

WFX 9/2/97

723



J.O. EASLEY, INC.

ESTABLISHED 1979

P.O. Box 245 88211-0245
119 South Roselawn, Suite 302
Artesia, New Mexico 88210

Telephone (505) 746-1070
Fax (505) 746-1073

August 14, 1997

18

Mr. David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: C-108
Lea "D" Waterflood Project Expansion
Eddy County, New Mexico

Dear Mr. Catanach:

Enclosed is an original and one copy of the C-108 for 8 new injection wells on the Lea "D" Lease, resulting in the expansion of the Lea "D" Waterflood Project approved under Order R-3952.

If you have any questions, please give me a call at 505-624-9677.

Sincerely,

J. O. EASLEY, INC.

Bonita L. Limpus Jones
Consulting Landman

/bj

Enclosure

cc/enclosure: Mr. Tim W. Gum
New Mexico Oil Conservation Division
811 South 1st Street
Artesia, New Mexico 88210

Mr. Matt Eagleston
The Wiser Oil Company
8115 Preston Road, Suite 400
Dallas, Texas 75225

Mr. Mike Jones
The Wiser Oil Company
P. O. Box 2568
Hobbs, New Mexico 88241

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: Midland Energy Well: Line 70' well 12021 - 8 wells

Contact: James E. Price Title: Plant Engineer Phone: 507-744-7677

DATE IN 8/8/77

RELEASE DATE 8/11/77

DATE OUT 8/30/77

Proposed Injection Application is for:

WATERFLOOD

Expansion Initial

Original Order: R- 37-77

Secondary Recovery

Pressure Maintenance

SENSITIVE AREAS

SALT WATER DISPOSAL

Commercial Well

WIPP Capitan Reef

Data is complete for proposed well(s)? Yes Additional Data Req'd _____

AREA of REVIEW WELLS

Total # of AOR

of Plugged Wells

Tabulation Complete

Schematics of P & A's

Cement Tops Adequate

AOR Repair Required

INJECTION FORMATION

Injection Formation(s) 10K ft Compatible Analysis Yes

Source of Water or Injectate Water from Lake

PROOF of NOTICE

Copy of Legal Notice

Information Printed Correctly

Correct Operators

Copies of Certified Mail Receipts

Objection Received

Set to Hearing _____ Date _____

NOTES: _____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? Yes

COMMUNICATION WITH CONTACT PERSON:

1st Contact: Telephoned Letter Date Nature of Discussion _____

2nd Contact: Telephoned Letter Date Nature of Discussion _____

3rd Contact: Telephoned Letter Date Nature of Discussion _____

APPLICATION FOR AUTHORIZATION TO INJECT

- | | | | | |
|--------|---|----------------------|----------|---------|
| I. | PURPOSE: <input checked="" type="checkbox"/> Secondary Recovery | Pressure Maintenance | Disposal | Storage |
| | Application qualifies for administrative approval? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| II. | OPERATOR: The Wiser Oil Company | | | |
| | ADDRESS: P. O. Box 2568, Hobbs, NM 88241 | | | |
| | CONTACT PARTY: Mike Jones (505) PHONE: 392-9797 | | | |
| III. | WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary. | | | |
| IV. | Is this an expansion of an existing project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, give the Division order number authorizing the project R-3952 Lea "D" Waterflood 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: | | | |
| | <ol style="list-style-type: none"> 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 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: Michael R. Burch, CPL **TITLE:** Agent

SIGNATURE: Michael J. Searle

TITLE: Agent

DATE: 8-14-97

- * 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.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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, PO Box 2088, Santa Fe, NM 87504-2088 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.

C-108

APPLICATION FOR AUTHORIZATION TO INJECT
LEA "D" LEASE

III. WELL DATA

The following data sheets describe the 8 Water Injection Wells for which this application is submitted by The Wiser Oil Company.

INJECTION WELL DATA SHEET

Lea "D" C-108

OPERATOR	The Wiser Oil Company	
WELL NO.	#1	
LEASE Lea "D"		
FOOTAGE LOCATION		
660' FNL, 1980' FEL, Unit B		
SECTION TOWNSHIP RANGE		
26 17S 31E		
Schematic		
Well Construction Data		
<u>Surface Casing</u> Size 8 5/8" TOC Surface Hole Size Unknown	Set @ 822 " Cemented with 100 feet determined by SX.	
<u>Intermediate Casing</u> Size TOC Hole Size Long String	Set @ " Cemented with 355 feet determined by Calculation	
Size 5 1/2" TOC 2017 Hole Size Unknown (Estimated as 7 7/8) Total Depth 3873'	Set @ 3830 " Cemented with 355 feet determined by Calculation	
<u>Injection Interval</u> TOC @ 2017	3366 feet to 3782 feet Tubing Size 2 3/8" lined with (type of internal coating) set in a packer at 3217' feet	
Other type of tubing / casing seal if applicable <input type="checkbox"/> Packer		
Other Data <ol style="list-style-type: none"> 1. Is this a new well drilled for injection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> X <input type="checkbox"/> No If no, for what purpose was the well originally drilled? <u>Oil Prod. 8-17-60 - converted to WIW 9-24-70 - TA 1994</u> 2. Name of the Injection formation <u>Grayburg-San Andres Vacuum</u> 3. Name of Field or Pool (if applicable) <u>Grayburg Jackson 7-Rivers-QN-CB-SA</u> 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <u>3366-3782'</u> 5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. _____ 		

INJECTION WELL DATA SHEET

Lea "D" C-108

OPERATOR	The Wiser Oil Company		
WELL NO.	#2	LEASE Lea "D"	
FOOTAGE LOCATION			
	26	17S	
	SECTION	TOWNSHIP	
	RANGE		
<u>Schematic</u>			
<u>Well Construction Data</u>			
<u>Surface Casing</u> Size <u>8 5/8"</u> TOC <u>Surface</u> Hole Size <u>Unknown</u> <u>Intermediate Casing</u> Size <u>Unk</u> TOC <u>Unk</u> Hole Size <u>Unk</u> <u>Long String</u> Size <u>5 1/2"</u> TOC <u>1896</u> Hole Size <u>Unknown (Estimated as 7 7/8")</u> Total Depth <u>3930</u> Injection Interval <u>feet to</u> TOC @ <u>1896'</u> <u>35' Cement</u>	<u>Set @</u> <u>843</u> " <u>Cemented with</u> <u>100</u> feet determined by <u>"</u> <u>Set @</u> <u>"</u> " <u>Cemented with</u> <u>"</u> feet determined by <u>"</u> <u>Set @</u> <u>3863</u> " <u>Cemented with</u> <u>385</u> feet determined by <u>"</u> <u>Calculation</u> " <u>"</u> <u>feet to</u> <u>(perforated or open-hole; Indicate which)</u> Tubing Size <u> </u> <u>Other type of tubing / casing seal if applicable</u> <u>Other Data</u> 1. Is this a new well drilled for injection? <u>Yes</u> <u>X</u> <u>No</u> If no, for what purpose was the well originally drilled? Oil Production 8-22-60 - TA 12-27-94 The Wiser Oil Company plans to convert this well to WIW 2. Name of the Injection formation <u>Grayburg-San Andres Vacuum</u> 3. Name of Field or Pool (if applicable) <u>Grayburg Jackson 7-Rivers-ON-GIB-SA</u> 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <u>3300-3374'; 3444-94'; 3507-89'; 3621-94'; 3703-62'; 3801-5'</u> 5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. <u> </u>		
<u>Unk</u> <u>Hole Size</u>	<u>5 1/2"</u> <u>Casing @</u> <u>3863</u> <u>385</u> <u>Cement</u>	<u>TD</u> <u>3930</u>	
Perforations: 3300-74' 3444-94' 3507-60' 3584-89' 3621-94' 3703-62' 3801-05'			
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 2px;">CIBP @ 3510'</td> </tr> </table>			CIBP @ 3510'
CIBP @ 3510'			

INJECTION WELL DATA SHEET

Lea "D" C-108

OPERATOR	LEASE		FOOTAGE LOCATION		SECTION		TOWNSHIP		RANGE	
	The Wiser Oil Company		1980' FNL, 660' FEI, Unit H		26		17S		31E	
L NO.	#3									
<u>Schematic</u>										
<u>Well Construction Data</u>										
Surface Casing		Set @ 937 "		Cemented with 125 "		sx.				
Size		8 5/8 "		feet determined by " "						
TOC		Surface		Unknown						
Hole Size										
Intermediate Casing		Set @ Unknown								
Size										
TOC										
Hole Size										
Long String		Set @ 3922 "		Cemented with 395 "		sx.				
Size		5 1/2 "		feet determined by " "						
TOC		1904								
Hole Size		Unknown		Estimated as 7 7/8 "		Calculation				
Total Depth		4000								
Injection Interval		3744 feet to 3810		feet						
(perforated or open-hole; Indicate which)		Tubing Size 2 7/8 "		lined with		type of internal coating				
Other type of tubing / casing seal if applicable										
Other Data										
<p>1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If no, for what purpose was the well originally drilled?</p> <p>2. Name of the Injection formation <u>Grayburg-San Andres Vacuum</u></p> <p>3. Name of Field or Pool (if applicable) <u>Grayburg Jackson 7-Rivers-QN-GB-SA</u></p> <p>4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <u>3744-88'; 3800-10'</u></p> <p>5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area.</p>										

INJECTION WELL DATA SHEET
Lea "D" C-108

OPERATOR	The Wiser Oil Company	LEASE	Lea "D"																																																																																																																																																																																				
WELL NO.	#5	FOOTAGE LOCATION																																																																																																																																																																																					
1980' FSL, 660' FEL, Unit I																																																																																																																																																																																							
		SECTION	TOWNSHIP RANGE																																																																																																																																																																																				
		26	17S 31E																																																																																																																																																																																				
<p>Schematic</p>																																																																																																																																																																																							
<p>Well Construction Data</p> <table border="1"> <thead> <tr> <th></th> <th>Surface Casing</th> <th>Set @</th> <th>978</th> <th></th> </tr> </thead> <tbody> <tr> <td>Size</td> <td>8 5/8 "</td> <td>Cemented with</td> <td>125</td> <td>sx.</td> </tr> <tr> <td>TOC</td> <td>Surface</td> <td>feet determined by</td> <td></td> <td></td> </tr> <tr> <td>Hole Size</td> <td>Unknown</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Intermediate Casing</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Size</td> <td></td> <td>Set @</td> <td></td> <td></td> </tr> <tr> <td>TOC</td> <td></td> <td>" Cemented with</td> <td></td> <td></td> </tr> <tr> <td>Hole Size</td> <td></td> <td>feet determined by</td> <td></td> <td></td> </tr> <tr> <td>Long String</td> <td></td> <td>Set @</td> <td>3811</td> <td></td> </tr> <tr> <td>Size</td> <td>5 1/2 "</td> <td>Cemented with</td> <td>395</td> <td>sx.</td> </tr> <tr> <td>TOC</td> <td>1793</td> <td>feet determined by</td> <td></td> <td>Calculation</td> </tr> <tr> <td>Hole Size</td> <td>Unknown (Estimated as 7 7/8)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total Depth</td> <td>4034</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Injection Interval</td> <td></td> <td>feet to</td> <td></td> <td></td> </tr> <tr> <td colspan="5">(perforated or open-hole; Indicate which)</td> </tr> <tr> <td>Other Data</td> <td>Tubing Size</td> <td>2 3/8 "</td> <td>lined with</td> <td>(type of internal coating)</td> </tr> <tr> <td colspan="4"></td> <td>set in a</td> </tr> <tr> <td colspan="4"></td> <td>packer at 3856 feet</td> </tr> <tr> <td colspan="4"></td> <td>set in a</td> </tr> <tr> <td colspan="4"></td> <td>perforations:</td> </tr> <tr> <td colspan="4"></td> <td>3486-92'; 3515-99'; 3649-66'; 3734-92'</td> </tr> <tr> <td colspan="4"> <p>35' Cement</p> </td> <td></td> </tr> <tr> <td colspan="4"> <p>Unk "</p> </td> <td></td> </tr> <tr> <td colspan="4"> <p>5 1/2 "</p> </td> <td></td> </tr> <tr> <td colspan="4"> <p>3811 "</p> </td> <td></td> </tr> <tr> <td colspan="4"> <p>395 "</p> </td> <td></td> </tr> <tr> <td colspan="4"> <p>Cement</p> </td> <td></td> </tr> <tr> <td colspan="4"></td> <td>1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></td> </tr> <tr> <td colspan="4"></td> <td>If no, for what purpose was the well originally drilled? <input type="checkbox"/></td> </tr> <tr> <td colspan="4"></td> <td>Oil Production 10-22-60 - TA 11-29-94</td> </tr> <tr> <td colspan="4"></td> <td>The Wiser Oil Company plans to convert this well to WIW</td> </tr> <tr> <td colspan="4"></td> <td>2. Name of the injection formation <input type="checkbox"/> Gravburg-San Andres Vacuum</td> </tr> <tr> <td colspan="4"></td> <td>Grayburg Jackson 7-Rivers-QN-GB-SA</td> </tr> <tr> <td colspan="4"></td> <td>3. Name of Field or Pool (if applicable) <input type="checkbox"/></td> </tr> <tr> <td colspan="4"></td> <td>4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <input type="checkbox"/> 3486-92'; 3515-99'; 3649-66'; 3734-92'</td> </tr> <tr> <td colspan="4"></td> <td>5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. <input type="checkbox"/></td> </tr> </tbody></table>					Surface Casing	Set @	978		Size	8 5/8 "	Cemented with	125	sx.	TOC	Surface	feet determined by			Hole Size	Unknown				Intermediate Casing					Size		Set @			TOC		" Cemented with			Hole Size		feet determined by			Long String		Set @	3811		Size	5 1/2 "	Cemented with	395	sx.	TOC	1793	feet determined by		Calculation	Hole Size	Unknown (Estimated as 7 7/8)				Total Depth	4034				Injection Interval		feet to			(perforated or open-hole; Indicate which)					Other Data	Tubing Size	2 3/8 "	lined with	(type of internal coating)					set in a					packer at 3856 feet					set in a					perforations:					3486-92'; 3515-99'; 3649-66'; 3734-92'	<p>35' Cement</p>					<p>Unk "</p>					<p>5 1/2 "</p>					<p>3811 "</p>					<p>395 "</p>					<p>Cement</p>									1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					If no, for what purpose was the well originally drilled? <input type="checkbox"/>					Oil Production 10-22-60 - TA 11-29-94					The Wiser Oil Company plans to convert this well to WIW					2. Name of the injection formation <input type="checkbox"/> Gravburg-San Andres Vacuum					Grayburg Jackson 7-Rivers-QN-GB-SA					3. Name of Field or Pool (if applicable) <input type="checkbox"/>					4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <input type="checkbox"/> 3486-92'; 3515-99'; 3649-66'; 3734-92'					5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. <input type="checkbox"/>
	Surface Casing	Set @	978																																																																																																																																																																																				
Size	8 5/8 "	Cemented with	125	sx.																																																																																																																																																																																			
TOC	Surface	feet determined by																																																																																																																																																																																					
Hole Size	Unknown																																																																																																																																																																																						
Intermediate Casing																																																																																																																																																																																							
Size		Set @																																																																																																																																																																																					
TOC		" Cemented with																																																																																																																																																																																					
Hole Size		feet determined by																																																																																																																																																																																					
Long String		Set @	3811																																																																																																																																																																																				
Size	5 1/2 "	Cemented with	395	sx.																																																																																																																																																																																			
TOC	1793	feet determined by		Calculation																																																																																																																																																																																			
Hole Size	Unknown (Estimated as 7 7/8)																																																																																																																																																																																						
Total Depth	4034																																																																																																																																																																																						
Injection Interval		feet to																																																																																																																																																																																					
(perforated or open-hole; Indicate which)																																																																																																																																																																																							
Other Data	Tubing Size	2 3/8 "	lined with	(type of internal coating)																																																																																																																																																																																			
				set in a																																																																																																																																																																																			
				packer at 3856 feet																																																																																																																																																																																			
				set in a																																																																																																																																																																																			
				perforations:																																																																																																																																																																																			
				3486-92'; 3515-99'; 3649-66'; 3734-92'																																																																																																																																																																																			
<p>35' Cement</p>																																																																																																																																																																																							
<p>Unk "</p>																																																																																																																																																																																							
<p>5 1/2 "</p>																																																																																																																																																																																							
<p>3811 "</p>																																																																																																																																																																																							
<p>395 "</p>																																																																																																																																																																																							
<p>Cement</p>																																																																																																																																																																																							
				1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																																																																																																																																																			
				If no, for what purpose was the well originally drilled? <input type="checkbox"/>																																																																																																																																																																																			
				Oil Production 10-22-60 - TA 11-29-94																																																																																																																																																																																			
				The Wiser Oil Company plans to convert this well to WIW																																																																																																																																																																																			
				2. Name of the injection formation <input type="checkbox"/> Gravburg-San Andres Vacuum																																																																																																																																																																																			
				Grayburg Jackson 7-Rivers-QN-GB-SA																																																																																																																																																																																			
				3. Name of Field or Pool (if applicable) <input type="checkbox"/>																																																																																																																																																																																			
				4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <input type="checkbox"/> 3486-92'; 3515-99'; 3649-66'; 3734-92'																																																																																																																																																																																			
				5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. <input type="checkbox"/>																																																																																																																																																																																			

