

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Operations Division  
1625 N. French Dr.  
Hobbs, NM 88240

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**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 <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM-67986
2. Name of Operator Manzano Oil Corporation	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 2107, Roswell, NM 88202-2107	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 660' FNL & 660' FEL Section 18, T18S, R32E	8. Well Name and No. Xion Federal #1
	9. API Well No. 30-025-27846
	10. Field and Pool, or Exploratory Area Young Queen
	11. County or Parish, State Lea County, New Mexico

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion 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 subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

6/27/00 Request approval for produced water disposal per attached.

RECEIVED  
2000 JUN 29 P 2:18

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

Signed <u>Alison Hernandez</u>	Title <u>Engineering Technician</u>	Date <u>6/27/00</u>
(This space for Federal or State office use)		
Approved by <u>GARY GOURLEY</u> Conditions of approval, if any:	Title <u>PETROLEUM ENGINEER</u>	Date <u>AUG 07 2000</u>

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side

561

## Water Production & disposal Information

In order to process your disposal request, the following information must be completed:

1. Name of formations producing water on the lease. Queen
2. Amount of water produced from all formations in barrels per day. #1 = 2 BOPD; #2 = 3 BOPD
3. Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. ( one sample will suffice if the water is commingled )  
Attached.
4. How water is stored on the lease. 500 bbl fiberglass tank
5. How water is moved to the disposal facility. trucked
6. Identify the Disposal Facility by :
  - A. Facility operators name. Manzano Oil Corporation
  - B. Name of facility or well name & number. BSWU #34
  - C. Type of facility or well (WDW)(WIW) etc. SWD
  - D. Location by 1/4 1/4 NESW section 30 township 18S range 31E
7. Attach a copy of the State issued permit for the Disposal Facility.  
Attached.

Submit to this office, **414 West Taylor, Hobbs, NM 88240**, the above required information on a Sundry Notice 3160-5. Submit 1 original and 5 copies, within the required time frame. (This form may be used as an attachment to the Sundry Notice.) Call me at 505-393-3612 if you need to further discuss this matter.



**MILLER CHEMICALS, INC.**

Post Office Box 298  
 Artesia, N.M. 88211-0298  
 (505) 746-1919 Artesia Office  
 (505) 393-2893 Hobbs Office  
 (505) 746-1918 Fax

WATER ANALYSIS REPORT

Company : MANZANO OIL CO.  
 Address :  
 Lease : XION FED  
 Well : 1  
 Sample Pt. :

Date : 06/27/00  
 Date Sampled : 06/26/00  
 Analysis No. :

ANALYSIS	mg/L	* meq/L
1. pH	6.1	
2. H2S	0	
3. Specific Gravity	1.180	
4. Total Dissolved Solids	265700.0	
5. Suspended Solids	NR	
6. Dissolved Oxygen	NR	
7. Dissolved CO2	NR	
8. Oil In Water	NR	
9. Phenolphthalein Alkalinity (CaCO3)		
10. Methyl Orange Alkalinity (CaCO3)		
11. Bicarbonate	HCO3 146.0	HCO3 2.4
12. Chloride	Cl 161880.0	Cl 4566.4
13. Sulfate	SO4 1500.0	SO4 31.2
14. Calcium	Ca 17200.0	Ca 858.3
15. Magnesium	Mg 1177.3	Mg 96.9
16. Sodium (calculated)	Na 83796.7	Na 3644.9
17. Iron	Fe 0.0	
18. Barium	Ba 0.0	
19. Strontium	Sr 0.0	
20. Total Hardness (CaCO3)	47800.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
+-----+   858   *Ca <----- *HCO3   +-----+   2	Ca(HCO3)2	81.0	2.4	194
-----+   /----->    -----+	CaSO4	68.1	31.2	2126
97   *Mg -----> *SO4    -----+   31	CaCl2	55.5	824.7	45760
-----+   <-----/    -----+	Mg(HCO3)2	73.2		
3645   *Na -----> *Cl    -----+   4566	MgSO4	60.2		
+-----+    -----+	MgCl2	47.6	96.9	4611
Saturation Values Dist. Water 20 C	NaHCO3	84.0		
CaCO3 13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	3644.9	213009
BaSO4 2.4 mg/L				

REMARKS:

SCALE TENDENCY REPORT

Company	: MANZANO OIL CO.	Date	: 06/27/00
Address	:	Date Sampled	: 06/26/00
Lease	: XION FED	Analysis No.	:
Well	: 1	Analyst	: STEVE TIGERT
Sample Ft.	:		

STABILITY INDEX CALCULATIONS  
 (Stiff-Davis Method)  
 CaCO3 Scaling Tendency

S.I. = 0.5 at 70 deg. F or 21 deg. C  
 S.I. = 0.5 at 90 deg. F or 32 deg. C  
 S.I. = 0.5 at 110 deg. F or 43 deg. C  
 S.I. = 0.5 at 130 deg. F or 54 deg. C  
 S.I. = 0.5 at 150 deg. F or 66 deg. C

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CALCIUM SULFATE SCALING TENDENCY CALCULATIONS  
 (Skillman-McDonald-Stiff Method)  
 Calcium Sulfate

S = 869 at 70 deg. F or 21 deg C  
 S = 935 at 90 deg. F or 32 deg C  
 S = 980 at 110 deg. F or 43 deg C  
 S = 997 at 130 deg. F or 54 deg C  
 S = 997 at 150 deg. F or 66 deg C

Respectfully submitted,  
 STEVE TIGERT





ADMINISTRATIVE ORDER SWD-701

file

*APPLICATION OF MANZANO OIL CORPORATION FOR SALT WATER DISPOSAL,  
EDDY COUNTY, NEW MEXICO.*

ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION

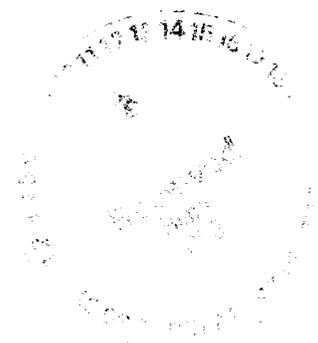
Under the provisions of Rule 701(B), Manzano Oil Corporation made application to the New Mexico Oil Conservation Division on November 24, 1997, for permission to complete for salt water disposal its Benson Shugart Waterflood Unit Well No.34 (formerly the Kenwood Well No.4) located 2310 feet from the South line and 2160 feet from the West line (Unit K) of Section 30, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met;
- (4) When designated as the Kenwood Well No.4, the well had been authorized for salt water disposal by Division Order R-4741, but had been converted back to production by a previous operator; and,
- (5) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

The applicant herein, Manzano Oil Corporation, is hereby authorized to complete its Benson Shugart Waterflood Unit Well No.34 located 2310 feet from the South line and 2160 feet from the West line (Unit K) of Section 30, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Queen and Grayburg formations at approximately 3378 feet to 3614 feet through 2 3/8-inch plastic-lined tubing set in a packer located at approximately 3310 feet.



IT IS FURTHER ORDERED THAT:

The operator shall 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.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1850 psi.

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 Queen or Grayburg formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

*Administrative Order SWD-701*  
*Manzano Oil Company*  
*April 15, 1998*  
*Page 3*

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Approved at Santa Fe, New Mexico, on this 15th day April, 1998.

  
LORI WROTENBERY, Director

LW/BES/kv

cc: Oil Conservation Division - Artesia

