

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Lewis B. Burleson, Inc.
Address: P. O. Box 2479, Midland, Texas 79702
Contact party: Lewis Burleson Phone: 915/683-4747
- 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-5168.
- 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: Steven Burleson Title: V.P.
Signature: Steven Burleson Date: 3/16/84
- * 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.

V. MAP

VI. ATTACHED

- VII. 1. Proposed Maximum Injection Pressure 500 psi
2. Estimated Daily Disposal is 300 bbls
3. Source Water Analysis is Attached.
5. Analysis Attached.

VIII. INJECTION ZONE

Queen

3830-4060 Depth

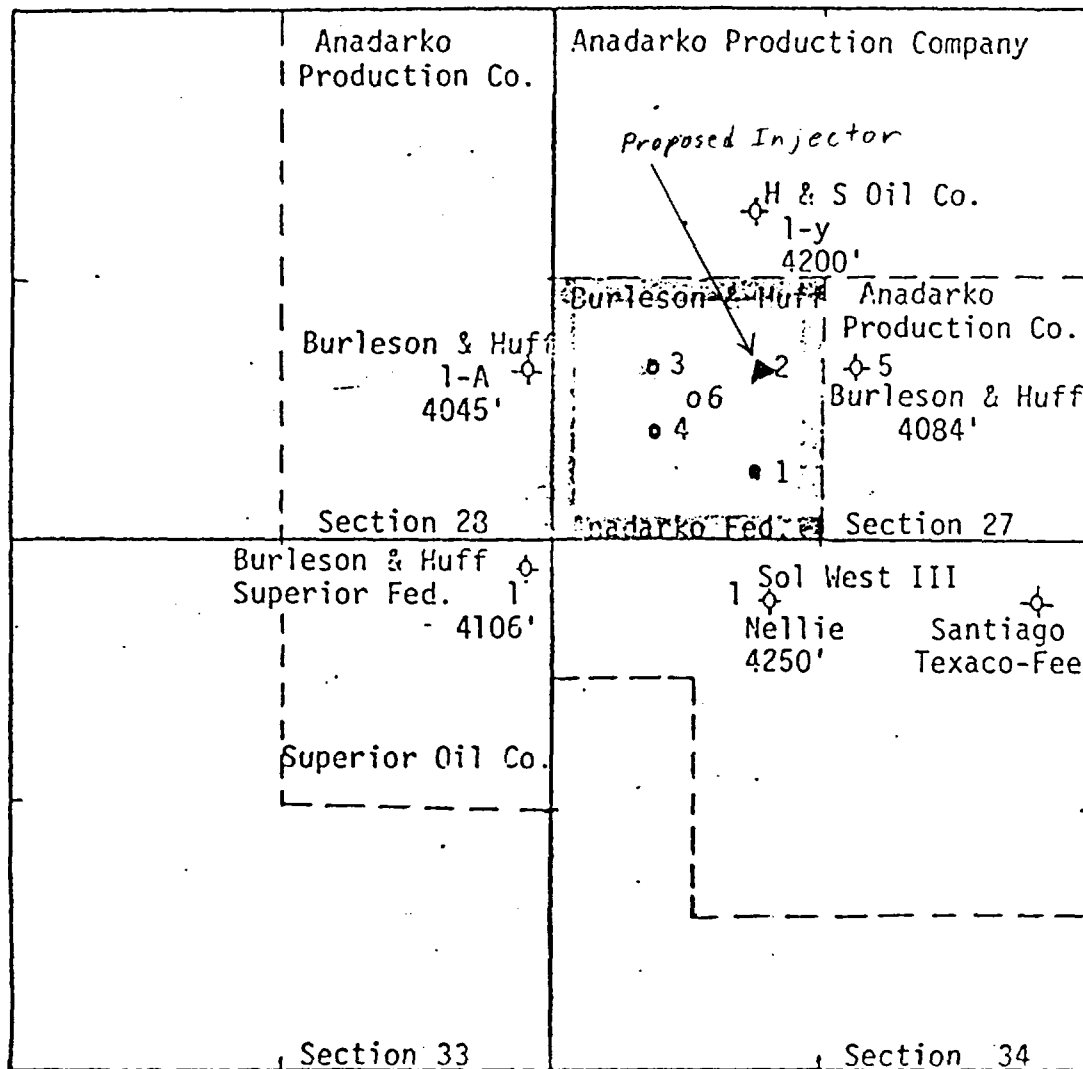
The surface water is at approximately 300', however
there are no wells within 1 mile of this location