INJECTION WELL DATA SHEET

Lea "D" C-108

RATOR L NO.	The Wiser Oil Company		LEASEE Lea "D"		FOOTAGE LOCATION		SECTION TOWNSHIP RANGE																																																																																																																										
	#6	1980' FSL, 1980' Unit J		26	17S	31 E																																																																																																																											
<u>Schematic</u>																																																																																																																																	
<u>Well Construction Data</u>		<table border="1"> <thead> <tr> <th colspan="2">Surface Casing</th> <th colspan="2">Set @ 952 "</th> <th colspan="2">Cemented with 125 "</th> <th colspan="2">sx.</th> </tr> </thead> <tbody> <tr> <td>Size</td> <td>8 5/8 "</td> <td>TOC</td> <td>Surface</td> <td>Hole Size</td> <td>Unknown</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Intermediate Casing</td> <td colspan="2">Set @ "</td> <td colspan="2">Cemented with "</td> <td colspan="2">sx.</td> </tr> <tr> <td>Size</td> <td>TOC</td> <td>Hole Size</td> <td>Set @ "</td> <td>feet determined by</td> <td>"</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Long String</td> <td colspan="2">Set @ 3850 "</td> <td colspan="2">Cemented with 350 "</td> <td colspan="2">sx.</td> </tr> <tr> <td>Size</td> <td>5 1/2 "</td> <td>TOC</td> <td>2062</td> <td>Hole Size</td> <td>Unknown (Estimated as 7 7/8)</td> <td colspan="2">Calculation</td> </tr> <tr> <td>Total Depth</td> <td>4063</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> <tr> <td>Injection Interval</td> <td>3472</td> <td>feet to</td> <td>3813</td> <td colspan="2">feet</td> <td colspan="2"></td> </tr> <tr> <td>Tubing Size</td> <td>2 3/8 "</td> <td colspan="2">(perforated or open-hole; Indicate which)</td> <td colspan="2">(type of internal coating)</td> <td colspan="2"></td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td>packer at</td> <td>3384</td> <td>feet</td> <td></td> </tr> <tr> <td colspan="2"><u>Other type of tubing / casing seal if applicable</u></td> <td colspan="6"></td> </tr> <tr> <td colspan="2"><u>Other Data</u></td> <td colspan="6"> <ol style="list-style-type: none"> 1. Is this a new well drilled for injection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, for what purpose was the well originally drilled? <p>The Wiser Oil Company plans to reactivate this WIW well Oil Prod. 12-4-60 - Converted to WIW 9-24-70 - TA 1994</p> <ol style="list-style-type: none"> 2. Name of the injection formation <input type="text" value="Grayburg-San Andres Vacuum"/> 3. Name of Field or Pool (if applicable) <input type="text" value="Grayburg Jackson 7-Rivers-QN-GB-SA"/> 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <input type="text" value="3472-3813'"/> 5. Give the names and depths of any over or underlying oil or gas zones (<input type="text" value="pools) in this area."/> </td> </tr> <tr> <td colspan="2"><u>Perforations:</u></td> <td colspan="6"> <table border="1"> <tr> <td>3472-3813'</td> </tr> <tr> <td>OH 3850-4063'</td> </tr> </table> </td> </tr> <tr> <td colspan="2"><u>Equipment in hole isolated by packer</u></td> <td colspan="6"> </td> </tr> <tr> <td colspan="2"><u>Hole Size</u></td> <td colspan="6"> </td> </tr> </tbody> </table>						Surface Casing		Set @ 952 "		Cemented with 125 "		sx.		Size	8 5/8 "	TOC	Surface	Hole Size	Unknown			Intermediate Casing		Set @ "		Cemented with "		sx.		Size	TOC	Hole Size	Set @ "	feet determined by	"			Long String		Set @ 3850 "		Cemented with 350 "		sx.		Size	5 1/2 "	TOC	2062	Hole Size	Unknown (Estimated as 7 7/8)	Calculation		Total Depth	4063							Injection Interval	3472	feet to	3813	feet				Tubing Size	2 3/8 "	(perforated or open-hole; Indicate which)		(type of internal coating)								packer at	3384	feet		<u>Other type of tubing / casing seal if applicable</u>								<u>Other Data</u>		<ol style="list-style-type: none"> 1. Is this a new well drilled for injection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, for what purpose was the well originally drilled? <p>The Wiser Oil Company plans to reactivate this WIW well Oil Prod. 12-4-60 - Converted to WIW 9-24-70 - TA 1994</p> <ol style="list-style-type: none"> 2. Name of the injection formation <input type="text" value="Grayburg-San Andres Vacuum"/> 3. Name of Field or Pool (if applicable) <input type="text" value="Grayburg Jackson 7-Rivers-QN-GB-SA"/> 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <input type="text" value="3472-3813'"/> 5. Give the names and depths of any over or underlying oil or gas zones (<input type="text" value="pools) in this area."/> 						<u>Perforations:</u>		<table border="1"> <tr> <td>3472-3813'</td> </tr> <tr> <td>OH 3850-4063'</td> </tr> </table>						3472-3813'	OH 3850-4063'	<u>Equipment in hole isolated by packer</u>								<u>Hole Size</u>							
Surface Casing		Set @ 952 "		Cemented with 125 "		sx.																																																																																																																											
Size	8 5/8 "	TOC	Surface	Hole Size	Unknown																																																																																																																												
Intermediate Casing		Set @ "		Cemented with "		sx.																																																																																																																											
Size	TOC	Hole Size	Set @ "	feet determined by	"																																																																																																																												
Long String		Set @ 3850 "		Cemented with 350 "		sx.																																																																																																																											
Size	5 1/2 "	TOC	2062	Hole Size	Unknown (Estimated as 7 7/8)	Calculation																																																																																																																											
Total Depth	4063																																																																																																																																
Injection Interval	3472	feet to	3813	feet																																																																																																																													
Tubing Size	2 3/8 "	(perforated or open-hole; Indicate which)		(type of internal coating)																																																																																																																													
				packer at	3384	feet																																																																																																																											
<u>Other type of tubing / casing seal if applicable</u>																																																																																																																																	
<u>Other Data</u>		<ol style="list-style-type: none"> 1. Is this a new well drilled for injection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, for what purpose was the well originally drilled? <p>The Wiser Oil Company plans to reactivate this WIW well Oil Prod. 12-4-60 - Converted to WIW 9-24-70 - TA 1994</p> <ol style="list-style-type: none"> 2. Name of the injection formation <input type="text" value="Grayburg-San Andres Vacuum"/> 3. Name of Field or Pool (if applicable) <input type="text" value="Grayburg Jackson 7-Rivers-QN-GB-SA"/> 4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <input type="text" value="3472-3813'"/> 5. Give the names and depths of any over or underlying oil or gas zones (<input type="text" value="pools) in this area."/> 																																																																																																																															
<u>Perforations:</u>		<table border="1"> <tr> <td>3472-3813'</td> </tr> <tr> <td>OH 3850-4063'</td> </tr> </table>						3472-3813'	OH 3850-4063'																																																																																																																								
3472-3813'																																																																																																																																	
OH 3850-4063'																																																																																																																																	
<u>Equipment in hole isolated by packer</u>																																																																																																																																	
<u>Hole Size</u>																																																																																																																																	

