

OIL CONSERVATION COMMISSION
Hytec DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE 9-26-77

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX ☒ _____
Proposed PMX _____

Carl Ulvog

Gentlemen:

I have examined the application dated 9-23-77
for the Tesoro Petroleum Corp. Hesperus Sand #49
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

A-1-17N-9W

Approve Conversion
(corrected location)

Yours very truly,

AR Kendrick

TESORO PETROLEUM CORPORATION

Suite 2000 First of Denver Plaza Building

633 Seventeenth Street

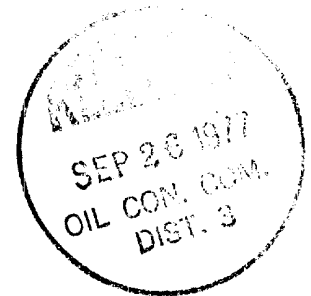
DENVER, COLORADO 80202

Rocky Mountain District

(303)-825-2000

September 23, 1977

Mr. Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501



Re: Application to convert Hospah Sand Unit No. 49 to Water Injection,
Unit ^AG, Section 1, T17N, R9W, McKinley Co., New Mexico
(NMOCC - R2807 with amendments A and B)

Dear Mr. Ramey:

We are applying for approval to convert Hospah Sand Unit well number 49 from a shut-in, uneconomic producer to a water injection well.

NMOCC order R-2807, R-2807A, and R-2807B established the Hospah Sand Unit, and administrative approval of additional production and injection wells, so long as they were no closer than 330 feet to the unit boundary nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

Attached is a plat (Figure 1) showing the location of this well; 330 feet from the north line and 1380 feet from the east line of Section 1, Township 17 north, Range 9 west, McKinley County, New Mexico. There is a water injection well, Hospah Sand Unit No. 66, between this well and the closest unit boundary. The water-injection wells are designated with a triangle on the plat.

In order to insure maximum recovery of oil in the area bounded by Well No's 50, 48, 19, 20, 51, 23, 1-Y, it is necessary for us to inject water into the Upper Hospah Sand in Well No. 49. We are unable to inject water into Well No. 66 after many workover attempts. Our latest structure maps place a possible fault midway between Well No's 49 and 66. Hospah Sand Unit No. 49 is the logical

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injection well in this part of the reservoir.

A cross-section, Figure 2, between Well No's 20, 49, and 66 is included. Two things are apparent from these logs:


1. The Upper Hospah Sand is between 42 and 50 feet thick, and
2. There are shale streaks present that could prevent effective injection into all potential pay zones if these zones are not open to the well bore.

Well No. 49 has penetrated only 27 feet of the Upper Hospah, and we intend to deepen only 10 feet. The Upper and Lower Hospah are separated by 10 to 18 feet of shale in this area; we would thus have 15 to 23 feet of formation between the proposed TD and top of the lower sand. Communication of injected water to the lower zone should be prevented.

A diagrammatic sketch of the proposed completion is attached (Figure 3). We intend to inject produced water from the Hospah Sand Unit at the rate of 600 to 1000 BPD with a 500 to 800 psi injection pressure. Produced water from the Upper and Lower Hospah on the SFRR "A" lease is used for makeup. We intend to use additional produced water (Upper and Lower Hospah) from our SFRR and Hanson leases for makeup water in the near future.

If any additional information is necessary for approval of this application, please feel free to call me or Mr. Fred Kastner collect at (303) 825-2000.

Yours very truly,

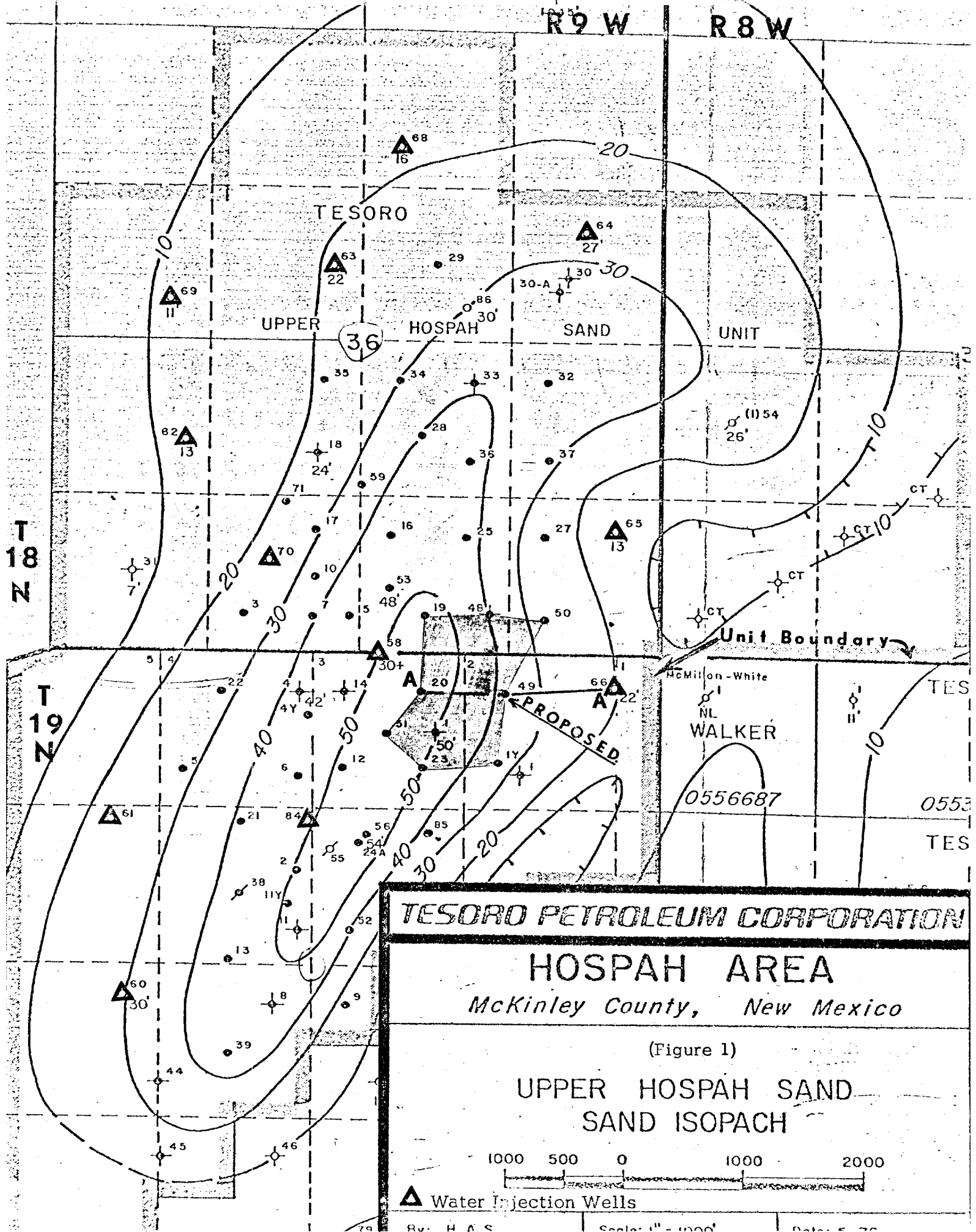


W. F. Parks

WFP/FEK/iw

3 Attachments

cc: Mr. A. R. Kendrick, Supervisor, NMOCC-District III
1000 Rio Brazos Road
Aztec, New Mexico 87410



TESORO PETROLEUM CORPORATION

HOSPAH AREA

McKinley County, New Mexico

(Figure 1)

UPPER HOSPAH SAND
SAND ISOPACH

1000 500 0 1000 2000

▲ Water Injection Wells

Rev. H. A. S.

Scale: 1" = 1000'

