

ALPHA TWENTY-ONE PRODUCTION COMPANY

POST OFFICE BOX 1206
JAL. NEW MEXICO 88252

505/395-3056

February 2, 1982

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

SUBJECT: Application for Salt Water Disposal System in the San Andres

RE: Buckskin Federal No. 3
1650' FSL & 1980' FWL,
Sec. 18, T-24-S, R-38-E,
Lea County, New Mexico

Gentlemen:

Attached you will find a map that identifies all wells and leases within two miles of our proposed injection well with a one-half mile radius circle drawn around the proposed site to identify the area of review. Also attached you will find a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone along with a schematic illustrating all plugging detail for each well.

1. We propose to inject an average of 150 bbls of fluid per day with a maximum rate of 250 bbls per day.
2. The system will be closed.
3. Average injection pressure will be 300 PSI and maximum will be 800 PSI.

Below are the fluid analysis of the injection fluid and the receiving formation; analysis are from Tretolite Labs and "Salinity Map of San Andres Formation" taken from McNeal R.P. 1964.

	<u>Buckskin Federal #1</u>	<u>Buckskin Federal #2</u>	<u>Receiving Formation</u>
HCO3	122 Mg/L	207 Mg/L	Chlorides between
Cl	111,100 Mg/L	135,542 Mg/L	100,000 to 50,000 ppm
SO4	950 Mg/L	575 Mg/L	
Ca	10,400 Mg/L	14,000 Mg/L	
Mg	3,159 Mg/L	8,262 Mg/L	
Iron (FE)	18 Mg/L	375 Mg/L	
Total Hardness/ (CaCO3)	39,000 Mg/L	69,000 Mg/L	

February 2, 1983

The San Andres section in this well is comprised mainly of dolomite and limestone with some shale and sand. The top of the San Andres is at 4295' and the base is at 5248', giving it a thickness of 953'. The only fresh water produced is from alluvial at the surface. There are no fresh water wells producing within a one mile radius of the proposed disposal well, nor have we found any evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. Logs have already been filed with the Division.

Please note:

- 1.) The injection formation is the San Andres.
- 2.) The well was originally drilled as an oil well.
- 3.) The next higher oil zone is the Queen with a base at 3937' (358 feet away) and the nearest oil zone underlying is the Tubbs at 6280' (1041 feet away).
- 4.) The injection site is perforated and intervals are sealed off with bridge plugs as follows:

Perfs. 6710' - 6740'	Bridge plug 6620'
Perfs. 6238' - 6460'	Bridge plug 6200'
Perfs. 5724' - 5896'	Bridge plug 5690'
Perfs. 5412' - 5444'	Bridge plug 5318'

Below is a list of required attachments for this application. If you desire anything further, please contact the undersigned.

- 1.) Form 9-331
- 2.) Form C-108
- 3.) Proof of Publication, Hobbs Daily News Sun.
- 4.) Injection Well Data Sheet

Sincerely,



Steven J. McCormick
Technical Advisor

SJM/tic
Enclosures

cc: Via Certified Mail
Mr. Clyde Cooper, Surface Owner
201 W. Nebraska
Jal, NM 88252

Offset Operators:

Getty Oil Company
Two Midland National Center
Midland, TX 79702

Buckskin Federal No. 1
Application for Salt Water Disposal
-Page 3-

February 2, 1983

Conoco, Inc.
Box 1959
Gibraltar Saving Center
Midland, TX 79702

Gulf Oil Exploration and Production Company
P.O. Box 670
Hobbs, NM 88240

Arco Oil and Gas Company
Box 1610
Atlantic Richfield Building
Midland, TX 79702

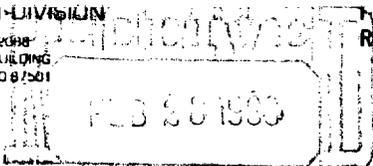
Texaco, Inc.
Box 3109
7th Floor Midland Savings
Midland, TX 79701