INJECTION WELL DATA SHEET

Lea "D" C-108

OPERATOR	LEASE NO.	The Wiser Oil Company #7	LEASE		LEASE																																																																																																														
			Lea "D"	Lea "D"	Lea "D"	Lea "D"																																																																																																													
FOOTAGE LOCATION																																																																																																																			
			26	17S	TOWNSHIP	31E																																																																																																													
SECTION																																																																																																																			
RANGE																																																																																																																			
Well Construction Data																																																																																																																			
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Surface Casing</td> <td style="width: 25%;">Set @</td> <td style="width: 25%;">620</td> <td style="width: 25%;">sx.</td> </tr> <tr> <td>Size</td> <td>8 5/8 "</td> <td>Cemented with</td> <td>350</td> </tr> <tr> <td>TOC</td> <td>Surface</td> <td>feet determined by</td> <td>"</td> </tr> <tr> <td>Hole Size</td> <td>11</td> <td></td> <td></td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td>Intermediate Casing</td> <td>Set @</td> <td></td> <td></td> </tr> <tr> <td>Size</td> <td></td> <td>Cemented with</td> <td></td> </tr> <tr> <td>TOC</td> <td></td> <td>feet determined by</td> <td>sx.</td> </tr> <tr> <td>Hole Size</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td>Long String</td> <td>Set @</td> <td>4000</td> <td></td> </tr> <tr> <td>Size</td> <td>5 1/2 "</td> <td>Cemented with</td> <td>1100</td> </tr> <tr> <td>TOC</td> <td></td> <td>feet determined by</td> <td>"</td> </tr> <tr> <td>Hole Size</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total Depth</td> <td></td> <td>7 7/8</td> <td></td> </tr> <tr> <td>Injection Interval</td> <td></td> <td>4000</td> <td></td> </tr> <tr> <td>Tubing Size</td> <td>feet to</td> <td></td> <td>feet</td> </tr> <tr> <td colspan="4">(perforated or open-hole; Indicate which)</td> </tr> <tr> <td colspan="4">Tubing Size _____ lined with _____ (type of internal coating)</td> </tr> <tr> <td colspan="4">set in a packer at _____ feet</td> </tr> <tr> <td colspan="4">set in a</td> </tr> <tr> <td colspan="4">Other type of tubing / casing seal if applicable _____ feet</td> </tr> <tr> <td colspan="7" style="text-align: center;">Other Data</td> </tr> <tr> <td colspan="7"> <p>1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If no, for what purpose was the well originally drilled?</p> <p><u>Oil Production 6-4-72 - TA 11-29-94</u></p> </td> </tr> <tr> <td colspan="7"> <p>2. Name of the Injection formation <u>Grayburg</u> <u>San Andres Vacuum</u></p> <p>3. Name of Field or Pool (if applicable) <u>Grayburg</u> <u>Jackson 7-Rivers-QN-GB-SA</u></p> <p>4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <u>3372-3728'; 3772-3960'</u></p> <p>5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. _____</p> </td> </tr> </table>							Surface Casing	Set @	620	sx.	Size	8 5/8 "	Cemented with	350	TOC	Surface	feet determined by	"	Hole Size	11			 				Intermediate Casing	Set @			Size		Cemented with		TOC		feet determined by	sx.	Hole Size				 				Long String	Set @	4000		Size	5 1/2 "	Cemented with	1100	TOC		feet determined by	"	Hole Size				Total Depth		7 7/8		Injection Interval		4000		Tubing Size	feet to		feet	(perforated or open-hole; Indicate which)				Tubing Size _____ lined with _____ (type of internal coating)				set in a packer at _____ feet				set in a				Other type of tubing / casing seal if applicable _____ feet				Other Data							<p>1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If no, for what purpose was the well originally drilled?</p> <p><u>Oil Production 6-4-72 - TA 11-29-94</u></p>							<p>2. Name of the Injection formation <u>Grayburg</u> <u>San Andres Vacuum</u></p> <p>3. Name of Field or Pool (if applicable) <u>Grayburg</u> <u>Jackson 7-Rivers-QN-GB-SA</u></p> <p>4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <u>3372-3728'; 3772-3960'</u></p> <p>5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. _____</p>						
Surface Casing	Set @	620	sx.																																																																																																																
Size	8 5/8 "	Cemented with	350																																																																																																																
TOC	Surface	feet determined by	"																																																																																																																
Hole Size	11																																																																																																																		
Intermediate Casing	Set @																																																																																																																		
Size		Cemented with																																																																																																																	
TOC		feet determined by	sx.																																																																																																																
Hole Size																																																																																																																			
Long String	Set @	4000																																																																																																																	
Size	5 1/2 "	Cemented with	1100																																																																																																																
TOC		feet determined by	"																																																																																																																
Hole Size																																																																																																																			
Total Depth		7 7/8																																																																																																																	
Injection Interval		4000																																																																																																																	
Tubing Size	feet to		feet																																																																																																																
(perforated or open-hole; Indicate which)																																																																																																																			
Tubing Size _____ lined with _____ (type of internal coating)																																																																																																																			
set in a packer at _____ feet																																																																																																																			
set in a																																																																																																																			
Other type of tubing / casing seal if applicable _____ feet																																																																																																																			
Other Data																																																																																																																			
<p>1. Is this a new well drilled for injection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If no, for what purpose was the well originally drilled?</p> <p><u>Oil Production 6-4-72 - TA 11-29-94</u></p>																																																																																																																			
<p>2. Name of the Injection formation <u>Grayburg</u> <u>San Andres Vacuum</u></p> <p>3. Name of Field or Pool (if applicable) <u>Grayburg</u> <u>Jackson 7-Rivers-QN-GB-SA</u></p> <p>4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used <u>3372-3728'; 3772-3960'</u></p> <p>5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area. _____</p>																																																																																																																			

| Schematic | | | | | | |
| | | | | | | |

INJECTION WELL DATA SHEET

Lea "D" C-108

OPERATOR	The Wiser Oil Company	LEASE	Lea "D"	SECTION	26	TOWNSHIP	17S	RANGE	31E
WELL NO.	#8	FOOTAGE LOCATION							

Well Construction Data	
Surface Casing	Set @ <u>607</u> "
Size	<u>8 5/8</u>
TOC	" Cemented with <u>350</u> sx.
Hole Size	Surface <u>11</u> "
Intermediate Casing	Set @ <u>11</u> "
Size	<u>5 1/2</u>
TOC	" Cemented with <u>1500</u> sx.
Hole Size	Surface <u>7 7/8</u> "
Long String	Set @ <u>4000</u> "
Size	<u>7 7/8</u>
TOC	" Cemented with <u>4000</u> "
Hole Size	Total Depth <u>4000</u> "
Injection Interval	feet to <u>3763</u> feet
(perforated or open-hole; indicate which)	set in a <u>3763</u> feet
Tubing Size	<u>2 7/8</u> " lined with <u>(type of internal coating)</u>
Other type of tubing / casing seal if applicable	<u>3763</u> feet

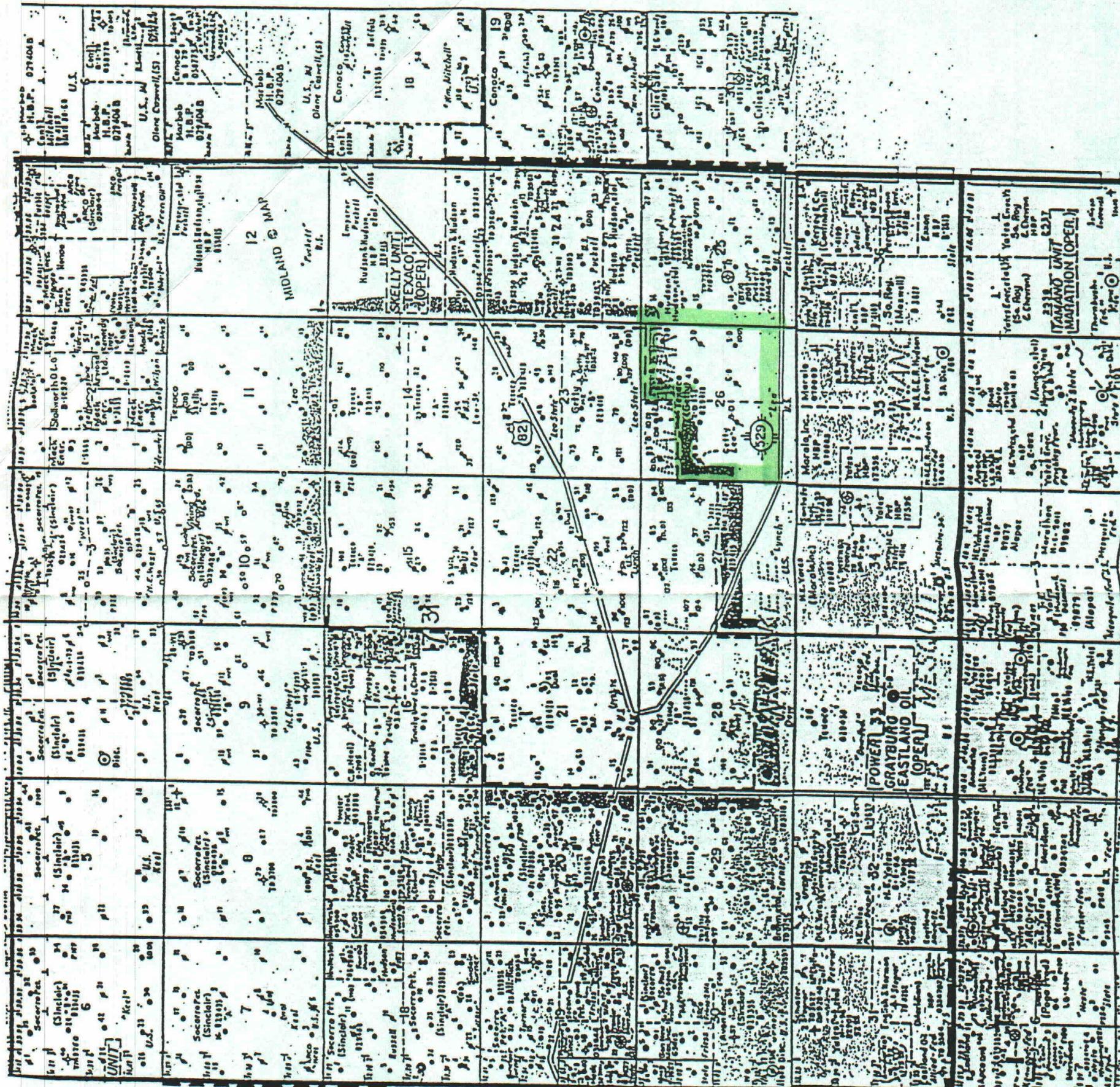
Schematic	
<p>The schematic shows a vertical well bore with the following sections from top to bottom:</p> <ul style="list-style-type: none"> Surface Plug: A rectangular box labeled "Set Surface Plug". Cement: A horizontal line with arrows at both ends, labeled "Cement". Intermediate Casing: A section labeled "Casing @ 607' Circulate Class "C" Cement to Surface". Long String: A section labeled "Casing @ 4000' Circulate Class "C" Cement to Surface". Injection Interval: A section labeled "Cement Retainer @ 3717'". Tubing: A section labeled "Casing @ 3763'". Bottom: A section labeled "Cement". 	<p>Perforations: 3794-3968'</p> <p>5 1/2" Casing @ 4000' / 1500 sx Cement</p>

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
LEA "D" LEASE

V. AREA OF REVIEW

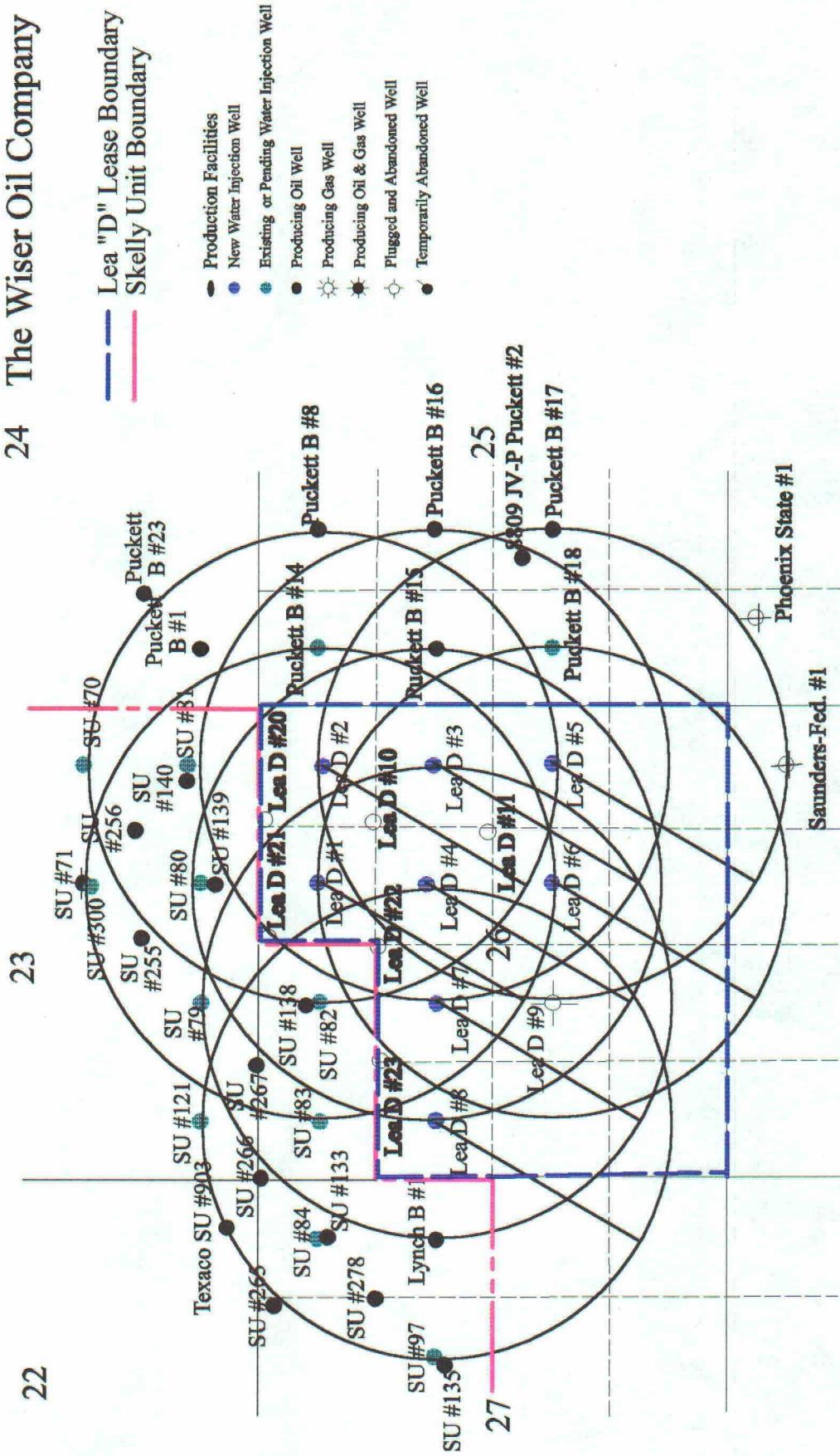
The attached maps show all wells and leases within two miles of the proposed injection wells with a one-half mile radius circle drawn around each proposed injection well.

Eddy County, New Mexico



**Lea "D" Lease
Eddy County, New Mexico**

24 The Wiser Oil Company



34

35

36

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
LEA "D" LEASE

VI. HALF MILE WELLS

The following is a table showing data for all wells which penetrate the proposed injection zone and which lie within the area of review.

Immediately following the table are schematics for the 4 wells within the area of review which have been plugged and abandoned as noted on the table.

