



ROCKY MOUNTAIN DIVISION
DENVER, CO

MIDLAND PARTNERS
CARLTON BEAL
CARLTON BEAL, JR.
BARRY BEAL
SPENCER BEAL
KELLY BEAL

BTA OIL PRODUCERS
104 SOUTH PECOS
MIDLAND, TEXAS 79701
AC 915-682-3753

ROCKY MOUNTAIN DIVISION
1555-17TH STREET
SUITE 835
DENVER, CO 80202
AC 303-292-9299

DENVER PARTNER
BARRY BEAL, JR.

March 12, 1991

RE: Application for Salt Water Disposal
BTA - Cinco de Mayo Fed., Well No. 3-SWD
Unit D, 990' FNL & 990' FWL
Sec. 24, T18S, R32E
Lea County, New Mexico

16287

STATE OF NEW MEXICO
Energy & Minerals Department
Oil Conservation Commission
P. O. Box 2088
Santa Fe, NM 87504-2088

Attn: Mr. David Catanach

Dear Mr. Catanach:

BTA hereby submits the enclosed application for Salt Water Disposal.
Please set for hearing on April 18, 1991.

The surface owner and all offset operators have been mailed a complete
copy of our application by certified mail.

Please advise if further information is required prior to the hearing.

Sincerely,

DOROTHY HOUGHTON
For BTA Oil Producers

DH/pdi

Enclosures

xc: Hobbs District Office

Case 10297

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: BTA Oil Producers
Address: 104 S. Pecos, Midland, TX 79701
Contact party: Dorothy Houghton Phone: 915-682-3753
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project R-5287.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Dorothy Houghton Title Regulatory Administrator
Signature: *Dorothy Houghton* Date: 3-12-91
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

BTA OIL PRODUCERS

Cinco de Mayo Fed
No. 3 SWD
990' FNL & 990' FWL
D, Sec. 24, T18S, R32E
Lea County, New Mexico

