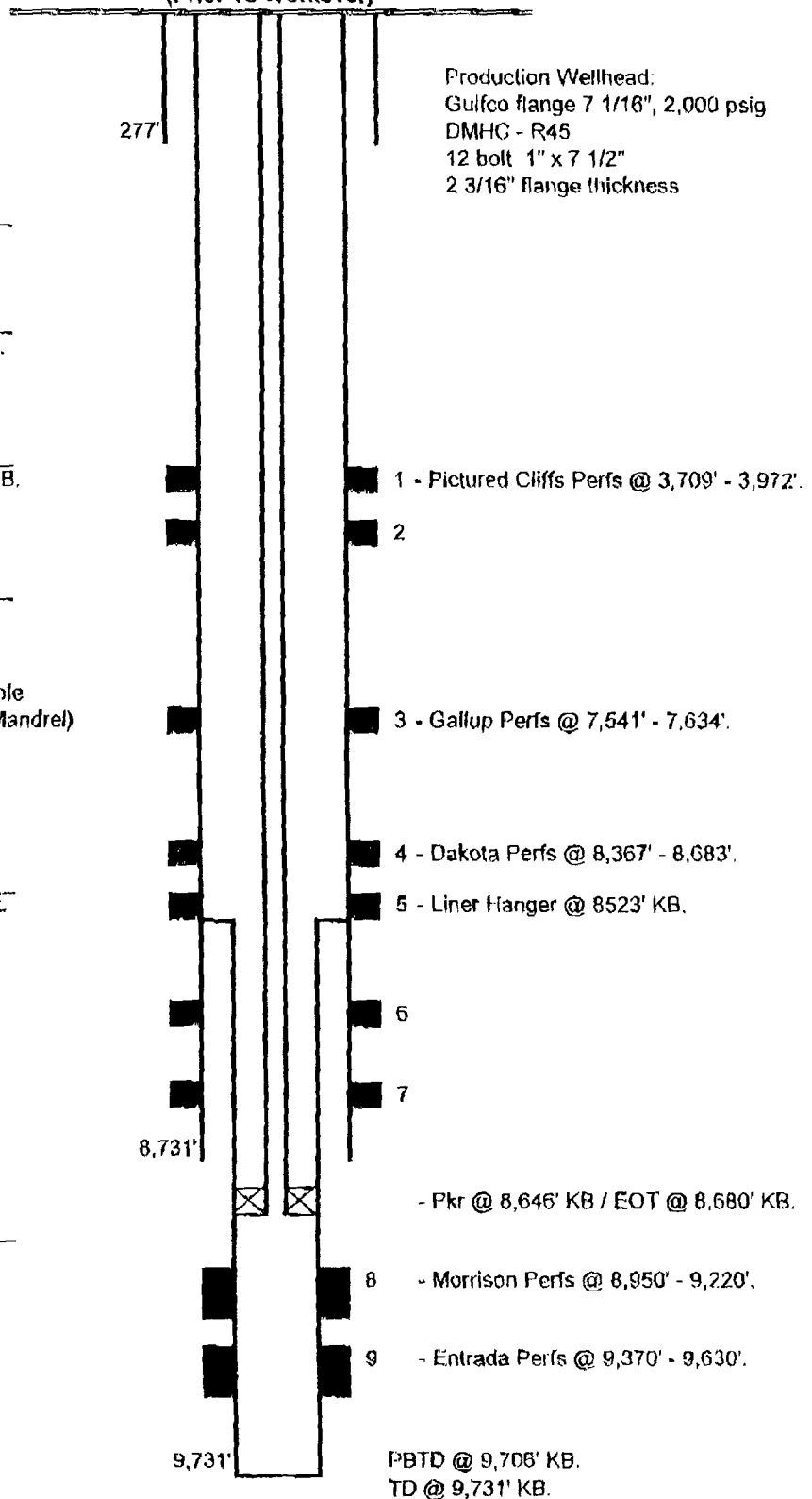
- 8) 8,950' - 8,982'
- 9,020' - 9,064'
- 9,098' - 9,220'

Entrada: Perf w/ 2 spf.