Lea "D" C-108 - HALF-MILE WELL DATA SHEET

Name	Operator	Location	Sec	TSHP	RG	COMPL. DATE	TP	TD	HOLE SIZE	CSG SIZE	PFRFS	DEPTH SET	SX CMT	Comments	TBG PKR
Township 17 South, Range 31 East															
SU #903	Texaco Exploration & Production Inc.	360' FSL, 540' FEL, Unit P	22	17S	31E	Pending	0	7990'	11"	8 5/8" 5 1/2"	605'	450	3425	Completion Pending	BLM LC-029420-A
SU #70	The Wiser Oil Co.	1980' FSL, 660' FEL, Unit I	23	17S	31E	11-24-40	O	3890'	13"	10 3/4"	600'	100	3288-3701'	2 3/8"	Estimated TOC 2133' TA 5-12-92'
SU #71	The Wiser Oil Co.	1980' FSL, 1980' FEL, Unit J	23	17S	31E	10-1-67	Φ FWW P&A	3872'	11 1/4" 8 1/4" 7"	751' 3202' 4 1/2"	95	3243-3830'	2 3/8" 3690' (Q)	Estimated TOC 1135' P&A 4-27-82 (See Attached)	
SU #255	The Wiser Oil Co.	1333' FSL, 2596' FEL, Unit J	23	17S	31E	1-28-97	O	4100'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	443'	325	3420-3621'	2 7/8"	Pending Conversion to WIW
SU #256	The Wiser Oil Co.	1403' FSL, 1387' FEL, Unit J	23	17S	31E	11-27-96	O	4050'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	442'	325	3378-3588'	2 7/8"	BLM NM-98120
SU #360	The Wiser Oil Co.	1880' FSL, 1980' FWL, Unit J	23	17S	31E	6-11-97	WIW	4050'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	364'	325	3365-3486'	2 7/8"	BLM NM-98120
SU #121	The Wiser Oil Co.	660' FSL, 660' FWL, Unit M	23	17S	31E	12-31-77	Φ WIW	3815'	11"	8 5/8" 5 1/2"	673'	300	2374-2494'	2 3/8"	Estimated TOC 684' Converted to WIW 8-7-97
SU #267	The Wiser Oil Co.	35' FSL, 1285' FWL, Unit M	23	17S	31E	2-5-97	O	3950'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	442'	325	3520-3677'	2 7/8"	BLM NM-98120
SU #79	The Wiser Oil Co.	660' FSL, 1980' FWL, Unit N	23	17S	31E	4-3-60	Φ WIW	3798'	10"	8 5/8" 5 1/2"	778'	100	3634-3798'	2" (Q)	Estimated TOC 1831' Converted to WIW 8-17-70
SU #80	The Wiser Oil Co.	660' FSL, 1980' FEL, Unit O	23	17S	31E	5-22-60	Φ WIW	3878'	10"	8 5/8" 5 1/2"	785'	100	3597-3710'	2 3/8"	'TOC 1330' (CB Log) Converted to WIW 3-18-97
SU #139	The Wiser Oil Co.	510' FSL, 1980' FEL, Unit P	23	17S	31E	6-20-78	O	2679'	11"	8 5/8" 5 1/2"	699'	275	2378-2469'	2 3/8"	Estimated TOC 1981' Converted to WIW 8-14-70
SU #81	The Wiser Oil Co.	810' FSL, 660' FEL, Unit P	23	17S	31E	7-2-60	Φ WIW	3840'	10"	8 5/8" 5 1/2"	3784'	375'	3784-3940'	2 3/8"	BLM NM-98120
SU #140	The Wiser Oil Co.	810' FSL, 810' FEL, Unit P	23	17S	31E	9-11-78	O	2700'	11"	8 5/8" 5 1/2"	690'	275	2414-2542'	2 3/8"	BLM NM-98120
Pucket "B" #1	William A. & Edward R. Hudson	660' FSL, 660' FWL, Unit M	24	17S	31E	4-22-41	O	3965'	-	10 3/4" 8"	695'	75	3425-3650'	2 3/8"	Estimated TOC 1679' BLM LC-029415-A
												150	3500-3700'	3829' (Est.)	

Lea "D" C-108 - HALF-MILE WELL DATA SHEET

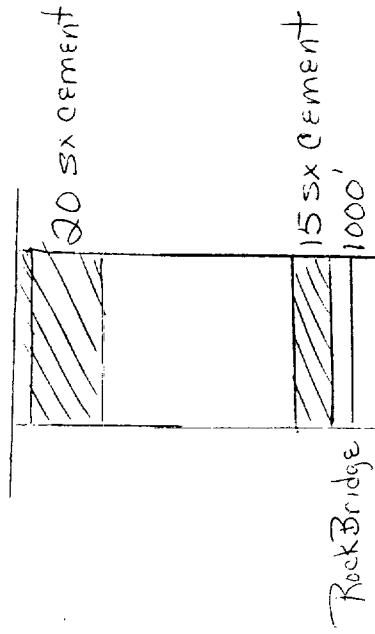
NAME	OPERATOR	LOCATION	SEC	TSHIP	RG	COMPL. DATE	TP	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMT	PERFS	TBCI PKR	COMMENTS	LF,ASE
Puckett "B3" #23	William A. & Edward R. Hudson	1295' FSL, Unit M	24	17S	31E	4-16-65	WTW O	3943'	7 7/8" (Est)	8 5/8" 5 1/2"	587' 3938'	150 300	3519.33' 3658.72' 3833.58'	2" (@ 3580'	Estimated TOC 2406' Converted to Producer 11-22-76	BLM I.C-029415-B
Puckett "B3" #8	William A. & Edward R. Hudson	660' FNL, 1980' FWL, Unit C	25	17S	31E	Pre 1952	O	3770'	Unkn	Unkn	Unkn	100 350	3542.48' 3561.67' 3585.91'	2 3/8" (@ 3500'	File is incomplete	BLM I.C-029415-B
Puckett "B3" #14	William A. & Edward R. Hudson	660' FNL, 660' FWL, Unit D	25	17S	31E	4-26-60	Θ WTW	4000'	7 7/8" (Est)	8 5/8" 5 1/2"	631' 3994'	100 350	3542.48' 3561.67' 3585.91'	2 3/8" (@ 3500'	Estimated TOC 2206' Converted to WIW 6-11-70	BLM I.C-029415-B
Puckett "B3" #15	William A. & Edward R. Hudson	1980' FNL, 660' FWL, Unit E	25	17S	31E	6-13-60	O	3990'	7 7/8" (Est)	8 5/8" 5 1/2"	950' 3867'	100 350	3517.34' 3788.98'	2" (@ 3550'	Estimated TOC 2079'	BLM I.C-029415-B
Puckett "B3" #16	William A. & Edward R. Hudson	1980' FNL, 1980' FWL, Unit F	25	17S	31E	6-28-60	O	8010' PB 4005'	13 3/8" 8 5/8"	302' 4149'	250 2240	3776.3802' 3839.48' 3952.58'	2" (@ 3651'	File is incomplete	BLM I.C-029415-B	
8809 IV-P	William A. & Edward R. Hudson	2310' FSL, 1650' FWL, Unit K	25	17S	31E	11-20-93	O	4100'	17 1/2" 11"	13 3/8" 8 5/8"	400' 4150'	500 1500	3807.3824' 3829.3845'	2 3/8" (@ 3761'	BLM I.C-029415-B	
Puckett #17	William A. & Edward R. Hudson	1980' FSL, 1980' FWL, Unit K	25	17S	31E	6-26-60	O	4004'	7 7/8" (Est)	8 5/8" 5 1/2"	965' 4000'	100 350	3910.20' 3925.35'	2" (@ 3900'	Estimated TOC 2212'	BLM I.C-029415-B
Puckett "B" #18	William A. & Edward R. Hudson	1980' FSL, 660' FWL, Unit L	25	17S	31E	8-4-60	Θ WTW	3933'	7 7/8" (Est)	8 5/8" 5 1/2"	998' 3934'	200 350	3806.27' 3841.50'	2" (@ 3751'	Estimated TOC 2146' Converted to WIW	BLM I.C-029415-B
Lea "D" #10	The Wiser Oil Co.	1303' FNL, 1306' FEL, Unit A	26	17S	31E	Pending	O	4200'	12 1/4" 7 7/8"	8 5/8" 5 1/2"	462' 4200'	300 950	3868.78'	Completion pending	BLM I.C-0294180-D	
Lea D #20	The Wiser Oil Co.	10' FNL, 1267' FEL, Unit A	26	17S	31E	Pending	O							Drilling Pending	NM-98120	
Lea D #21	The Wiser Oil Co.	103' FNL, 2597' FEL, Unit B	26	17S	31E	Pending	O							Drilling Pending	BLM I.C-029418-B	
SU #82	The Wiser Oil Co.	660' FNL, 1980' FWL, Unit C	26	17S	31E	5-23-66	O	3877'	10"	8 5/8" 5 1/2"	803' 3681'	125 370	3321.3517' 3555.3642' 3608.42'	2 3/8" (@ 3282'	Estimated TOC 1902' Converted to WIW 7-18-97	BLM NM-98120
SU #138	The Wiser Oil Co.	510' FNL, 1980' FWL, Unit C	26	17S	31E	7-1-78	O	2700'	11" 7 7/8"	8 5/8" 5 1/2"	695' 2700'	275 650	2410.98' 2509.37'	2 3/8" (@ 2541'	File is incomplete	BLM NM-98120
SU #83	The Wiser Oil Co.	660' FNL, 660' FWL, Unit D	26	17S	31E	5-6-60	Θ WTW	3900'	10"	8 5/8" 5 1/2"	783' 3700'	100 375	3700.3779' Open Hole 3323.3678'	2 3/8" (@ 3223' & 2320'	Estimated TOC 1897' Converted to WIW 4-16-97	BLM NM-98120

2

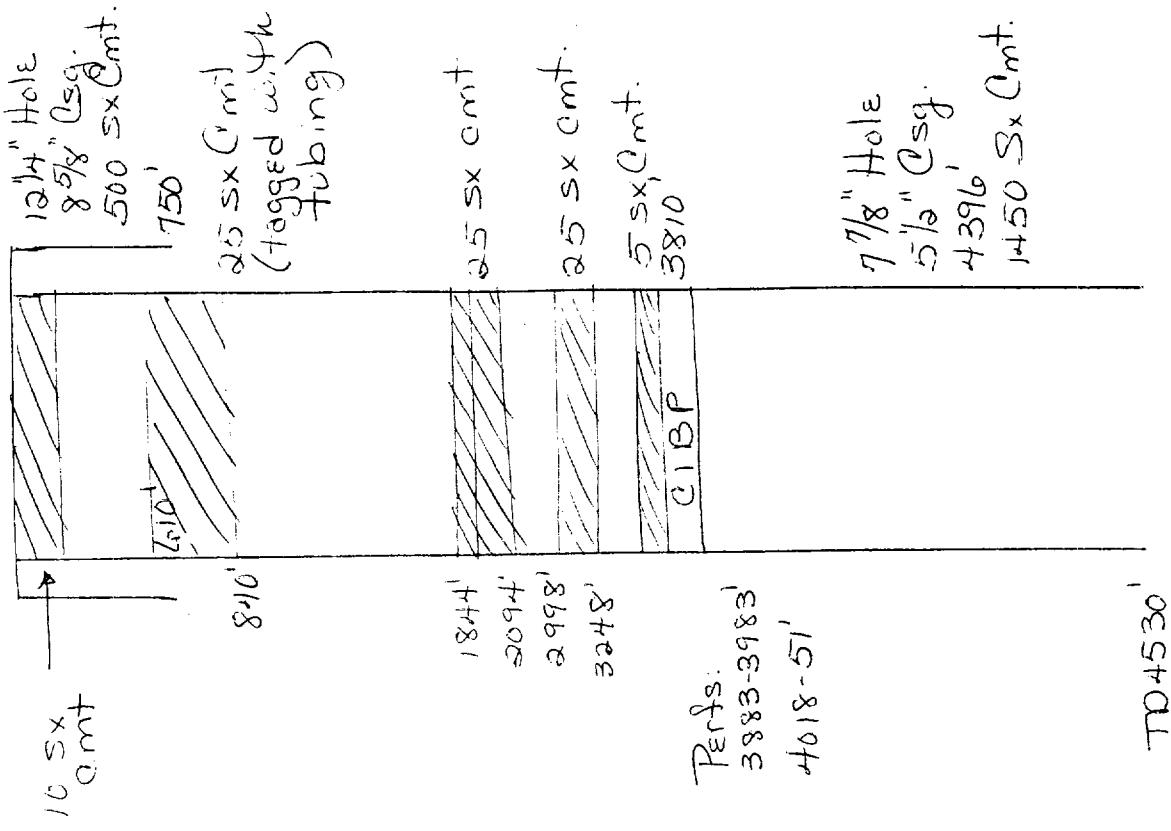
Lea "D" C-108 - HALF-MILE WELL DATA SHEET