HNG Oil Company
P.O. Box 2267
Midland, TX 79702

Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88240

Alpha Twenty-One Production Company
2100 First National Bank Building
Midland, TX 79701
ATTN: Mr. Tom Phipps

United States Department of the Interior
Minerals Management Service
P.O. Drawer 1857
Roswell, NM 88201
ATTN: Armando A. Lopez



APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- II. Operator: Alpha Twenty-One Production Company
Address: 2100 First National Bank Building, Midland, Texas 79701
Contact party: Steve McCormick Phone: (505) 395-3056
- 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 _____.
- 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: Steve J. McCormick Title Technical Advisor

Signature: Steve J. McCormick Date: February 2, 1983

* 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.

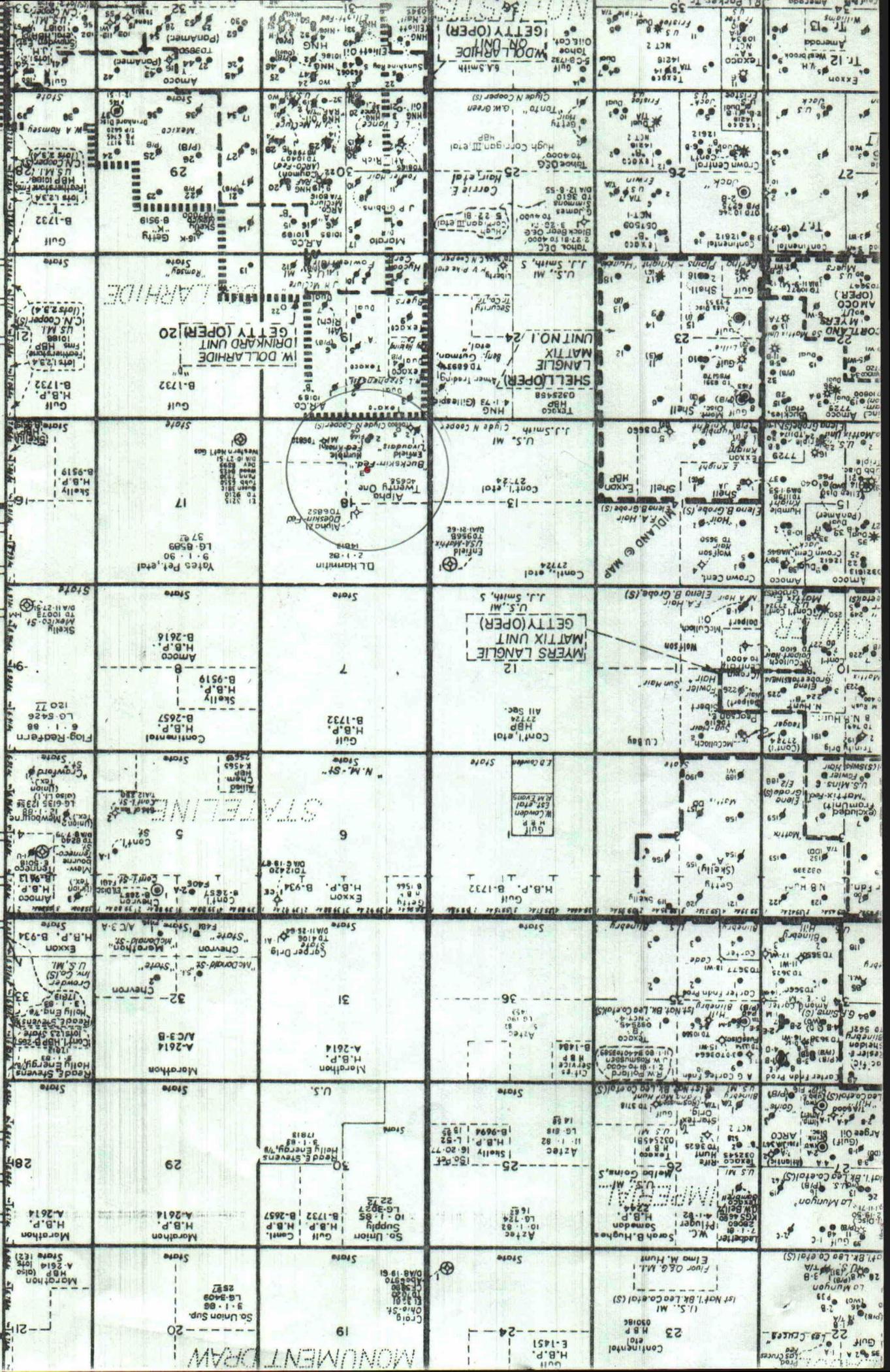
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

