



August 31, 1984

Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Administrative Approval
per Order No. R-4558A

Gentlemen:

Tesoro Petroleum Corporation requests administrative approval to expand the South Hospah Lower Sand Oil Pool, in accordance with Rule 6 of Order No. R-4558A.

The expansion is to include the injection of polymer and produced Lower Hospah water into the following wells in McKinley County, New Mexico:

Hanson #43: 1260 FSL & 100 FWL, Section 6-T17N-R8W
Presently producing from Lower Hospah

Hanson #44: 330 FSL & 1980 FWL, Section 6-T17N-R8W
Presently producing from Lower Hospah

Santa Fe RR #51: 550 FNL & 1480 FWL, Section
7-T17N-R8W. Presently ready for
injection.

Santa Fe RR"A" 97: 240 FSL & 1655 FEL, Section
1-T17N-R9W. Presently ready
for injection.

Supporting data as required by Division Rule 701 is also submitted. Tenneco Oil will be notified of this action by receiving a copy of this application, along with supporting data.

Tesoro Petroleum Corporation requests your early consideration and approval on this application.

Sincerely,

Gavino Perez
Area Production Manager

OIL CONSERVATION DIVISION
SEP 04 1984
RECEIVED

GP/pd

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Tesoro Petroleum Corporation
Address: 8700 Tesoro Drive San Antonio, Texas 78286
Contact party: Gavino Perez Phone: (512) 828-8484 Ext. 2276
- 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 R-4558A.
- 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.
- * 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.
- 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.).
- *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.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * 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.
- 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.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- 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: Gavino Perez Title Area Production Manager
Signature: *Gavino Perez* Date: 8-31-87
- * 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. Hearing held on 7-20-83. Order No. R-4558A was approved on
8-30-83. All data submitted at this time. Tabulation is attached for new wells.

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 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.

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.

FORM C-108 APPLICATION FOR AUTHORIZATION TO INJECT

VII. This information applies to all wells in the application.

1. Proposed average and maximum daily rate of fluids to be injected:

Average daily rate: 900 BWIPD
Maximum daily rate = 1200 BWIPD

2. System is to be closed.
3. Average Inj. pressure = 300 psi.
Maximum Inj. pressure = 320 psi.
4. Injection fluid will be produced water.
5. This well is not for disposal purposes.