NAME	OPERATOR	LOCATION	SFC	FSHP	RG	COMPL DATE	TP	TD	HOLE SIZE	CSG SIZE	DEPTH SET	SX CMI	PERFS	TBG PKR	COMMENTS	LEASE
SU #266	The Wiser Oil Co.	35' FNL, 33' FWL, Unit D	26	17S	31E	8-20-96	0	4100'	12 1/4" 778"	8 5/8" 5 1/2"	456' 4100'	325' 1050'	3521-3625' 3685-3760' 3848-51' 3899-3915'	2 7/8" (@ 3819'	BLM NM-98120	
Lea D#22	The Wiser Oil Co.	1330' FNL, 2615' FWL, Unit F	26	17S	31E	Pending	0								Drilling Pending	BLM NM-98120
Lea D#23	The Wiser Oil Co.	1330' FNL, 1330' FWL, Unit F	26	17S	31E	Pending	0								Drilling Pending	BLM LC-029418-B
Lea "D" #11	The Wiser Oil Co.	2395' FNL, 1339' FEL, Unit G	26	17S	31E	Pending	0								Drilling	BLM LC-029418-B
Lea D#9	Texaco Exploration and Prod. Inc.	1980' FSL, 1980' FWL, Unit K	26	17S	31E	3-16-75	0	4100'	11"	8 5/8" 5 1/2"	616' 4100'	375	3903-3993'	2 7/8" (@ 3921'	P&A 12-4-90 (See Attached)	BLM LC- 029418-B
SU #84	The Wiser Oil Co.	660' TNL, 660' FEL, Unit A	27	17S	31E	7-1-66	0	3920'	10" 8"	8 5/8" 5 1/2"	778' 3708'	100	3426-3688'	2 3/8" (@ 3737'	Estimated TOC 1953 Converted to WIW 3-20-97	BLM NM-98121
SU #133	The Wiser Oil Co.	760' FNL, 660' FEL, Unit A	27	17S	31E	12-21-77	0	2700'	11"	8 5/8" 5 1/2"	690' 2700'	275	2422-2502'	2 3/8" (@ 2538'	BLM NM-98121	
SU #265	The Wiser Oil Co.	158' FNL, 1438' FEL, Unit B	27	17S	31E	1-21-97	0	3950'	12 1/4" 778"	8 5/8" 5 1/2"	443' 3950'	325	3540-3668'	2 7/8" (@ 3861'	BLM NM-98121	
SU #278	The Wiser Oil Co.	1310' FNL, 1330' FEL, Unit B	27	17S	31E	3-4-97	0	4100'	12 1/4" 778"	8 5/8" 5 1/2"	431' 4100'	325	3820-25'	2 7/8" (@ 3661'	BLM NM-98121	
SU #97	The Wiser Oil Co.	1980' FNL, 1980' FEL, Unit G	27	17S	31E	9-8-60	0	3945'	10" 8"	8 5/8" 5 1/2"	880' 3812'	125	3429-3787'	2" @ 3812'	Estimated TOC 2009 TA Pending Conversion to WIW	BLM NM-98121
Lynch B#1	Texaco Exploration and Prod. Inc.	1980' FNL, 660' FEL, Unit H	27	17S	31E	1-5-43	0	4377'	- 8" (Est.)	8 5/8" 7"	758' 3330'	200			Estimated TOC 1167'	BLM NM-98121
Saunders Ed #1	Robert B. Whitehead	660' FNL, 660' FEL, Unit A	35	17S	31E	9-6-57	P&A	4005'						Dry Hole	BLM LC-029419-B	
Phoenix State #1	Santa Rita Exploration Corp.	330' FNL, 990' FWL, Unit D	36	17S	31E	1-3-85	P&A	4530'	12 1/4" 778"	8 5/8" 5 1/2"	750' 4396'	500	3883-3983'	2 3/8" (@ 3965'	Dry Hole P&A 4-2-85	V-409

Saunders Fed. #1
P+A 9-6-57



Phoenix State #1
P+A 4-2-85



C-108
APPLICATION FOR AUTHORIZATION TO INJECT
LEA "D" LEASE

VII. PROPOSED OPERATION

1. Average Daily Rate of Fluids to be Injected: 250 BWPD
Maximum Daily Rate of Fluids to be Injected: 500 BWPD

2. This is to be a closed injection system.

3. Average Injection Pressure: 2000 psi
Maximum Injection Pressure; 2100 psi

4. Injection fluid will be obtained from the following sources:

Produced water: Water Analysis Reports on water produced from the Caprock Maljamar Unit are attached as Exhibit VII-A. The data contained therein is representative of water produced across the entire Lea "D" Lease.

Extraneous Water: A Water Analysis Report on extraneous water being obtained from Conoco, as prepared by Capitan Chemicals, is attached as Exhibit VII-B.

Permian Treating Chemicals

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Wiser Oil Co.
 Lease : CMU Battery 'B'
 Well No. : Water Transfer Pump
 Salesman:

Sample Loc. :
 Date Reported: 30-May-1996
 Date Sampled : 30-May-1996

ANALYSIS

1. pH 6.500
 2. Specific Gravity 60/60 F. 1.091
 3. CaCO₃ Saturation Index @ 80 F: +0.095
 @ 140 F: +0.975

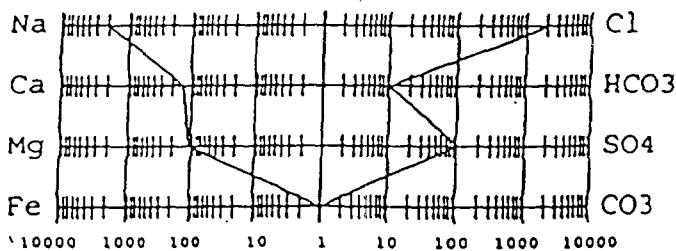
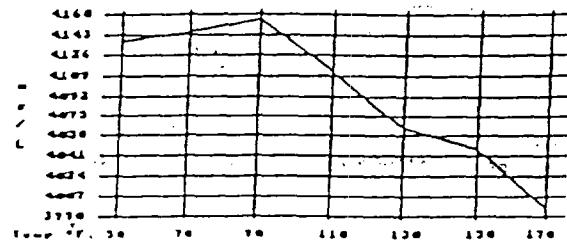
<u>Dissolved Gasses</u>		<u>MG/L</u>	<u>EQ. WT.</u>	<u>*MEQ/L</u>
4. Hydrogen Sulfide		60		
5. Carbon Dioxide		150		
6. Dissolved Oxygen		0.6		

Cations

7. Calcium	{Ca ⁺⁺ }	2,605	/ 20.1 =	129.60
8. Magnesium	{Mg ⁺⁺ }	1,276	/ 12.2 =	104.59
9. Sodium	{Na ⁺ }	(Calculated) 45,740	/ 23.0 =	1,988.70
10. Barium	{Ba ⁺⁺ }	Not Determined		

Anions

11. Hydroxyl	{OH ⁻ }	0	/ 17.0 =	0.00
12. Carbonate	{CO ₃ ⁼ }	0	/ 30.0 =	0.00
13. Bicarbonate	{HCO ₃ ⁻ }	586	/ 61.1 =	9.59
14. Sulfate	{SO ₄ ⁼ }	4,800	/ 48.8 =	98.36
15. Chloride	{Cl ⁻ }	74,983	/ 35.5 =	2,112.20
16. Total Dissolved Solids		129,990		
17. Total Iron (Fe)		2	/ 18.2 =	0.08
18. Total Hardness As CaCO ₃		11,760		
19. Resistivity @ 75 F. (Calculated)		0.059 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.Calcium Sulfate Solubility Profile

<u>COMPOUND</u>	<u>EQ. WT.</u>	<u>X</u>	<u>*meq/L</u>	<u>= mg/L</u>
Ca(HCO ₃) ₂	81.04	9.59	77	
CaSO ₄	68.07	98.36	6,69	
CaCl ₂	55.50	21.65	1,20	
Mg(HCO ₃) ₂	73.17	0.00		
MgSO ₄	60.19	0.00		
MgCL ₂	47.62	104.59	4,98	
NaHCO ₃	84.00	0.00		
NaSO ₄	71.03	0.00		
NaCl	58.46	1,985.96	116,09	

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis. The corrosivity is increased by the content of mineral salts, and the presence of H₂S, CO₂, Oxygen in solution.

Conoco Water

Exhibit VII-B

Capitan Chemicals

WATER ANALYSIS REPORT

SAMPLE

Oil Co.: The Wiser Oil Co.
 Lease: Ben Lindsey
 Well No.: Fresh Water
 Salesman:

Sample Loc.:
 Date Analyzed: 01-November-1995
 Date Sampled:

ANALYSES

1. pH 8.130
 2. Specific Gravity 60/60 F. 1.023
 3. CaCO₃ Saturation Index @ 60 F. +1.137
 @ 140 F. +1.737

Dissolved Gasses	MEQ/L	EQ. WT.	*MEQ/L
4. Hydrogen Sulfide	Not Present		
5. Carbon Dioxide	Not Determined		
6. Dissolved Oxygen	Not Determined		

Cations

7. Calcium (Ca ⁺⁺)	50	/ 20.1 =	2.49
8. Magnesium (Mg ⁺⁺)	33	/ 12.2 =	2.46
9. Sodium (Na ⁺) (Calculated)	192	/ 23.2 =	8.26
10. Barium (Ba ⁺⁺)	5	/ 68.7 =	0.37

Anions

11. Hydroxide (OH ⁻)	0	/ 17.0 =	0.00
12. Carbonate (CO ₃ ²⁻)	0	/ 32.0 =	0.00
13. Bicarbonate (HCO ₃ ⁻)	229	/ 61.1 =	3.75
14. Sulfate (SO ₄ ⁼)	48	/ 48.8 =	0.98
15. Chloride (Cl ⁻)	300	/ 35.5 =	8.45
16. Total Dissolved Solids	852		
17. Total Iron (Fe)	2	/ 18.2 =	0.08
18. Total Hardness As CaCO ₃	250		
19. Resistivity @ 75 F. (Calculated)	2.835 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.PROBABLE MINERAL COMPOSITION
COMPOUND EQ. WT. X *MEQ/L = MG/L.

Na	10000	1000	100	10	1	10000	1000	100	10	1
Ca	10000	1000	100	10	1	10000	1000	100	10	1
Mg	10000	1000	100	10	1	10000	1000	100	10	1
Fe	10000	1000	100	10	1	10000	1000	100	10	1
	10000	1000	100	10	1	10000	1000	100	10	1

Cl	Ca(HCO ₃) ₂	81.04	2.49	202
HCO ₃	CaSO ₄	68.07	0.00	0
SO ₄	CaCl ₂	55.53	0.00	0
CCl ₃	Mg(HCO ₃) ₂	73.17	1.26	92
MgSO ₄	MgSO ₄	60.19	0.91	55
MgCl ₂	MgCl ₂	47.62	0.00	0
NaHCO ₃	NaHCO ₃	84.03	0.00	0
NaSO ₄	NaSO ₄	71.03	0.00	0
NaCl	NaCl	58.46	8.16	477

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.
 The corrosivity is increased by the content of mineral salts in solution.

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
LEA "D" LEASE

VIII. GEOLOGICAL DATA

The proposed injection interval is in the Grayburg-San Andres Vacuum formations at an average depth of 3900 feet. The Grayburg formation primarily consists of quartz sands with dolomitic cementation; while the San Andres Vacuum formation primarily consists of dolomite with intermingled stringers of quartz sand with dolomitic cementation. The surface formation is Cretaceous and has no known sources of drinking water.

Attached, as Exhibits VIII-A and VIII-B, are two Type Logs illustrating typical geology, lithology, thickness, and depths. Although this is generally representative of the Lea "D" Lease, and wells have been drilled which have come in right on target as illustrated here, there is a tendency for Lea "D" Lease wells to come in anywhere from 200' shallower to an extreme of 1000' shallower than illustrated on these logs.

