(9) OG

MERIDIAN OIL

well file

May 17, 1990

RECEIVED
JUN 25 1990
OIL CON. DIV.
DIST. 3

Bureau of Land Management
District Supervisor
1235 La Plata Highway
Farmington, NM 87499

Dear Sir:

Re: Water Disposal Well
San Juan 30-6 Unit SWD #2
Sec. 23, T30N, R07W
Rio Arriba Co., N.M.

In reference to your requirements for water disposal wells the following information is provided.

1. San Juan 30-6 Unit 30-6 Unit SWD #2
285' FNL, 590'FWL, Section 23, T30N, R07W
Rio Arriba Co., NM.

2. Injected water will be of same source of water injected into the San Juan 30-6 Unit #112Y. Water Analysis of injected water have already been submitted for the San Juan 30-6 Unit #112Y and are applicable for the San Juan 30-6 Unit SWD #2.

3. The injection formation and interval.
Perforated the Entrada formation using a 4" HSC gun with PML-23 charges (0.5" diameter, 11.95' ECP) and a 1 SPF density phased at 120°. Perforated at 8687'-8692', 8700'-8704', 8708'-8714', 8717'-8740', 8746'-8756', 8770'-8780', 8784'-8790', 8813'-8820', 8822'-8826' and 8844'-8862' for a total of 93 perforations.

Perforated the Bluff formation using a 4" HSC gun with PML-23 charges (0.5" diameter, 11.95" ECP) and a 1 SFP density phased at 120°. Perforated at 8374'-8394', 8398'-8408', 8412'-8418', 8424'-8434', 8442'-8452', 8462'-8469', 8486'-8492', and 8496'-8499' for a total of 72 perforations.

Meridian Oil Inc., 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700

Perforated the Upper Morrison formation using a 4" HSC gun with PML-23 charges (0.5" diameter, 11.95" ECP) and a 1 SPF density phased at 120°. Perforated at 7971'-7976', 7978'-7985', 7992'-7996', 8004'-8006', 8038'-8040', 8046'-8050', 8062-8069', 8074'-8084', 8092'-8097', 8109'-8116', 8125'-8134', 8144'-8149' 8155'-8158', 8202'-8206', 8248'-8251' and 8272'-8277' for a total of 82 perforations.

4. The total dissolved solids obtained from the Morrison formation is 22,067 PPM (Attachment A). Water analysis was obtained for the Morrison but attempts to obtain water analysis for the Entrada and Bluff were unsuccessful. The following tabulation gives dissolved solids on several wells which have penetrated the Entrada Formation.

Well Name & No.	Location	Date Tested	TDS
Filon #21-1 Federal	SW 21-20-05	08-20-76	10,726
Dome #20-1 Santa Fe	NE 20-21-08	01-10-77	11,114
San Juan 30-6 Unit #112Y	NE 26-30-06	04-25-88	13,100

5. Potential aquifers overlying the injection zones in this well are within 2231' of the surface and include the San Jose, Nacimiento and the Ojo Alamo.

6. Casing Record: Attachment B

Hole Dia	Csg Size	Wt. & Grade	Jts. Run	Depth Set	Cement Volume	Top/Cmt
26"	20"	133# K-55	13	498'	1034 CF	Surface
17 1/2"	13 3/8"	61# K-55	55	0-2459'	4861 CF	Surface
		68# K-55	25	2459'-3561'		
12 1/4"	9 5/8"	40# N-80	56	3421'-5859'	1273 CF	Reversed 32 BBLS
8 3/4"	7"	23# N-80	210	8923'	1st stg	Reversed
			FC at	8897'	258 CF	Mud Flush
			DV tool at	7889'	2nd stage 1050 CF	5000'w/CBL

7. TD: 8924' PBTD: 8896'

8. Attachment C:
Type of packer - 7" 23# Otis Perma-drill BWB packer with 4" bore, 8' seal bore extension, 3 1/2' pup joint, X-nipple and wireline reentry guide set at 7838'.

Seal Assembly - Mule shoe guide, 2.97" ID seal assembly with 8' of seals, straight slot location and X-nipple.

Tubing - 4 1/2" 10.5 # internally plastic coated. Landed in 35,000# compression at packer.

Corrosion Inhibitor - 155 BBLS, 1% blend, Techni-Hib 370

9. The system in place to assure that injection is confined to the injection interval are as follows. First a packer was set at 7838' on 4 1/2" tubing to isolate the casing from injected water. The casing annulas was filled with corrosion inhibitor and a pressure gauge installed to detect any pressure increase. Secondly, the pumps are equipped with pressure detection switches that will limit the maximum injection pressure to 1560 psi.

