



# J.O. EASLEY, INC.

ESTABLISHED 1979

P.O. Box 1796 88202-1796  
400 N. Pennsylvania, Suite 990-D  
Roswell, NM 88201

Telephone (505) 623-3758  
Fax (505) 623-3797

October 15, 1996

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

Re: C-108  
Maljamar Grayburg Waterflood Unit  
Lea County, New Mexico

Dear Mr. Catanach:

Enclosed is the Affidavit of Publication for notice of the C-108 for additional water injection wells within the Maljamar Grayburg Waterflood Unit.

Sincerely,

J. O. EASLEY, INC.

Bonita L. Limpus Jones  
Consulting Landman

/bj

Enclosures

cc/enclosure Mr. Jerry Sexton  
New Mexico Oil Conservation Division  
P. O. Box 1980  
Hobbs, New Mexico 88241

Mr. Steve Gilbert  
The Wiser Oil Company  
8115 Preston Road, Suite 400  
Dallas, Texas 75225

Mr. Tom Cook  
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 \_\_\_\_\_

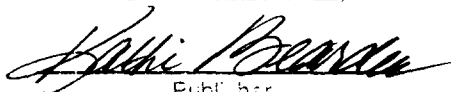
1 weeks.

Beginning with the issue dated

October 6, 1996

and ending with the issue dated

October 6, 1996

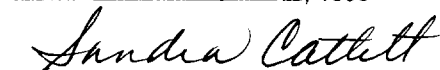


Publisher

Sworn and subscribed to before

me this 8 day of

October, 1996



Notary Public.

My Commission expires  
August 23, 1999

(Seal)

**LEGAL NOTICE**

**October 6, 1996**

**PROPOSED**

**INJECTION WELLS**

The Wiser Oil Company proposes to expand its Maljamar Grayburg Unit and inject water into 2 wells in Section 2, 6 wells in Section 3, 10 wells in Section 4, 1 well in Section 8, 10 wells in Section 14, and 2 wells in Section 15, all in T17S-R32E, Lea County, New Mexico, to provide injection service for the existing Maljamar Grayburg Unit Waterflood, Order No. R-1538. The zones to be injected into are of 500 BWPD/well at a maximum pressure of 2500 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 Tom Cook with the Wiser Oil Company, at P.O. Box 2568, Hobbs, New Mexico 88241, 505-392-9797.  
#14831

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.



# J.O. EASLEY INC.

ESTABLISHED 1979

P.O. Box 1796 88202-1796  
400 N. Pennsylvania, Suite 990-D  
Roswell, NM 88201

Telephone (505) 623-3758  
Fax (505) 623-3797

November 11, 1996

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

Re: C-108  
Maljamar Grayburg Waterflood Unit  
Lea County, New Mexico

Dear Mr. Catanach:

Enclosed is a copy of a letter we received from a surface owner within the Maljamar Grayburg Unit indicating our C-108, filed with your office on October 4, 1996, erroneously indicated there were no fresh water wells within a mile of the proposed water injection wells when, in fact, there are several.

You will, also, find enclosed copies of the water analysis performed on one of these fresh water wells; the one servicing the home of Mr. Ben Lindsey, which is the eastern-most well. The rest of the wells are along a draw coming down off the Caprock. The representative from Capitan Chemicals has made several attempts to obtain samples from these other wells but has yet to be successful as they are not running and the owners have been unavailable to help him. He will, however, continue his efforts to obtain samples from one or two of the subject wells.

Sincerely,

J. O. EASLEY, INC.

Bonita L. Limpus Jones  
Consulting Landman

/bj

Enclosures

cc/enclosure Mr. Jerry Sexton  
New Mexico Oil  
Conservation Division  
P. O. Box 1980  
Hobbs, NM 88241

Mr. Tom Cook  
The Wiser Oil Company  
P. O. Box 2568  
Hobbs, NM 88241

Mr. Steve Gilbert  
The Wiser Oil Company  
8115 Preston Rd., Suite 400  
Dallas, TX 75225

# Capitan Chemicals

## WATER ANALYSIS REPORT

### SAMPLE

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

Sample Loc. :  
 Date Analyzed: 01-November-1996  
 Date Sampled :

### ANALYSIS

1. pH 8.130
2. Specific Gravity 60/60 F. 1.003
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +1.137  
 @ 140 F. +1.737

Dissolved Gasses MG/L EQ. WT. \*MEQ/L

4. Hydrogen Sulfide Not Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

### Cations

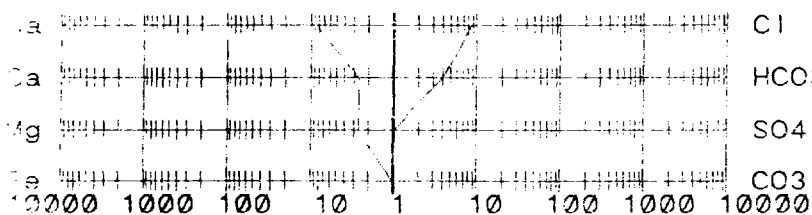
- |   |     |   |        |      |
|---|-----|---|--------|------|
| 7. Calcium (Ca <sup>++</sup> )            | 50  | / | 20.1 = | 2.49 |
| 8. Magnesium (Mg <sup>++</sup> )          | 30  | / | 12.2 = | 2.46 |
| 9. Sodium (Na <sup>+</sup> ) (Calculated) | 190 | / | 23.0 = | 8.26 |
| 10. Barium (Ba <sup>++</sup> )            | 5   | / | 68.7 = | 0.07 |

