



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

11/3/95

GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD X _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Marale Inc November 16 #1-J 16-135-38e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/ed



November 1, 1995

Engineering Department
New Mexico Energy & Minerals Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: Form C-108 Application of Maralo, Inc. for Salt Water
Disposal, Lea County, New Mexico

Attention: David Catanach

Under the provisions of Rule 701 (B), enclosed please find
Form C-108 application of Maralo, Inc. for authorization to
inject into the November "16" Well #1 located 2240 feet from
the South line and 2310 feet from the East line (Unit J) of
Section 16, Township 13 South, Range 38 East, NMPM, Lea
County, New Mexico.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dorothea Owens".

Dorothea Owens
Regulatory Analyst

Enclosures

✓cc: OCD/Hobbs w/attachments and BHC Sonic log

Application For Authorization To Inject
Maralo, Inc
November "16" Well #1
J 16-13S-38E
Lea County, New Mexico

- I. The purpose of completing this well is to make a disposal well for produced Wolfcamp water into the Wolfcamp formation.

Maralo, Inc. plans to convert this well to a water disposal well into the Wolfcamp formation.
- II. Operator: Maralo, Inc.
P. O. Box 832
Midland, TX 79702
Richard A. Gill (915) 684-7441
- III. Well Data : See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached map, Attachment B
- VI. There are no wells within the area of review.
- VII.
 1. Proposed average daily injection volume approximately 1800 BWPD.
Maximum Daily injection volume approximately 2000 BWPD.
 2. This will be a closed system.
 3. Proposed average injection pressure-unknown
Proposed maximum injection pressure--2000 psi.
 4. Sources of injected water would be produced water from the Wolfcamp. (Attachment C)
 5. See Attachment C.
- VIII. The proposed injection interval is the portion of the Wolfcamp Sand formation consisting of porous Dolomite from estimated depths:

10,018 - 10,023'

10,250 - 10,256'

10,264 - 10,268'

10,281 - 10,286'

Application for Authorization to Inject
November Federal #1

-2-

continued

10,317 - 10,340'
10,350 - 10,372'
10,376 - 10,384'
10,395 - 10,407'
10,438 - 10,448'
10,452 - 10,468'
10,478 - 10,498'
10,504 - 10,508'
10,521 - 10,542'
10,549 - 10,556'
10,579 - 10,595'
10,604 - 10,614'

2. Fresh water zones overlies the proposed injection formations at depths of approximately feet. There are no fresh water zones underlying the formation.
- IX. The proposed disposal interval may be acidized with 15% HCL acid.
- X. Logs are filed at the Hobbs/OCD office with copy of the C-108 application.
- XI. The location of fresh water wells and windmills existing within a one mile radius of the subject location are noted on the map. Water Analysis are attached.
- XII. Maralo, Inc. has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval.
- XIII. Proof of Notice
 - A. Certified letter sent to the Surface Owner. There are no Offset Operators. (Attachment D)
 - B. Copy of legal advertisement (Attachment E) attached.
- XIV. Certification is signed.