XI. 1000 Gallon Acid To Clean Up Perf If Necessary.

X. LOGS ON FILE

XI. ATTACHED

XII. Available Geological and Engineering Data have been examined
and no evidence of open faults or any other hydrologic
connection between the Disposal Zone and any underground
sources of Drinking Water have been found.



Township 18 South, Range 32 East

Lea County, New Mexico

BURLESON & HUFF QUERECHO PLAINS
 QUEEN FIELD WATERFLOOD, T-18-S,
 R-32-E, LEA COUNTY, NEW MEXICO

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the attached Application for Water Injection has been served upon the following named persons, at the addresses shown:

LAND OWNER

Bureau of Land Management
Roswell District Office
Box 1397
Roswell, New Mexico 88201

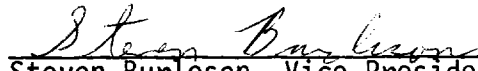
OFFSET OPERATORS

Anadarko Production Co.
Two Greenway Plaza E. Ste. 410
Houston, Texas 77046

Mewbourne Oil Co.
Box 7698
Tyler, Texas 75711

Petroleum Development Corp.
9720-B Candeloria NE
Albuquerque, New Mexico 87112

By placing the same in the United States mail at Midland, Texas, postage paid, this 14th of May, 1984.



Steven Burleson, Vice-President
Lewis B. Burleson, Inc.

SUBSCRIBED AND SWORN TO before me this 14th day of May, 1984.



STEVEN MATTINGTON
Notary Public, State of Texas
My Commission Expires Aug. 13, 1985



Notary Public, Midland County,
Texas.

NOTE

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.

WELL NAME: Burleson & Huff
Anadarko Federal # 2

LOCATION: 27-18-32, Unit K, Lea Co., NM

SPUD DATE: 3-2-73

T. D.: 4070'

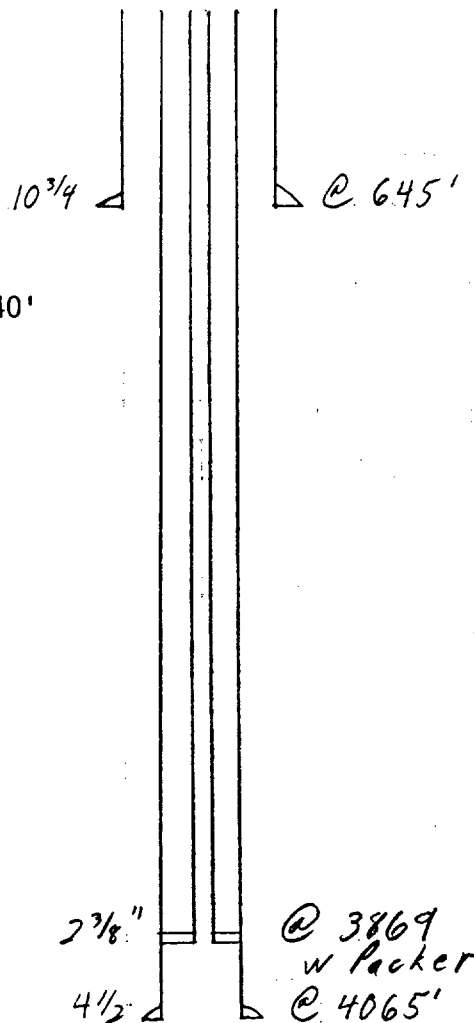
CASING PROGRAM: 10-3/4" @ 645' cem. w/ 325 sx
(circ)
4-1/2" @ 4065' cem. w/ 400 sx
(circ)
2-3/8" @ 3869 w/ Halib. R4 packer