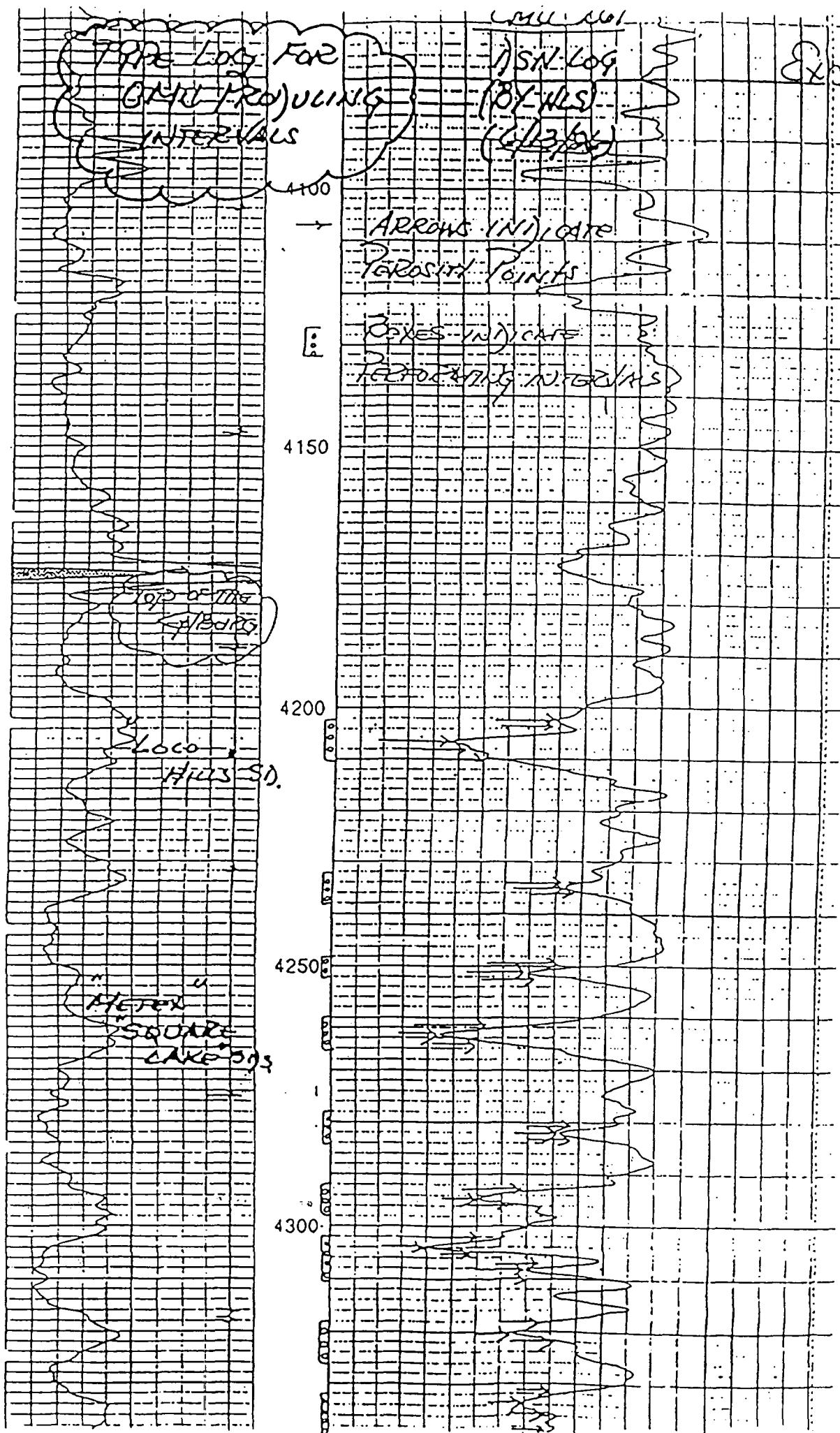
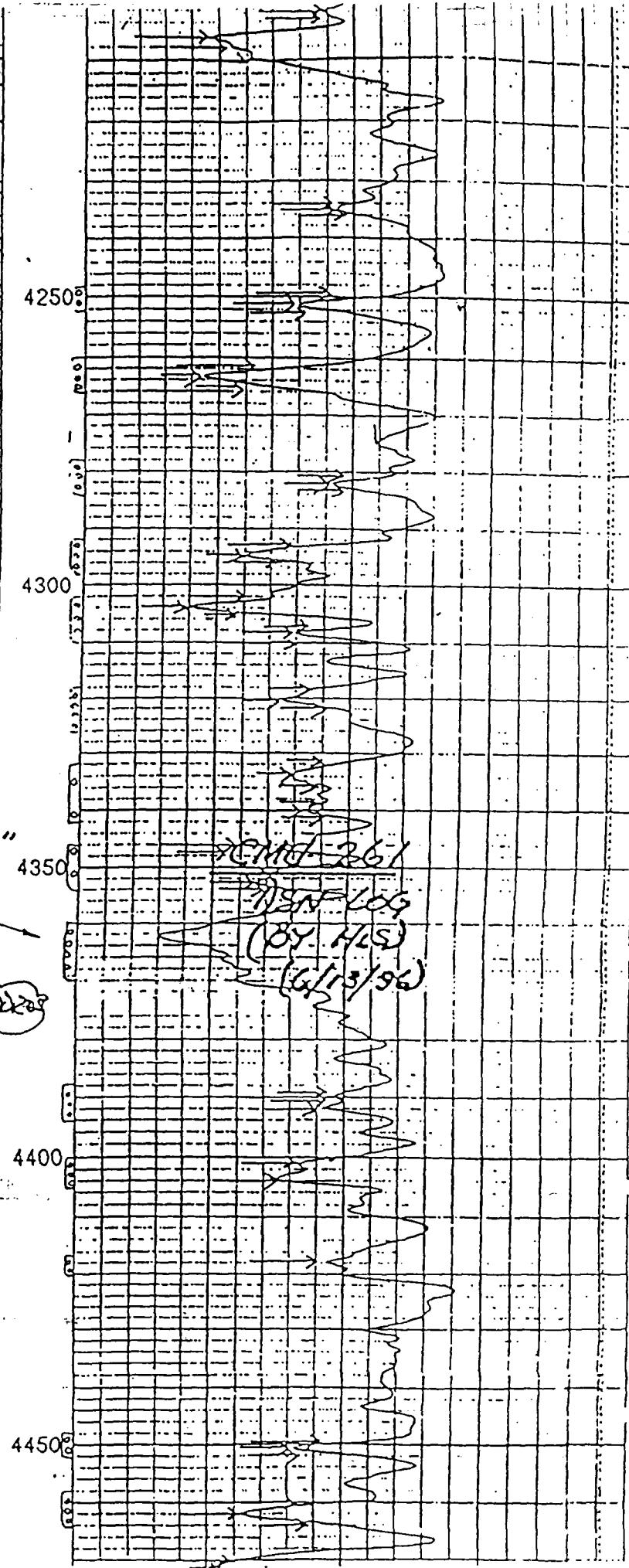
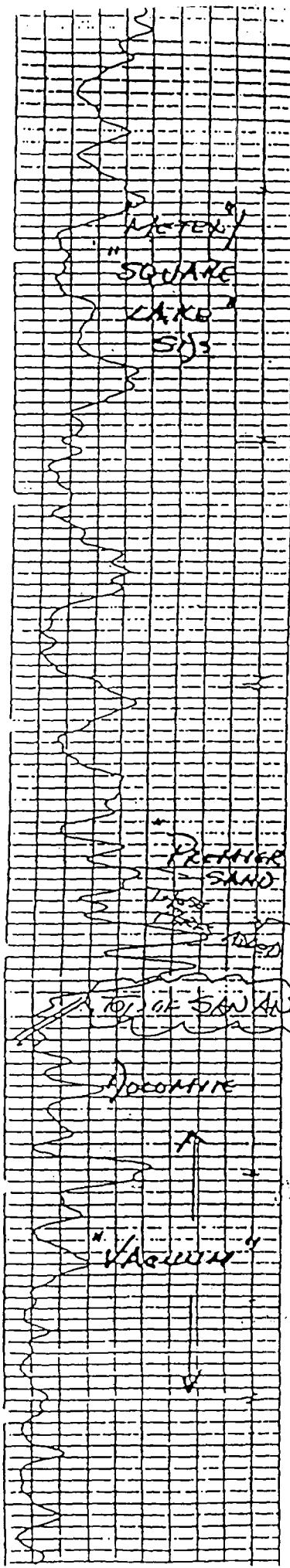
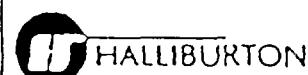
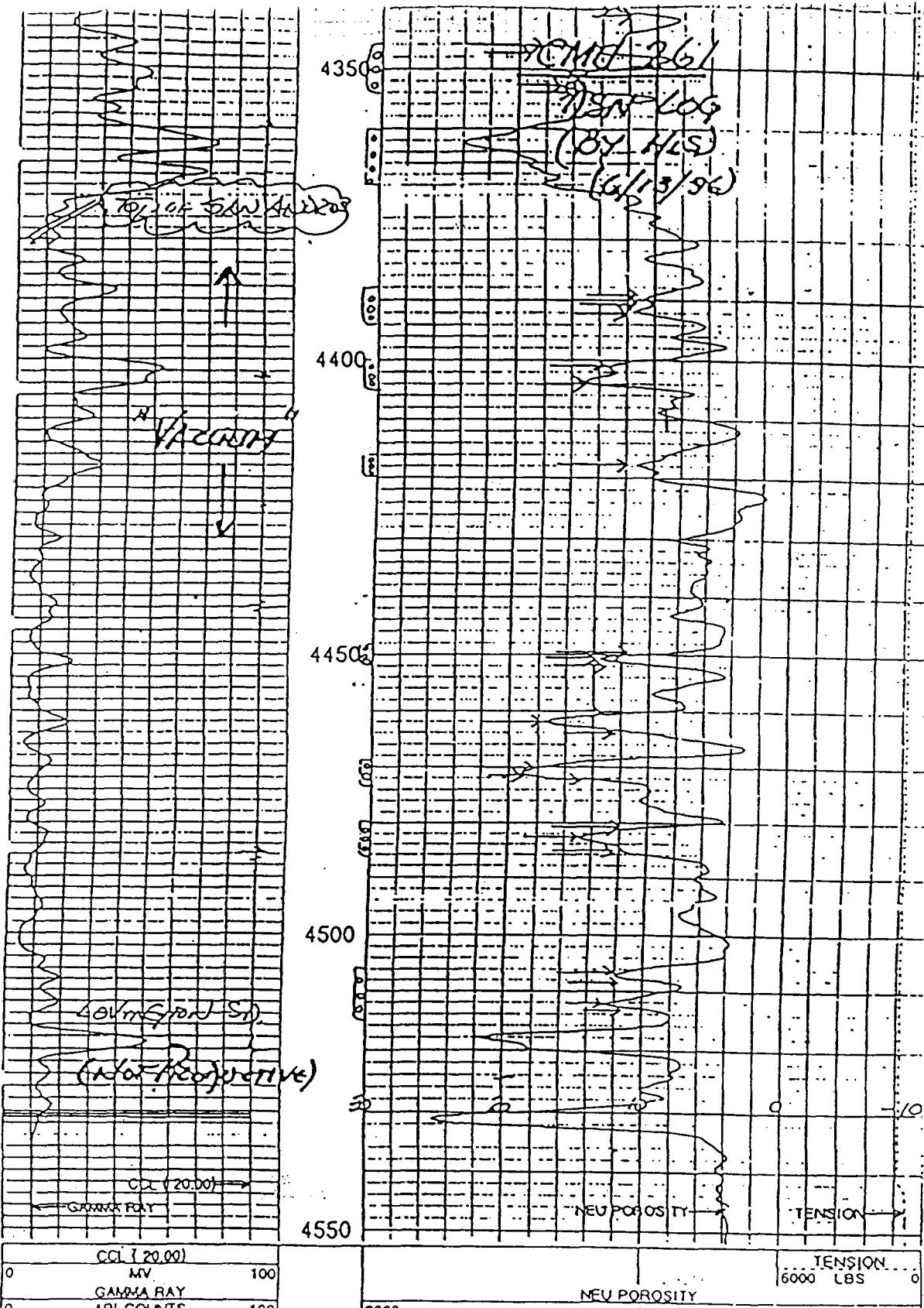


