



00271131

RECEIVED

JUN 12 1975

## MERCURY CEMENTING, INC.

Phone 235-3355  
or 235-3350

P. O. Box 314

Kimball, Nebraska 69145

COLO. OIL &amp; GAS CONS. COMM.

No. 394

BILL TO: <i>BEAR DRILL CO RIG #2</i>				WELL OWNER <i>FRANK WALSH</i>			
INVOICE TO: <i>SAME</i>				WELL NO. <i>4</i>		LEASE <i>WALTERS</i>	
CITY				FIELD		COUNTY <i>LOGAN</i>	
STATE				STATE <i>COLORADO</i>			
Material and Service Description				Amt. or Time	Rate	Price	
Type of Job	Surface	Production	Plug				
Size <i>PTA</i>					<i>295.00</i>	<i>295.00</i>	
Depth	Ft.	to	Top of Surface				
Bottom of Surface	Ft.	to	to				
Type of Cement	Neat <i>100%</i>	Poz Mix %	Total Sax	<i>6.05K</i>	<i>NL</i>	<i>NL</i>	
Calcium Chloride	Sax %	% Gel					
Remarks: <i>#1 PLUG - 100FT PLUG</i>				Handling Charge			
<i>W/35SK REG &amp; ACTORS T-SAND</i>				Hauling Charge			
<i>PLUG #2 - 15SK REG - 30'</i>				Add'l Pump Charge			
<i>PLUG BQS. 10SK MARKER PLUG</i>				Mileage			
Plug Landed @	Ft.	Time <i>1030</i>	Date	<i>6.5</i>	<i>.85</i>	<i>NL</i>	
Pipe Landed @	Ft.	<i>A.M.</i>	<i>P.M.</i>	<i>4-20-75</i>			

We do not assume any responsibility for any damage or conditions resulting from our services. All pricing is subject to review and revision.

Delivered by *Maidlow, Krupski, CHITON*

Received by

*John Egan*  
Agent of owner or contractor*file*



# Proof of Publication

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APR 28 1992

STATE OF COLORADO, } ss.  
County of Logan.

W H Muldoon, III, being duly sworn, deposes and says:

1. That he is the Publisher of The Sterling Journal-Advocate, a daily newspaper printed and published in the City of Sterling, County of Logan, and State of Colorado.

2. That the said The Sterling Journal-Advocate is printed and published daily, except Sundays and legal holidays, and that it has a general circulation in the City of Sterling, and County of Logan, and elsewhere.

3. That the said The Sterling Journal-Advocate was established, and has been printed and published in said County, uninterruptedly and continuously, during a period of at least Fifty-two Weeks next prior to the first issue thereof, containing said

## Notice of Proposed Designation/'J' Sand Formation

GIVE TITLE OF NOTICE OR ADVERTISEMENT

a copy of which is hereunto attached.

4. That the said The Sterling Journal-Advocate is a daily newspaper of general circulation, and that the said daily newspaper is printed and published in whole or in part in said County of Logan, in which said

## Notice

GIVE TITLE OF NOTICE OR ADVERTISEMENT

is required by law to be published.

5. That the said The Sterling Journal-Advocate has been admitted to the United States Mails as second class matter under the provisions of the Act of March 3, 1879, or any amendments thereof, and that said newspaper is a daily newspaper duly qualified for publishing legal notices and advertisements within the meaning of an Act of the General Assembly of the State of Colorado, approved March 5, 1935, being Chapter 156 of the Session Laws of Colorado, 1935, entitled: "An Act relating to legal notices and advertisements," and amending Section 1, Chapter 113 Session Laws of Colorado, 1931.

6. That the said annexed

## Notice

GIVE TITLE OF NOTICE OR ADVERTISEMENT

was published in the regular and entire editions of The Sterling Journal-Advocate, a duly qualified daily newspaper for that purpose, within the terms of the above named Acts.

7. That the said annexed

## Notice

GIVE TITLE OF NOTICE OR ADVERTISEMENT

is a true copy of the original which was regularly published in each of the regular and entire issues of said daily newspaper, a legally qualified paper for that purpose, ~~once each week, on the same day of each week,~~

for ~~successive weeks~~ by One insertions and that the

first publication thereof was in the issue dated April 27 19 92

and the last publication was in the issue dated 19 92

Publisher.

Subscribed and sworn to

before me this 27th day of April 19 92

GAIL E. WAGNER  
Notary Public  
State of Colorado

My Commission Expires January 28, 1995

OIL AND GAS  
CONSERVATION  
COMMISSION OF THE  
STATE OF COLORADO  
NOTICE OF PROPOSED  
DESIGNATION OF THE  
"J" SAND FORMATION  
AS AN EXEMPT AQUIFER  
TO ALL INTERESTED PER-  
SONS AND TO WHOM IT  
MAY CONCERN:

Walsh Production, Inc., has filed an application for approval to inject water produced from the "J" Sand Formation in the Emerald Field, into the "J" Sand Formation in the Emerald Unit. Initial injection will be into the Emerald Unit 4-35, located 2080 feet from the South line and 1913 feet from the West line of Section 35, Township 9 North, Range 54 West, 6th P.M., Logan County, Colorado.