TYPE OF WELL: Oil

COMPLETION:

Perfs: 3888-4026 w/ 7 shots
Acid: 1000 gals 15%
Frac: 15,000 gal gelled water
17,000 # sand
Put well on pump

Next higher pay is the Yates @ 2700'
Next lower pay is the Delaware sand @ 4740'



WELL NAME: Burleson & Huff
Anadarko Fed. # 1

LOCATION: 27-18-32-, Unit N, Lea Co., NM

SPUD DATE: 6-27-72

T. D.: 14,337'

CASING PROGRAM: 13-3/8" @ 753' cem. w/ 750 sx
(circ)
9-5/8" @ 4525 cem. w/ 1300 sx
(circ)

TYPE OF WELL: Oil

COMPLETION:

Re-entered old Shell well, drilled
out top plug and set CIBP @ 4250'
w/ 2 sx cap.

Perfs: 3908-3940 w/ 6 shots
4032-4050 w/ 3 shots

Frac: 20,000 gal gel water
40,000# sand

Put well on pump

WELL NAME: Burleson & Huff
Anadarko Federal # 3

LOCATION: 27-18-32, Unit L, Lea Co., NM
2310' FSL & 2310' FWL

SPUD DATE: 9-26-73

T. D.: 4060'

CASING PROGRAM: 13-3/8" hole for 9.5# 10-3/4" csg
@ 525' cem. w/ 525 sx (circ.)
10-3/4" hole for 20# 7" csg. @ 3830'
cem. w/ 225 sx (circ.) top/cem. @
surface
2-3/8" tubing set @ 3780' w/ Hallib.
R4 packer

TYPE OF WELL: Orig. drilled as oil well

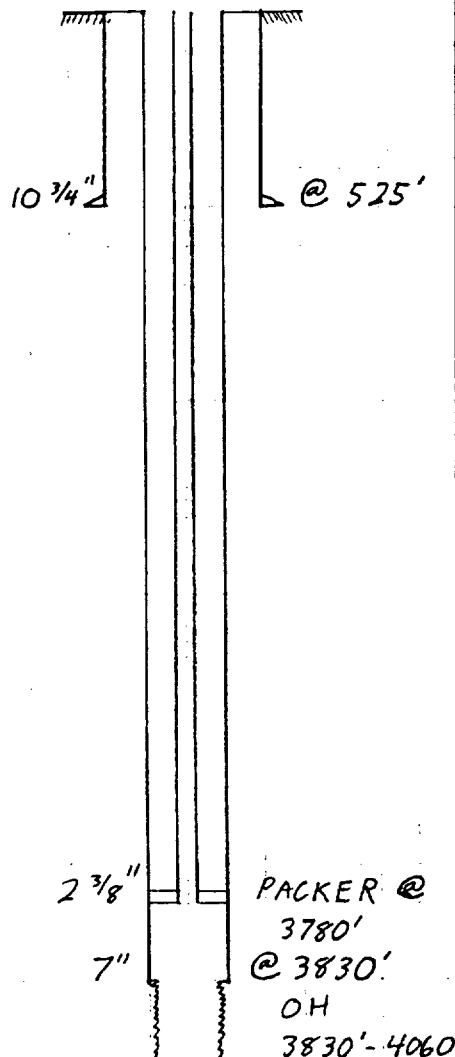
COMPLETION: Completed in the Queen form of
the Querecho Plains Field
Had to side-track around a
cable tool bit.

Open hole from 3830 to 4060

Frac: 10,000 gal water
20,000 # sand

Next higher pay is the Yates @ 2700'

Next Lower pay is Delaware Sands @ 4740'



WELL NAME: Burleson & Huff
Anadarko Fed. # 4

LOCATION: 27-18-32, Unit M, Lea Co., NM

SPUD DATE: 6-18-74

T. D.: 4080'

CASING PROGRAM: 8-5/8" @ 315', cem. w/ 150 sx
(circ.)
4½" @ 4080' cem. w/ 400 sx
(top cem. @ 2750 est.)

