



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HCBBS DISTRICT OFFICE

TONY ANAYA
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

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

RE: Proposed:

MC	_____
DHC	_____
NSL	_____
NSP	_____
SWD	<u> X </u>
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

K. L. Paez, Jr. Leander A # 1-3 58-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK 10

Yours very truly,

Jerry Sexton
Supervisor, District 1

/mc

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

OPERATOR H. L. Brown, Jr.		ADDRESS P. O. Box 2237, Midland, Texas 79702	
LEASE NAME Saunders A	WELL NO. 1	FIELD Bluitt (San Andres)	COUNTY Roosevelt
LOCATION UNIT LETTER <u>F</u> ; WELL IS LOCATED <u>1650</u> FEET FROM THE <u>west</u> LINE AND <u>1650</u> FEET FROM THE <u>north</u> LINE, SECTION <u>5</u> TOWNSHIP <u>8S</u> RANGE <u>37E</u> NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8 1/2"	281'	150 sx	surface	Circulated
INTERMEDIATE	4 1/2"	4547'	350 sx	3084'	Calculated
LONG STRING					
TUBING	2 3/8"	4385'±	NAME, MODEL AND DEPTH OF TUBING PACKER Model NA, 4385'		
NAME OF PROPOSED INJECTION FORMATION San Andres		TOP OF FORMATION 4030'		BOTTOM OF FORMATION 4546'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLES? Perforations		PROPOSED INTERVAL(S) OF INJECTION 4030' - 4535'	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Commercial gas - dry hole		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 4405' - 4531' - 10 sacks					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 310'		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 ±8000' - Wolfcamp	
ANTICIPATED DAILY INJECTION VOLUME (BBL/S.) 150	MINIMUM 1000	MAXIMUM 1000	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 500
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 Produced water		NATURAL WATER IN DISPOSAL ZONE Produced	ARE WATER ANALYSES ATTACHED? No
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND): Arlon Perkins, Rt. 9 - Box 323, Odessa, Texas 79765					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL: H. A. Lacik, P. O. Box 46, Snyder, Texas 79549 NRM Petroleum Corp., 2600 San Jacinto TWR, Dallas, Texas 75201					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? 9-13-85		SURFACE OWNER 9-13-85		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL 9-13-85	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes		FLAT OF AREA Yes		ELECTRICAL LOG Yes	
				THE NEW MEXICO STATE ENGINEER 9-13-85	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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

Jean Mills
(Signature)

Production Clerk
(Title)

9-13-85
(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.

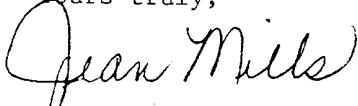
H. L. BROWN, JR.
300 WEST LOUISIANA
POST OFFICE BOX 2237
MIDLAND, TEXAS 79702
915 683-5216

September 13, 1985

State of New Mexico
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

Copies of the NMOCC Form C-108 for the Saunders A Well No. 1, Roosevelt County, New Mexico, and related correspondence was mailed to the offset operators, the working interest owners, and to the land owner on September 13, 1985.

Yours truly,

A handwritten signature in cursive script that reads "Jean Mills". The signature is written in dark ink and is positioned above the typed name and title.

Jean Mills
Production Clerk

JM/ed

H. L. BROWN, JR.
300 WEST LOUISIANA
POST OFFICE BOX 2237
MIDLAND, TEXAS 79702
915 683-5216
September 12, 1985

To: All Offset Operators
Bluitt Field
Roosevelt County, New Mexico

Notice is hereby given to all offset operators that H. L. Brown, Jr. has filed with the New Mexico Oil Conservation Division an Application to Dispose of Salt Water by injection into a porous formation productive of oil or gas.

Attached is a copy of N.M.O.C.C. Form C-108. If you have no objections to the subject Application, please sign and return one copy of the waiver to us as soon as possible.

Sincerely yours,

Jean Mills
Production Clerk

Approved _____

Company _____

Date _____

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

RECEIVED

NEW MEXICO OIL CONSERVATION COMMISSION

JUN 19 1968

H. L. BROWN, JR.
MIDLAND, TEXAS

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease	
State ☐	Fee ☐
5. State Oil & Gas Lease No.	
7. Unit Agreement Name	
8. Farm or Lease Name	
9. Well No.	
10. Field and Pool, or wildcat	
12. County	

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 "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL ☐ GAS WELL ☐ OTHER ☐	2. Name of Operator
3. Address of Operator	
4. Location of Well	
UNIT LETTER	
THE LINE, SECTION TOWNSHIP RANGE NMPM.	
15. Elevation	

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	COMMENCE DRILLING OPNS. ☐
PULL OR ALTER CASING ☐	CASING TEST AND CEMENT JOBS ☐
OTHER ☐	OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

This well was plugged and abandoned on February 5, 1968 as follows:

10 sacks cement at 4400'
Shot off 4-1/2" casing at 2196' and set 25 sacks cement at 2196'
25 sacks cement at 331'
10 sacks cement at the surface
Hole filled with 8.9# mml.
Erected steel marker.

Notification will be given when well site has been cleared and conditioned looking to final inspection and approval of abandonment.

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

SIGNED <u>R. Busby</u>	TITLE <u>Agent</u>	DATE <u>February 12, 1968</u>
APPROVED BY <u>John W. Runyan</u>	TITLE <u></u>	DATE <u></u>

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

AMENDEDForm O-101
Revised (12/1/55)NOTICE OF INTENTION TO **DRELL 54 AM '65**

Notice must be given to the District Office of the Oil Conservation Commission and approval obtained before drilling or recompletion begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in **QUINTUPPLICATE**. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

If State Land submit 6 Copies Attach Form O- 128 in triplicate to first 3 copies of form O-101

Midland, Texas

November 12, 1965

(Place)

(Date)

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Gentlemen:

You are hereby notified that it is our intention to commence the Drilling of a well to be known as
H. L. Brown, Jr. & Clem E. George

(Company or Operator)

Saunders "A"

(Lease)

Well No. **1**in **Unit F**

(Unit)

located **1650** feet from the **West** line and **1650** feet from the

Northline of Section **5**T. **8-S**R. **37-E**

NMPM.