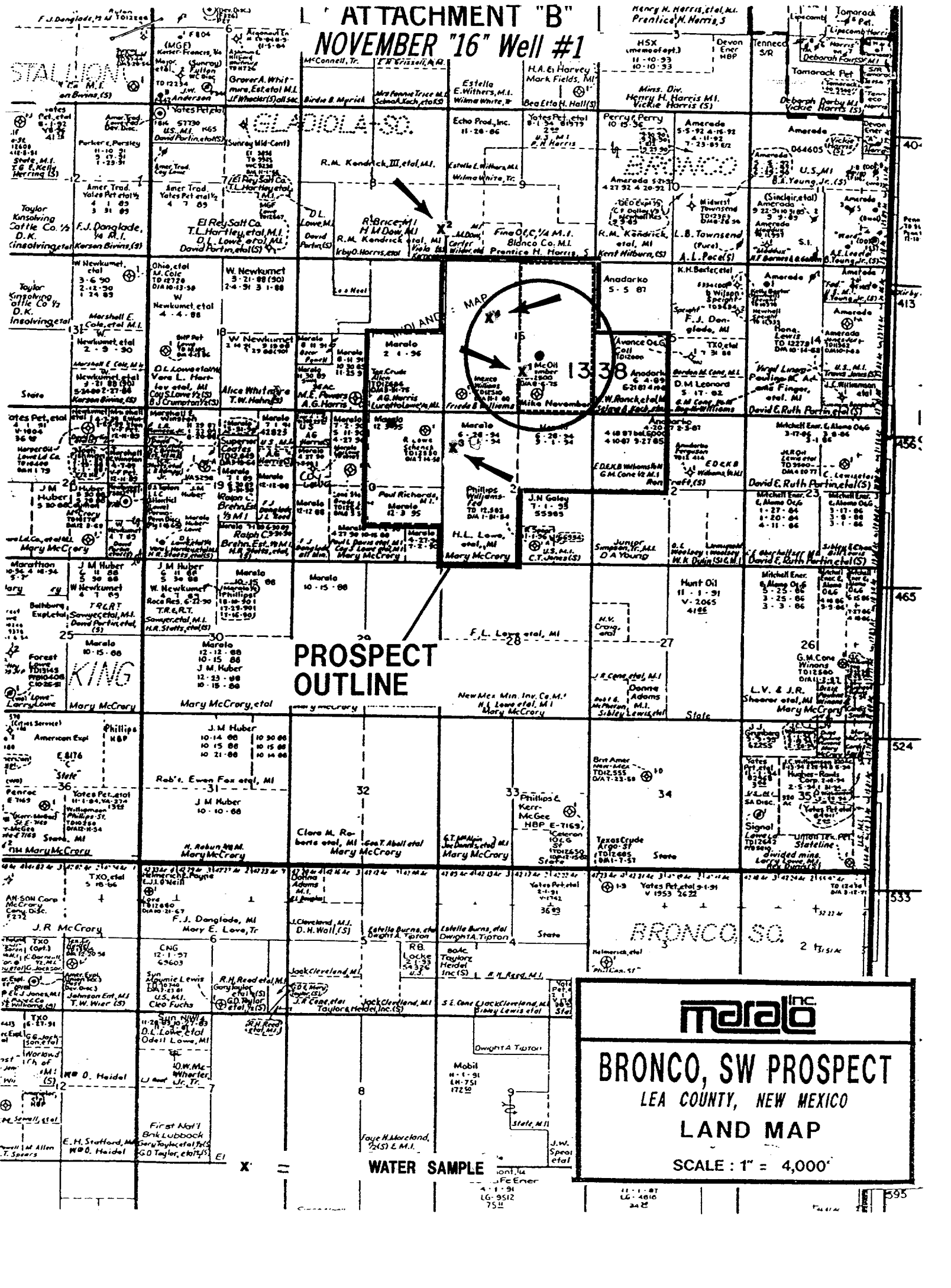
MARALO, INC
NOVEMBER "16" #1
J 16-13S-38E

Attachment A
Page 1

III. Well Data

- A. 1. Lease Name/Location
November, Well #1
J 16-13S-38E
2240' FSL & 2310' FEL
2. Casing Strings:
Present Well Condition
13-3/8" 54.5# K55 @ 450' w/450 sx (circ)
8-5/8" 24# & 32# S80 @ 46000' w/1950 sx (circ)
5-1/2" 17# K-55 & N-80 @ 12436' w/250 sx TOC @
10,320' (Temp. Survey)
3. Proposed well condition:
Casing same as above.
5-1/2" cement squeeze from 10,320' to 4300'.
2-7/8" 6.5# K-55 duo-line plastic coated
injection tubing @ +/- 9950'
4. Propose to use Baker nickel-plated Loc-Set
packer set at +/- 9950'.
- B. 1. Injection Formation: Wolfcamp Dolomite
2. Injection Interval will be through
perforations at approximately 10018 - 10614'.
3. Well was original drilled as a Wildcat
(Devonian Sand) oil well. Tests proved well to
be non-commercial. Well will be Wolfcamp
Dolomite Water disposal well (10018 - 10614')
when work is completed.
4. Additional Perforations: None
5. There are no higher or lower oil or gas zones
within the area of interest.

ATTACHMENT "B"
NOVEMBER "16" Well #1



maralo inc.

BRONCO, SW PROSPECT

LEA COUNTY, NEW MEXICO

LAND MAP

SCALE: 1" = 4,000'

P. O. BOX 1488
MONAHAN, TEXAS 79758
PH. 943-3834 OR 943 1040

Martin Water Laboratories, Inc.