TYPE OF WELL: Oil

COMPLETION:

Perfs: 3885-3917 w/ 7 shots

Acid: 500 gal 15%

Frac: 10,000 gal KCL water

20,000 # sand

WELL NAME: Burleson & Huff
Anadarko Federal # 5

LOCATION: 27-18-32, Unit J, Lea Co., NM

SPUD DATE: 12-18-74

T. D.: 4084'

CASING PROGRAM: 8-5/8" @ 338' w/ 150 sx (circ.)
4-1/2" @ 4084 w/ 400 sx (top
of cement @ 2450' by log)

TYPE OF WELL: Gas

COMPLETION:

Perfs: 3917-3928 w/ 8 shots

Acid: 500 gal 15%

Frac: 500 bbls water
10,000# sand

Perfs: 4050-4052 w/ 3 shots

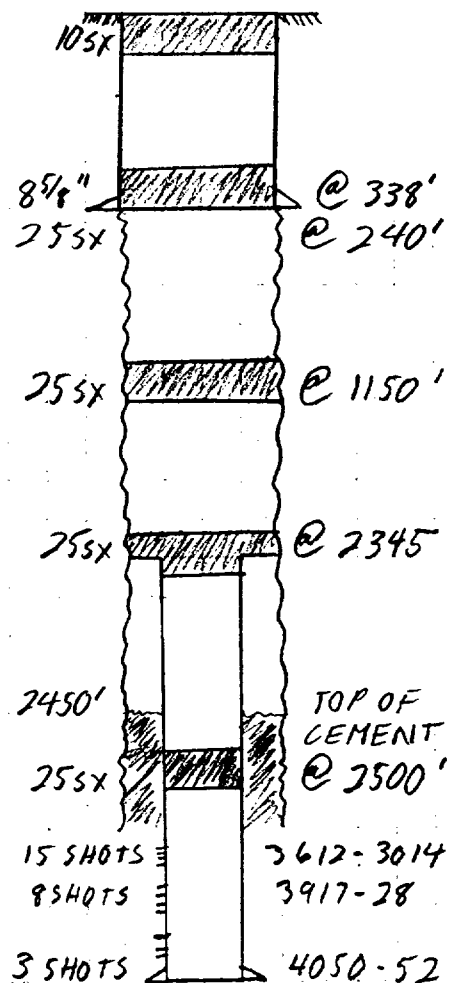
Acid: 500 gal 15%

Frac: 500 bbls water
2200 # sand

Perfs: 3612-3614 w/ 15 shots

Acid: 100 gal

Plugged: 25 Sx @ 2500, base salt
cut & pulled 2345' of 4 1/2"
25 sx in stub
25 sx @ 1150'-1250', top salt
25 sx @ 240', base surf. pipe
10 sx @ surface



WELL NAME: Burleson & Huff
Anadarko Fed. # 6

LOCATION: 27-18-32, Unit N, Lea Co., NM

SPUD DATE: 3-1-76

T. D.: 4870'

CASING PROGRAM: 8-5/8" @ 352' cem. w/ 150 sx
(circ)
4-1/2" @ 4870' cem. w/ 600 sx
(top cem. @ 2100' by temp.
survey)

TYPE OF WELL: Oil

COMPLETION:

Set CIBP @ 4700' w/ 4 sx cap

Perfs: 4030-46 w/ 7 shots

Acid: 1000 gal 15%

Frac: 20,000 gal water

20,000 # sand

Set CIBP @ 400' w/ 3 sx cap

Perfs: 3901-3932 w/ 7 shots

Acid: 500 gal 15%

Frac: 20,000 gal water

20,000 # sand

This well subsequently became
an injection well

WELL NAME: Burleson & Huff
Anadarko A # 1

LOCATION: 28-18-32, Unit I, Lea Co., NM

SPUD DATE: 2-10-75

T. D.: 4045'

CASING PROGRAM: 13-3/4" hole for 24# 8-5/8" casing
@ 334' cemented w/ 225 sx (circ.)
6-1/2" hole for 11.6# 4-1/2" csg.
@ 4045' cemented w/ 450 sx

TYPE OF WELL: Dry

COMPLETION:

Perfs: 4003-4017 w/ 17 shots

Acid: 1000 gal 15%

frac: 7600 gal water &
15,200# sand

Set CIBP @ 3950'

Perfs: 3985-3997 w/ 7 shots

acid: 1000 gal 15%

frac: 10,000 gal water,
19,500# sand

Plugged: 25 sx @ 3615-3965

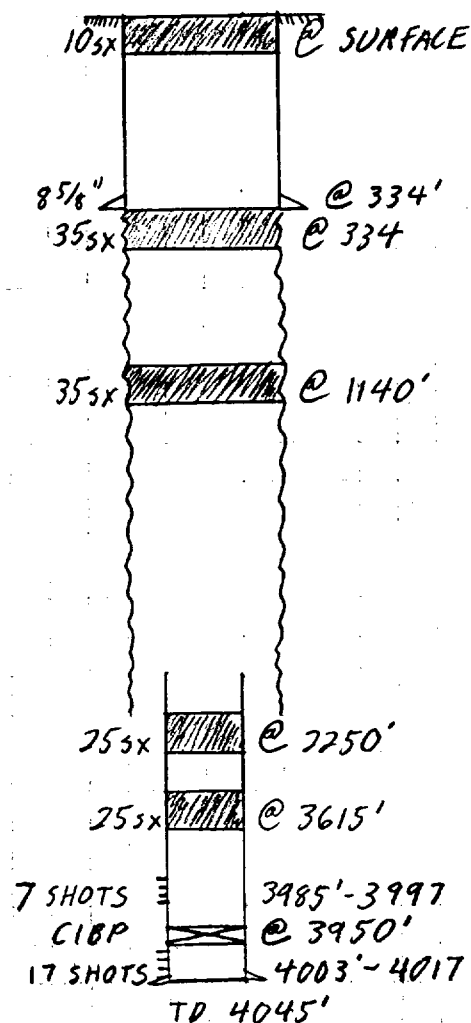
25 sx @ base salt, 2550-2800

cut & pulled 2290' of 4-1/2"

35 sx top of salt @ 1240-1140'

35 sx base of 8-5/8" @ 334'

10 sx @ surface



WELL NAME: Burleson & Huff
Nellie # 1

LOCATION: 34-18-32, Unit C, Lea Co., NM

SPUD DATE: 6-2-73

T. D.: 4250'

CASING PROGRAM: 12½" hole for 20# 8-5/8" @ 493'
cemented w/ 325 sx (circ.)
7-7/8" hole for 9.5# 4½" @ 4250'
300 sx (top of cement @ 3070' by bond log.