BLK. A-52

S 24 T

32015

BLK. A-51



ALPHA TWENTY-ONE PRODUCTION COMPANY

"BUCKSKIN FEDERAL #1"

660' FSL & 1980' FWL,
Sec. 18, T-24-S, R-38-E,
Elevation: 3174.5

Casing: 8-5/8", 1295'; 700 sx circulated
5-1/2", 6825'; 1175 sx circulated

Date Drilled: 10-3-80
TD: 6825'

Completion: Perforations: 6666 - 6726 (26 perms.), acidized w/
300 gals 15% NCA, acidized w/6,000 gals
15% NE

ALPHA TWENTY-ONE PRODUCTION COMPANY

"BUCKSKIN FEDERAL #6"

2310' FEL & 330' FSL,
Sec., 18, T-24-S, R-38-E,
Elevation: 3180' GL

Casing: 8-5/8", 1263.27'; 700 sx
5-1/2", 6811.49', 2410 sx

Date Drilled: 7-2-82
TD: 6810'

Completion: Perforations: 6716 - 25 (6 perfs) acidize w/1500 gals
NEFE 15%.

ALPHA TWENTY-ONE PRODUCTION COMPANY

"DOESKIN FEDERAL #1"

2310' FWL & 2310' FNL,
Sec. 18, T-24-S, R-38-E,
Elevation: 3189' GL

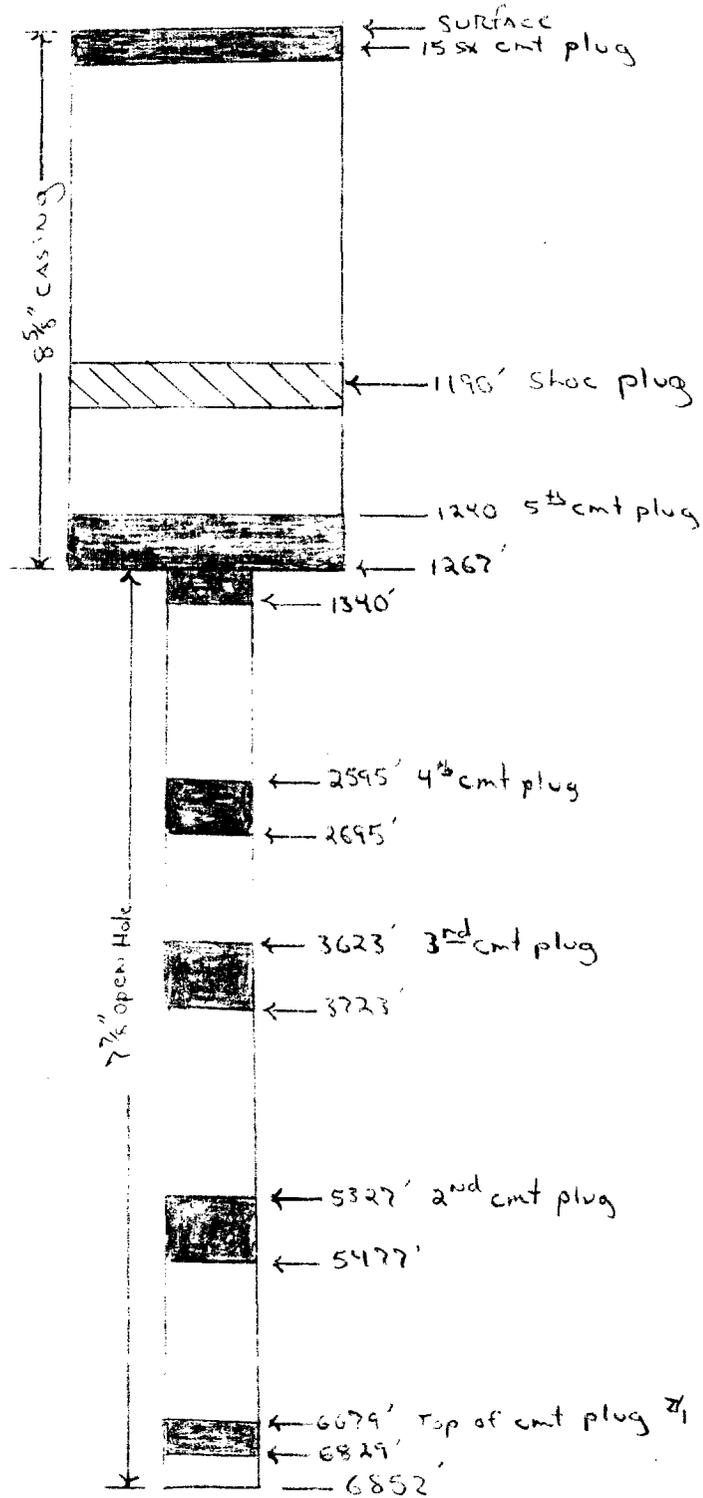
Casing: 8-5/8", 1267'; cemented w/675 sx