(GIVE LOCATION FROM SECTION LINE)

Bluitt San Andres Gas

Pool,

Roosevelt

County

If State Land the Oil and Gas Lease is No.

If patented land the owner is **C. J. Saunders, et al**Address **717 Alexander Drive, Dallas, Texas**We propose to drill well with drilling equipment as follows: **Rotary from surface to total depth**The status of plugging bond is **Blanket bond**

Drilling Contractor **Verna Drilling Company,**
Levelland, Texas

We intend to complete this well in the **San Andres**formation at an approximate depth of **4600** feet.

CASING PROGRAM

We propose to use the following strings of Casing and to cement them as indicated:

Size of Hole	Size of Casing	Weight per Foot	New or Second Hand	Depth	Sacks Cement
12-1/4"	8-5/8"	24 & 20#	Both	300	150 sacks
7-7/8"	4-1/2"	9.5 & 10.5#	Second Hand	4600	200 sacks

If changes in the above plans become advisable we will notify you immediately.

ADDITIONAL INFORMATION (If recompletion give full details of proposed plan of work)

CEMENT MUST BE CIRCULATED BEHIND

878

CASING.

APPROVAL VALID

FOR 90 DAYS UNLESS
DRILLING COMMENCED,

EXPIRES

Feb 14-66

NOV 15 1965

Approved
except as follows:**RECEIVED**

NOV 17 1965

OIL CONSERVATION COMMISSION
H. L. BROWN, JR.
MIDLAND, TEXAS

Sincerely yours,

H. L. Brown, Jr. & Clem E. George

(Company or Operator)

By

Agent

Position

Send Communications regarding well to

Name

Mr. Busby

Address

606 N. Colorado, Midland, Texas

RECEIVED
OCT - 8 1985
O.C.D.
HOES OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

NUMBER OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
PILE	
U.S.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
PRODUCTION OFFICE	
OPERATOR	

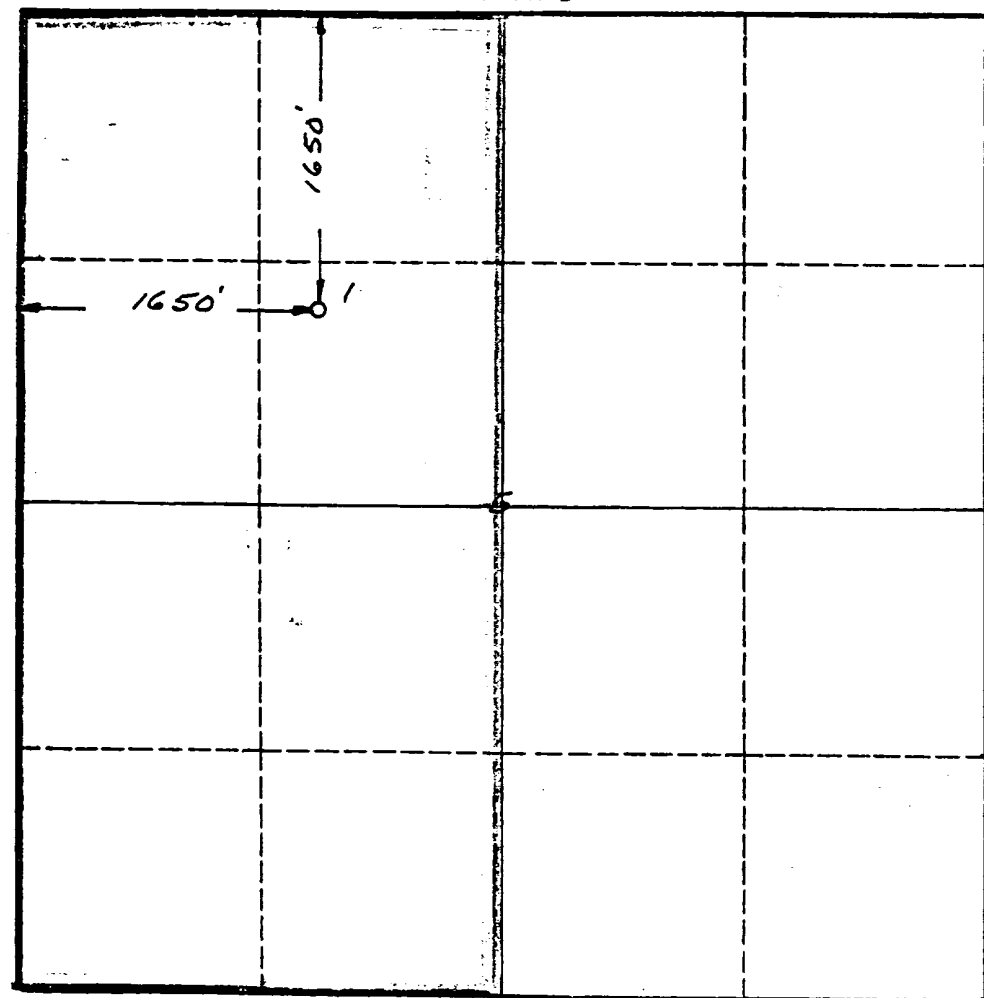
SECTION A

Operator H. L. Brown, Jr. & Clem E. George		Lease Saunders "A"		Well No. 1
Unit Letter F	Section 5	Township 8-South	Range 37-East	County Roosevelt
Actual Footage Location of Well: 1650 feet from the North line and 1650 feet from the West line				
Ground Level Elev. 4074	Producing Formation San Andres	Pool Bluitt San Andres (Gas)	Dedicated Acreage: 320 Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO X . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES X NO _____. If answer is "yes," Type of Consolidation **Acreage pooled for gas unit allocation.**
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

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

Name R. Bersley
 Position Agent
 Company H.L. Brown Jr. & Clem E. George
 Date November 12, 1965

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed Nov. 12, 1965
 Registered Professional Engineer and/or Land Surveyor

M. E. Shover
 Certificate No. 2189

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

RECEIVED
OCT - 8 1985
O.C.D.
HOESS OFFICE

WRITE IT - DON'T SAY IT

To FIELD FOREMAN
From LES SKINNER

Date 4-24-85
Answer Expected No

PROSPECT - LEASE - WELL

BLUETT FACILITY (441) - BLUETT SWD #1 - ROOSEVELT CO., NM

PURPOSE: To RE-ENTER THE OLD SAUNDERS "A" #1 WELL, CONVERT AND EQUIP FOR SWD SERVICE.