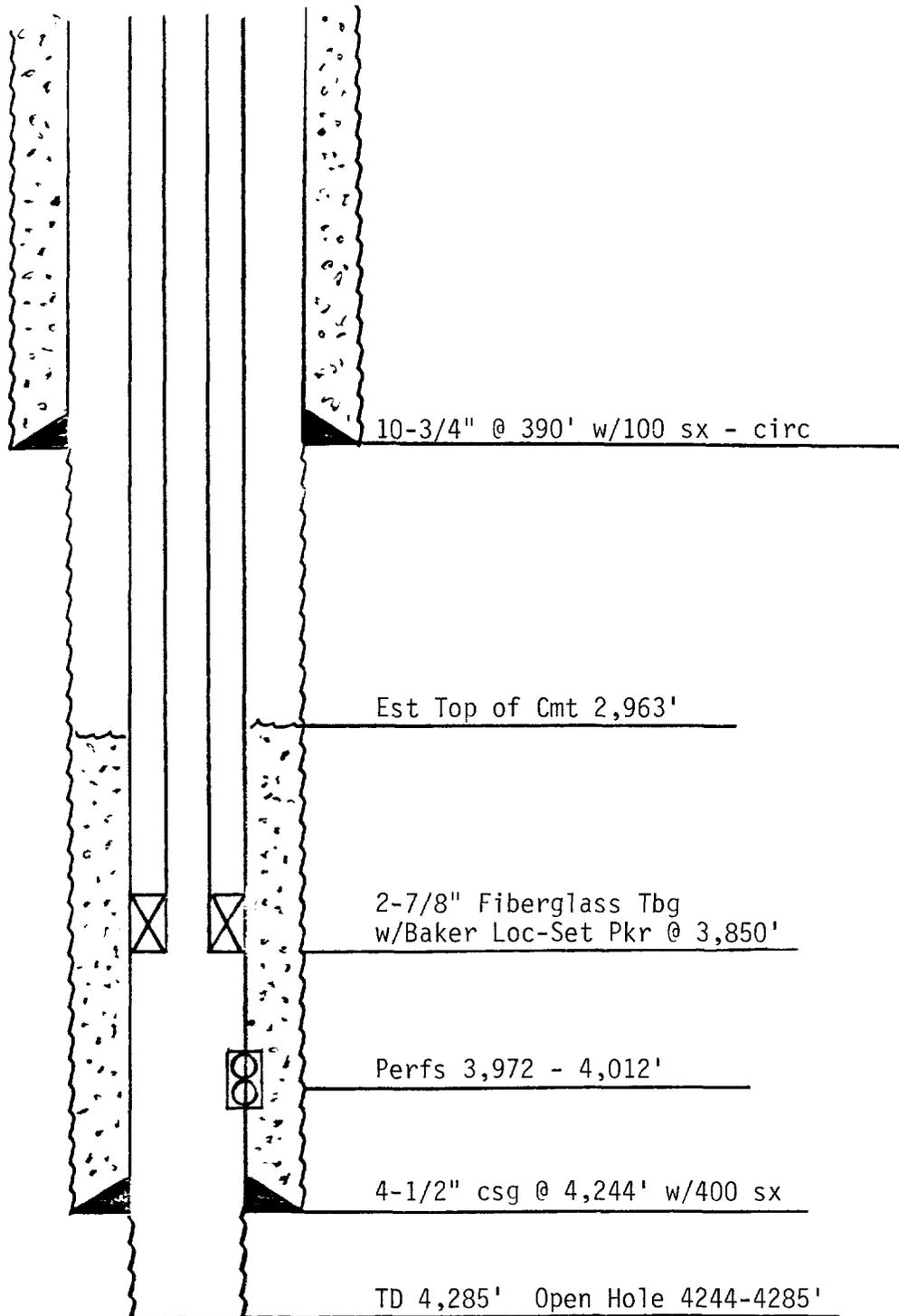
Form C-108 Attachment

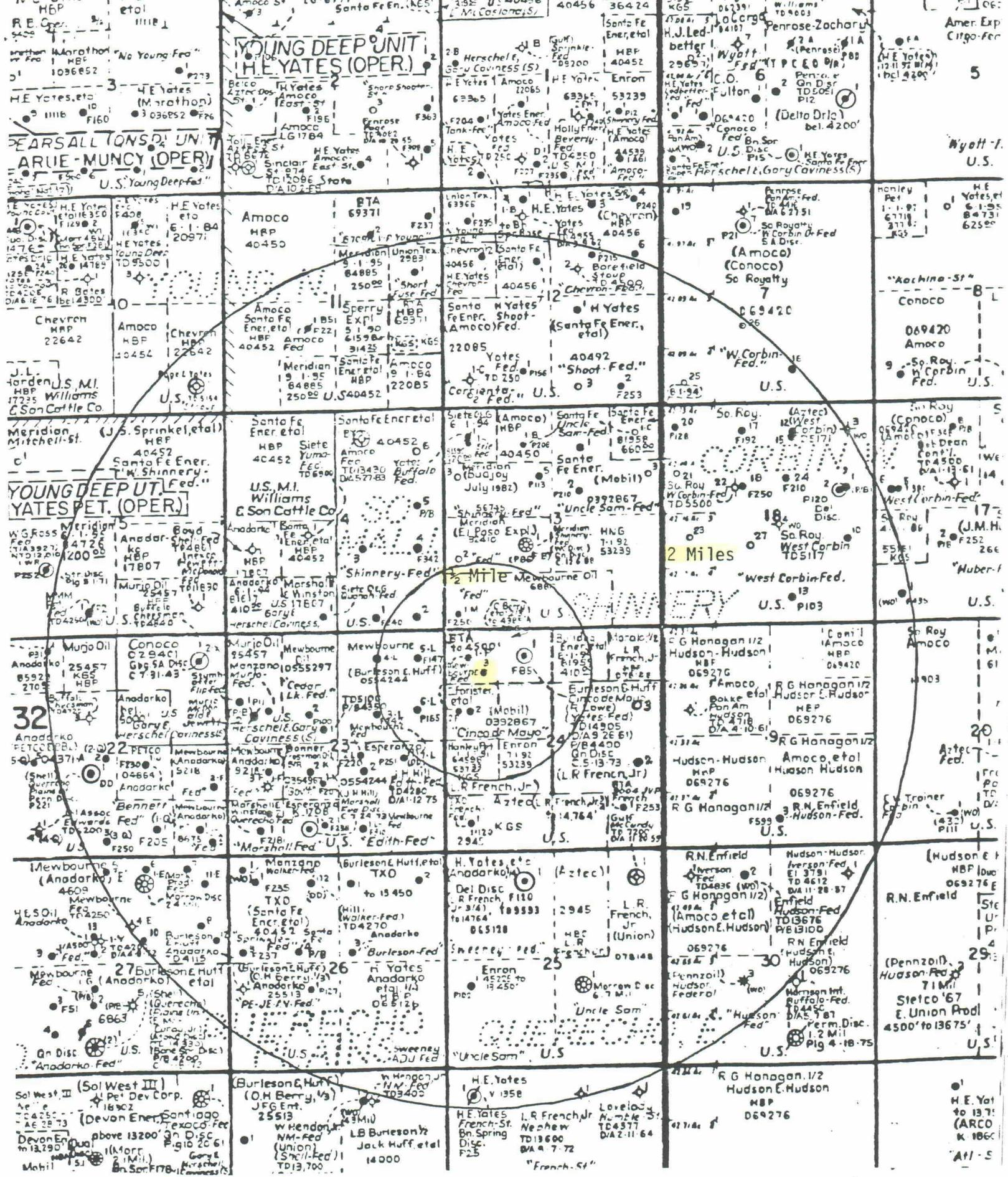
III. Injection Well Data Sheet

		<u>Hole Size</u>
<u>Surface Casing:</u>	10-3/4" @ 390' w/ 100 sx circ	13-3/4"
<u>Intermediate Casing:</u>	4-1/2" @ 4,244' w/ 400 sx circ	6-1/4"
<u>Total Depth:</u>	4,285'	
<u>Tubing:</u>	2-7/8" fiberglass tubing @ 3,850'	
<u>Packer:</u>	Baker Loc-Set Packer @ 3,850'	
<u>Name of Injection Formation:</u>	Queen	
<u>Injection Interval:</u>	3,972 - 4,012 Perfs 4,244 - 4,285 Open Hole	
<u>Field:</u>	Shinnery Queen	
<u>Purpose:</u>	The well was drilled by Burleson & Huff. Spudded 8/07/74. Completed 3/03/75 as oil producer in Shinnery Queen.	
<u>Perforated Intervals:</u>	3,989 - 4,012'	
	Depth and name of overlying and/or underlying oil and gas zones in this area:	
	There is no higher zone of oil or gas production in this area. The next lower zone would be the Delaware.	

BTA OIL PRODUCERS

Cinco de Mayo Fed.
Well No. 3-SWD
990' FNL & 990' FWL
D, Sec. 24, T18S, R32E
Lea County, New Mexico





V AREA OF REVIEW MAP
 BTA OIL PRODUCERS
 CINCO DE MAYO FED. Well #3
 Sec. 24, T18S, R32E
 Lea County, New Mexico

Cinco de Mayo, Well No. 3-SWD
Lea County, New Mexico
March 5, 1991
Attachment to C-108

B T A O I L P R O D U C E R S

VI. Tabulation of Data on all Wells in Review Area

Well: BTA Oil Producers
Cinco de Mayo Fed No. 1

Location: 660' FNL & 1980' FWL
-C-, Sec. 24, T18S, R32E
Lea County, N.M.