Date Drilled: 8-9-81
TD: 6852'

Plugged and Abandoned: 1st plug: 6679' - 6829'
2nd plug: 5327' - 5477'
3rd plug: 3623' - 3723'
4th plug: 2595' - 2695'
5th plug: 1240' - 1340'
6th plug: @ surface; 15 sx

Alps & Twenty-One Prod. Co.

"Doeskin #1"



HUMBLE OIL AND REFINING COMPANY

"FEDERAL KNOX #1"

660' FNL & 1980' FEL,
Sec. 18, T-24-S, R-38-E,
Elevation: 3174' GL

Casing: 11-3/4", 42# @ 282.30'; cemented w/250sx
8-5/8", 32# @ 3298.20'; cemented w/2300 sx
5-1/2", 14#, 15.5#, & 17# @ 6808.2'; cemented w/600 sx

Date Drilled: 8-13-57
TD: 6820'

Completion:

Perforations @ 6775' and 6769' w/6 holes each; acidized
w/1000 gals acid, squeezed perfs and set packer @ 6735'.

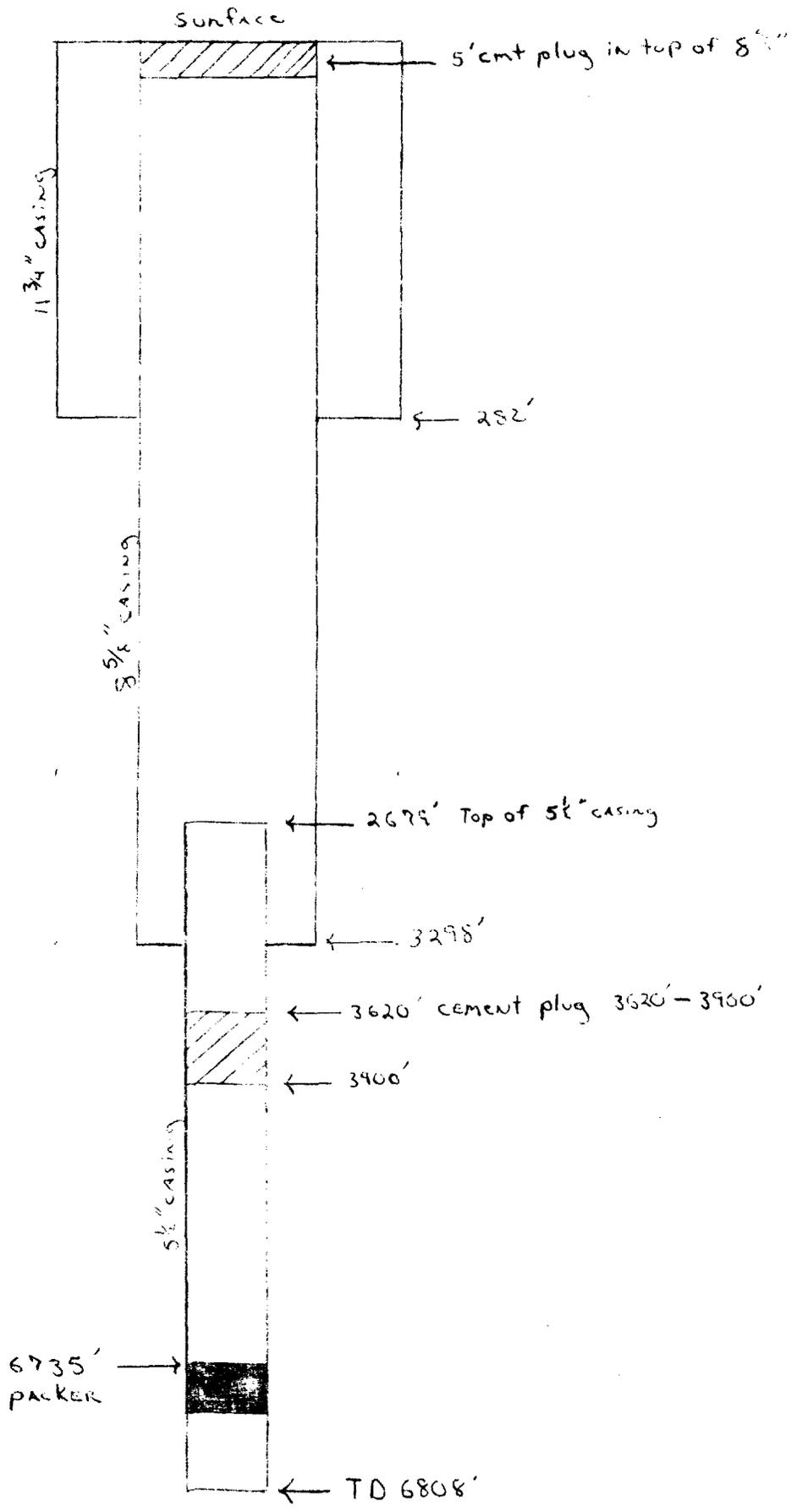
Perforations @ 5800' w/2 bullet holes; cemented w/
450 sx, top of cement @ 3210'.

Perforations @ 5376' - 90' w/4 bullets per foot,
acidized w/500 gals 15% HCL, squeezed w/175 sx cement.

Perforations @ 5443' - 77' w/4 shots per foot, acidized
w/500 gals 15% HCL, squeezed w/95 sx cement.

Perforations @ 3805' - 21', 3830' - 70' w/4 shots per
foot, acidized w/1000 gals mud acid, frac w/20,000 gals
refined oil and 30,000 lbs sand; placed cement plug
from 3900' - 3620' w/35 sx; shut off 5-1/2" casing
@ 3175'; casing parted @ casing bowl; recovered 66 jts.,
2630'.

Humble Oil & Refining Co. "Federal Knox #1"



HUMBLE OIL AND REFINING COMPANY

"FEDERAL KNOX #2"