COMMENCEMENT: UPON WIO APPROVAL

PROCEDURE (SEE ATTACHED WELLBORE SKETCH):

1. LOCATE "DRY HOLE" MARKER, MOVE-IN DIET CONTRACTOR AND PREPARE ROAD: LOCATION FOR RIG, RE-SET ANCHORS AND DIG SMALL PIT.
2. WITH BACKHOE, DIG OUT CELLAR AND EXPOSE $8\frac{5}{8}$ " CASING STUB. CUT OFF CAP AND WELD ON $8\frac{5}{8}$ " COMBINATION COLLAR (3" CONNECTION ON TOP, SLICK SLIP-OVER ON BOTTOM). INSTALL 3-4' X $8\frac{5}{8}$ " NEFFLE THEN WELD-ON $8\frac{5}{8}$ " LARKIN SLIP-ON HEAD (SCREWED).
3. MIREU COMPLETION UNIT X INSTALL 2000 PSI MANUAL 30" ON TOP OF $8\frac{5}{8}$ " HEAD. RU REVERSE CIRCULATING PUMP AND POWER SWIVEL.
4. PU $7\frac{7}{8}$ " MILL TOOTH BIT BORED FOR REVERSE CIRCULATING AND RUN ON $4\frac{1}{4}$ " COLLAR. DRILL OUT SURFACE PLUG PICKING UP A TOTAL OF 4 ea. $4\frac{1}{4}$ " COLLARS AND 4 ea. $3\frac{1}{8}$ " COLLARS AND RUNNING IN HOLE TO DRILL OUT PLUGS #3 AND #2. DRILL OUT USING FRESH WATER TO TOP OF $4\frac{1}{2}$ " CASING STUB AT 2196' (RKB) AND CIRC CLEAN (USE JU STRIPPER).
5. TOOH X STANDING BACK $2\frac{3}{8}$ " TUBING WORKSTRING AND $3\frac{1}{8}$ " DC'S. LAID DOWN $4\frac{1}{4}$ " DC'S. PU $7\frac{7}{8}$ " X $4\frac{1}{2}$ " DRESSING TOOL X TIH ON $3\frac{1}{8}$ " DC'S AND $2\frac{3}{8}$ " TUBING. DRESS OFF TOP OF $4\frac{1}{2}$ " CASING STUB AT 2196' TOOH X LD DRESSING TOOL.
6. PU $4\frac{1}{2}$ " BOWEN CASING PATCH w/ LEAD SEAL PACKOFF + $4\frac{1}{2}$ "

REGULAR DV TOOL AND TIH ON STRING OF $4\frac{1}{2}$ " 10.50#, JORK-SS,

RECEIVED
OCT - 8 1985
O.C.D.
HOSEA OFFICE

'RITE IT - DON'T SAY T

To FIELD FOREMAN
From LES SKINNER

Date 4-24-85
Answer Expected No

PROSPECT - LEASE - WELL

BLUETT SWD #1

PROCEDURE (CONT'D):

ST: C, 8rt CASING. LATCH ONTO 4 1/2" STUB, CHECK SEAL, THEN PUMP BULLET DOWN TO OPEN DV TOOL. CIRC TO CLEAN UP.

7. CEMENT 4 1/2" CASING THROUGH DV TOOL WITH 4755x CLC + 2% CaCl₂. DISPLACE TOP RUBBER PLUG TO DV TOOL ABOVE CASING BOWL. BUMP PLUG TO CLOSE DV TOOL, THEN PRESSURE CHECK DV TOOL TO SEE THAT IT IS CLOSED. STION FOR CEMENT TO HARDEN.

8. PULL 10,000 # ON 4 1/2" CASING AND SET SLIPS IN 3 5/8" HEAD. CUT OFF 4 1/2" CASING, NO BOP, INSTALL SEAL IN 3 5/8" HEAD, WELD ON 4 1/2" BELL NIPPLE, THEN NU BOP ON 4 1/2" CSG.

9. PU 3 7/8" MILL TOOTH BIT BORED FOR REVERSE CIRCULATION, PLUS 4 ADDITIONAL 3 7/8" DC'S (8 TOTAL) AND TIH ON 2 3/8" TBG. DO RUBBER PLUG AND CEMENT ABOVE CASING PATCH, THEN DRILL OUT AND RUN TUBING THRU JU STRIPPER TO 4546' ±.
DO NOT DRILL OUT OLD 4 1/2" SHOE. CIRC HOLE CLEAN.

10. WITH BIT ON BOTTOM, SPOT 500 gal 7 1/2% DOUBLE-INHIBITED HCl NE-FE ACID, THEN TOOH x LD 2 3/8" WORKSTRING, 3 7/8" COLLARS AND BIT.

11. RU WIRELINE UNIT AND PERFORATE 4 1/2" CASING WITH 3 7/8" CASING GUN USING LARGEST CHARGES AVAILABLE WITH 2 JSPF IN THE FOLLOWING INTERVALS: 4030'-35' (11 SHOTS), 4130'-32' (5 SHOTS), 4137'-42' (11 SHOTS), 4144'-47' (7 SHOTS), 4149' (2 SHOTS), 4159'-63' (9 SHOTS), 4204' (2 SHOTS), 4331'-34' (7 SHOTS), 4400'-19' (39 SHOTS), 4425'-30' (11 SHOTS), 4454'-61' (15 SHOTS), 4464'-75' (23 SHOTS)

RECEIVED
OCT - 8 1985
C.C.D.
HOBBS OFFICE

RITE IT - DON'T SAY IT

To FIELD FOREMAN
From LES SKINNER

Date 4-24-95
Answer
Expected No

PROSPECT - LEASE - WELL

BLUETT SWD #1

PROCEDURE (CONT'D):

4483'-89' (13 SHOTS) AND 4525'-35' (21 SHOTS) - TOTAL 176 SHOTS.
(LINE UP OFF OF WESTERN WIRELINE GR/CCL LOG DATED 12-1-65).