IX. No stimulation work is anticipated.

XII. Not applicable.

TABULATION OF WELLS IN AREA OF REVIEW
POLYMER AUGMENTED WATERFLOOD
HOSPANH FIELD
MCKINLEY COUNTY, NEW MEXICO

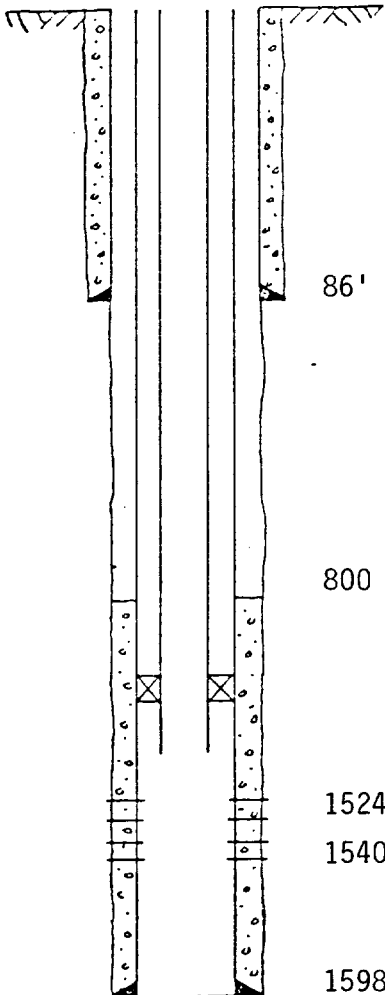
Operator Lease - Well	Location	Well Status	Date Drilled M/Y	Total Depth, ft	Hole Size, in.	Casing Size, in.	Cement Data			Producing Interval ft	Producing Formation	Tubing Data*		Packer or Seal Assembly*	
							Sacks Used	Top, ft	How Determined			Size in.	Depth, ft	Depth, ft	Description
Tesorero Petroleum Corp. Hanson 41	660 FSL & 330 FWL 6-17N-8W	Prod.	10/83	1640'	12-1/4 7-7/8	8-5/8 5-1/2	60 125	0 720	Circ. CBL	1,564-82	L. Hospah				
	1770 FSL & 1280 FWL 6-17N-8W	Prod.	10/83	1575	12-1/4 7-7/8	8-5/8 5-1/2	75 150	0 580	Circ. CBL	1,530-46	L. Hospah				
	1260 FSL & 100 FWL 6-17N-8W	Prod.	7/84	1615	12-1/4 6-3/4	8-5/8 4-1/2	60 100	0 800	Circ. CBL	1,528-40	L. Hospah				
	330 FSL & 1980 FWL 6-17N-8W	Prod.	7/84	1610	12-1/4 6-3/4	8-5/8 4-1/2	60 100	0 820	Circ. CBL	1,550-68	L. Hospah				
SF 50	1980 FN & 100' FWL 7-17N-8W	Prod.	12/83	1650	12-1/4 6-3/4	8-5/8 4-1/2	60 150	0 520	Circ. CBL	1,617-32	L. Hospah				
SF 51	550 FWL & 1480 FWL 7-17N-8W	Inj.	12/83	1610	12-1/4 6-3/4	8-5/8 4-1/2	50 150	0 500	Circ. CBL	1,561-80	L. Hospah	2-7/8	1,537	--	1,539 Baker AD-1
SF "A" 97	240 FSL & 1655 FWL 1-17N-9W	Inj.	12/83	1690	12-1/4 6-3/4	8-5/8 4-1/2	60 150	0 300	Circ. CBL	1,618-28	L. Hospah	2-7/8	1,587	--	1,603 Baker AD-1

*Injection wells only.

INJECTION WELL DATA SHEET

OPERATOR Tesoro Petroleum Corporation		LEASE Hanson		
WELL NO. 43	FOOTAGE LOCATION 1260 FSL & 100 FWL	SECTION Sec 6-T17N-R8W	TOWNSHIP	RANGE

Schematic



Tubular Data

Surface Casing

Size 8 5/8 " Cemented with 60 sx.
 TOC 0 feet determined by Circulation
 Hole size 12 1/4

Intermediate Casing

Size None " Cemented with _____ sx.
 TOC _____ feet determined by _____
 Hole size _____

Long string

Size 4 1/2 " Cemented with 100 sx.
 TOC 800 feet determined by Cement Bond Log
 Hole size 6 3/4
 Total depth 1615

Injection interval

1524 feet to 1540 feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8 lined with None set in a _____ (material)

Baker AD-1 (Not completed as injection well yet) packer at _____ feet.
 (brand and model)

(or describe any other casing-tubing seal).