TYPE OF WELL: Dry

COMPLETION: Plugged

Perfs 4053-71 w/ 10 shots

Acid - 2000 gal 15% NE

Frac - 24,000 gal water

37,800# 10/20 sand

set CIBP @ 3390

Perfs 3126-3223 w/ 10 shots

Acid - 1,000 gal 15% MC

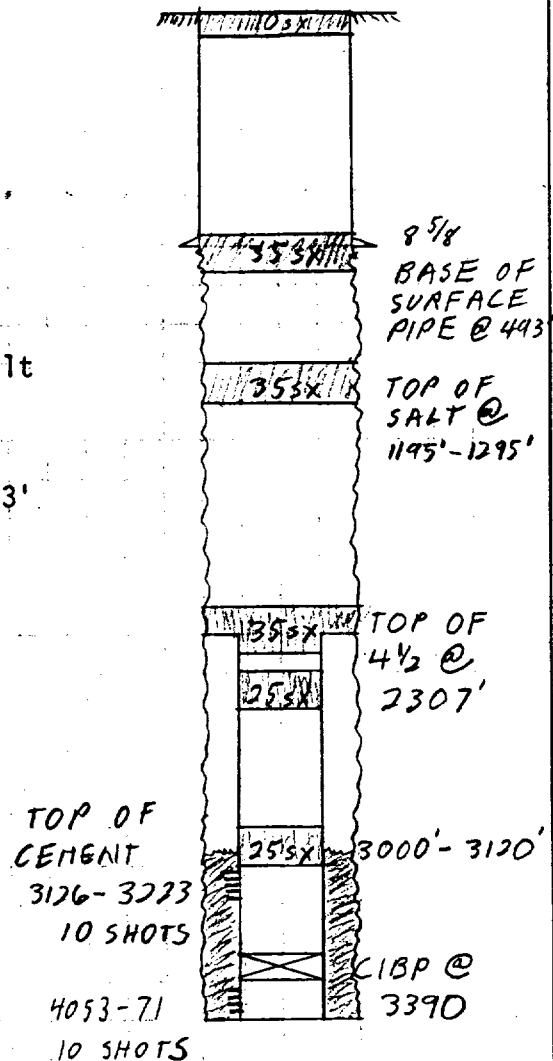
PLUGGED: 25 sx @ 3000' - 3120'

25 sx @ 2550' - 2300' base salt
cut & pulled 2310' of 4½"

35 sx in stub @ 2307

35 sx @ top salt @ 1195-1295'

35 sx @ base surf. pipe @ 493'



WELL NAME: H & S Oil
Anadarko Fed. # 1Y

LOCATION: 27-18-32, Unit F, Lea Co., NM

SPUD DATE: 3-30-72

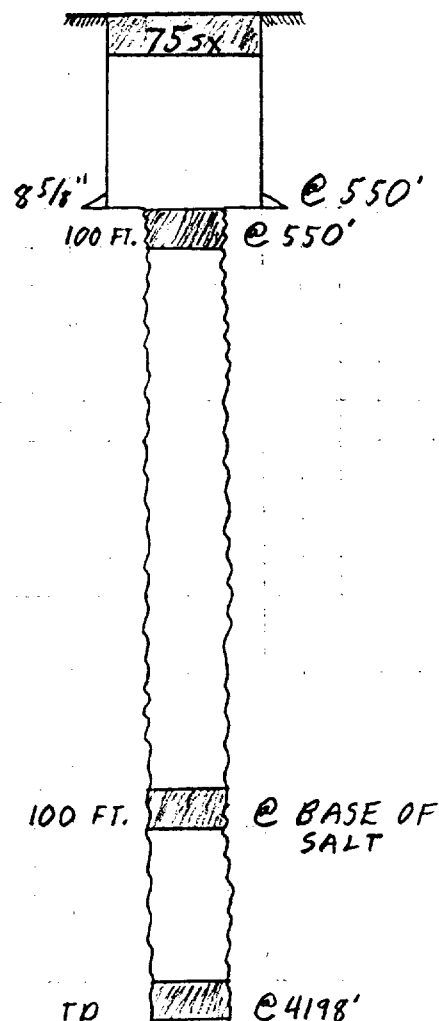
T. D.: 4198

CASING PROGRAM: 8-5/8" casing @ 550'
cement W/ 400 SX (circ.)

TYPE OF WELL: Dry

COMPLETION: Plugged

100' plug on bottom
100' plug at base/salt
100' plug at 550'
(bottom of 8-5/8)
75 sx in top of 8-5/8



WELL NAME: Mewbourne
Federal # 2E

LOCATION: 27-18-32, Unit F, Lea Co., NM

SPUD DATE: 9-20-77

T. D.: 4240'

CASING PROGRAM: 11" hole for 24# 8-5/8" casing
@ 1151', cemented w/ 600 sx
(circ. 50 sx), 7-7/8" hole for
17# 4-1/2" casing @ 4220'
cemented w/ 450 sx (tested to
1000#)