Type: Water Injection Well

Total Depth: 14,905'

Construction: 13-3/8" @ 757' w/1050 sx - Circ
9-5/8" @ 4657' w/1500 sx - Circ
CIBP @ 4325' - capped w/cmt

Date Drilled: 3-29-60 -- Drilled by Ralph Lowe
(Yates Federal #1)
5-05-73 -- Re-entry by Burleson & Huff

Record of Completion: Perfs: 4011 - 4240'
IPF: 65 BOPD
Comp: 5-13-73

Converted to WIW: Perfs: 4014 - 4290' (Injection)
Comp: 5-19-78

Well: BTA Oil Producers
Cinco de Mayo Fed No. 2

Location: 1980' FNL & 660' FWL
-E-, Sec. 24, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 4,311'

Construction: 13-3/8" @ 328' w/ 325 sx - Circ
7-7/8" @ 4311' w/ 150 sx

Date Drilled: 3-01-74

Record of Completion: Perfs: 3998 - 4258'
IPF: 82 BOPD
Comp: 3-26-74

Well: Mewbourne Oil Company
Federal -P-, No. 2

Location: 1980' FNL & 330' FWL
-E-, Sec. 24, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 8,725'

Construction: 13-3/8" @ 430' w/ 450 sx - Circ
8-5/8" @ 4330' w/1950 sx
5-1/2" @ 8725' w/1425 sx

Date Drilled: 8-05-89

Record of Completion: Perfs: 8468 - 8524'
IPF: 41 BOPD
Comp: 9-30-89

Well: Mewbourne Oil Company
Federal -P-, #1

Location: 660' FNL & 660' FWL
-D-, Sec. 24, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 8,680'

Construction: 13-3/8" @ 452' w/ 400 sx - Circ
8-5/8" @ 4347' w/1600 sx
5-1/2" @ 8680' w/1425 sx

Date Drilled: 3-31-89

Record of Completion: Perfs: 8473 - 8545'
IPF: 200 BOPD
Comp: 5-07-89

Well: Mewbourne Oil Company
Federal -L-. #4

Location: 660' FNL & 1650' FEL
-B-, Sec. 23, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 8,760'

Construction: 13-3/8" @ 438' w/ 400 sx - Circ
8-5/8" @ 4318' w/1600 sx
5-1/2" @ 8760' w/1325 sx

Date Drilled: 11-03-87

Record of Completion: Perfs: 8431 - 8510'
IPF: 240 BOPD
Comp: 12-11-87

Well: Santa Fe Energy Operating Partners, L.P.
Shinnery -14- Federal #2

Location: 330' FSL & 660' FEL
-P-, Sec. 14, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 9,931'

Construction: 13-3/8" @ 435' w/ 500 sx - Circ
8-5/8" @ 2750' w/2875 sx
5-1/2" @ 9910' w/1325 sx

Date Drilled: 3-10-89

Record of Completion: Perfs: 8496 - 8526'
IPF: 97 BOPD
Comp: 6-16-89

Well: Mewbourne Oil Company
Federal -M- #1

Location: 330' FSL & 330' FWL
-M-, Sec. 13, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 8,670'

Construction: 13-3/8" @ 450' w/ 400 sx - Circ
8-5/8" @ 4332' w/1220 sx
5-1/2" @ 8670' w/1425 sx

Date Drilled: 2-18-89

Record of Completion: Perfs: 8424 - 8514'
IPF: 250 BOPD
Comp: 3-24-89

Well: Mewbourne Oil Company
Federal -L- #5

Location: 660' FNL & 660' FEL
-A-, Sec. 23, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 8,650'

Construction: 13-3/8" @ 460' w/ 400 sx - Circ
8-5/8" @ 4330' w/1475 sx
5-1/2" @ 8650' w/1275 sx

Date Drilled: 4-15-88

Record of Completion: Perfs: 8430 - 8575'
IPF: 147 BOPD
Comp: 6-05-88

Well: Mewbourne Oil Company
Federal -L- #6

Location: 1880' FNL & 660' FEL
-H-, Sec. 23, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 8,650'

Construction: 13-3/8" @ 448' w/ 475 sx - Circ
8-5/8" @ 4330' w/1575 sx
5-1/2" @ 8650' w/1400 sx

Date Drilled: 7-24-88

Record of Completion: Perfs: 8436 - 8520'
IPF: 165 BOPD
Comp: 9-16-88

VII. Proposed Operation

1. The average injection rate is estimated at 500 BWPD.

The proposed maximum injection rate is 1000 BWPD.