The "J" Sand Formation is found at a depth of 5217 feet to 5285 feet in the Emerald Unit 4-35. The "J" Sand Formation water quality was determined from analysis and contains 6396 milligrams per liter total dissolved solids.

Based on the data supplied by Walsh Production, Inc., the "J" Sand Formation would qualify as an exempt aquifer under this Commission's Rule No. 324B in that:

1. it does not currently serve as a source of drinking water; and
2. it cannot now and will not in the future serve as a source of drinking water because:
  - (a) it is hydrocarbon producing;
  - (b) it is situated at a depth or location which makes recovery of water for drinking purposes economically or technologically impractical;
3. the total dissolved solids content of the ground water is more than 3,000 and less than 10,000 milligrams per liter and it is not reasonably expected to supply a public water system.

Such exemptions should extend to and include the "J" Sand Formation in the S1/2 SW1/4, NW1/4 SW1/4, SW1/4 NW1/4, and SW1/4 SE1/4 of Section 26, SE1/4, SW1/4, SE1/4 NW1/4, and S1/2 NE1/4 of Section 27, NE1/4, NW1/4, SE1/4, and E1/2 SW1/4 of Section 34, NW1/4, SW1/4, W1/2 SE1/4, and W1/2 NE1/4 of Section 35, Township 9 North, Range 54 West 6th P.M., Logan County, Colorado.

Any person who would be aggrieved or adversely affected by the designation may request the Commission to hold a hearing thereon.

If, within 30-days after publication of this notice, the Commission does not receive a hearing request which indicates there is not a significant degree of public interest in a hearing on the designation of the aquifer, the "J" Sand Formation in the area described herein shall be considered exempt.

If a significant degree of public interest in a hearing is shown, the Commission shall hold such a hearing as soon as practicable and shall make a final determination regarding the designation.

IN THE NAME OF THE  
STATE OF COLORADO.

OIL AND GAS  
CONSERVATION  
COMMISSION  
OF THE STATE  
OF COLORADO  
By Patricia C. Beaver,  
Secretary



STATE OF COLORADO  
**OIL AND GAS CONSERVATION COMMISSION**

DEPARTMENT OF NATURAL RESOURCES  
SUITE 380 LOGAN TOWER BUILDING  
1580 LOGAN STREET

**DENVER, COLORADO 80203**  
(303) 894-2109 FAX  
(303) 894-2100

DENNIS R. BICKNELL  
Director  
JOHN R. STOWELL  
Deputy Director  
PATRICIA C. BEAVER  
Technical Secretary

ROY ROMER  
Governor

April 23, 1992

Sterling Journal - Advocate  
P.O. Box 1272  
Sterling, CO 80751

Gentlemen:


Enclosed please find a "Notice of Proposed Designation of the 'J' Sand Formation as an Aquifer Exemption to be published in your newspaper on your next publication date, one time only.

Please send three (3) copies of proof of publication for each notice with our invoice in duplicate as soon as possible after publication.

Due to a new accounting system, we request that you include your FEIN or Social Security number on the invoice for faster and more accurate processing.

Thank you for your cooperation in this matter.

Sincerely,



Catherine Kumley  
Staff Assistant

/clk  
210078

STATE OF COLORADO  
**OIL AND GAS CONSERVATION COMMISSION**

DEPARTMENT OF NATURAL RESOURCES  
SUITE 380 LOGAN TOWER BUILDING  
1580 LOGAN STREET  
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PATRICIA C. BEAVER  
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ROY ROMER  
Governor

April 14, 1992

Mr. Paul Osborne  
U. S. EPA, (8WM-DW)  
One Denver Place  
999 - 18th Street, Suite 500  
Denver, Colorado 80202-2405

Re: Emerald Unit, Enhanced Recovery Permit  
"J" sand Formation, Aquifer Exemption  
Logan County, Colorado

Dear Paul:

Attached for your review is an aquifer exemption notice, aquifer exemption justification statement, and plat showing the proposed area to be exempted for Walsh Production's, Emerald Unit Enhanced Recovery Permit. Notice will be published in the Sterling Journal-Advocate or other area newspaper probably sometime next week.

If you have any questions or require additional information to evaluate this exemption, please do not hesitate to call.