Exhibit
VIII-A





Version No. 2001 N20

Data File: 0413_1624_04111.d00

Control File: psl_01.lac

Plotter File: 0413_1624_04111.plot_01.l

Top Depth

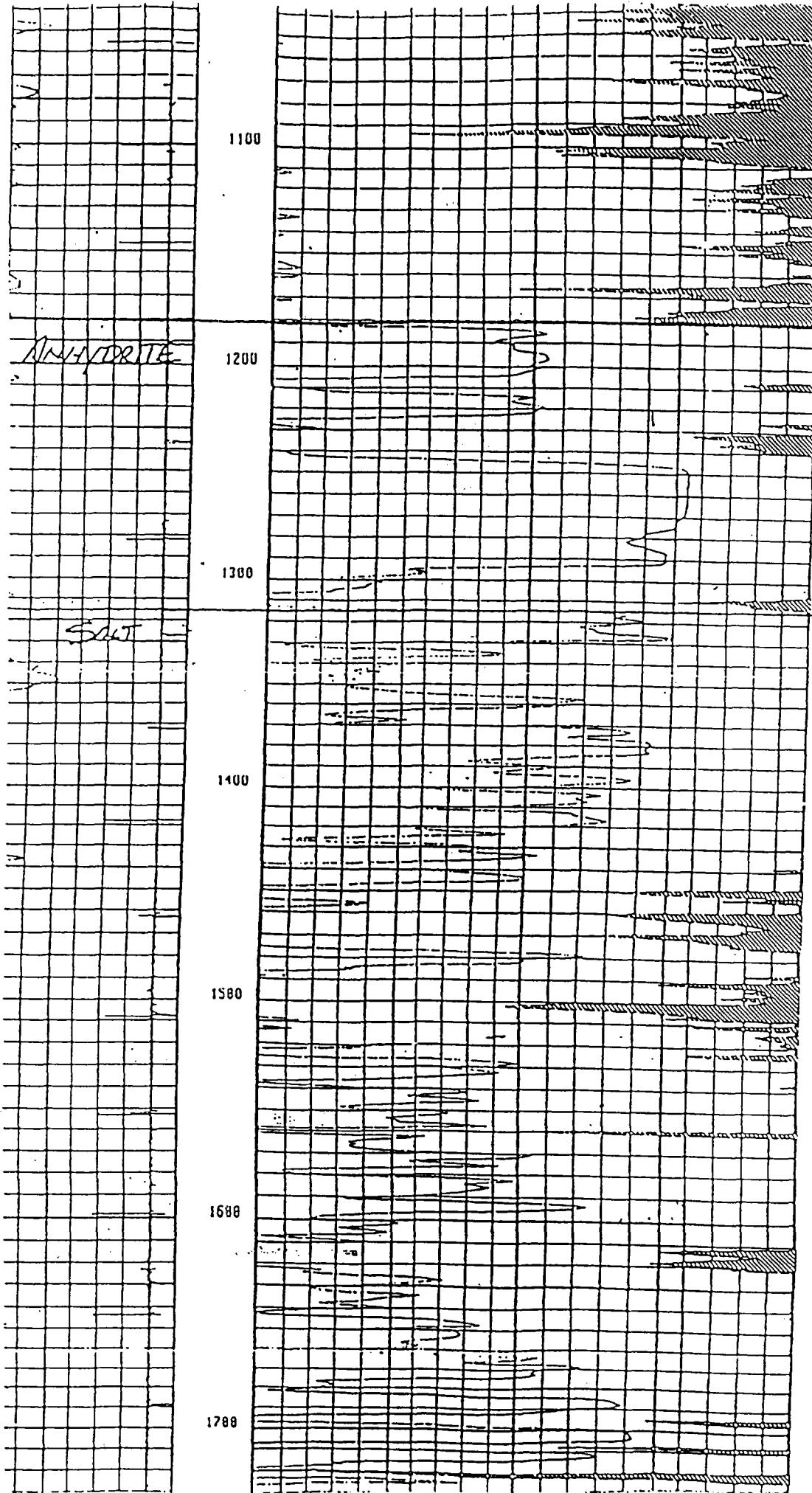
Bottom Depth 4551.75

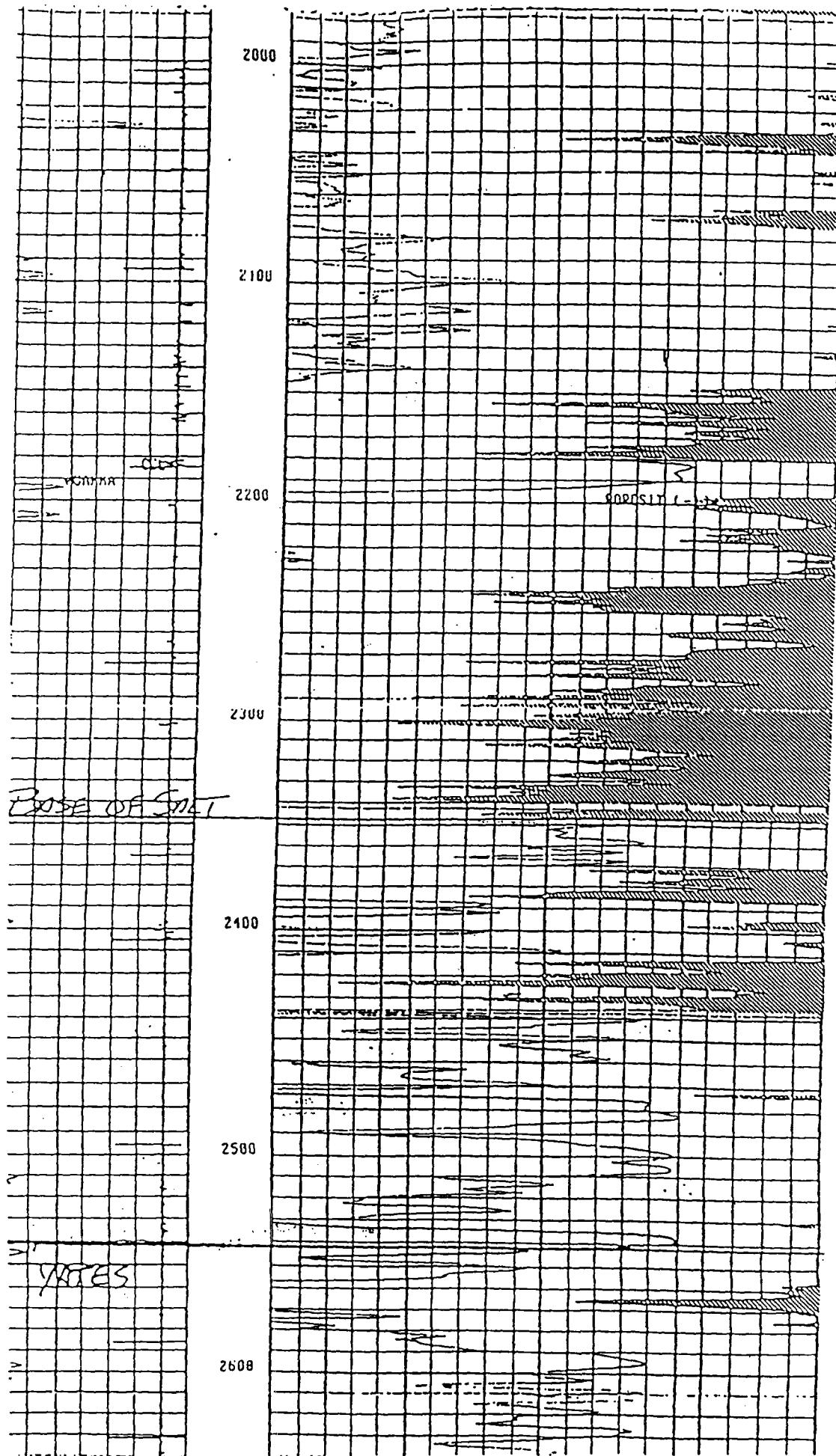
Download Time: 06-13-96 14:03:41

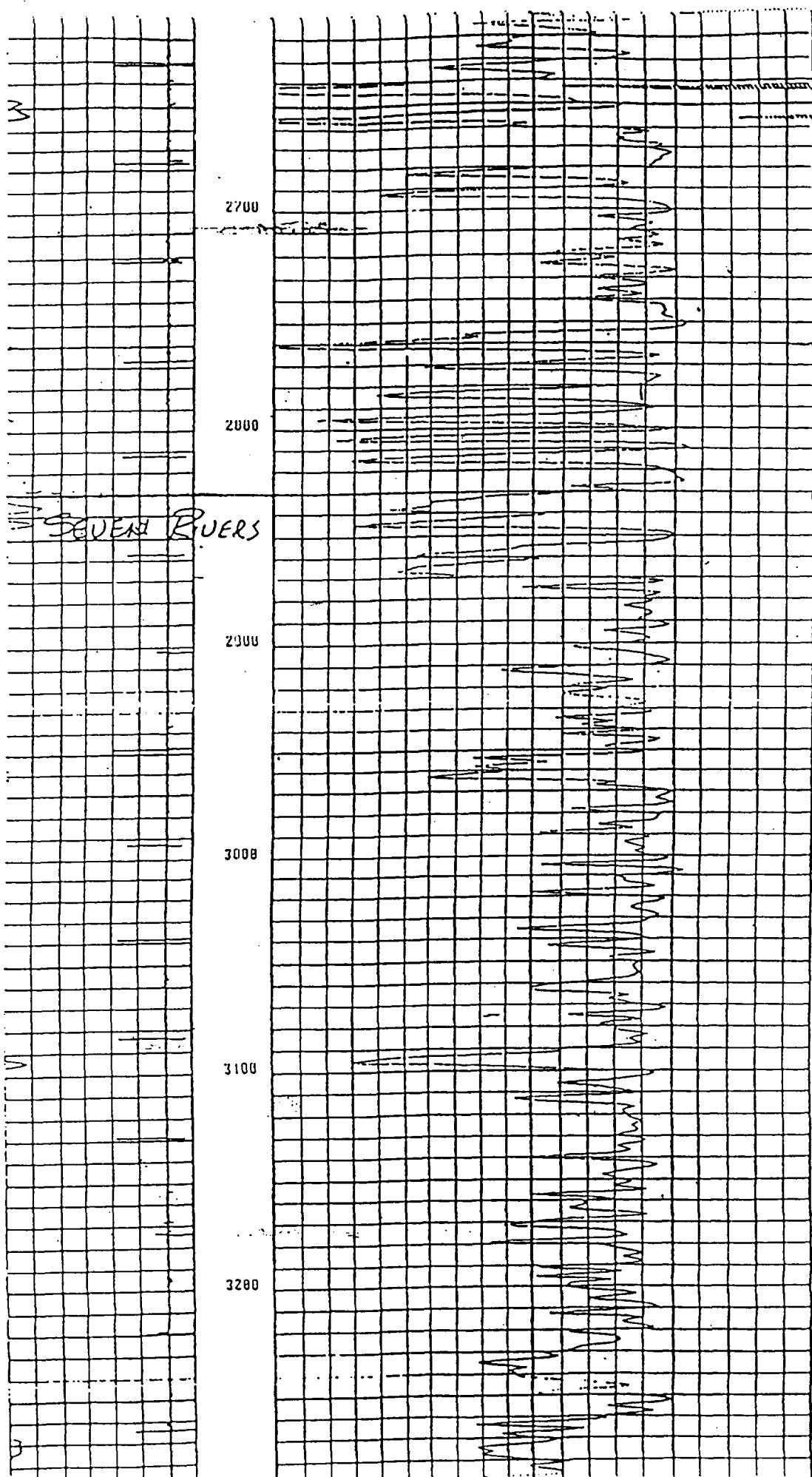
TYPE LOG FOR CMU Showing Exh.b.F.III-B FORMATION TOPS

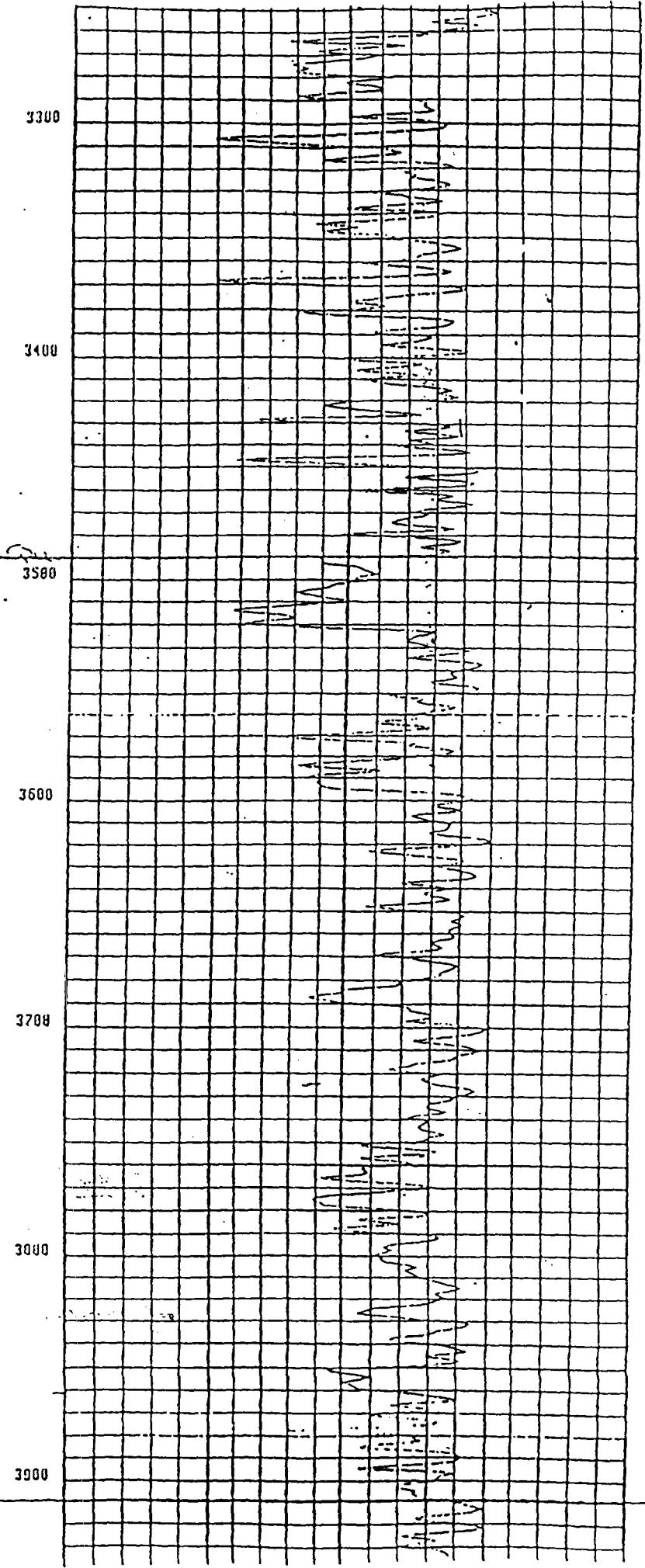
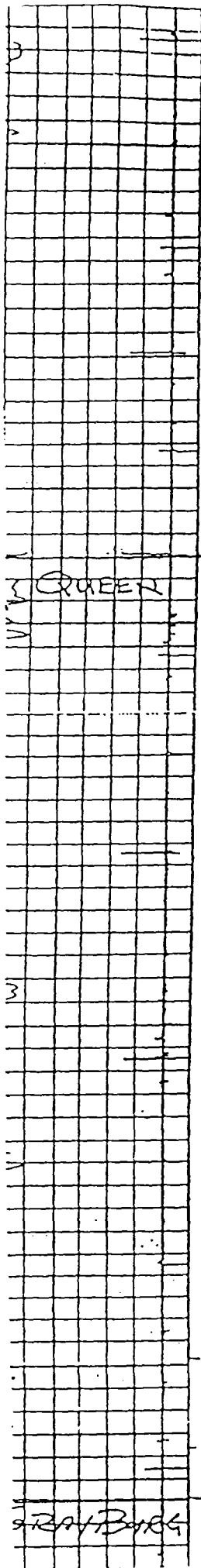
TYPE LOG