2. The system will be open. If the wells' disposal capacity is such to handle additional water, other operators' wells in the area may be trucked into the storage tanks. Storage tanks will be located on the well site along with a powered salt water disposal pump. A salt water gathering system will transport from BTA tank batteries. BTA operates the Cinco de Mayo #1 WIW located in Unit A. This well will be an alternate disposal.

3. The proposed average injection pressure is 1000 psi.

The proposed maximum injection pressure is 1250 psi.

4. The sources of injected water will be from the Wolfcamp and Queen. At the present time, BTA's three producing wells in the area are producing water at a rate of 750 barrels per day. We are attaching two water analyses of produced water from BTA wells. See Exhibits A-1 and A-2. We are attaching a compatibility study between the Wolfcamp and the receiving formation, Queen. See Exhibit B.

5. Our proposed injection zone is productive of oil and gas within one mile of our proposed well. BTA operates the Cinco de Mayo #2 well 1000 feet southwest of Well No. 3.

VIII.

Geological Name: Queen

Lithological Detail: Injection zones are Sandstone. Between injection zones - primarily dolomite with some anhydrite, minor thin sandstone present as well.

Thickness: 310'

Depth: 3,972'

Geological Data of Drinking Water Zone: The underground source of drinking water overlying the zone of disposal is the Ogallala, which occurs from 50 to 250 feet and is approximately 200' thick.

IX. Proposed Stimulation Program

Perforate Zone 3,972 - 4,012'
Acidize Zone w/3500 gal 15% HCl

If required, fracture treat zone with amount to be determined later.

- X. Logs were previously filed by Burleson & Huff upon completion on 3/03/75. A log section of proposed interval is enclosed.
- XI. There are no fresh water wells within one mile of our proposed disposal. The closest water found was a windmill 1.3 miles east and is abandoned and inoperable.
- XII. After examining all available geological and engineering data, we find no evidence of open faults or any other hydrologic connection in, through or near the Queen formation and any underground source of drinking water.
- XIII. A copy of our application has been furnished by certified mail to the surface owner and to each leasehold operator within one-half mile of our proposed injection well. See listing on Exhibit -C-.

**BAKER
Performance Chemicals
WATER ANALYSIS REPORT**

Lab ID No. : 021891-14

Analysis Date: February 18, 1991

Company : BTA Oil Producers
Field : Corbin, Wolfcamp South
Lease/Unit : French
Well ID. : No. 1
Sample Loc.: -P-, Sec. 24, T18S, R32E
 Lea County, N.M.

Sampled By : Pro-Kem, Inc.
Sample Date: 11-February-1991
Salesperson: Gerald Phillips
Formation : Wolfcamp
Location : Lovington, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca ⁺⁺	8,582	429	Hydroxyl as OH-	0	0
Magnesium as Mg ⁺⁺	1,596	131	Carbonate as CO ₃ =	0	0
Sodium as Na ⁺ (Calc)	54,143	2,354	Bicarbonate as HCO ₃ -	187	3
Barium as Ba ⁺⁺	Below 10		Sulfate as SO ₄ =	300	6
Oil Content	0		Chloride as Cl-	102,977	2,905

Total Dissolved Solids, Calculated: 167,784 mg/L.

Calculated Resistivity: 0.018 ohm-meters	pH: 7.000
mg/L. Hydrogen Sulfide: 0	Specific Gravity 60/60 F.: 1.115
mg/L. Carbon Dioxide: 160	Saturation Index @ 80 F.: +0.868
mg/L. Dissolved Oxygen: Not Determined	@ 140 F.: +1.828

Total Hardness:	27,968	mg/L. as CaCO ₃
Total Iron:	42.00	mg/L. as Fe ⁺⁺

CALCULATED GENERAL COMPOSITION

COMPOUND	MG/L	MEQ/L
Ca(HCO ₃) ₂	249	3.1
CaSO ₄	425	6.3
CaCl ₂	23,298	419.8
Mg(HCO ₃) ₂	0	0.0
MgSO ₄	0	0.0
MgCl ₂	6,228	130.8
NaHCO ₃	0	0.0
Na ₂ SO ₄	0	0.0
NaCl	137,616	2,354.0

Calcium Sulfate Scaling Potential
Not Present

Estimated Temperature of Calcium
Carbonate Instability is
56 F.