12. PICK UP INJECTION PACKER AND 2 $\frac{3}{8}$ " INJECTION TUBING. TIH AND SET PACKER NEAR 3950' (LAND SO TUBING COLLAR IS NEAR TOP OF 4 $\frac{1}{2}$ " CASING AT SURFACE - CASING COLLARS ARE AT 4368' AND 4402'). NO BOP, INSTALL SCREW-ON LARKIN HEAD AND SET SLIPS WITH TUBING AT NEUTRAL POSITION (NO TENSION ABOVE WEIGHT OF TUBING STRING). PRESSURE UP TO 500psi ONLY ON BACKSIDE (4 $\frac{1}{2}$ " X 2 $\frac{3}{8}$ " ANNULUS) TO SEE THAT PACKER IS HOLDING, MONITOR BACKSIDE PRESSURE (DO NOT RELEASE).

13. ACIDIZE WELL DOWN TUBING WITH 4100 gal 15% NE-FE ACID (EXCLUDING SPOTTED ACID) AT MAXIMUM RATE DOWN 2 $\frac{3}{8}$ " TUBING (PROBABLY 8-9 BPM) DROPPING 2 BALL SEALERS PER BARREL OF ACID. FLUSH WITH FRESH WATER TO TOP PERFORATION ONLY. SI 2 hrs FOR ACID TO SPEND. RELEASE BACKSIDE.

14. SWAB WELL TO CLEAN UP ACID RESIDUE - WHEN WATER GETS CLEAR, INSTALL INJECTION VALVE (FULL-OPENING 2 $\frac{3}{8}$ " PLUS 2 $\frac{3}{8}$ " "T" WITH TOP CAPPED WITH TAPPED PLUG (FOR $\frac{1}{4}$ " VALVE AND PRESSURE GAUGE). INSTALL 2" 1000psi BALL VALVE ON SIDE-OPENING OF "T" AND CHECK VALVE, THEN CONNECT FLOWLINE.

RECEIVED
OCT - 8 1985
O.C.C.
HOBBS OFFICE

WRITE IT - DON'T SAY IT

To FIELD FOREMAN
From LES SKINNER

Date 4-24-85
Answer
Expected No

PROSPECT - LEASE - WELL

BELZIT SWD #1

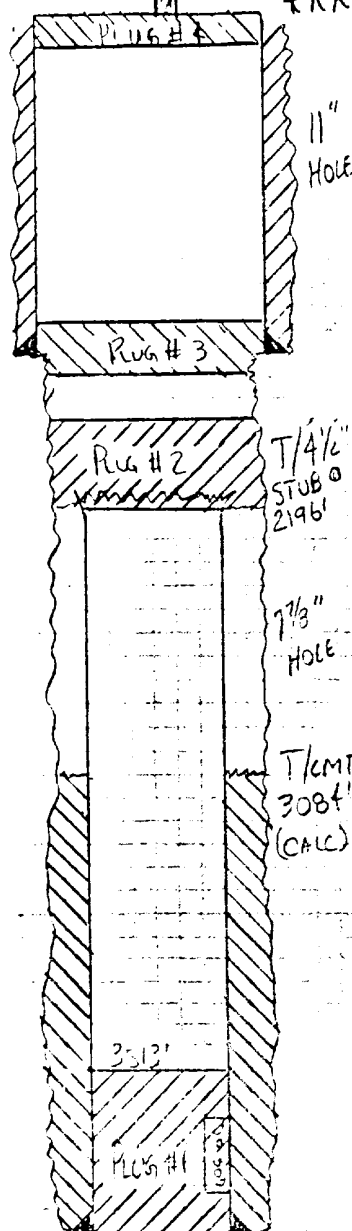
PROCEDURE (CONT'D):

15. Hook up to FLOWLINE WITH PUMP TRUCK AND PUMP DOWN TUBING WITH LEASE PRODUCED WATER AT VARIOUS RATES TO OBTAIN INJECTIVITY RATE AND PRESSURE ON WELL.
16. AFTER PUMPING, RIG UP WIRELINE UNIT AND OBTAIN TEMPERATURE SURVEY TO INSURE THAT WATER IS BEING INJECTED INTO PERFORATED INTERVAL (i.e., NOT CHANNELING OUT OF ZONE).
17. IF ANYTHING OCCURS DURING THE JOB WHICH WOULD PREVENT THE NORMAL, STEPWISE COMPLETION OF THIS WORK, SHUT DOWN, CALL THE MIDLAND OFFICE AND DISCUSS WITH THE ENGINEERS. DO NOT CONTINUE WITHOUT SPECIFIC INSTRUCTIONS.