Very truly yours,

*Ed DiMatteo*

Ed DiMatteo  
Sr. Petroleum Engineer

cc: Files  
(covrltr.epa)

Enclosures

STATE OF COLORADO  
**OIL AND GAS CONSERVATION COMMISSION**

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Very truly yours,

*Ed DiMatteo*

Ed DiMatteo  
Sr. Petroleum Engineer

cc: Files  
(covrltr.epa)

Enclosures



**WALSH PRODUCTION, INC.**

P.O. BOX 30  
PHONE 303-522-1839  
STERLING, COLORADO 80751

April 7, 1992

Colorado Oil and Gas Conservation Commission  
1580 Logan Street, Suite 380  
Denver, Colorado 80203

Re: Request for Aquifer Exemption  
Emerald "J" Sand Unit  
Portions of Sections 27, 34, 35, T9N-R54W  
Logan County, Colorado

Attn: Ed DiMatteo

Dear Mr. Di Matteo:

Formation water analysis of the J Sand formation at the Emerald "J" Sand Unit obtained from a depth of approximately 5,220 feet at Unit wells #1 and #2-35, show a TDS content of 6,396 mg/l. This sample was obtained on March 16, 1992, and taken directly from the production treater of the lease. At that time, the treater was handling 110 barrels of produced water per day and therefore, this sample would be very representative of the formation water. Per EPA regulations, this level is within the 10,000 mg/l TDS limitation. Walsh Production, Inc. is requesting the EPA designate the J Sand formation at the Emerald Field Unit an exempted aquifer. Justification for this exemption is as follows:

1. It does not currently serve as a source of drinking water.

According to records now on file, no wells have ever been drilled or are currently producing as a fresh water source from the J Sand in this vicinity. Records of the Colorado State Division of Water Resources of the Department of Natural Resources indicate there are numerous shallow wells within a 1 1/2 mile radius of the Emerald Field. These range in depth from 55 to 700 feet with the exception of two wells, one located in Section 1-T8N-R54W at a depth of 916 feet, the other in Section 2-T8N-R54W at a depth of 735 feet. Both of these wells were permitted as industrial wells and were used as supplemental water source wells for reinjection during an oilfield waterflood project. There are no water supply wells deeper than 916 feet in this area. It is therefore concluded that the only source of fresh water is from ground water sources at 913 feet and shallower.

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April 7, 1992  
Colorado Oil and Gas Conservation Commission  
Re: Request for Aquifer Exemption

Page 2

2. It cannot now and will not in the future serve as a source of drinking water.

The J Sand in this field is hydrocarbon productive. The Emerald Field Unit is comprised of seven producing oil and gas wells, all currently operated by Walsh Production, Inc. The production is from the J Sand with the field currently averaging 15 barrels of oil and 36 MCF of gas per day. The cumulative oil production through December 1991 is 721,267 barrels.

The J Sand is over 5,000 feet in depth at the Emerald Field Unit. It is therefore at a depth which makes recovery of water for drinking purposes economically impractical.


3. The Total Dissolved Solids (TDS) content of the water are greater than 3,000 but less than 10,000 mg/l and is not reasonably expected to supply a public water system.

From the above mentioned discussions, the J Sand in this area cannot reasonably be expected to supply a public water system.

- a) The aquifer at this location is hydrocarbon bearing and economically productive.
- b) The water quality is such that it would be unfit for human consumption without considerable treatment.
- c) The depth of the aquifer would make the J Sand an economically unfeasible source.

Thank you for your consideration in this matter.

Very truly yours,

  
David G. Walsh

DGW:dm

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APR 8 1992

COLO. OIL & GAS CONS. COMM.

\*\*\*\*\*  
 \* WATER ANALYSIS REPORT \*  
 \* ===== \*  
 \* HALLIBURTON SERVICES \*  
 \* WESTERN AREA LAB, ROCKY MOUNTAINS \*  
 \* BOX 1510 \*  
 \* EVANSVILLE, WY 82636 \*  
 \*\*\*\*\*  
 DATE: March 24, 1992

TO: John Webb  
 - Halliburton Services  
 - Sterling, Co.

RESPECTFULLY SUBMITTED,

BY: Vicky R. Olson

COMPANY: Walsh Production Company

REPORT NO: W92-0079

WELL NAME: 1 & 2 Emerald

DATE REC'D: 03-17-92

LOCATION: Logan County, Co.