Sincerely,

Chris Settle
Petroleum Engineer

CS:jf
doc 32
xc: D. Priest

Subject to Concurrence by NMOCD

APPROVED
AS AMENDED

JUN 15 1990

for **AREA MANAGER**

ANALYSIS NO. 91-13-90

FIELD RECEIPT NO. _____

API FORM 45-1

API WATER ANALYSIS REPORT FORM

Company Meridian		Sample No.	Date Sampled
Field	Legal Description	County or Parish Rio Arriba	State NM
Lease or Unit	Well 30-6 Injection #2	Depth	Formation Morrison	Water, B/D
Type of Water (Produced, Supply, etc.)	Sampling Point		Sampled By

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	7469	324.74
Calcium, Ca	234	11.68
Magnesium, Mg	20	1.65
Barium, Ba	—	—
Potassium, K^+	167	4.27

ANIONS		
Chloride, Cl	7468	210.666
Sulfate, SO_4	4900	102.02
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	1809	29.66
OH	0	0

Total Dissolved Solids (calc.) 22067

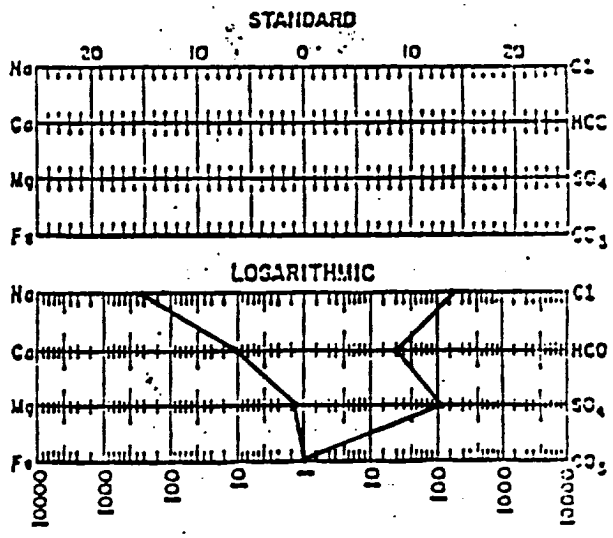
Iron, Fe (total) H,HH 0,0 ppm

Sulfide, as H_2S neg

OTHER PROPERTIES

pH	7.30
Specific Gravity, 60/60 F.	1.016
Resistivity (ohm-meters) 62° F.	.42
Total hardness	664

WATER PATTERNS — me/l



REMARKS & RECOMMENDATIONS:

