

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Continental Oil Company		ADDRESS Box 460, Hobbs, New Mexico	
LEASE NAME Bell Lake Unit	WELL NO. 7	FIELD Bell Lake	COUNTY Lea
LOCATION UNIT LETTER <u>A</u> ; WELL IS LOCATED <u>660</u> FEET FROM THE <u>North</u> LINE AND <u>660</u> FEET FROM THE <u>East</u> LINE, SECTION <u>1</u> TOWNSHIP <u>24S</u> RANGE <u>33E</u> N.M.P.M.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13 3/8"	817	650	surface	Circ.
INTERMEDIATE	8 5/8"	6000'	8102'	surface	Circ.
LONG STRING Liner	5 1/2"	11,687	2055	6450	Temp. Survey
	5 1/2"	6310	210	5902	Top of liner
TUBING	2 7/8"	5190'	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Tension Model AD or equivalent @ 5190'		
NAME OF PROPOSED INJECTION FORMATION Delaware			TOP OF FORMATION 5192'		BOTTOM OF FORMATION 8750'
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? perforations		PROPOSED INTERVAL(S) OF INJECTION 5205-5361'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Development gas well			HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH See attachment "A"					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 600'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA Bone Spring 8750'	
ANTICIPATED DAILY INJECTION VOLUME (BBLS.)	MINIMUM 450	MAXIMUM 2500	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 500 (est)
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? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State of N.M. Lessee: Carl Johnson, Jr. Box 787, Lovington, New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL --					
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HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		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)		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				THE NEW MEXICO STATE ENGINEER No	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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

V. [Signature] Assistant Division Manager 7-23-68
(Signature) (Title) (Date)

NOTE: Should waivers from the State Engineer, 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.

AUG 9 7 35 AM '68

ATTACHMENT "A"

BELL LAKE UNIT NO. 7

List of all perforated intervals and sacks of cement to seal or squeeze each:

11,600-08, 11,616-30:	CIBP at 11,580'
11,540-54:	CIBP at 11,510'
11,145-80, 11,098-11,112'	Retrievable bridge plug 10,405' (left in hole)
10,336-68, 10,232-78, 9632-72', 9506-90, 9390-9405', 9372-80':	Retrievable bridge plug 9245', left in hole
9167-74, 9114-9150, 8860-8876, 8800-8856, 8772-8782	Squeezed w/274 sx. Cement drilled out to 8845'
8830-8840	CIBP at 8820'
8802-8812, 8772-8782	25 sx cement plug 8550-8820'
5 1/2' casing cut at 6385 & pulled	50 sx cement plug 6310-6450
5 1/2" liner 5902-6310'	Cemented w/210 sx.
6073-74, 6084-85	Squeezed w/100 sx and drilled out.
6077-6083	CIBP at 5300'
5198-5206	30 sx plug 5106-5210
	10 sx plug at surface.

U.S. G. C.

AUG 9 7 '5 AM '66

27 Solwest K-15-76 K-15-76 13-93 State	R.C. Menagan 4-1-75 0357-96 26 U.S., MI C.S. Brinnistool, S	25 U.S., MI C.S. Brinnistool, S	068404 E-6021 060404 30 E-1000 TO-1000 PE-1000 PO-1000 FO-1000 Bottle U.S. State, MI 067159 U.S., MI L.B.M. Co. (C)	E-6021 060404 State, MI 29 067159 U.S., MI L.B.M. Co. (C)
23 S Pan Amer 7-18-71 K-1007 35-19 34 State	Pan Amer 8-15-71 K-1000 52-29 35 State	E-5676 36 State	E-5676 BELL LAKE UNIT 31 CONTINENTAL (OPER.) BELL LAKE State, MI L.B.M. Co. (C) NM 02335	E-5676 E-5693 E-1937 32 State, MI L.B.M. Co. (C) NM 02335
3 Pan Amer 12-2-72 K-5546 15-10 State	Ralph Lowe B-12-72 K-5546 15-10 B-11198 (Unit) State	E-5698 E-490 "Bell Lake Unit" State	E-5698 E-5627 (Unit) "Bell Lake Unit" State	061374 U.S., MI Pitchfork Cattle Co.
24 S Union 7-17-72 K-2559 34-63 10 Southland Reg B-10-72 K-6783 30-55 Allied Chem. Co. State	063793 U.S., MI Elsie E. Cooper, MI Carl Johnson, Jr., S	063993 063798 -12 U.S., MI Robert Madero, S	068553 061374 U.S., MI Pitchfork Cattle Co., S S.R. Holland, et al, MI Robert Madero	066553 U.S., MI Pitchfork Cattle Co. 069109 U.S., MI R. Madero, S
Union 6-15-72 K-5546 25-55 15 Se. Union Prod 7-15-75 35-4554 State	063798 R 33 E 14 U.S., MI U.S., MI L. Beck, et al, MI U.S., MI Carl Johnson, S	063798 J.J. Holland, MI 3 063798 U.S., MI Robert Madero, S	U.S., MI U.S. Rufus E. Alize, et al	066653 R 34 E 17 U.S., MI R.E. Alize, et al Madero, et al, S