708 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Bill Hunt
P. O. Box 832, Midland, TX 79702
LABORATORY NO. 1095182
SAMPLE RECEIVED 10-27-95
RESULTS REPORTED 10-31-95

COMPANY Maralo, Inc. LEASE November 16 #1
FIELD OR POOL _____
SECTION _____ BLOCK _____ SURVEY _____ COUNTY Lee STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:

X1 NO.1 Raw water - taken from section 16 windmill well. 10-25-95
X2 NO.2 Raw water - taken from Harris Orchard water well. 10-25-95
X3 NO.3 Raw water - taken from North Townsend windmill well. 10-25-95
X4 NO.4 Raw water - taken from R. N. Williams house windmill well (section 16). 10-25-95

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0021	1.0020	1.0018	1.0014
pH When Sampled	6.92	6.68	6.95	6.92
pH When Received	220	271	259	259
Bicarbonate as HCO ₃				
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	480	616	292	252
Calcium as Ca	146	178	84	82
Magnesium as Mg	28	42	20	12
Sodium and/or Potassium	53	86	101	67
Sulfate as SO ₄	202	288	169	123
Chloride as Cl	145	200	88	41
Iron as Fe	0.04	0.04	0.16	0.08
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	793	1.065	721	584
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohm-cm at 77° F.	8.96	6.69	11.08	14.86
Suspended Oil				
Filterable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	4.8	8.2	3.5	1.8

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

ATTACHMENT "C"

P. O. BOX 1468
MONAHAN, TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Bill Hunt LABORATORY NO. 995170
P. O. Box 832, Midland, TX 79702-0832 SAMPLE RECEIVED 9-28-95
RESULTS REPORTED 9-29-95

COMPANY Maralo, Inc. LEASE Lowe "20" #1FIELD OR POOL WildcatSECTION _____ BLOCK _____ SURVEY _____ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from heater-treater. 9-28-95

NO. 2 _____

NO. 3 _____

NO. 4 _____

REMARKS: Wolfcamp

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0297			
pH When Sampled				
pH When Received	7.98			
Bicarbonate as HCO ₃	1,635			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	3,700			
Calcium as Ca	1,060			
Magnesium as Mg	255			
Sodium and/or Potassium	11,484			
Sulfate as SO ₄	3,165			
Chloride as Cl	17,045			
Iron as Fe	0.04			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	34,644			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	413			
Resistivity, ohms/m at 77° F.	0.240			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks <u>These results show no significant change in the basic characteristics of the water from this well as compared to the water recovered 8-22-95 and reported on laboratory #895175. Therefore, the water continues to have characteristics that do not correlate with our records of natural Wolfcamp water in this area.</u>				

Form No. 3

By Waylan C. Martin, M.A.

ATTACHMENT "D"

NOVEMBER "16" WELL #1

OFFSET OPERATORS:

THERE ARE NOT OFFSET OPERATORS

SURFACE OWNER:

FREDERICK D. NOVEMBER
81 SALEM ROAD
EAST HILLS, NEW YORK 11577

(copy of certified letter attached)



November 1, 1995

CERTIFIED MAIL - RETURN RECEIPT

Mr. Frederick D. November
81 Salem Road
East Hills, New York 11577

Dear Sir:

In accordance with Item XIV (Proof of Notice) on the enclosed Form C-108 (New Mexico OCD Application for Authority to Inject), Maralo Inc. hereby furnishes notice to the surface owner of the November "16" lease, Well #1 located 2240 feet from the South line and 2310 feet from the East line (Unit J) of Section 16, Township 13 South, Range 32 East, NMPM, Lea County, New Mexico.

Should you have any questions, please feel free to contact me at (915) 684-7441.

Sincerely,

A handwritten signature in cursive script that reads "Dorothea Logan". The signature is fluid and written in dark ink.

Dorothea Logan
Regulatory Analyst

Enclosure

cc: Oil Conservaton Division
Santa Fe, New Mexico

ATTACHMENT "E"

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

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 15, 1995

and ending with the issue dated

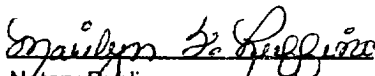
October 15, 1995


General Manager

Sworn and subscribed to before

me this 19th day of

October, 1995


Notary Public.