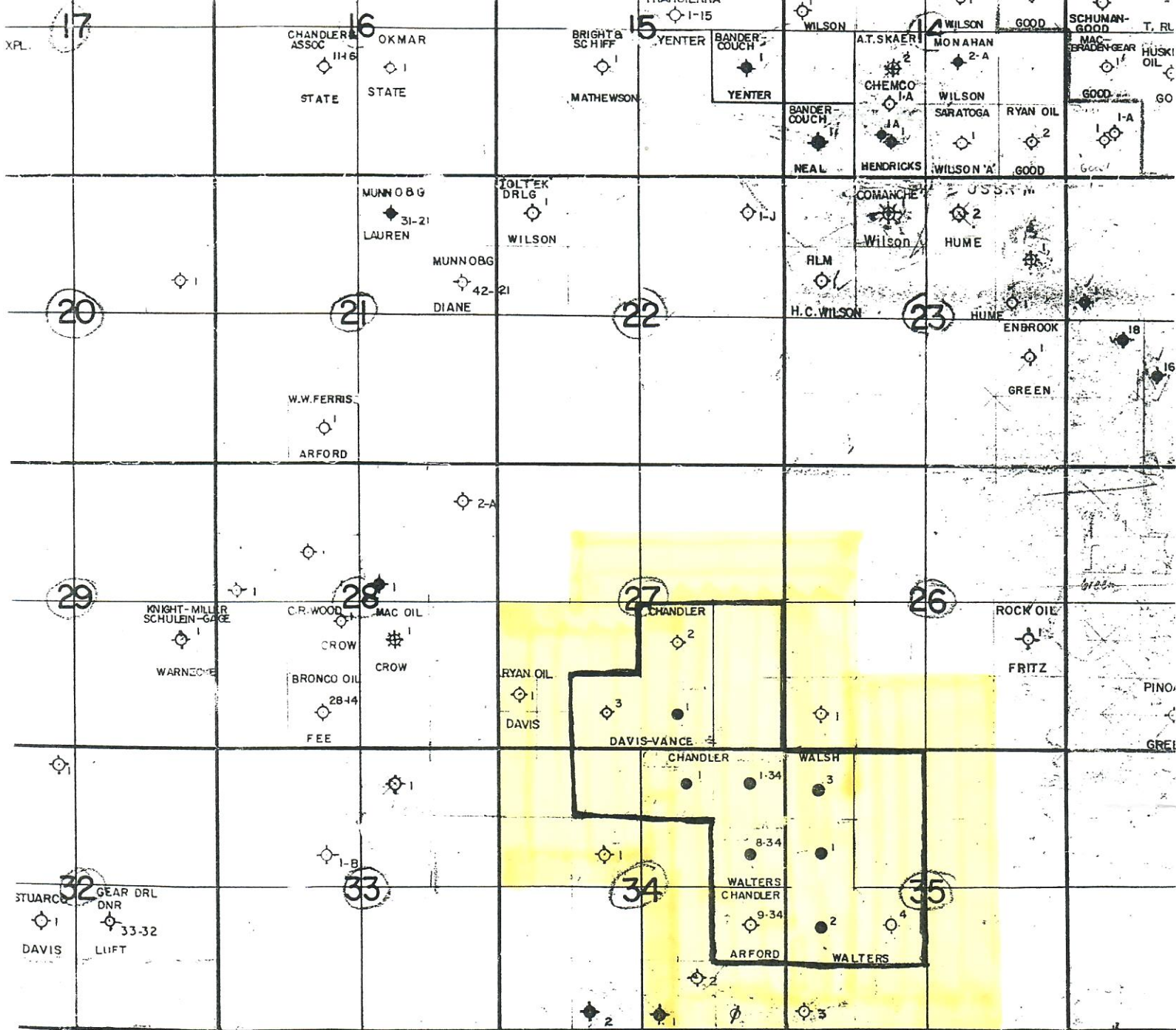
FORMATION: J Sand

SPECIFIC GRAVITY -----	1.008	
PH -----	7.8	
IRON (FE) -----	<1	MPL
POTASSIUM (K) -----	17	"
SODIUM (NA) -----	2132	"
CALCIUM (CA) -----	10	"
MAGNESIUM (MG) -----	<1	"
CHLORIDES (CL) -----	1915	"
SULFATES (SO4) -----	370	"
CARBONATES (CO3) -----	N11	"
BICARBONATES (HCO3) -----	1952	"
TDS -----	6396	"
RESISTIVITY -----	1.28	OHMS AT 68.0 DEGREES F

REMARKS:

\*\*\*\*\*  
 NOTICE: THIS REPORT IS FOR INFORMATION ONLY AND THE CONTENT IS LIMITED  
 TO THE SAMPLE DESCRIBED. HALLIBURTON MAKES NO WARRANTIES, EXPRES OR IM-  
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 REPORT AGREES HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE,  
 REGARDLESS OF CAUSE, RESULTING FROM THE USE HEREOF.





TOWNSHIP 9 NORTH RANGE 54 WEST 6th P.M.

PERMIT: Emerald Unit

OPERATOR: Walsh Production, Inc.

EXEMPTED AQUIFER: "J" Sand TDS: 6396 mg/l

Proposed area to be exempted designated using one quarter (1/4) mile fixed radius from the proposed injection Unit.