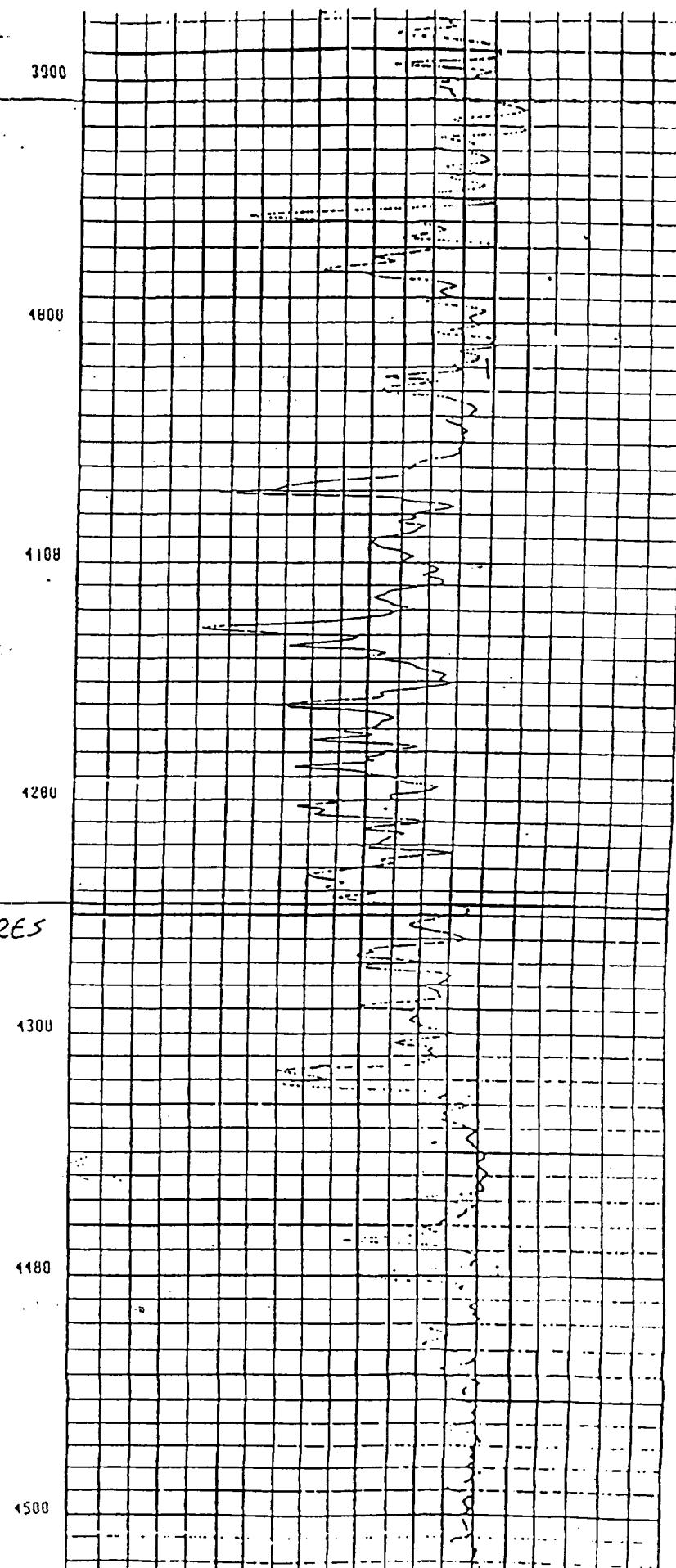
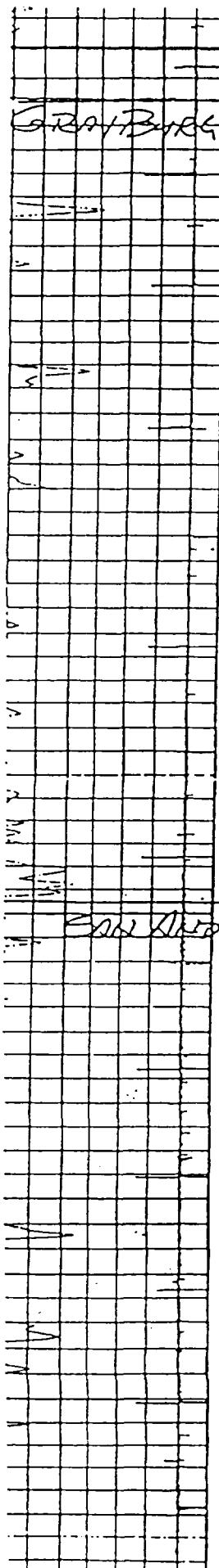
HALLIBURTON			GAMMA COLLAR DSN		
COMPANY	HISL & OIL COMPANY INC.				
WELL	CMU #150				
FIELD	SALJANAR GRAYBURG	SAN ANDRES			
COUNTY	LEA	STATE N.R.			
API NO.	32-025-32327	LOC-ER SERVICES			
LOCATION :	48°FSL & 152° FUL				
UNIT LETTER	R				
SEC. 18	TUP. 17-S	RCZ. 33-E			
PERMANENT DATUM	SL	ELEV. 4137'	ELEV. 4138'		
LOG MEASURED FROM	K3	22.0 FT. ABOVE PERM. DATUM	0.0		
LOGGING MEAS FROM	K3	G.L. 4137'			
DATE & TIME LOGGED	12/08/95 2:08:00	TYPE OF FLUID IN HOLE	WATER		
RUN NO.	342	DEPTH OF FLUID	44		
DEPTH - DRILLER	4850	FLUID LEVEL	FUL.		
DEPTH - LOGGER	4788	CEMENT TGT EST/LOGGED	4		
BTA LOGGED INTERVAL	4787	EQUIPMENT & LOCATION	7634 - 0558		
TOP LOGGED INTERVAL	SURF	RECORDED BY	KILL		
MAX RECORDED TEMP.	NA	WITNESSED BY	MR. G. NEUTSA		
CEMENTING DATA	SURF. STRING	INT. STRING	PROD. STRING		
DATE/TIME CEMENTED	/	/	/		
PRIMARY/SQUEEZE					
COMPRESSIVE STZ.					
EXPECTED E :	: Hrs	: Hrs	: -		
CEMENT VOLUME					
CEMENT TYPE/WEIGHT					
MUD TYPE/MUD WGT.					
FORMULATION					
BOREHOLE RECORD			CASING AND TUBING RECORD		
No.	BIT SZ.	FROM	TO	SIZE	WT.
ONE				8.625	NA
TWO	7.675	1280	4850	5.5	17.0











C-108
APPLICATION FOR AUTHORIZATION TO INJECT
LEA "D" LEASE

IX. PROPOSED STIMULATION PROGRAM

Acid breakdown jobs will be done if new perforations are added. When treating old perforations, acid "wash" treatment will be done to remove scales and flow-back solids at formation face.

X. LOGGING DATA

The available logs are those on file with the Oil Conservation Division from the original operators of the wells.

XI. FRESH WATER WELLS

There are no fresh water wells in the area as recorded in the office of the State Engineer. There is one dry-hole which was drilled to the southwest of the Lea "D" Lease in Section 34 to a depth of 362', but it produced no water.

XII. Not applicable
C-108

XIII. PROOF OF NOTICE

Copies of this C-108 Application have been mailed to the surface owners and to each leasehold operator within one-half mile of the proposed injection wells as shown on Exhibit XIII-A. An Affidavit of such notice is attached as Exhibit XIII-B. Copies of the certified receipts will be furnished upon request. The notice attached as Exhibit XIII-C is being published in the Hobbs Daily News-Sun. An Affidavit of Publication will be forwarded as soon as available.

EXHIBIT XIII-A

Surface Owners:

Bureau of Land Management
Roswell District Office
2901 W. Second St.
Roswell, NM 88201

Offset Leasehold Owners & Well Operators:

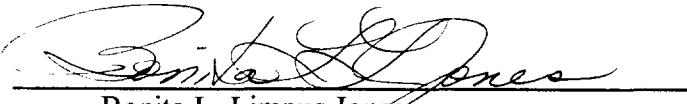
Ms. Mary H. Ard 1440 Interfirst Tower Fort Worth, TX 76102	Mr. Francis H. Bowden Address Unknown	Mr. William A. Hudson III 616 Texas Street Fort Worth, Texas 76102
Mr. Delmar E. Hudson 616 Texas Street Fort Worth, Texas 76102	Mr. William A. Hudson II 616 Texas Street Fort Worth, Texas 76102	Ms. Francis Hill Hudson Stripling 616 Texas Street Fort Worth, Texas 76102
Javelina Partners 616 Texas Street Fort Worth, Texas 76102	Ms. Mary Terrell Hudson 4808 Westridge Avenue Fort Worth, Texas 76116	Edward R. Hudson Trust 4808 Westridge Avenue Fort Worth, Texas 76116
Mr. Jewell D. Iverson 3131 S. Lewis Street Tulsa, OK 74145	Mr. Delmar H. Lewis 6300 Ridglea Place, Suite 1005A Fort Worth, Texas 76116	Lindys' Living Trust 6300 Ridglea Place, Suite 1005A Fort Worth, Texas 76116
Dorothy C. Monroe Estate 2417 E. Skelly Drive Tulsa, Oklahoma 74105	Quality Production Corporation P. O. Box 250 Hobbs, New Mexico 88241	Iverson III Inc. 3454 S. Zunis Tulsa, Oklahoma 74015
Mesrs. Peter C. & Alvin Iverson, Independent Executors of the Estate of Dorothy Iverson c/o Iverson III Inc. 3454 S. Zunis Tulsa, Oklahoma 74015	Mr. Donald B. Moore Moore & Shelton Company, Ltd. 1414 Sugar Creek Blvd. Sugar Land, Texas 77478	Texaco Expl. & Prod. Inc. 205 E. Bender Blvd. Hobbs, New Mexico 88240-2331
S. J. Iverson Trust c/o NationsBank, Trustee u/w of acct. 01/0258100 P. O. Box 830308 Dallas, Texas 75283-0308	Marjorie Iverson Trust c/o NationsBank, Trustee u/w of acct. 01/0258100 P. O. Box 830308 Dallas, Texas 75283-0308	PAI Inc. P. O. Box 664 Huntington Beach, CA 92648

EXHIBIT XIII-B

AFFIDAVIT OF MAILING
Application for Authorization to Inject - Form C-108
Lea "D" Waterflood Project

STATE OF NEW MEXICO |
COUNTY OF CHAVES | SS.

I, Bonita L. Limpus Jones, do solemnly swear that a copy of this Application has been mailed by certified mail, to each of the interested parties listed on Exhibit XIII-A.



Bonita L. Limpus Jones
Consulting Landman with J. O. Easley, Inc.
on behalf of The Wiser Oil Company

SWORN AND SUBSCRIBED TO before me this 14th day of August, 1997.

My Commibson Expires:

December 18, 1999



Anna Chavez
Notary Public

EXHIBIT XIII-C

NOTICE TO BE PUBLISHED IN THE HOBBS DAILY NEWS-SUN ON FRIDAY, AUGUST 15, 1997

PROPOSED INJECTION WELLS

The Wiser Oil Company proposes to expand the Lea "D" Waterflood Project by injecting water into 8 additional wells in Section 26, T17S-R31E, Eddy County, New Mexico, to provide additional injection service for the existing Lea "D" Waterflood Project, Order No. R-3952. The zones to be injected into are the Grayburg and San Andres Vacuum at an average depth of 3900' with a maximum injection rate of 500 BWPD/well at a maximum pressure of 2100 psi. Any interested parties with objection or request for hearing should notify the Oil Conservation Division at P. O. Box 2088, Santa Fe, New Mexico 87501, within 15 days of this notice. Any questions should be directed to Mike Jones with The Wiser Oil Company, at P. O. Box 2568, Hobbs, New Mexico 88241, 505-392-9797.

WFX-723



J.O. EASLEY INC.
ESTABLISHED 1979

P.O. Box 245 88211-0245
119 South Roselawn, Suite 302
Artesia, New Mexico 88210

September 10, 1997

Telephone (505) 746-1070
Fax (505) 746-1073

Mr. David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RECEIVED

SEP 12 1997

NEW MEXICO DIVISION

Re: C-108
Lea "D" Waterflood Project &
Skelly Waterflood Unit
Eddy County, New Mexico

Dear Mr. Catanach:

Enclosed are the Affidavits of Publication for notice of the C-108s for additional water injection wells within the Lea "D" Waterflood Project and the Skelly Waterflood Unit which were filed with your office on August 14, 1997.

Sincerely,

J. O. EASLEY, INC.

Bonita L. Limpus Jones
Bonita L. Limpus Jones

Consulting Landman

/bj

Enclosures

cc/enclosure Mr. Tim W. Gum
New Mexico Oil Conservation Division
811 South 1st Street
Artesia, New Mexico 88210

Mr. Matt Eagleston
The Wiser Oil Company
8115 Preston Road, Suite 400
Dallas, Texas 75225

Mr. Mike Jones
The Wiser Oil Company
P. O. Box 2568
Hobbs, New Mexico 88241

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 1

 weeks

Beginning with the issue dated

August 15 1997

and ending with the issue dated

August 15 1997

Kathi Bearden

Publisher

Sworn and subscribed to before

me this 15th day of

August 1997

Jodi Benson

Notary Public.

My Commission expires
October 18, 2000
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE

August 15, 1997

PROPOSED INJECTION WELLS

The Wiser Oil Company proposes to expand the Lea "D" Waterflood Project by injecting water into 8 additional wells in Section 26, T17S-R31E, Eddy County, New Mexico, to provide additional injection service for the existing Lea "D" Waterflood Project, Order No. R-3952. The zones to be injected into are the Grayburg and San Andres Vacuum at an average depth of 3900' with a maximum injection rate of 500 BWPD/well at a maximum pressure of 2100 psi. Any interested parties with objection or request for hearing should notify the Oil Conservation Division at P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days of this notice. Any questions should be directed to Mike Jones with The Wiser Oil Company, at P.O. Box 2568, Hobbs, New Mexico 88241, 505-392-9797.

PROPOSED INJECTION WELLS

The Wiser Oil Company proposes to expand its Skelly Unit and inject water into 2 additional wells: 1 well in Section 15 and 1 well in Section 28, both within T17S-R31E, Eddy County, New Mexico, to provide additional injection service for the existing Skelly Unit Waterflood, Order No. R-3214. The well in Section 15 is to inject into the Grayburg-San Andres Vacuum zone at an average depth of 3900' and the well in Section 28 will be dually completed to inject into the Grayburg-San Andres Vacuum as well as the Fren Seven Rivers Queen at an average depth of 2650'. The maximum injection rate will be 500 BWPD/well with a maximum pressure of 2100 psi. Any interested parties with objection or request for hearing should notify the Oil Conservation Division at P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days of this notice. Any questions should be directed to Mike Jones with The Wiser Oil Company, at P.O. Box 2568, Hobbs, New Mexico 88241, 505-392-9797.

#15364

01102251000 01510154
Consulting Landman
705 W. Mescalero Rd.
a/c 434005
Roswell, NM 88201