Randy F. Webb

 Analyst 02:33 PM

**BAKER
Performance Chemicals
WATER ANALYSIS REPORT**

Lab ID No. : 021891-07

Analysis Date: February 18, 1991

Company : BTA Oil Producers
 Field : Shinnery Queen
 Lease/Unit : Cinco de Mayo
 Well ID. : No. 2
 Sample Loc.: -E-, Sec. 24, T18S, R32E
 Lea County, N.M.

Sampled By : Pro-Kem, Inc.
 Sample Date: 6-February-1991
 Salesperson: Gerald Phillips
 Formation : Queen
 Location : Lovington, N. M.

CATIONS	MG/L	MEQ/L	ANIONS	MG/L	MEQ/L
Calcium as Ca++	6,924	346	Hydroxyl as OH-	0	0
Magnesium as Mg++	10,697	877	Carbonate as CO3=	0	0
Sodium as Na+ (Calc)	94,142	4,093	Bicarbonate as HCO3-	123	2
Barium as Ba++	Not Determined		Sulfate as SO4=	600	13
Oil Content	0		Chloride as Cl-	187,958	5,302

Total Dissolved Solids, Calculated: 300,444 mg/L.

Calculated Resistivity: 0.010 ohm-meters pH: 5.550
 mg/L. Hydrogen Sulfide: Not Present Specific Gravity 60/60 F.: 1.208
 mg/L. Carbon Dioxide: Not Determined Saturation Index @ 80 F.: -0.495
 mg/L. Dissolved Oxygen: Not Determined @ 140 F.: +0.865

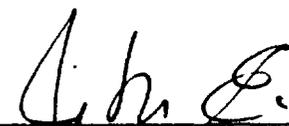
Total Hardness: 61,286 mg/L. as CaCO3
 Total Iron: 65.00 mg/L. as Fe++

CALCULATED MINERAL COMPOSITION

COMPOUND	MG/L	MEQ/L
Ca(HCO3)2	164	2.0
CaSO4	851	12.5
CaCl2	18,409	331.7
Mg(HCO3)2	0	0.0
MgSO4	0	0.0
MgCl2	41,752	876.8
NaHCO3	0	0.0
Na2SO4	0	0.0
NaCl	239,285	4,093.1

Calcium Sulfate Scaling Potential
 Not Present

Estimated Temperature of Calcium
 Carbonate Instability is
 99 F.


 Analyst

02:27 PM

E X H I B I T -B-

P.O. BOX 1468
MONAHANS, TEXAS 79756
PH. 943-3234 or 563-1040

Martin Water Laboratories, Inc.
WATER CONSULTANTS SINCE 1953
BACTERIAL AND CHEMICAL ANALYSES

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

March 8, 1991

Ms. Dorothy Houghton
BTA Oil Producers
104 South Pecos
Midland, TX 79701

Dear Ms. Houghton:

This letter is in response to your request for a compatibility evaluation between waters from the Wolfcamp and Queen intervals in Lea county. We examined our cataloged records of waters from these intervals in the very general area and failed to come up with any records that were sufficiently near the area involved to be utilized as representing the waters from these two intervals. In response, you have sent us a record of Wolfcamp water from the French #1 in the South Corbin field. You also provided us with a Queen water from the Cinco de Mayo #2 in the Shinnery field. Our evaluation of compatibility is therefore based on these two water analyses that you have provided us. Our records in the very general area show the waters from both of these zones vary significantly in their characteristics; therefore, we do not have a stable opinion as to how well these analyses represent the waters from the intervals listed.

A comparison of the analyses of the waters from these two intervals as discussed above has revealed no evidence that would suggest any incompatibility would result from combining the Wolfcamp and Queen waters. This is to say that the results indicate no potential precipitation or scaling condition would result from the mixture. However, we have received the clear-cut implication that both of these waters would be expected to contain soluble iron and therefore would be very sensitive to air contamination as this would cause iron oxide precipitation. The results provided reveal no evidence of any other condition that would cause need for concern.