330' FSL & 660' FWL Sec 18, T24-S, R38-E Elevation: 38185' DF

Casing: 8-5/8" 24# @ 1266' Cemented w/900 sxs
5-1/2" @ 6800' Cemented w/495 sxs

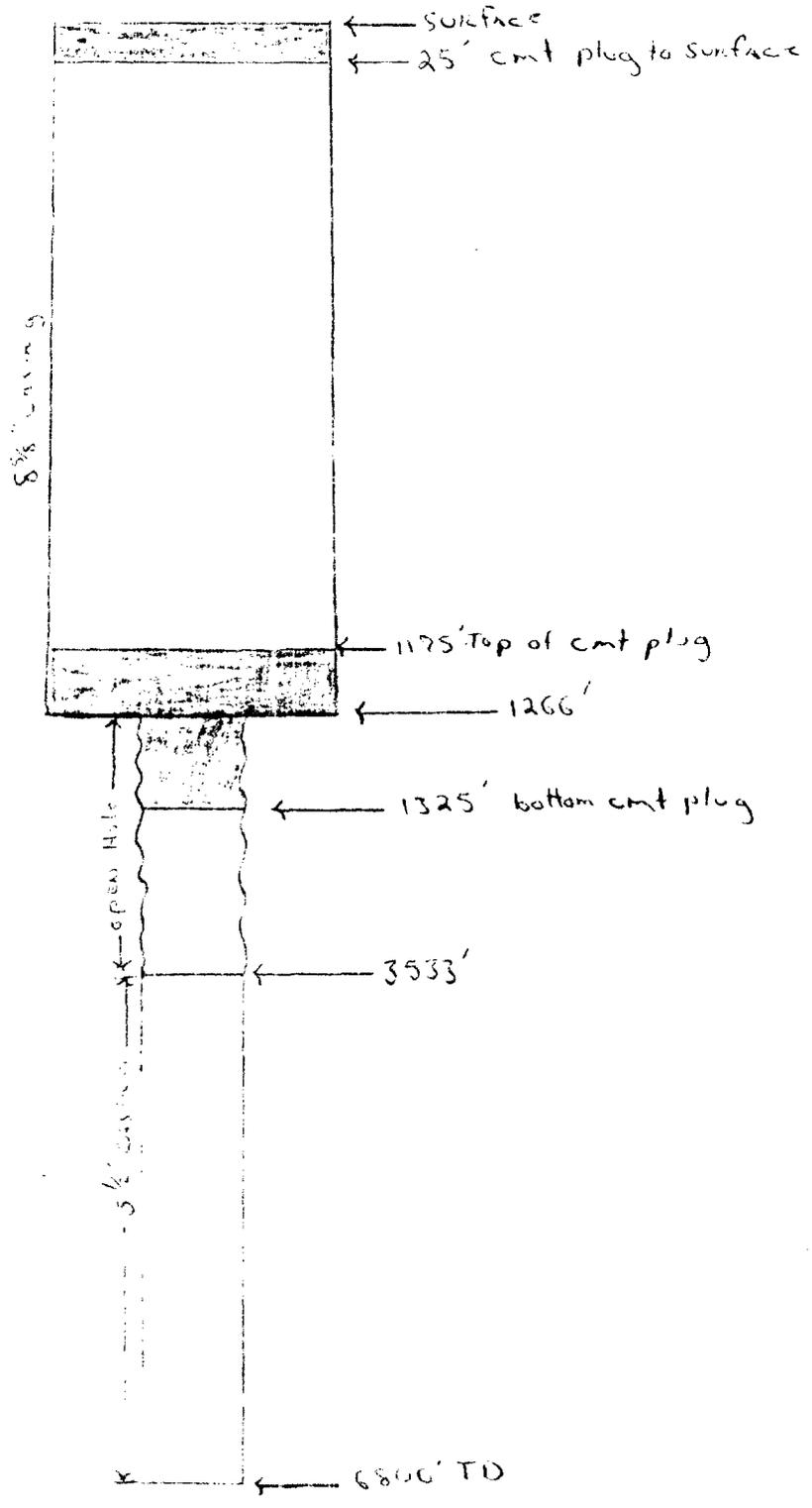
Date Drilled: May 11, 1958

TD: 6800'

Completion: Perforation - 6749-62 w/2 shots per foot, acidize w/500 gal.,
acidize w/3,000 gal., squeezed w/75 sxs
Perforation - 6711-19 w/2 shots per foot, acidize w/500 gal.,
acidize w/3,000 gal.
Perforation - 6723-27 w/4 jet shots per foot, acidize w/5,000 gal.
frac w/10,000 gals refined oil and 10,000 # sand.