RECEIVED
OCT - 8 1985
O.C.D.
HOBBS OFFICE

COMPANY H.L. Brown, Jr.		FIELD BLUETT (SAN ANTONIO 1 - JC.)				WELL NAME SAUNDERS 'A' #1				
COMPANY REF C. M. GEORGE		CASING	SIZE 8 7/8"	WEIGHT 20.24#	GRADE J-55	THREAD ST-C	TYPE COMPLETION FLUID IN CASING			
COUNTY ROOSEVELT	STATE N.M.	LINER	SIZE 4 1/2"	WEIGHT 10.50#	GRADE -	THREAD -	TUBING WT. ON	LOWER	MIDDLE	UPPER

TUBING	UPPER	SIZE None	WEIGHT	GRADE	THREAD	TYPE LATCH	LOWER	MIDDLE	UPPER
	MIDDLE	SIZE	WEIGHT	GRADE	THREAD				
	LOWER	SIZE	WEIGHT	GRADE	THREAD				
OPERATOR'S NAME H.L. Brown, Jr.							MSO		
OFFICE MIDLAND, TX							DATE 11-19-63		



ITEM	DEPTH	LENGTH	JTS	DESCRIPTION
				Loc: 1650' FN: WL's, Sec. 5, T-9-S
				R-37-E, ROOSEVELT COUNTY, N.M.
				SPUD: 1600 HRS, 11-16-65
				COMPL: 5-11-66, 574 MCFD on 1 hr test
				PLUGGED: 2-4-67
1	281		10	8 5/8" 20.24# CSG, CMT'D w/ 75 SX INCOR + 4% GEL FOLLOWED BY 75 SX REGR + 2% CaCl ₂ . PD 10:30pm 11-16-65, circ.
2	4547		142	4 1/2" 10.50# J-55, ST-C 3rd CSG CMT'D w/ 350 SX INCOR SO-SO Pz + 2% GEL + 8#/SX SALT, BUMPED PLUG w/ 1700psi (11-27-65) T/CMT BEHIND CSG: 3084' (CALC.) PERFORATIONS: 4405', -13', -15', -29', -59', -65', -69', -73', -85', 4527', -29' AND -31' INITIAL STIM. SPOTTED ACID 4526'-10' BD @ 1400psi, A-DIED BELOW PSA 4488' w/ TOTAL of 2000 gal 15% ACID ARO 1 1/2 BPM, ISDP = 1000#, 10" SIP 600 OVERNIGHT SITP = 700psi, SEL 2000' - SWB'D DOWN REC. ALL LOAD. SWR S-70% OOL + 80-90% SW, RE/A w/ 5000 gal REACTROL @ 4.4 BPM @ 2000psi AVG. PRESS. FLOWED: SWB'D SOT BACK HVY OIL: WTR EMULSION. SWR DE: CLEANED UP & FLOWED ARO 100 MCFD RE/A w/ 3000 gal DS 30 ACID + 200 3A: SEALERS ARO 4.4 BPM - BALLED OUT ARO PRESS. 2000psi, ISDP 2100, 10" SIP = 1000psi Frac/20000 gal GELCO 22#/# + 1/4 #/gal 2240 SN, ARO 353 BPM ISDP 1500, 10" SIP 200 SWB'D FLOWED. FLOWED BACK - 2100 TESTED 373 MCFD on 150 # FTP

TD: 4547'
 PETD: 4546' (orig.)
 Elev: 4085' - RKB
 4084' - DF
 4074' - G

RECEIVED
OCT - 8 1985
O.C.D.
HOBBS OFFICE

H.L. Brown, Jr. - SAUNDERS 'A' #1 - Sec 5, T-8-S, R-37-E, ROOSEVELT Co., N.M.

INITIAL HOOLUP: CAPITAN, 8-3-66.

WORKOVER: (1-29-67) - PULLED PKR LOOSE, FOUND FILL
OVER 23' PERFS. 100 JTS TRG PLUGGED w/ SALT.
WASHED OUT SALT - COULD NOT RETURN WELL TO
PRODUCTION.

PxA: PTG

SET 10SX PLUG @ 4400'

SHOT off 4 1/2" @ 2196'

SET 25SX PLUG @ 2196'

" 25SX " @ 531'

" 10SX " @ SURFACE

ERECTED DRY HOLE MARKER - CLEANED UP LOC.

ORIGINAL 4-POINT TEST: 5/10/66

SIBHP = 1297 psig @ MIP

ADF = 820 MCFD.

LOGS AVAIL.: SCHLUMBERGER, 11-26-65, COMP. FDC/GR/CAL,
(4546'-SURF). WESTERN WIRELINE GR/CCL
LOG (4543'-4200') DATED 12-1-65.

COMPANY H.L. BROWN, JR.		FIELD BLUETT (SAN ANTONIO AS...)					WELL NAME SAUNDERS "A" No. 1			
COMPANY REP GEORGE WELDON		CASING	SIZE	WEIGHT	GRADE	THREAD	TYPE COMPLETION FLUID IN CASING			
COUNTY ROOSEVELT	STATE NM	LINER	SIZE	WEIGHT	GRADE	THREAD	TUBING WT. ON	LOWER	MIDDLE	UPPER
		TUBING	SIZE	WEIGHT	GRADE	THREAD	TYPE LATCH	LOWER	MIDDLE	UPPER
			SIZE	WEIGHT	GRADE	THREAD	OPERATOR'S NAME H.L. BROWN, JR.		MSO	
			SIZE	WEIGHT	GRADE	THREAD	OFFICE MIDLAND		DATE 9-25-85	
		ITEM	DEPTH	LENGTH	JTS	DESCRIPTION				
						LOCATION: 1650' FN & WL's, SEC 5, T-8-S				
						R-37-E, ROOSEVELT COUNTY, NM				
		1	281		10	8 5/8" 20 & 24# CSG, CMT'D w/ 75sx				
						INCOR + 4% GEL FOLLOWED BY 75sx				
						REGULAR + 2% CaCl ₂ . CMT CIRCULATED				
		2	4547			4 1/2" 10.50#, J-55, ST & C, 8rt CSG,				
						CMT'D THROUGH SHOE w/ 350sx INCOR				
						50-50 POZ + 2% GEL + 8#/sx SALT.				
						T/CMT 3034' (CALC'D). CMT'D SECOND				
						STAGE T-113, J-55, ST & C, 8rt CSG,				
						475sx REG + 2% CaCl ₂ CIRCULANT				
						PERFORATIONS: 4000'-35', 4130'-32',				
						4137'-42', 4144'-47', 4149', 4159'-63',				
						4204', 4331'-34', 4400'-19', 4425'-30',				
						4454'-61', 4464'-75', 4483'-89', 4525'-				
						35', 2 JSPF (176 HOLES)				
						STIMULATION: 500 gal 7 1/2% NE-FE ACID				
						(SPOTTED) FOLLOWED BY 4100 gal 15%				
						NE-FE ACID w/ BALL SEALERS.				
		3	3950±			2 3/8" 4.7#, J-55, EUE, 8rt TBA				
						INTERNALLY PLASTIC COATED				
		4	3950±			4 1/2" x 2 3/8" INJECTION PACKER, INTERNAL				
						PLASTIC COATED. ANNULUS BEHIND				
						2 3/8" TUBING TO BE FILLED WITH FRESH				
						WATER CONTAINING 2% CORROSION INHIBIT				
						+ BACTERIACIDE + OXYGEN SCAVENGER.				
						PRESSURE GAUGES TO BE INSTALLED ON				
						4 1/2" x 2 3/8" ANNULUS AND ON 4 1/2" x 8 5/8"				
						ANNULUS				

