STATE OF NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT 2040 Pacheco St. Santa Fe, NM 87505

#### APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance X Dispose Storage   Application qualifies for administrative approval? Yes No No No No
П.	OPERATOR: Odessa Oil Investments, Inc.
	ADDRESS: 823 Central, Odessa, Texas 79761 NEW VATIO
	CONTACT PARTY: Jerry Ricker - CONSEL 14181 PHONE: (915) 332-65
Ш.	WELL DATA: Complete the data required on the reverse side of this form for face well processed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project: Yes X No If yes, give the Division order number authorizing the project
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/1 or less) overlying the proposed injection zone as well as any such sources 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: Jerry Rid	cker	TITLE: Vice-President
SIGNATURE:	Ricker	DATE: May 5, 1997

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal.

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## ATTACHMENT TO FORM C-108 ODESSA OIL INVESTMENT CO., INC. APPLICATION FOR AUTHORIZATION TO INJECT

#### III. WORK DATA

- A. 1. Lease Name: Well Name: Lakewood State Com Well Number: 1 Section: 30 Township: 19 South Range: 26 East County: Eddy Footage: 1980' FWL & FNL
  - See attached diagram for the following data: Casing depths, cement used, hole sizes, cement tops, tubing size, type & setting depth, packer type & setting depth.
- B. 1. Injection will be in the Devonian formation at 10,300' to 10,700' (open hole) based on offset SWD well disposal intervals. Actual intervals may differ somewhat.
  - 2. The existing P&A'd wellbore will be cleaned out and deepened from the original TD of 9,726' to 10,700'. Seven inch production casing is planned to be set at  $\pm 10,300'$ .
  - 3. Originally this well was drilled to test the Morrow formation. Because the Morrow formation was deemed non-productive, the well was plugged with production casing removed.
  - 4. The closest potentially hydrocarbon productive zone in this well bore to the Devonian is the Morrow. There is no known lower productive formation.
- IV. This is not an expansion of an existing project.
- V. See attached map showing 1 mile & 1/4 mile radius (or 2 mile & 1/2 mile areas).

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VI. Three wells were drilled to the Devonian formation within the review area.

 Conoco Monsanto Foster SWD #1 660' FNL & FWL, Section 5, T205, R25E Eddy County, New Mexico Well Type: SWD Spud Date: 2-13-65 P & A Date: 4-5-65 Formation at TD: Mississippian at 9,470' (TD)

> Re-entry: Re-entry Well: Roger Hanks Foster #1 Re-entry Date: 1-8-71 Completion Date: 3-31-71 Formation: Devonian perfs at 10,200' - 10,504'

2.

3.

Nearburg Producing Company Aikman SWD State #1 660' FSL & 1,980' FWL, Section 27, T198, R25E Eddy County, New Mexico Well Type: SWD Spud Date: 1-10-74 P & A Date: 2-22-74 Formation at TD: Mississippian at 9,544'(TD)

Re-entry: Re-entry Well: Coquina Aikman State Com #1 Re-entry Date: 5-10-91 Completion Date: 6-12-91 Formation: Devonian openhole 10,205' - 10,520'

Conoco King SWD #1 660' FNL &1,980' FWL, Section 9, T205, R25E Eddy County, New Mexico Well Type: SWD Spud Date: 9-30-69 P&A Date: 11-23-69 Formation at TD: Mississippian at 9,600'(TD)

Re-entry: Re-entry Well: Roger Hanks King SWD #1 Re-entry Date: 6-3-76 Completion Date: 5-14-77 Formation: Devonian openhole 10,290' - 10,555'

### ATTACHMENT TO FORM C-108 ODESSA OIL INVESTMENT CO., INC. APPLICATION FOR AUTHORIZATION TO INJECT

- VII. 1 & 3. Average daily disposal rate 5,000 BPD at 800 psi. Maximum daily disposal rate 12,000 BPD at 2,000 psi.
  - 2. This will be an open system.
  - 4 & 5. There are several Devonian formation SWD wells in the area that have been in successful operation for several years. These wells, denoted on the attached map, accepting produced water for disposal from several formations including Glorietta, Cisco/Canyon, Atoka & Strawn. This well is expected to accept water from similar formations.
- VIII. Lithologic Detail: Dolomite Geologic Name: Devonian Thickness: Expected to be ± 400' Depth: Top of Devonian expected at ± 10,306' Depth to Bottom of all Underground Drinking Water Sources: Between surface and 500' sub. Underlying Sources of Drinking Water: None
- IX. 10,000 gals. 20% HCL acid.
- X. See attached DST data and Scout Ticket data, Logs are on file at the NMOCD Artesia District office.
- XI. N/A. No fresh water wells are known to exist within 1 mile of this well as shown on topography map.
- XII. Odessa Oil Investment Co., Inc. has found no evidence of open faults or any other hydro logic connection between the proposed disposal zone and any source of drinking water based on available geologic and engineering work.

#### XIII. <u>PROOF OF NOTICE</u>

Surface Owners and Leasehold Operators of the Proposed SWD well within 1/2 mile of this location.

## Lakewood State Com #

# Wellbore Schematic



13-3/8" Casing Set at 500' Hole Size 17:1/2" Cement Circulated to Surface using 600 sx

9 5/8" Casing Set at 1,412" Hole Size 12 1/4" Cement Circulated to Surface using 750 sx

7" Casing Set at 10,300'+/-

Hole Size 8-3/4" Circulate Cement to Surface based on Fluid Caliper

4-1/2" N80 12.75# IPC Tubing set at 10,300"+/-

Packer set at 10,300'+/-

Open Hole Injection Interval +/-10,300' - 10,700'

TD at 10,700'

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**INJECTION WELL DATA SHEET**