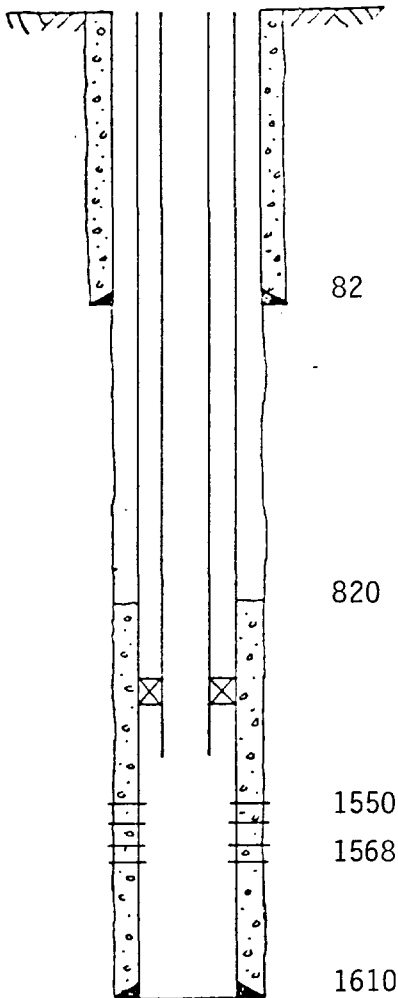
Other Data

- Name of the injection formation Lower Hospah
- Name of Field or Pool (if applicable) South Hospah Lower Sand Oil Pool
- Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? Originally drilled as Lower Hospah Sand producer
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) None
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Upper Hospah Oil Sand @ 1450 Ft. Dakota oil & gas sand @ 2500 to 2600 Ft.

INJECTION WELL DATA SHEET

OPERATOR Tesoro Petroleum Corporation		LEASE Hanson		
WELL NO. 44	FOOTAGE LOCATION 330 FSL & 1980 FWL	SECTION Sec 6-T17N-R8W	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 8 5/8 " Cemented with 60 sx.
 TOC 0 feet determined by Circulation
 Hole size 12 1/4

Intermediate Casing

Size None " Cemented with sx.
 TOC feet determined by
 Hole size

Long string

Size 4 1/2 " Cemented with 100 sx.
 TOC 820 feet determined by Cement Bond Log
 Hole size 6 3/4

Total depth 1610

Injection interval

1550 feet to 1568 feet
 (perforated or open-hole, indicate which)

Tubing size 2 3/8 lined with None set in a
 (material)
 Baker AD-1 (Not Completed as injection well yet) packer at feet.
 (brand and model)
 (or describe any other casing-tubing seal).

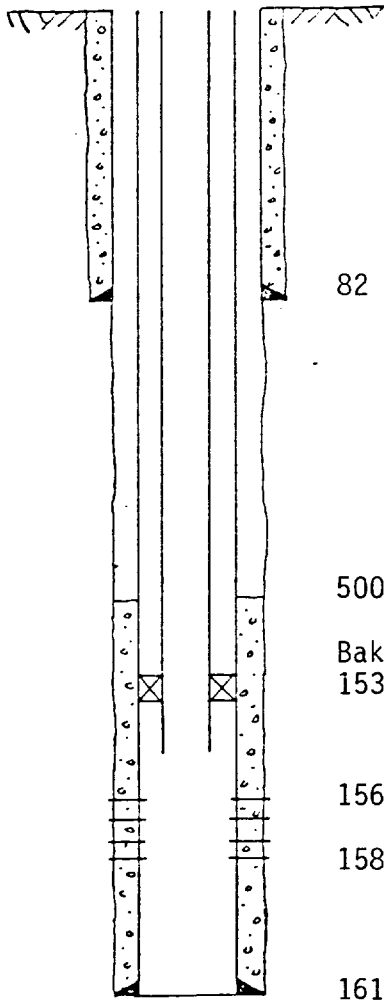
Other Data

- Name of the injection formation Lower Hospah
- Name of Field or Pool (if applicable) South Hospah Lower Sand Oil Pool
- Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? Originally drilled as
Lower Hospah Sand producer
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) None
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
Upper Hospah Oil Sand @ 1500 Ft. Dakota oil and gas sand @ 2500 to 2600 FT.

INJECTION WELL DATA SHEET

OPERATOR Tesoro Petroleum Corporation		LEASE Santa Fe Railroad		
WELL NO. 51	FOOTAGE LOCATION 550 FNL & 1480 FWL	SECTION Sec 7-T17N-R8W	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 8 5/8 " Cemented with 50 sx.
 TOC 0 feet determined by Circulation
 Hole size _____

Intermediate Casing

Size None " Cemented with _____ sx.
 TOC _____ feet determined by _____
 Hole size _____

Long string

Size 4 1/2 " Cemented with 150 sx.
 TOC 500 feet determined by Cement Bond Log
 Hole size 6 3/4