TYPE OF WELL: Oil

COMPLETION:

Perfs: 3910-44 - 13 shots
4040-41 2 shots

Frac: 40,000 gal versagel
15,000# 20/40 sand
50,000# 10/20 sand

Put well on pump

WELL NAME: Mewbourne
Federal # 3E

LOCATION: 27-18-32, Unit E, Lea Co., NM

SPUD DATE: 7-9-78

T. D.: 4250'

CASING PROGRAM: 8-5/8" casing @ 1220'
cement w/ 600 sx (circ)

7-7/8" hole for 17# 4-1/2"
casing @ 4250' cemented w/
800 sx(tested to 1000#)

TYPE OF WELL: Oil

COMPLETION:

Perfs: 3904-3918 - 1 shot/foot
3924-3942 - 1 shot/foot

Acid: 3000 gal 15%

Frac: 40,000 gal versagel
32,500 # 20/40 sand
32,500 # 10/20 sand

Well was put on pump

WELL NAME: Mewbourne
Federal # 4E

LOCATION: 27-18-32, Unit G, Lea Co., NM

SPUD DATE: 7-17-78

T. D.: 4250'

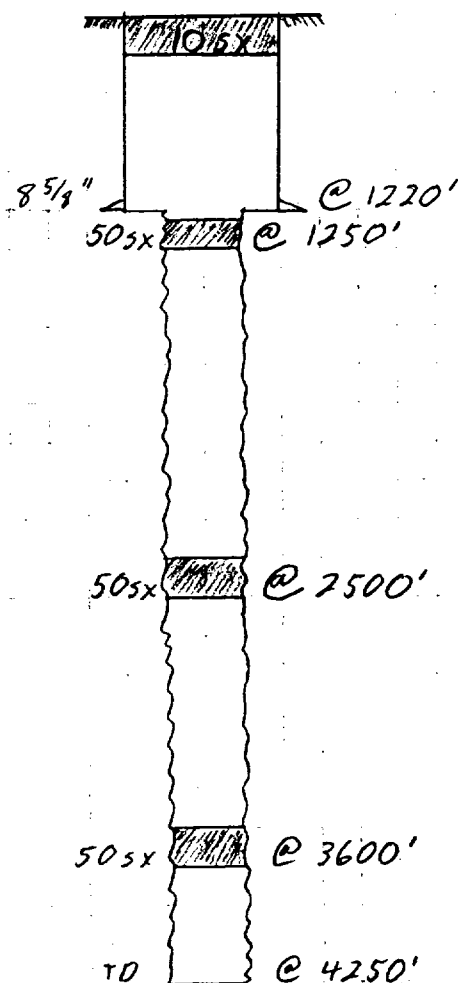
CASING PROGRAM: 8-5/8" casing @ 1220', cemented
w/ 500 sx (circ. 35 sx)

CASING IN HOLE

TYPE OF WELL: Dry

COMPLETION: Plugged

50sx @ 3600'
50 sx @ 2500'
50 sx @ 1250'
10 sx @ surface



WELL NAME: Petroleum Development Corp.
Superior Federal # 1

LOCATION: 33-18-32, Unit A, Lea Co., NM

SPUD DATE: 11-5-72

T. D.: 4106'

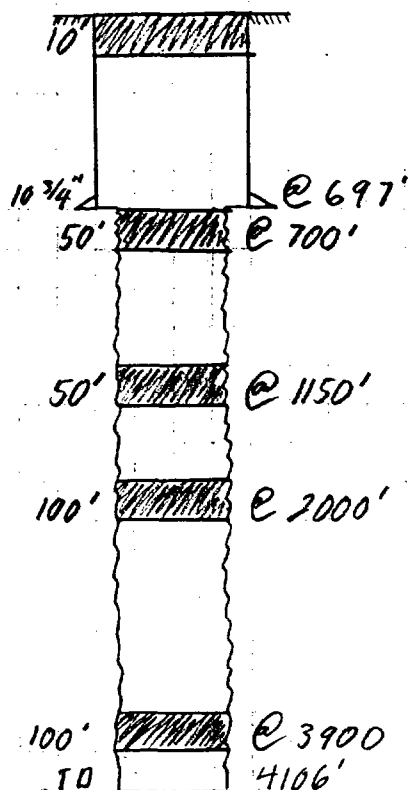
CASING PROGRAM: 12-1/4" hole for 38# 10-3/4" @
697', cemented w/ 325 sx (circ)