Yours very truly,



Waylan C. Martin

WCM/mo

EXHIBIT -C-

BTA Oil Producers

Cinco de Mayo Fed
Well No. 3-D
Lea County, New Mexico

Surface Owner
Federal:

BUREAU OF LAND MANAGEMENT
P. O. Box 1778
Carlsbad, NM 88220-1778

Offset Leasehold Operators within one-half mile of the well location:

MEWBOURNE OIL COMPANY
P. O. Box 5270
Hobbs, New Mexico 88241

SANTA FE ENERGY
Operating Partners, L.P.
500 W. Illinois
Midland, Texas 79701

BULLDOG ENERGY CORPORATION
P. O. Box 668
Artesia, New Mexico 88211
Attn: Raye Miller

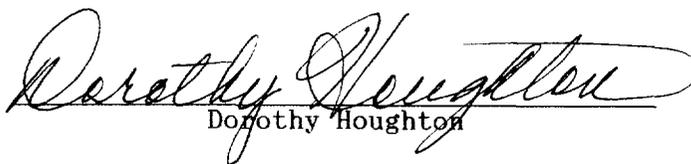
MERIDIAN OIL, INC.
21 Desta Drive
Midland, Texas 79705

HANLEY PETROLEUM, INC.
415 W. Wall, Suite 1500
Midland, Texas 79701

ENRON OIL & GAS COMPANY
P. O. Box 2267
Midland, Texas 79702

ESPERANZA ENERGY CORPORATION
17400 Dallas Pkwy., Suite 210
Dallas, Texas 75252

I hereby certify the above were mailed copies of our application on
March 11, 1991, by certified mail.


Dorothy Houghton



91 MAR 21 10 55 AM

RE: 150

ROCKY MOUNTAIN DIVISION

BTA OIL PRODUCERS

104 SOUTH PECOS
MIDLAND, TEXAS 79701
AC 915-682-3753

ROCKY MOUNTAIN DIVISION

555-17TH STREET
SUITE 835
DENVER, CO 80202
AC 303-292-9299

MIDLAND PARTNERS
CARLTON BEAL
CARLTON BEAL, JR.
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DENVER PARTNER
BARRY BEAL, JR.

March 18, 1991

RE: Application for Salt Water Disposal
Hearing 4/18/91
BTA - Cinco de Mayo Fed., Well No. 3-SWD
Unit D, 990' FNL & 990' FWL
Sec. 24, T18S, R32E
Lea County, New Mexico

STATE OF NEW MEXICO
Energy & Minerals Department
Oil Conservation Commission
P. O. Box 2088
Santa Fe, NM 87504-2088

Case 10287

Attn: Mr. David Catanach

Dear Mr. Catanach:

We hereby submit an amended injection well data sheet. The only change on it is the estimated top of cement for the 4-1/2" casing.

There is one change for the wells in the review area data. The Cinco de Mayo Fed. No. 2 casing size has been amended.

We are enclosing all "proof of notification forms 3811" for the surface owner and all offset operators.

Should further information be required prior to the hearing, please advise.

Sincerely,

DOROTHY HOUGHTON
For BTA Oil Producers

DH/pdi

Enclosures

xc: Hobbs District Office

BTA OIL PRODUCERS

Cinco de Mayo Fed
No. 3 SWD
990' FNL & 990' FWL
D, Sec. 24, T18S, R32E
Lea County, New Mexico

Form C-108 Attachment

AMENDED

III. Injection Well Data Sheet

		<u>Hole Size</u>
<u>Surface Casing:</u>	10-3/4" @ 390' w/ 100 sx circ	13-3/4"
<u>Intermediate Casing:</u>	4-1/2" @ 4,244' w/ 400 sx Estimated TOC @ 2,963'	6-1/4"
<u>Total Depth:</u>	4,285'	
<u>Tubing:</u>	2-7/8" fiberglass tubing @ 3,850'	
<u>Packer:</u>	Baker Loc-Set Packer @ 3,850'	
<u>Name of Injection Formation:</u>	Queen	
<u>Injection Interval:</u>	3,972 - 4,012 Perfs 4,244 - 4,285 Open Hole	
<u>Field:</u>	Shinnery Queen	
<u>Purpose:</u>	The well was drilled by Burleson & Huff. Spudded 8/07/74. Completed 3/03/75 as oil producer in Shinnery Queen.	
<u>Perforated Intervals:</u>	3,989 - 4,012'	

Depth and name of overlying and/or underlying oil and gas zones in this area:

There is no higher zone of oil or gas production in this area. The next lower zone would be the Delaware.