Total depth 1610

Injection interval

1561 feet to 1580 feet
 (perforated or open-hole, indicate which)

Tubing size 2 7/8 lined with None set in a
 (material)
Baker AD-1 packer at 1539 feet.
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

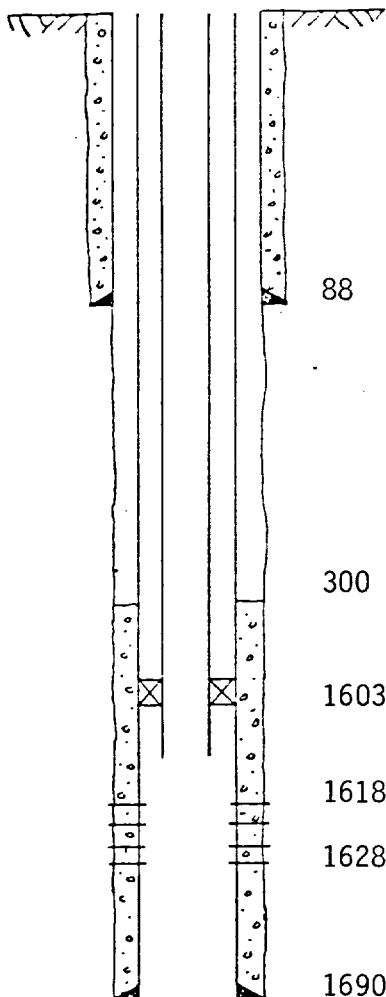
- Name of the injection formation Lower Hospah
- Name of Field or Pool (if applicable) South Hospah Lower Sand Oil Pool
- Is this a new well drilled for injection? ☒ Yes ☐ No
 If no, for what purpose was the well originally drilled? _____
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) _____

- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____
Upper Hospah Oil Sand @ 1500 Ft. Dakota oil & gas sand @ 2500 to 2600 Ft.

INJECTION WELL DATA SHEET

OPERATOR		LEASE		
Tesoro Petroleum Corporation		Santa Fe Railroad "A"		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
97	240 FSL & 1655 FEL	Sec 1-T17N-R9W		

Schematic



Tabular Data

Surface Casing

Size 8 5/8 " Cemented with 60 sx.

TOC 0 feet determined by Circulated

Hole size 12 1/4

Intermediate Casing

Size None " Cemented with sx.

TOC feet determined by

Hole size

Long string

Size 4 1/2 " Cemented with 150 sx.

TOC 300 feet determined by Cement Bond Log

Hole size 6 3/4

Total depth 1690

Injection interval

1618 feet to 1628 feet
(perforated or open-hole, indicate which)

Tubing size 2 7/8 lined with None (material) set in a
Baker AD-1 packer at 1603 feet.
(brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Lower Hospah
- Name of Field or Pool (if applicable) South Hospah Lower Sand Oil Pool
- Is this a new well drilled for injection? ☒ Yes ☐ No
If no, for what purpose was the well originally drilled?

- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) None

- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Upper Hospah Oil Sand @ 1540 Ft. Dakota oil & gas sand @ 2500 to 2600 Ft.



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 9-18-84

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

Gentlemen:

I have examined the application dated 9-4-84
for the Tesoro Hanson #44 N-6-17N-8W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Ernie Busch

Talked with Ernie Busch
on Oct. 22, 1984. He confirmed
that recommendations for Hanson # 43
and Santa Fe RR "A" No. 97 had been sent in
approving the wells.
gsp





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 9-18-84

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

Gentlemen:

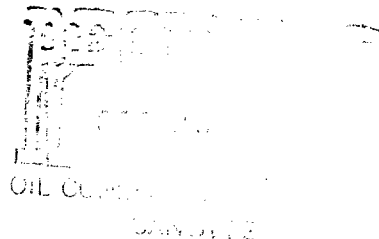
I have examined the application dated 9-4-84
for the Tesoro Santa Fe RR #51 C-7-17N-8W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

[Signature]



LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE