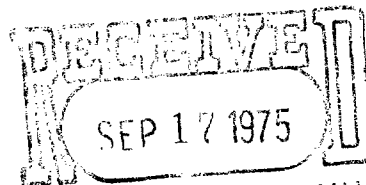


**MINERALS  
MANAGEMENT INC.**

WESTERN RESOURCES BUILDING • P. O. BOX 2919  
TELEPHONE (307) 265-4960  
CASPER, WYOMING 82601



OIL CONSERVATION COMM.

Santa Fe

SEP 17 1975  
172  
10/2/75

September 15, 1975

Mr. A. L. Porter, Secretary-Director  
New Mexico Oil Conservation Commission  
P.O. Box 2088  
Sante Fe, New Mexico 87501

Re: Application for  
Salt Water Disposal  
Sandoval County, New Mexico

Dear Mr. Porter:

In accordance with New Mexico Oil Conservation Commission Rule No. 701, we are filing on behalf of our client, Filon Exploration Corporation, Form C-108 and other necessary attachments and as per Rule No. 701-C respectfully request administrative approval of the salt water disposal project as outlined.

Filon has recently drilled the Federal No. 12-1 well located SW SW Section 12, 19N-4W. That well was drilled thru the Entrada formation to a total depth of 5735 feet. In order to conclusively test that well for oil production from the Entrada formation and also for purposes after its completion, underground water disposal facilities are required. It is anticipated that this applied for disposal facility will also be used to serve other Entrada wells which may be drilled by Filon in the immediate area.

This application requests approval to dispose of salt water into the Gallup formation in a well which Filon Exploration plans to drill in the SE SE Section 11, 19N-4W. That well will be drilled to the Gallup for the expressed purpose of water injection. The salt water disposal project, as applied for herein, is similar to that at the Media Field which is located about five miles east

of this proposed SWD well. At Media some 8,000 barrels per day of produced Entrada water is disposed of into the Gallup formation at two wells.

An analysis of the Entrada water from a well at the Media field is attached. No analysis of the Entrada water from the Filon Federal No. 12-1 is available at this time, but will be supplied within the next several days or as soon as possible. Based on electric logs it is believed that the total dissolved solids of Entrada water at Media and at Federal No. 12-1 are similar. No sample of water from the Gallup was available for analysis, however, again based on electric logs it is believed that its total dissolved solids content is not too different from the Entrada water.

We respectfully request early Administrative approval of this application for salt water disposal. If you have any questions or if in need of additional data, please contact us.

Sincerely,

A handwritten signature in cursive script, reading "J. H. Borgerding".

J. H. Borgerding  
Petroleum Engineer

JHB/sb

## NEW MEXICO OIL CONSERVATION COMMISSION

## APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Filon Exploration Corporation c/o Minerals Management Inc.		ADDRESS P.O. Box 2498 Casper, Wyoming 82601	
LEASE NAME Federal 11-C	WELL NO. 2	FIELD Unnamed	COUNTY Sandoval
LOCATION UNIT LETTER <u>P</u> ; WELL IS LOCATED <u>460</u> FEET FROM THE <u>south</u> LINE AND <u>800</u> FEET FROM THE LINE, SECTION <u>11</u> TOWNSHIP <u>19N</u> RANGE <u>4W</u> NMPM.			

## CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8 5/8-24#	200'	150	circulate to surface	
INTERMEDIATE	---				
LONG STRING	5 1/2-15.5#	3600'	450	circulate to surface	
TUBING	2 7/8	3080'	NAME, MODEL AND DEPTH OF TUBING PACKER Retrievable Packer at about 3050'		
NAME OF PROPOSED INJECTION FORMATION Gallup			TOP OF FORMATION 3080		BOTTOM OF FORMATION 3600
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing			PERFORATIONS OR OPEN HOLE? Perforations		
			PROPOSED INTERVAL(S) OF INJECTION Sands within Gallup		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? Yes, but not yet drilled- ----		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? ----		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH ----					

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA No fresh water zones known to exist		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA No uphole oil/gas zns. known to exist		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Entrada at about 5470'	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 4000	MINIMUM 2000	MAXIMUM 8000	OPEN OR CLOSED TYPE SYSTEM Open	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1100
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - yes			WATER TO BE DISPOSED OF yes	NATURAL WATER IN DISPOSAL ZONE yes	ARE WATER ANALYSES ATTACHED? water to be disposed of only.
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Federal Land - Public Domain. Surface rights are not leased.					

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL

- 1) Filon Exploration Corp. 1700 Broadway, Denver, Colorado 80202
- 2) Union Oil Co. of California, P.O. Box 2620, Casper, Wyoming 82601

Note: Filon Exploration is designated operator for offset lessee,  
~~Petro Lewis~~

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? yes	SURFACE OWNER yes	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL yes
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) yes	PLAT OF AREA yes	ELECTRICAL LOG yes, from offset well
		DIAGRAMMATIC SKETCH OF WELL yes

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

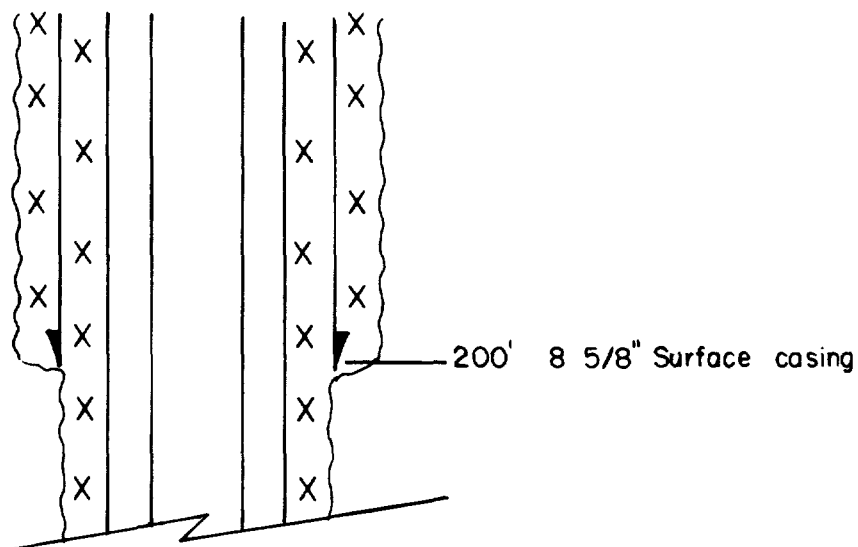
J. H. Borgerding Petroleum Engineer Sept. 15, 1975  
(Signature) (Title) (Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

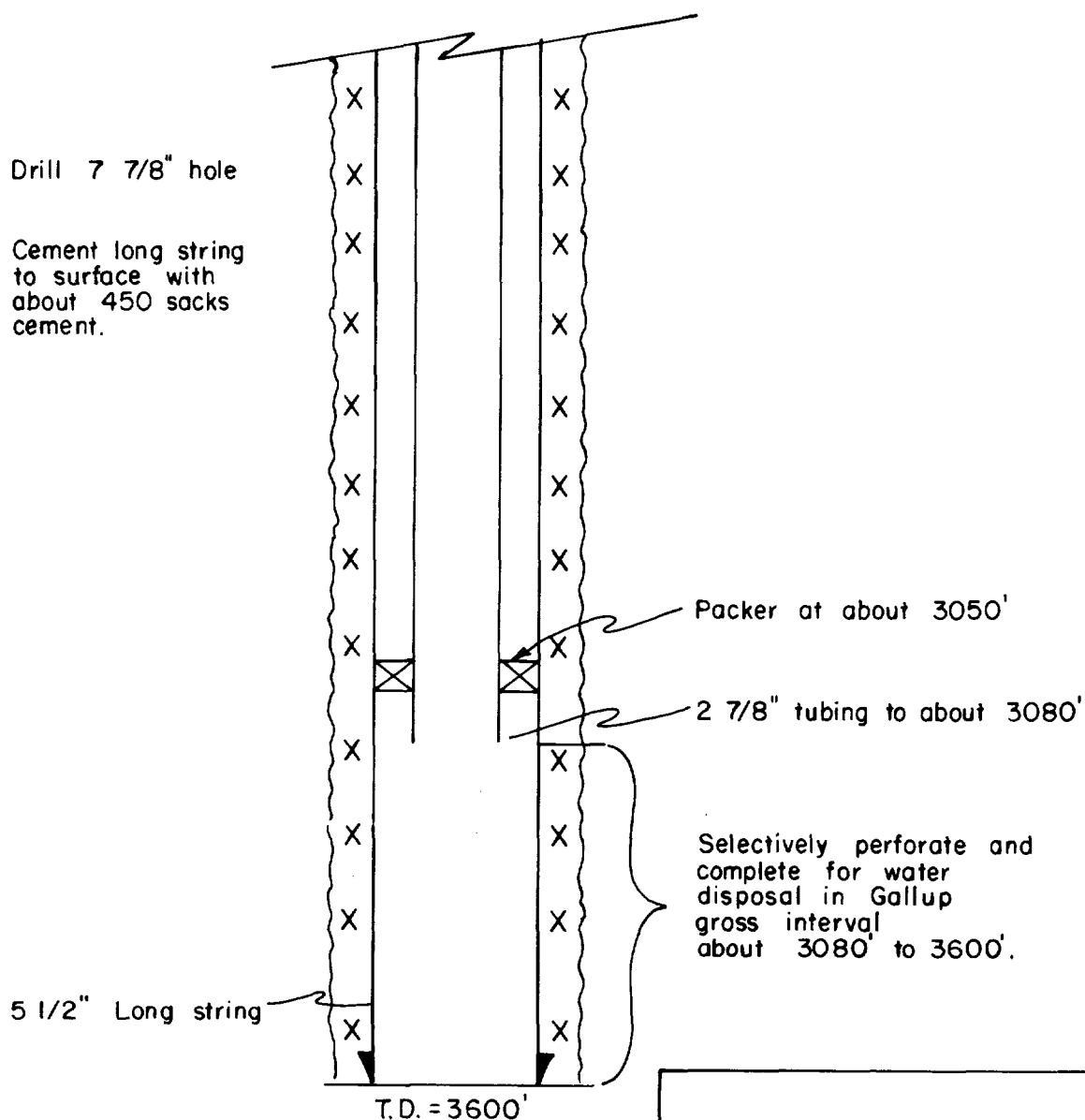
Drill 11" hole

Surface casing  
cemented to  
surface with  
150 sacks.



Drill 7 7/8" hole

Cement long string  
to surface with  
about 450 sacks  
cement.