- 9) 9,370' - 9,410'
- 9,460' - 9,630'

**Mallon Oil Company
Wellbore Diagram
(Prior To Workover)**

11/9/99
JZ



Simms Federal #11

2/19/00

⇒ Workover to repair csg integrity.

Summary of csg tests

- ① Liner Test 8,543' - 8,646' No leak
- ② Liner Hanger / Lower Dakota Perfs 8427 - 8543 LEAK (120 psig / 20 min)
- ③ Upper Dakota Perfs & csg interval 7736 - 8427 No Leak
- ④ Gallup Perfs 7462 - 7736 LEAK (40 psig / 20 min)
- ⑤ Pictured Cliffs & csg to surface surface - 7462' No Leak

Remedial Work Performed

- ① Squeeze cmt Liner Top / Dakota Perfs.
50 sx / 14 BBLS cmt slurry (50/50 POZ)
Squeeze to 1750 psig.
- ② Squeeze cmt Gallup Perfs.
25 sx / 5 BBLS cmt slurry (Micro matrix)
Squeeze to 1000 psig.
- ③ Drill out cmt & clean out well to 9664'.
- ④ TTH w/ BHA as follows:

256 jnts, 2 7/8", 6.5#, L-80, EUE Hg (Original string)	7821.20'
21 jnts, 2 7/8", 6.5#, L-80, EUE Hg (New Hg)	600.83'
2 1/16" x 2 7/8" X-over (Nickel plated)	.55'
6 jnts, 2 1/16", 3.25#, L-80, IS Hg (New Hg)	199.58'
3 1/2" Arrow Set-1 10K packer (Nickel Plated)	4.96'
2 1/16" Re-entry Guide (Plastic coated)	-
	8628.77'
KB	10.00
Btm of PKR Landed @	8638.77'
- ⑤ Pump 110 BBLS 2% KCl WTR w/ 110 gals Baker PKR Fluid.
Perform csg integrity Test.

 50 STEELS
 100 STEELS
 150 STEELS
 200 STEELS


LEGAL NOTICE

Mallon Oil Company, P.O. Box 3256, Carlsbad, N.M. 88220, has filed Form C-108 (Application For Authorization To Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the "Simms #1" is located 1730' FSL, 1820' FEL, Section 13, Township 30 North, Range 4 West, Rio Arriba County, New Mexico. Disposal water will be sourced from area wells producing from the Fruitland Coal and Pictured Cliffs formations. The Simms #1 is proposed to be deepened to a new TD of 9790' and cased with a liner cemented from top to bottom. Disposal water will be injected into the Entrada formation at a depth of 9690'-9790', a maximum surface pressure of 2587 psi, and a maximum rate of 2000 bwpd.

All interested parties opposing the action must file objections or requests of hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days. Additional information can be obtained by contacting Duane Winkler at P.O. Box 3256, Carlsbad, New Mexico 88220, or (505) 885-4596.

(Published May 29, 1997)

Total \$22,720

Received payment

RIO GRANDE SUN

by

Affidavit of Publication

STATE OF NEW MEXICO } ss.
County of Rio Arriba

I, Robert Trapp, being first duly sworn, declare and say that I am the Publisher of the Rio Grande Sun, a weekly newspaper, published in the English language, and having a general circulation in the City of Espanola and County of Rio Arriba, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy of which is hereto attached,

was published in said paper once each week for 1 consecutive weeks, and on the same day of each week in the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and

not in any supplement, the first publication being on the 29 day of

MAY 1997 and the last publication on the 29 day

of MAY 1997; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

Robert Trapp
Publisher

Subscribed and sworn to before me this 29 day of May A.D., 1997

Ruth S. Lopez
Notary Public

My Commission expires

5-17-01