Plug & Abandon: Spotted cost, plug area perforation in 5-1/2" casing from
6711 - 6727' with 25 sxs neat cement. Cut off 5-1/2" csg.
@ 3533' and pulled from this depth. Removed wellhead,
spotted cement plug from 1325' to 1175' w/40 sxs regular
cement. Set cement plug from 25' to surface.

Humble Oil & Refining Co.
"Federal Knox #2"



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OIL CONSERVATION DIVISION

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well gas well other Dry Hole

2. NAME OF OPERATOR
Alpha Twenty-One Production Company

3. ADDRESS OF OPERATOR
2100 1st Natn'l Bank Bldg. Midland, TX 79701

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1650'FSL & 1980'FWL, Sec 18, T24S, R38E
AT TOP PROD. INTERVAL: Same
AT TOTAL DEPTH: Same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) <u>Convert to Salt Water Disposal</u>			

5. LEASE
NM-40558

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Buckskin Federal

9. WELL NO.
#3

10. FIELD OR WILDCAT NAME
Dollarhide-Tubb Drinkard

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 18, T24-S, R38-E

12. COUNTY OR PARISH
Lea

13. STATE
NM

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
3193DF, 3194KDB, 3181GL

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

We propose to: Rig up on well, run in the hole with 2-3/8" tubing and a Baker Lok-set packer, set the packer @ 4950' and dispose of Salt Water through the perforations at 5053 - 5239.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Henry J. McBrumick TITLE Technical Advisor DATE Feb. 7, 1983

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, _____

Robert L. Summers

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 in a supplement thereof for a period

of _____

1 (one) weeks.

Beginning with the issue dated

January 31, 1983

and ending with the issue dated

January 31, 1983

Robert L. Summers
Publisher.

Sworn and subscribed to before

me this 15th day of

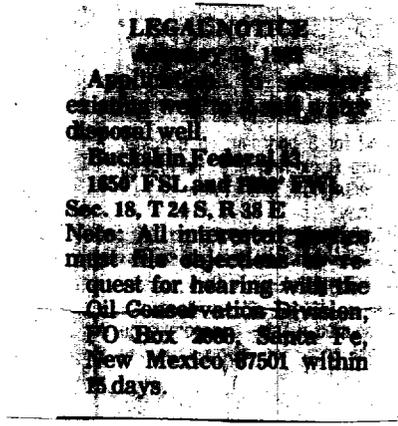
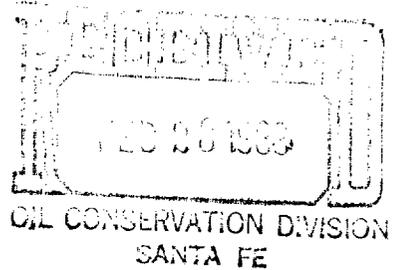
February, 1983

Lynette Naegele
Notary Public.

My Commission expires _____

March 29, 1986
(Seal)