ANALYST: Lee

THE WESTERN COMPANY OF NORTH AMERICA, FARMINGTON, NM
(505) 327-6222

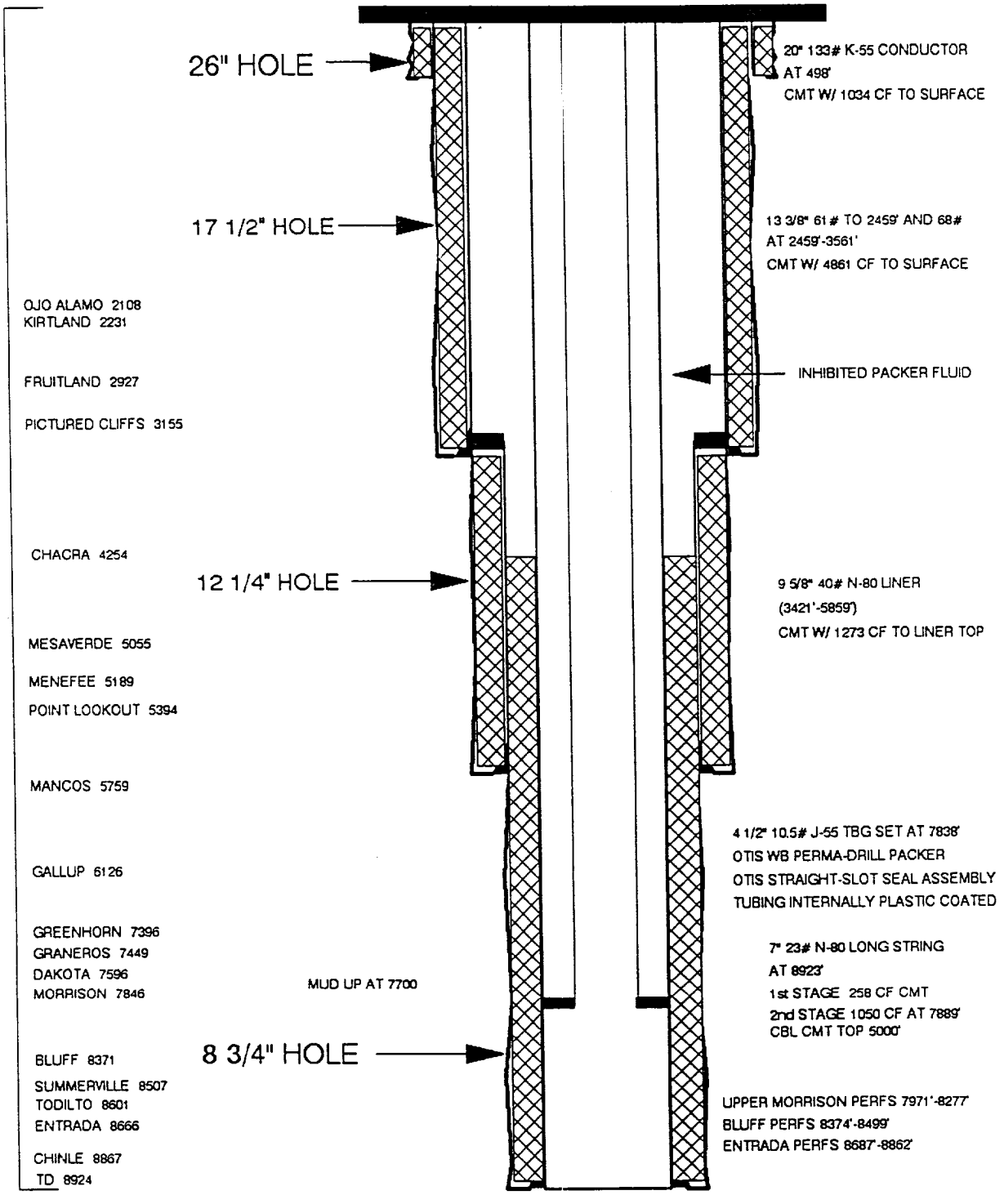
Please refer any questions to: BRIAN AULT District Engineer

Attachment A

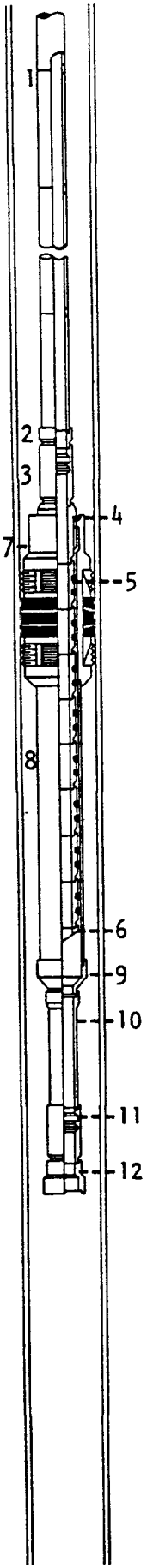
SAN JUAN 30-6 UNIT SWD #2

WELLBORE DIAGRAM

NW/NW SECTION 23 T30N-R7W
MORRISON/ENTRADA



Attachment B



Otis Packer Installation Report

November 1989

Meridian Oil
Morrison Entrada Field

San Juan 30-6 SWD No. 2 Well
San Juan County, New Mexico

Casing: 7" 23 lb/ft N-80
Tubing: 4 1/2" 10.5 lb/ft SCT J-55 (35,000 lb Compression)

OEC Field Location: Farmington, New Mexico

	Description	O.D.	I.D.	Length
1.	4 1/2" 10.5 lb/ft SCT J-55 tubing	4.500"	4.052"	7838.00'
2.	4 1/2" X 3 1/2" EUE cross over	5.027"	2.943"	0.55'
3.	Otis "X" landing nipple	3.697"	2.813"	0.85'
4.	Straight slot locator	4.460"	3.028"	1.43'
5.	Eight (8) Otis seal units	3.950"	2.970"	8.00'
6.	Mule shoe guide	3.900"	3.016"	0.54'
7.	7" 23 lb/ft Otis type "BWB" Perma-Series packer -- Part No. 212BWB70402	6.000"	4.000"	3.19'
8.	Seal bore extension	4.985"	4.000"	7.40'
9.	Cross over seal bore X 3 1/2" EUE	5.730"	3.434"	0.81'
10.	3 1/2" EUE pup joint	3.500"	3.030"	6.12'
11.	Otis "X" landing nipple	3.697"	2.813"	0.85'
12.	Wire line re-entry guide	5.919"	3.389"	0.47

Merid2.doc/dwg/20
Houston Regional Sales Office
12/6/89

Attachment C

C