DIAGRAMMATIC SKETCH  
OF  
PROPOSED INJECTION WELL  
SE SE Section 11 T.19N.-R.4W.  
SANDOVAL CO., NEW MEXICO

## CHEMICAL &amp; GEOLOGICAL LABORATORIES

P. O. Box 2794  
Casper, Wyoming

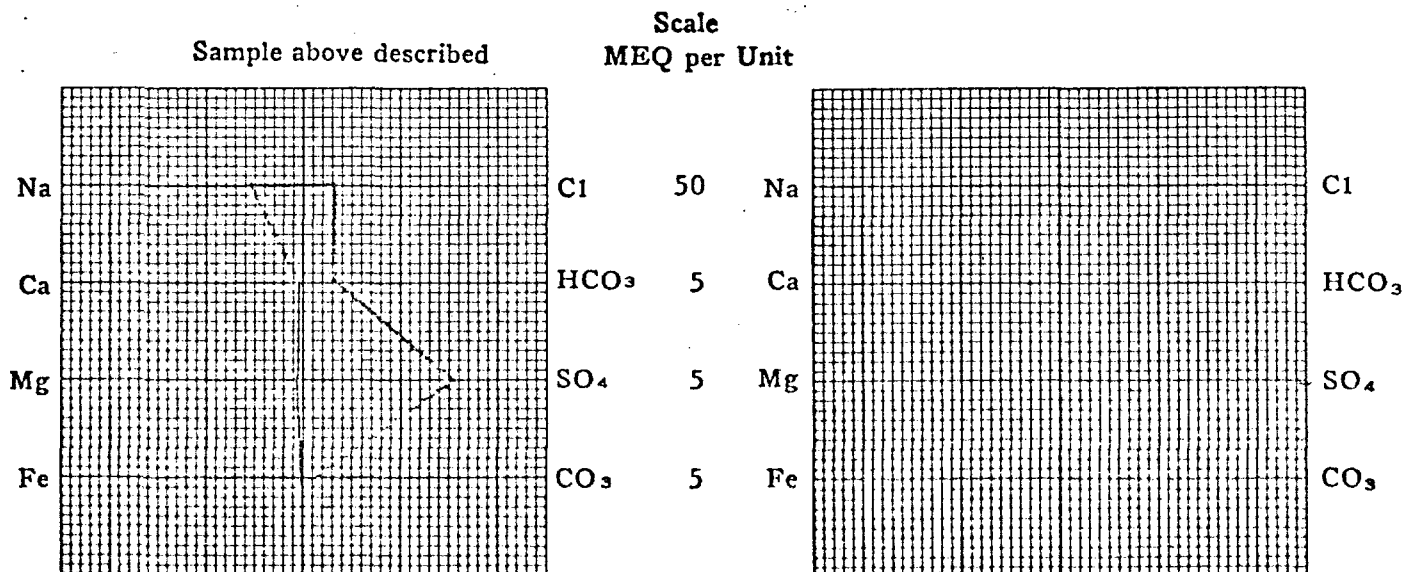
## WATER ANALYSIS REPORT

OPERATOR	Petro-Lewis Corporation	DATE	September 30, 1974	LAB NO.	13891
WELL NO.	Boling Federal 6-22	LOCATION	SE NW 22-19N-32W		
FIELD	SW Media	FORMATION	Entrada		
COUNTY	Sandoval	INTERVAL	5300-5313		
STATE	New Mexico	SAMPLE FROM			

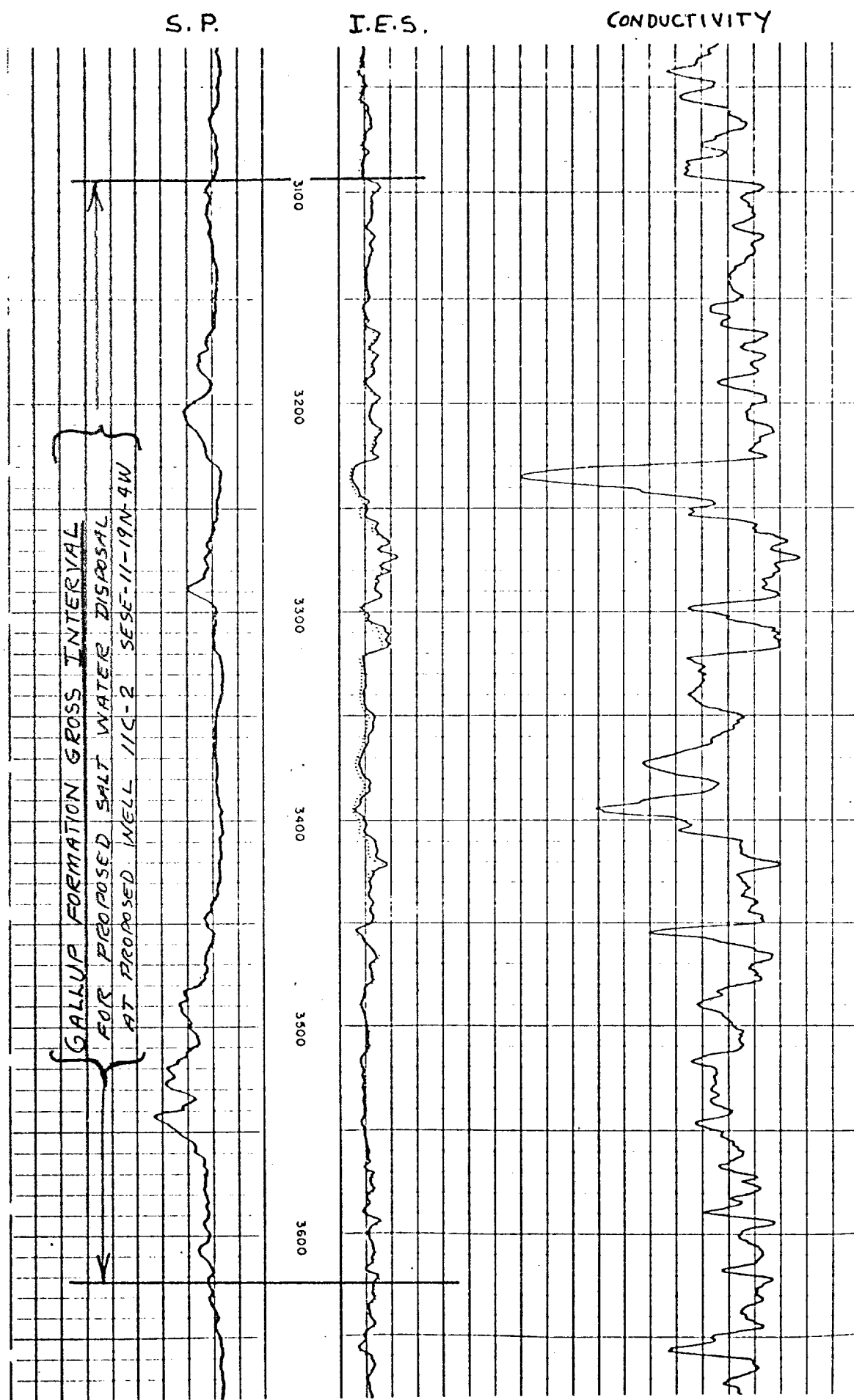
REMARKS &amp; CONCLUSIONS: Green sulfur water.