11" HOLE

DV TOOL & CSG PATCH @ 2196'

7 7/8" HOLE

T/CMT 3084' (CALC)

PSA 3950±

SWD P's 4035'-4535'

TD: 4547'

PSTD: 4546'

ELEV'S: 4085' RKB

4084' DF

4074' G

RECEIVED
OCT - 8 1985
O.C.D.
HOBBS OFFICE

AFFIDAVIT

STATE OF TEXAS

COUNTY OF MIDLAND

Before me, the undersigned authority, personally appeared
Les Skinner, the Operations Manager
of H. L. Brown, Jr., independent oil operator, who, being
duly sworn, deposes and says that in regard to the applica-
tion to inject disposal fluids into the Saunders A Well No.
1, Section 5, T8S, R-37E, Roosevelt County, New Mexico,
available geologic and engineering data have been examined,
and no evidence was found of open faults or any other hydro-
logic connection between the disposal zone and any under-
ground source of drinking water.

Subscribed and sworn to before me on the 7th day of
October, 1985, to certify which witness my hand and
seal of office.

Erind W. Davis
Notary Public in and for
Midland
County, Texas

Commission expires 3-24-89

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 3/8" 4.7# lined with internally plastic coated TK 5 set in a
4 1/2" x 2 3/8" inj. packer, internally plastic coated Baker/ Model AD-1 (material) packer at 3950± feet
 (brand and model)
 (or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of field or Pool (if applicable) Pittt (San Andres) Pool
3. Is this a new well drilled for injection? ☐ Yes ☒ No
 If no, for what purpose was the well originally drilled? Gas well - dry hole

4. 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) No. Please see NMOCQ

Form C-103

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None

INJECTION WELL DATA SHEET

SIDE 1

H. L. Brown, Jr.

Saunders A

OPERATOR

LEASE

1

1650' N & 1650' W

5

85

37E

WELL NO.

FOOTAGE LOCATION

SECTION

TOWNSHIP

RANGE

SchematicTabular DataSurface Casing

Size 8 5/8"

"

Cemented with

150

gx.

TOC

Surface

feet determined by circulation

Hole size 11"

Intermediate Casing

Size 4 1/2"

"

Cemented with

825

gx.

TOC 3084'

feet determined by calculations

Hole size 7 7/8"

Long string

Size

"

Cemented with

gx.