Cinco de Mayo, Well No. 3-SWD
Lea County, New Mexico
March 15, 1991
Attachment to C-108

B T A O I L P R O D U C E R S

VI. Tabulation of Data on all Wells in Review Area

Well: BTA Oil Producers
Cinco de Mayo Fed No. 1

Location: 660' FNL & 1980' FWL
-C-, Sec. 24, T18S, R32E
Lea County, N.M.

Type: Water Injection Well

Total Depth: 14,905'

Construction: 13-3/8" @ 757' w/1050 sx - Circ
9-5/8" @ 4657' w/1500 sx - Circ
CIBP @ 4325' - capped w/cmt

Date Drilled: 3-29-60 -- Drilled by Ralph Lowe
(Yates Federal #1)
5-05-73 -- Re-entry by Burleson & Huff

Record of Completion: Perfs: 4011 - 4240'
IPF: 65 BOPD
Comp: 5-13-73

Converted to WIW: Perfs: 4014 - 4290' (Injection)
Comp: 5-19-78

Well: BTA Oil Producers
Cinco de Mayo Fed No. 2

Location: 1980' FNL & 660' FWL
-E-, Sec. 24, T18S, R32E
Lea County, N.M.

Type: Oil Producer

Total Depth: 4,311'

Construction: 10-3/4" @ 328' w/ 325 sx - Circ
5-1/2" & 4-1/2" @ 4311' w/ 150 sx

Date Drilled: 3-01-74

Record of Completion: Perfs: 3998 - 4258'
IPF: 82 BOPD
Comp: 3-26-74

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
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1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: BUREAU OF LAND MANAGEMENT P. O. Box 1778 Carlsbad, New Mexico 88220-1778	4. Article Number P 477 957 614
Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery 3/14/91	

PS Form 3811, Apr. 1989 U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
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1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: MEWBOURNE OIL COMPANY P. O. Box 5270 Hobbs, New Mexico 88241	4. Article Number P 477 957 607
Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery 3-15-91	

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1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: SANTA FE ENERGY Operating Partners, L.P. 500 W. Illinois Midland, Texas 79701	4. Article Number P 477 957 608
Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X Wanda Wade	
7. Date of Delivery 3-13	

PS Form 3811, Apr. 1989 U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

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1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: BULLDOG ENERGY CORPORATION P. O. Box 668 Artesia, New Mexico 88211 Attn: Raye Miller	4. Article Number P 477 957 609 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature - Addressee X <i>Misti McLurg</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery 3-13-91	

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

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~~1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)~~

3. Article Addressed to: MERIDIAN OIL, INC. 21 Desta Drive Midland, Texas 79705 <i>BOX 51810</i>	4. Article Number P 477 957 610 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>W. W. ...</i>	
7. Date of Delivery 3/13	

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

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~~1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)~~

3. Article Addressed to: HANLEY PETROLEUM, INC. 415 W. Wall, Suite 1500 Midland, Texas 79701 <i>40</i>	4. Article Number P 477 957 611 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>J. Mc Dennis</i>	
7. Date of Delivery 3-13	

PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

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1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: ENRON OIL & GAS COMPANY P. O. Box 2267 Midland, Texas 79702	4. Article Number P 477 957 612
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
Always obtain signature of addressee or agent and DATE DELIVERED .	
5. Signature - Addressee <i>[Signature]</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery MAR 13 1991	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
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1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: ESPERANZA ENERGY CORPORATION 17400 Dallas Pkwy, Suite 210 Dallas, Texas 75252	4. Article Number P 477 957 613
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
Always obtain signature of addressee or agent and DATE DELIVERED .	
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent <i>[Signature]</i>	
7. Date of Delivery 5-14-91	