Cations			Anions		
	mg/l	meq/l		mg/l	meq/l
Sodium	5634	245.08	Sulfate	3700	76.96
Potassium	64	1.64	Chloride	5500	155.10
Lithium	-	-	Carbonate	204	6.79
Calcium	60	2.99	Bicarbonate	903	14.81
Magnesium	48	3.95	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	Present	-
Total Cations		253.66	Total Anions		253.66
Total dissolved solids, mg/l			Specific resistance @ 68°F.:		
NaCl equivalent, mg/l			Observed		
Observed pH			Calculated		
				0.56	ohm-meters
				0.51	ohm-meters

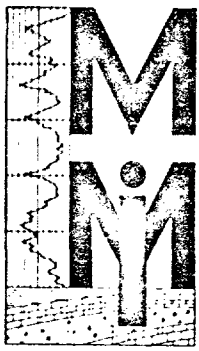
## WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)  
NOTE: Mg/l=Milligrams per liter Meq/l= Milligram equivalents per liter  
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components



PORTION OF ELECTRIC LOG  
FROM  
FILON FEDERAL NO. 12-1  
SW SW - SECTION 12-19N-4W  
SANDOVAL CO. NEW MEXICO



MINERALS  
MANAGEMENT INC.

WESTERN RESOURCES BUILDING • P. O. BOX 2919  
TELEPHONE (307) 265-4960  
CASPER, WYOMING 82601

September 15, 1975

Mr. Bob Massey  
Union Oil Co. of California  
P.O. Box 2620  
Casper, Wyoming 82601

Dear Mr. Massey:

As you may have been informed by Mr. Dusty Blades of Filon Exploration, our firm has filed the attached application with the New Mexico Oil Conservation Commission requesting approval for Filon Exploration to dispose of salt water in a well to be drilled in Section 11-19N-4W, Sandoval County, New Mexico. We are asking for administrative approval from the New Mexico Oil Conservation Commission and according to their rules, a 15-day waiting period is required, in which time offset operators have the right of objection. The Commission may dispense with that 15-day waiting period if waivers of objection are received from all offset operators and the surface owner.

Inasmuch as Filon Exploration is in need of disposal facilities, at the earliest date possible, we are asking for early consideration from Union Oil. Trusting that Union has no objection, we ask that you make this known to the New Mexico Oil Conservation Commission in order that the 15-day waiting period may be dispensed with.

If you have any questions, please feel free to contact me at the above letterhead phone number.

Sincerely,

J. H. Borgerding

JHB/sb

cc: A. L. Porter, Jr.  
Dusty Blades



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE\*  
(Other instructions on re-  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 24961

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Federal

7. UNIT AGREEMENT NAME

None

8. FARM OR LEASE NAME

Federal 11C

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

Sec 11, T19N, R4W

12. COUNTY OR PARISH

13. STATE

Sandoval

N. M.

1. OIL ☐ GAS ☒ OTHER ☐ Water Disposal

2. NAME OF OPERATOR

Filon Exploration Corp. c/o Minerals Management Inc.

3. ADDRESS OF OPERATOR

P.O. Box 2498 Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)

At surface

460 FSL, 800 FEL, Section 11, T19N, R4W

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6644 Gr.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

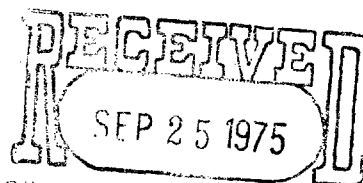
## SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐PULL OR ALTER CASING ☐WATER SHUT-OFF ☐REPAIRING WELL ☐FRACTURE TREAT ☐MULTIPLE COMPLETE ☐FRACTURE TREATMENT ☐ALTERING CASING ☐SHOOT OR ACIDIZE ☐ABANDON\* ☐SHOOTING OR ACIDIZING ☐ABANDONMENT\* ☐REPAIR WELL ☐CHANGE PLANS ☒(Other) ☐(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

(Other) Salt Water Disposal

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Application for permit to drill above well was filed 9-11-75.  
This Sundry Notice is submitted requesting approval for salt water disposal as per application filed with the New Mexico Oil Conservation Commission September 15, 1975. That application is attached.

OIL CONSERVATION COMM.  
Santa Fe

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

SIGNED

*J. H. Borgerding*  
J. H. Borgerding

TITLE Petroleum Engineer

DATE Sept. 15, 1975

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

OIL CONSERVATION COMMISSION  
Syter DISTRICT



OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE 9-22-75

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD X \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 9-15-75  
for the Filon Exploration Corp. Federal 11C#2 P-11-19N-4W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

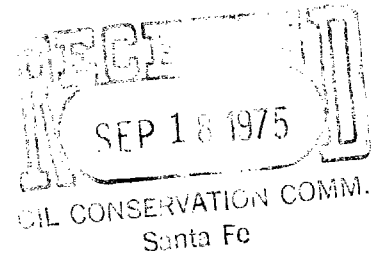
Approve -  
There are no Gollup completions  
within two miles.

Yours very truly,

AR Kendrick

Union Oil and Gas Division: Central Region

Union Oil Company of California  
Post Office Box 2620, Casper, Wyoming 82601  
Telephone (307) 234-1563



September 16, 1975

Mr. A. L. Porter, Secretary Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Porter:

With respect to the Application for Salt Water Disposal Well, filed September 15, 1975, by Filon Exploration Corporation, to be located 460 feet from the South Line and 800 feet from the Line ( we assume this 800 feet is from the East Line) in the SE $\frac{1}{4}$  SE $\frac{1}{4}$  of Section 11, T. 19 N., R. 4 W., Sandoval County, New Mexico, Union Oil Company of California, Lessee on leases covering the N $\frac{1}{2}$  of Sections 13 and 14, T. 19 N., R. 4 W., has no objection to the drilling of said Salt Water Disposal Well.

Very Truly yours,

Union Oil Company of California

By

  
R. H. Massey

District Land Manager

RHM:jw

cc: Minerals Management, Inc.  
P. O. Box 2919  
Casper, Wyoming 82601

cc: Filon Exploration Corporation  
1700 Broadway, Suite 2216  
Denver, Colorado 80202