TOC

feet determined by

Hole size

Total depth

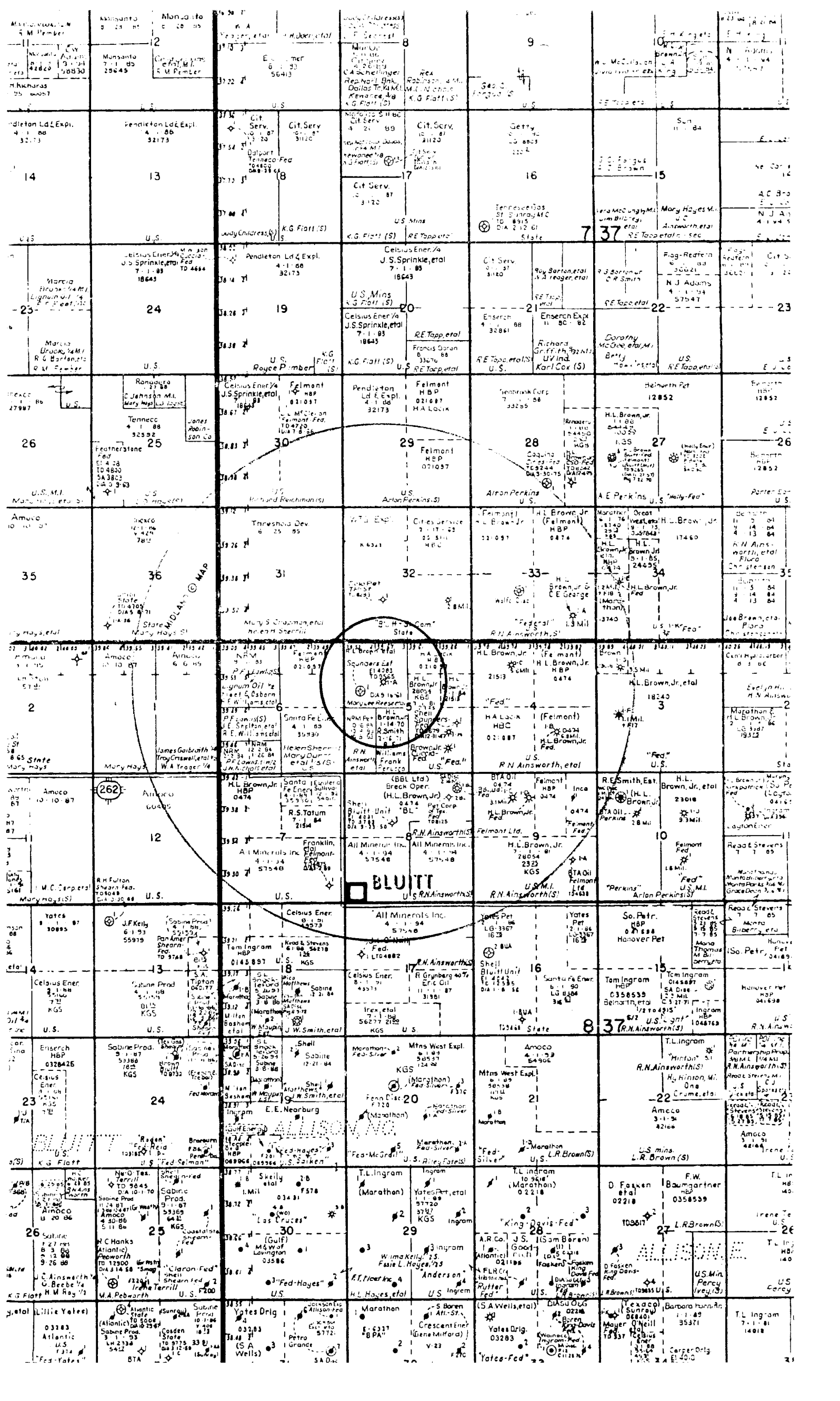
Injection Interval

4030'

feet to 4535'

feet

(Perforated or open-hole, indicate which)



Affidavit of Publication

LEGAL NOTICE NOTICE OF APPLICATION FOR FLUID INJECTION WELL PER- MIT

H.L. Brown, Jr. is making applica-
tion to the New Mexico Oil Conserva-
tion Commission for a permit to in-
ject fluid into a formation which is
productive of oil and gas.

The Applicant proposes to inject
fluid into its Saunders A Well No. 1.
The proposed well was a dry hole
located in Section 5, T8S, R37E. It
originally tested the Bluff San An-
dres Gas Pool, Roosevelt County,
New Mexico, at non-commercial
rates. Fluid will be injected into
strata in the subsurface depth inter-
val from 4030' - 4535'.

Legal Authority: Rule 701 of the
State of New Mexico, Energy and
Minerals Department and the
Statewide Rule 701 of the Oil Conser-
vation Division.

Requests for a Public Hearing
from persons who can show they are
adversely affected, or requests for
further information concerning any
aspect of the Application should be
submitted in writing within 15 days
of this publication to the State of
New Mexico, Oil Conservation Divi-
sion, P.O. Box 1980, Hobbs, New
Mexico, 88240.

Published in Portales News-
Tribune September 17, 1985 Legal.
#9119.

I, Marshall Stinnett
Business Manager of

THE PORTALES NEWS-TRIBUNE

a newspaper of general paid circulation and entered under
second class postal privilege in Roosevelt County, published
daily, (except Saturday) at Portales, New Mexico, for the fifty-
two (52) consecutive weeks preceding this date, do solemnly
swear that a copy of the above notice, as per clipping attached,
was published weekly in the regular and entire issue of said

newspaper, and not in any supplement thereof for 1

consecutive weeks commencing with the issue dated _____

September 17 19 85

and ending with the issue dated September 17 19 85

All publication costs having been paid.

Marshall Stinnett

Subscribed and sworn to before me this 17th day of September 19 85

De Mari, Barnett

Notary Public

My commission expires 3/7/87 19 87

SAUNDERS A-1 INJECTION ZONE (4040'-4535')

Lithology: Tn-Gy dolomite, microcrystalline, interbedded with thin layers of anhydrite.

Geological Name: San Andres. Top: 3720'. TD (4547')

Thickness and Depth: 4030' - 4535' (505') Injection zone.

No known underground sources of drinking water in this area.

NRM PETROLEUM CORPORATION



26th Floor,
San Jacinto Tower
2121 San Jacinto Street
Dallas, Texas 75201
(214) 880-0243

September 26, 1985

Ms. Jean Mills
H. L. Brown, Jr.
P.O. Box 2237
Midland, Texas 79702

Re: Application to Inject Salt Water
H. L. Brown - Saunders "A" # 1
Bluitt (San Andres) Field
Roosevelt Co., N. M.

Dear Mr. Mills:

I am returning the referenced application unexecuted
as we no longer have a lease on the offsetting property.

Yours very truly,


Herbert J. Bell, Jr., P.E.

HJBjr:jm
enclosure

RECEIVED

OCT 1 1985

Land _____ Eng. _____
Geol. _____ Acctg. _____

OIL AND GAS
EXPLORATION

Midland, Texas
(915) 684-7871

Newport News, Va.
(804) 595-7401

Buckhannon, W. Va.
(304) 472-9113

Lafayette, La.
(318) 237-5849

Waterford, Pa.
(814) 796-6702

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: H. L. Brown, Jr.
Address: P. O. Box 2237, Midland, Texas 79702
Contact party: Jean Mills Phone: 915/683-5216
- 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. Attached
- 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. 1985
- IX. Describe the proposed stimulation program, if any. Attached
- X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.) Log filed previously: _____
- 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. Attached.
- 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. Attached.
- 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: Jean Mills Title: Production Clerk
Signature: Jean Mills Date: October 3, 1985
- 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: Included

- (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. Included

- (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. None:

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. Attache

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: Attache

- (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.