My Commission expires

March 24, 1998

(Seal)

LEGAL NOTICE

OCTOBER 15, 1995

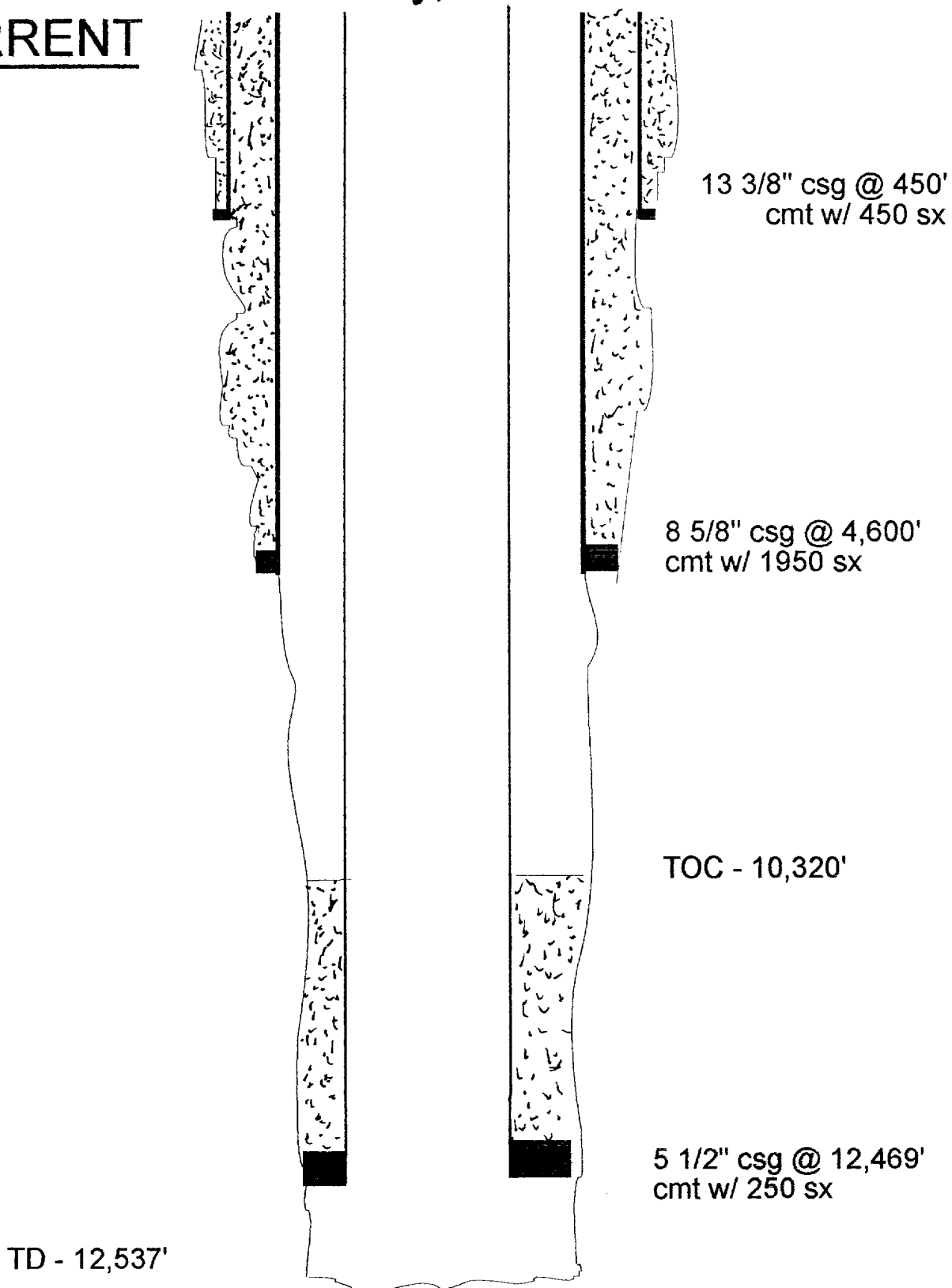
Maralo, Inc., P.O. Box 832, Midland, Texas 79702, is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the November '16', Well #1 is located 2240' FSL and 2310' FEL, Section 16, Township 13 South, Range 38 East, Lea County, New Mexico, will be used for saltwater disposal. Disposal waters from the Wolfcamp Sand will be re-injected into the Wolfcamp Sand at a depth of 10,018 - 10,614 feet with a maximum pressure of 2000 psi and a maximum rate of 2000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87504, within 15 days. Additional information can be obtained by contacting R.A. Lowery at (915) 684-7441.