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT - ROSS DIVISION
LOCATION 31-11



UNITED STATES OFFICE OF O. C. C.
UNITED CHEMICAL CORPORATION
 OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Continental Oil Company

Field Bell Lake - Penn.

Lease Bell Lake #5

Sampling Date 6/21/68

Type of Sample _____

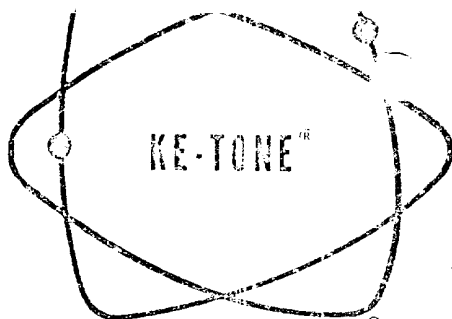
WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	1.30	26
Magnesium (Mg++)	0.66	8
Sodium (Na+) (cal.)	10.48	241
Iron		144
Bicarbonate (HCO ₃ ⁻)	3.70	225
Carbonate (CO ₃ ⁻²)	NOT	FOUND
Hydroxide (OH ⁻)	NOT	FOUND
Sulphate (SO ₄ ⁻²)	0	0
Chloride (Cl ⁻)	8.74	310
6.7 pH c @ 68° F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	1.96	98
Carbonate Hardness, as CaCO ₃ (temporary)	3.70	185
Non-Carbonate Hardness as CaCO ₃ (permanent)	-	-
Alkalinity as CaCO ₃	3.70	185
Specific Gravity c 68° F	1.000	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

Makes Water Work



UNITED CHEMICAL CORPORATION

601 NORTH LEECH OF NEW MEXICO

AUG 7 7 5 AM '68

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Continental Oil Company

Field Bell Lake Bone Springs

Lease Bell Lake #3

Sampling Date 6/21/68

Type of Sample _____

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	499.00	10,000
Magnesium (Mg++)	313.17	3808
Sodium (Na+) (cal.)	2375.09	54,603
Iron		288
Bicarbonate (HCO ₃)	7.00	427
Carbonate (CO ₃ -)	NOT	FOUND
Hydroxide (OH--)	NOT	FOUND
Sulphate (SO ₄ -)	21.86	1050
Chloride (Cl-)	3158.40	112,000
6.4 pH @ 68 ° F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	812.17	40,609
Carbonate Hardness, as CaCO ₃ (temporary)	7.00	350
Non-Carbonate Hardness as CaCO ₃ (permanent)	805.17	40,259
Alkalinity as CaCO ₃	7.00	350
Specific Gravity @ 68° F	1.115	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

Mehrs Water Work



W.A. Fico

UNITED CHEMICAL CORPORATION
OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Continental Oil CompanyField DEVONIANLease Bell Lake #6Sampling Date 10/3/67Type of Sample Gas wells