### Anions

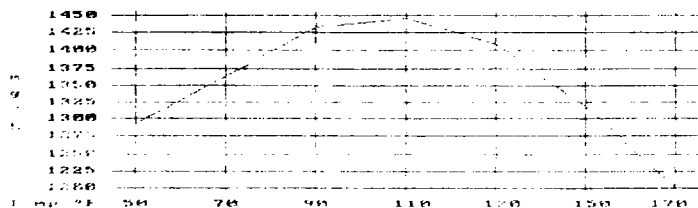
- |  |            |   |        |      |
|--|------------|---|--------|------|
| 11. Hydroxyl (OH <sup>-</sup> )                  | 0          | / | 17.0 = | 0.00 |
| 12. Carbonate (CO <sub>3</sub> <sup>=</sup> )    | 0          | / | 30.0 = | 0.00 |
| 13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ) | 229        | / | 61.1 = | 3.75 |
| 14. Sulfate (SO <sub>4</sub> <sup>=</sup> )      | 48         | / | 48.8 = | 0.98 |
| 15. Chloride (Cl <sup>-</sup> )                  | 300        | / | 35.5 = | 8.45 |
| 16. Total Dissolved Solids                       | 852        |   |        |      |
| 17. Total Iron (Fe)                              | 2          | / | 18.2 = | 0.08 |
| 18. Total Hardness As CaCO <sub>3</sub>          | 250        |   |        |      |
| 19. Resistivity @ 75 F. (Calculated)             | 2.835 /cm. |   |        |      |

### LOGARITHMIC WATER PATTERN

\*meq/L.



### Calcium Sulfate Solubility Profile



### PROBABLE MINERAL COMPOSITION

COMPOUND EQ. WT. X \*meq/L = mg/L.

Cl	Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	2.49	202
Ca	CaSO <sub>4</sub>	68.07	0.00	0
Mg	CaCl <sub>2</sub>	55.50	0.00	0
Fe	Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	1.26	92
CO3	MgSO <sub>4</sub>	60.19	0.91	55
	MgCl <sub>2</sub>	47.62	0.29	14
	NaHCO <sub>3</sub>	84.00	0.00	0
	NaSO <sub>4</sub>	71.03	0.00	0
	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.

# 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-1996  
 Date Sampled :

### ANALYSIS

1. pH 9.130
2. Specific Gravity 60/60 F. 1.003
3. CaCO<sub>3</sub> Saturation Index @ 90 F. +1.137  
 @ 140 F. +1.737

Dissolved Gasses MG/L EQ. WT. \*MEQ/L

4. Hydrogen Sulfide Not Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

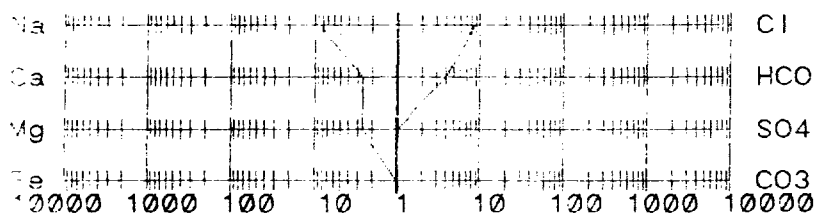
### Cations

7. Calcium (Ca <sup>++</sup> )	50	/	20.1 =	2.49
8. Magnesium (Mg <sup>++</sup> )	30	/	12.2 =	2.46
9. Sodium (Na <sup>+</sup> ) (Calculated)	190	/	23.0 =	8.26
10. Barium (Ba <sup>++</sup> )	5	/	68.7 =	0.07

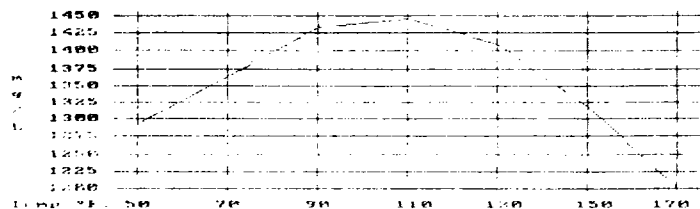
### Anions

11. Hydroxyl (OH <sup>-</sup> )	0	/	17.0 =	0.00
12. Carbonate (CO <sub>3</sub> <sup>=</sup> )	0	/	30.0 =	0.00
13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> )	229	/	61.1 =	3.75
14. Sulfate (SO <sub>4</sub> <sup>=</sup> )	48	/	48.8 =	0.98
15. Chloride (Cl <sup>-</sup> )	300	/	35.5 =	8.45
16. Total Dissolved Solids	852			
17. Total Iron (Fe)	2	/	18.2 =	0.08
18. Total Hardness As CaCO <sub>3</sub>	250			
19. Resistivity @ 75 F. (Calculated)	2.835	/cm.		

### LOGARITHMIC WATER PATTERN \*meq/L.



### Calcium Sulfate Solubility Profile



### PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \*meq/L = mg/L.

Cl	Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	2.49	202
HCO <sub>3</sub>	CaSO <sub>4</sub>	68.07	0.00	2
SO <sub>4</sub>	CaCl <sub>2</sub>	55.50	0.00	3
CO <sub>3</sub>	Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	1.26	92
	MgSO <sub>4</sub>	60.19	0.91	55
	MgCl <sub>2</sub>	47.62	0.29	14
	NaHCO <sub>3</sub>	84.00	0.00	?
	NaSO <sub>4</sub>	71.03	0.00	?
	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.