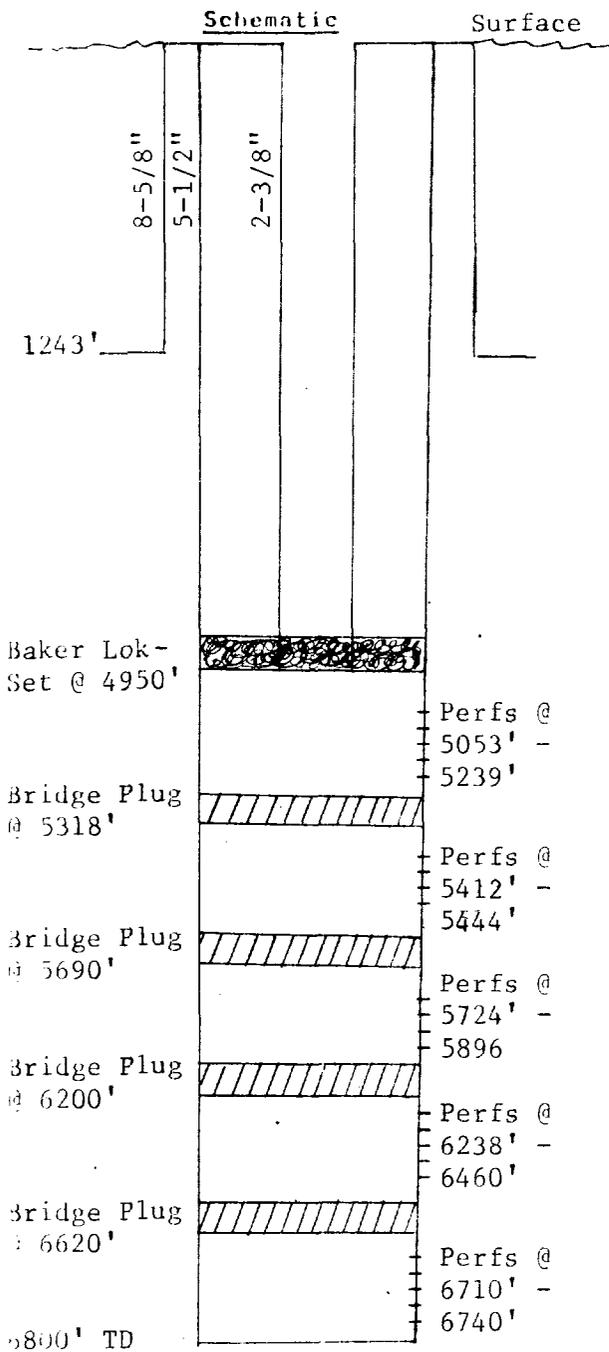
This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.



ALPHA TWENTY-ONE PRODUCTION COMPANY

BUCKSKIN FEDERAL

OPERATOR	LEASE			
3	1650' FSL & 1980' FWL	18	24-S	38-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE



Tabular Data

Surface Casing
 Size 8-5/8" " Cemented with 650 sx.
 TOC Surface feet determined by circulated
 Hole size 12-1/4"

Intermediate Casing
 Size _____ " Cemented with _____ sx.
 TOC _____ feet determined by _____
 Hole size _____

Long string
 Size 5-1/2" " Cemented with 2190 sx.
 TOC Surface feet determined by circulated
 Hole size 7-7/8"
 Total depth 6800'

Injection interval
5053 feet to 5239 feet
 (perforated or ~~perforated~~ indicate which)

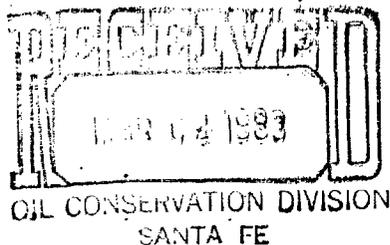
Tubing size 2-3/8" lined with plastic set in a
 (material)
Baker Lok-Set packer at 4950 feet
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation San Andres
- Name of Field or Pool (if applicable) _____
- Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? originally drilled as
an oil well
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Perfs @ 6710 -6740;
6238 - 6460; 5724 - 5896; 5412 - 5444. Bridge plugs @ 6620, 6200, 5690, 5318
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. The closest overlying zone is the Queen with a base @ 3937',
(358 feet away). The nearest oil zone underling is the Tubbs @ 6280',
(1041 feet away).

OIL CONSERVATION DIVISION
DISTRICT 1



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

DATE March 1, 1983

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

Gentlemen:

I have examined the application for the:

Alpha Twenty-One Production Co. Buckskin No. 3-K 18-24-38
Operator Lease and Well No. Unit, S - T - R

and my recommendations are as follows:

If any pressure is encountered on SWD Well-Federal Knox #2 needs a plug in the casing stub---J.S.

Yours very truly,

Jmc