WATER ANALYSIS

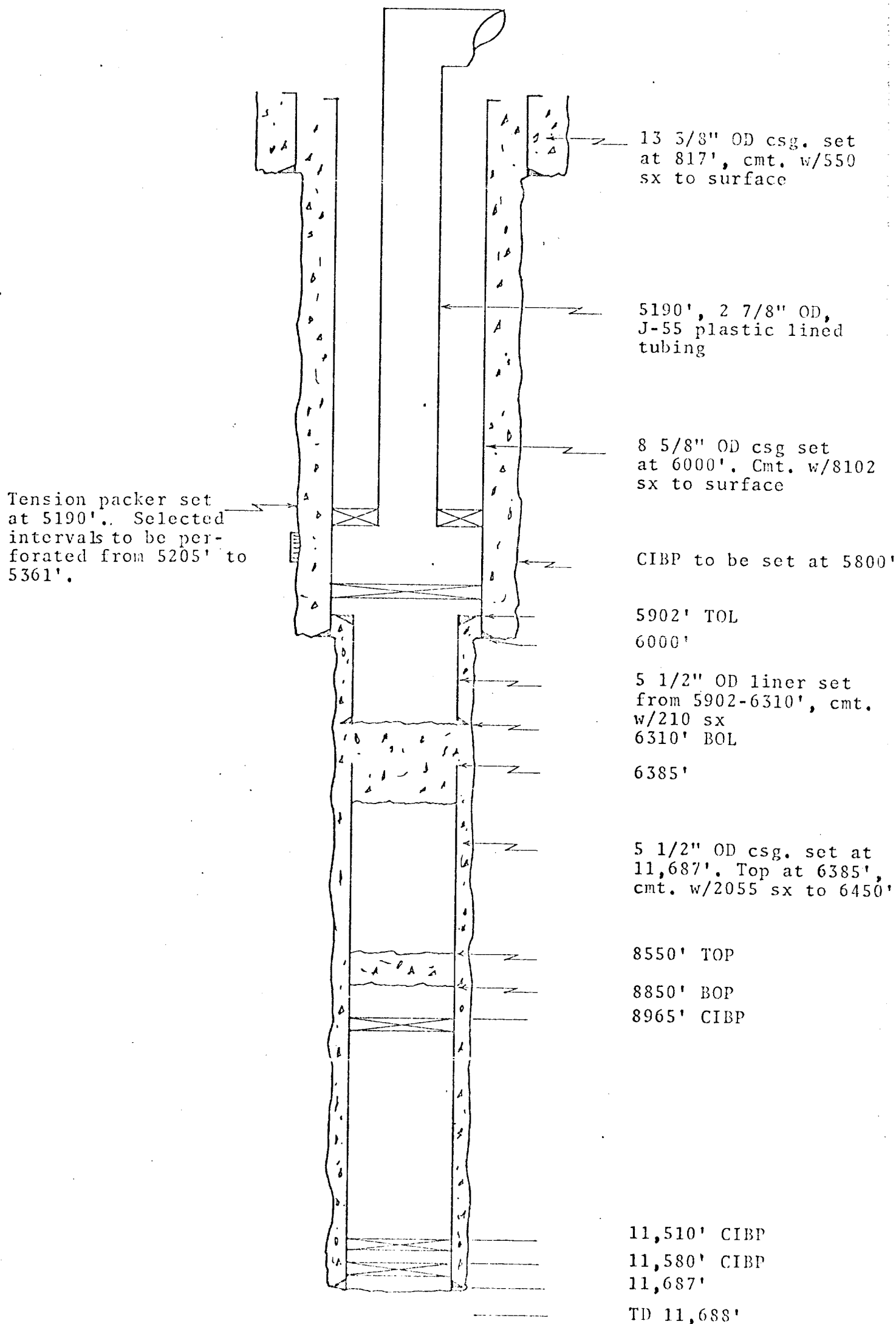
IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	123.75	2480
Magnesium (Mg++)	23.93	291
Sodium (Na+) (calculated)	1136.64	26,131
Bicarbonate (HCO ₃)	10.73	658
Carbonate (CO ₃ -)	Not Found	
Hydroxide (OH-)	Not Found	
Sulphate (SO ₄ -)	32.79	1575
Chloride (Cl-)	1240.80	44,000
pH c 68 ° F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	147.68	7384
Carbonate Hardness, as CaCO ₃ (temporary)	10.73	5365
Non-Carbonate Hardness as CaCO ₃ (permanent)	136.95	6848
Alkalinity as CaCO ₃	10.73	5365
Specific Gravity c 68° F	1.045	

* mg/l = milligrams per Liter

* me/l = milliequivalents per Liter

~~~~~ Makes Water Work ~~~~~

Bell Lake Unit No. 7 C.C.  
 660' FNL & 660' FEL, Section 1, T-24S, R-33E  
 AUG 7 5 AM '66



BELL LAKE UNIT NO. 7

AUG 7 35 AM '68

5000

5100

TOP of LAMAR

TOP of DELAWARE SAND

5200

INTERVAL  
To BE  
PERF.  
5192' -  
5360'

5300

5400

5500

5600