TYPE OF WELL: Dry

COMPLETION:

Plugged: 100' @ 3900-4000'
100' @ 2000-2700' base salt
50' @ 1150-1200' top salt
50' @ 700-750' base surface pipe
10' Surface

Note: This well was plugged by Burleson & Huff
and never re-entered.



LEWIS B. BURLESON, INC.

OIL & GAS PROPERTIES

BOX 2479 - PHONE 683-4747

MIDLAND, TEXAS 79702

LEWIS B. BURLESON
PRESIDENT

WAYNE JARVIS
SUPERINTENDENT

Note: The following analysis is of the produced water from the field. This water is to be reinjected along with fresh water, from the City of Carlsbad water supply, if needed.

RETOLITE DIVISION

369 Marshall Avenue / Saint Louis, Missouri 63119
(314) 961-3500 / TWX 910-760-1660 / Telex 44-2417

WATER ANALYSIS REPORT

COMPANY

SOURCE

Lewis B. Burleson

Anadarko Federal
Well N/A
Sample point:
Comingled

Submitted by: Hughes, Joe
Sampled by: Hughes, J.
Distribution Center: Midland

Sample date: 2/22/82
Analysis Date: 3/4/82
Analysis No.: 17025

SAMPLE ANALYSIS

Appearance: Clear
Sp. Conductivity:
pH: 7.4

170000 micromhos/cm

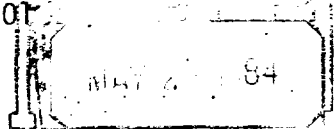
Color: Colorless
Chem. Treatment: N/A
H2S (Qualitative): Neg.

constituent **	ppm	meq/l	method	comments
Sodium (Na+)	43200	1880	icp	
Potassium (K+)	1950	50.	icp	
Lithium (Li+)	5.	0.8	icp	
Calcium (Ca++)	3830	191.	icp	
Magnesium (Mg++)	4530	373.	icp	
Barium (Ba++)	<1.	-	icp	
Strontium (Sr++)	77.	2.	icp	
Aluminum (Al+++)	<1.	-	icp	
Silver (Ag+)	<0.2	-	icp	
Arsenic (As+++)	<5.	-	icp	
Chromium (Cr+++)	<0.6	-	icp	
Copper (Cu++)	<0.1	-	icp	
Iron (Fe++)	1.2	0.04	icp	
Mercury (Hg++)	<2.	-	icp	
Lead (Pb++)	<3.	-	icp	
Antimony (Sb+++)	<20	-	icp	
Tin (Sn++)	<6.	-	icp	
Titanium (Ti++++)	<0.1	-	icp	
Zinc (Zn++)	0.71	0.0216	icp	
Boron (B) ***	189.	52.5	icp	
Phosphate (PO4---)	<5.	-	icp	
Chloride (Cl-)	82400	2320	titr	
Sulfate (SO4--)	3040	63.3	turb	
Bicarbonate (HCO3-)	291.	4.8	titr	
Carbonate (CO3--)	<1.	-	titr	
Silica (SiO2)	9.	-	icp	

OIL CONSERVATION DIVISION
DISTRICT I

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

DATE May 17, 1984



RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed NSP _____
Proposed SWD _____
Proposed WFX X _____
Proposed PMX _____

Gentlemen:

I have examined the application for the:

Lewis B. Burleson, Inc. Anadarko Federal. No. 2-K 27-18-32
Operator Lease and Well No. Unit, S - T - R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,

/mc