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.

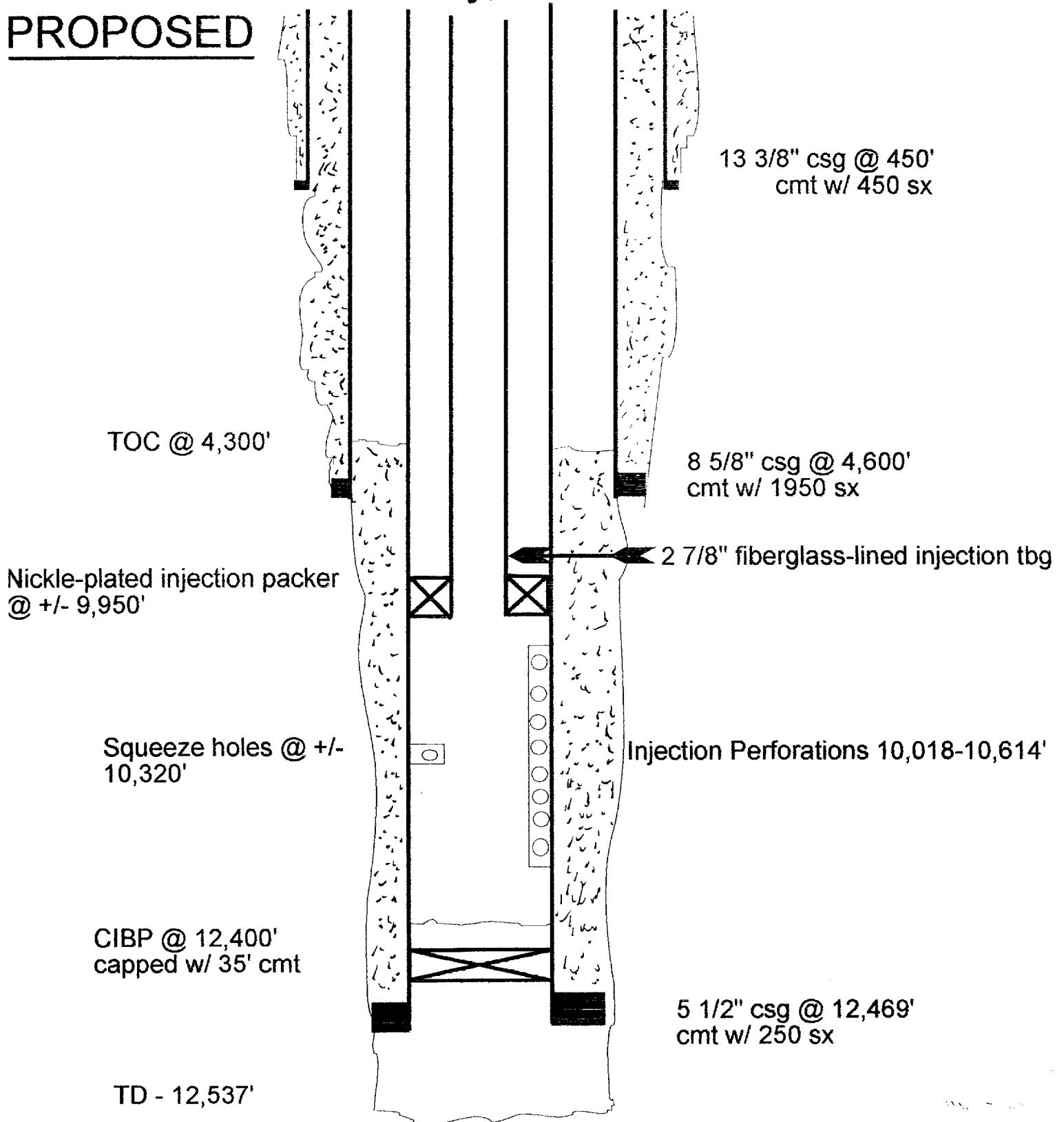
Maralo, Inc.
November "16" #1
Wildcat (Devonian)
Lea County, New Mexico

CURRENT



Maralo, Inc.
November "16" #1
Wildcat (Devonian)
Lea County, New Mexico

PROPOSED



1974 1988
Received
Hobbs
OGD