Date: 5-76

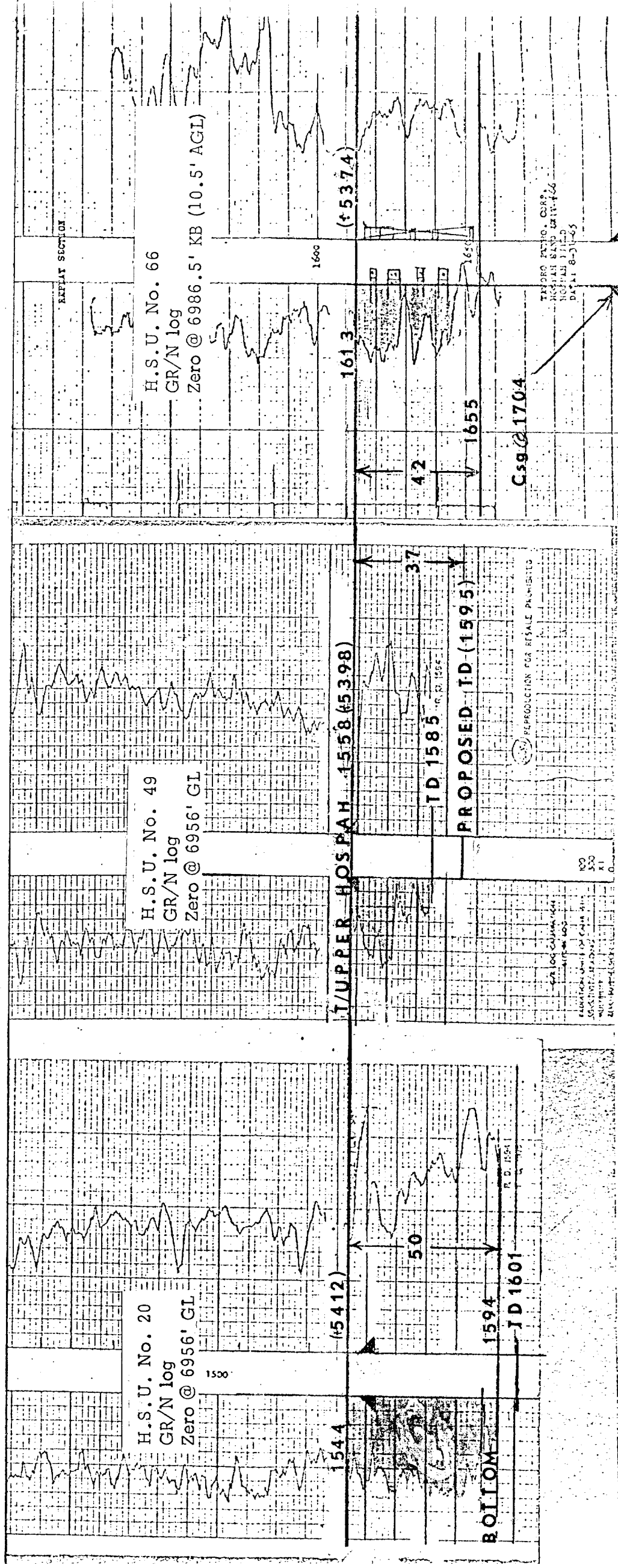
TESORO PETROLEUM CORPORATION

HOSPAN SAND UNIT
(Figure 2)

CROSS-SECTION A-A'

9/23/77

$\frac{1}{2}$
 $\frac{1}{2}$
 $\frac{1}{2}$
 $\frac{1}{2}$



(Figure 3)

Well: Hospah Sand Unit No. 49

Field: Hospah Upper Sand

Location: 330 FN 1380 FE Sec 1 -T 17N -R9W

County: McKinley State: New Mexico

Zero Elevation: 6956 GL ft. (N.A. AGL) GL: 6956

ID: 1585 ft. PBD: N.A. ft.

Spudded: 6/23/46 Completed: 8/21/46

Wellhead: _____

Tubing String: _____

Centralizers: _____

_____ "OD _____ LB _____ GR. _____ THRD.
@ _____ FT. w/ _____ SX (_____ FT³) cmt.
in _____ " hole (CMT. CLASS-ADDITIVES: _____)
T.O.C. @ _____ BY: _____

NO RECORD OF SURFACE PIPE DATA

2 3/8", 4.7 lb., J-55 tubing

Tubing/Casing annulus w/ gelled, inhibited packer-fluid.

Guiberson Type-L On/Off tool w/ 1 25/32" Seating Nipple profile

Guiberson Unipacker VI w/ middle of packer rubbers at approximately 1530'.

5 1/2" OD 17 LB ? GR 10R THRD.
@ 1560 FT. w/ 55 SX (64.90 FT³) cmt.
in 8 1/4" HOLE (CMT. CLASS-ADDITIVES: _____)
T.O.C. @ 1245' BY: Volumetric Estimate

4 3/4" Open Hole from 1560' to 1585'.

← CURRENT TD @ 1585'

← PROPOSED TD @ 1595'

UPDATED BY: F. E. K. DATE: 9/23/77