COMPANY H.L. Brown, Jr.		FIELD Williams (Devonian)				WELL NAME SAUNDERS 697 #					
COMPANY REP CLEM GEORGE		CASING	SIZE 13 3/8"	WEIGHT 48#	GRADE -	THREAD STC	TYPE COMPLETION FLUID IN CASING				
COUNTY ROOSEVELT	STATE N.M.	LINER CSG	SIZE 8 5/8"	WEIGHT 32#	GRADE -	THREAD -	TUBING WT. ON	LOWER	MIDDLE	UPPER	
		TUBING	UPPER	SIZE NONE	WEIGHT	GRADE	THREAD	TYPE LATCH	LOWER	MIDDLE	UPPER
		MIDDLE	SIZE	WEIGHT	GRADE	THREAD	OPERATOR'S NAME H.L. BROWN, JR.			MSO	
		LOWER	SIZE	WEIGHT	GRADE	THREAD	OFFICE MIDLAND			DATE 11-21-93	
ITEM	DEPTH	LENGTH	JTS	DESCRIPTION							
				Loc: 1980' ENL x 660' FWL, Sec 5, T-8-S, R-37-E, Roosevelt Co., N.M. Spud: 1930 hrs, 8-2-61 Plugged: 9-21-61							
1	300'		9	13 3/8" 48# STC csm, cmt'd w/ 300sx Injor - 2% HALLAD-S (CaCl2) PD 10 hrs, 8-2-61, Lfrc SDSX							
2	4010'		126	8 5/8" 32# CSG, cmt'd w/ 650sx 50-50 Por + 6% GEL followed by 150sx CLASS C + 2% CaCl2 CCT #5 (DEVONIAN) - 9475'-9565' (90'), TO w/ STRONG BLOW. REC 270 @ 1400' + 6250' SWL. 30" ISIP 3725, FFP 2125-2350, 30" FSIP 3625 LOGS AVAILABLE: GR/N DATED 9-17- NOTE - LATERAL LOG TOOL + 150' WIRELINE LEFT IN HOLE. PLUGS: #1 9565'-9490' 25sx #2 9255'-9180' 25sx #3 9275'-9210' 25sx #4 7215'-7140' 25sx #5 6605'-6530' 25sx #6 5235'-5160' 25sx #7 4065'-3990' 25sx Shot off 8 5/8" CSG AT 1513' (FREEPOINT) #8 1525'-1500' 25sx #9 325'-300' 25sx #10 SURFACE 10sx DEY HOLE MARKER INSTALLED.							

TD: 9565'

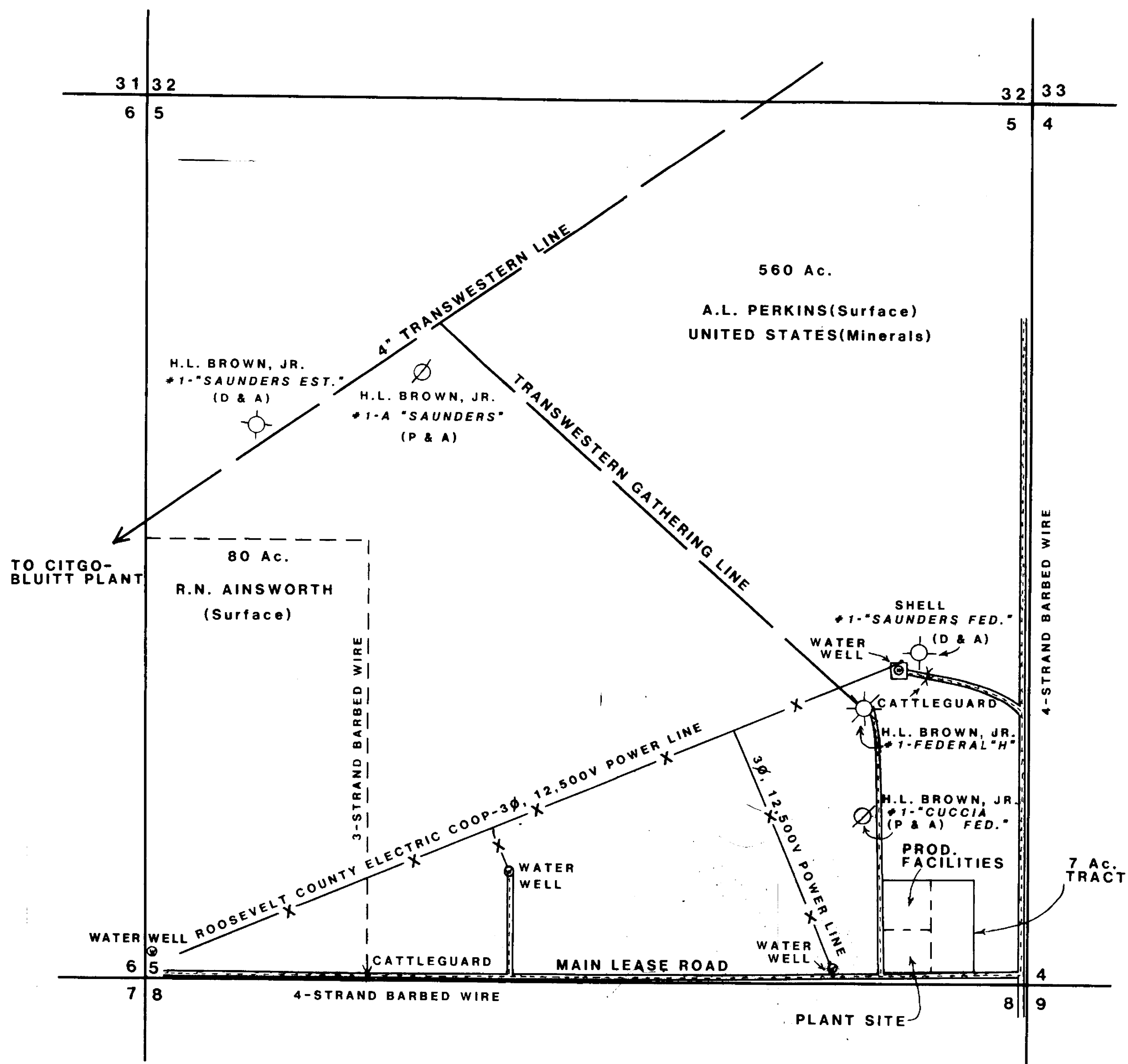
PBTD: SURFACE

ELEV: 4083' G

4094' RKB

4093' DF

RECEIVED
OCT - 8 1985
O.C.D.
MOBBS OFFICE



H.L. BROWN, JR.
BLUITT GAS PLANT
ROOSEVELT CO., NEW MEXICO
LOCATION OF PLANT
SITE AND WELLS
 SE/4, Sec. 5, T-8-S, R-37-E L.S.
 SCALE: 1" = 50' OCTOBER, 1985

HALLIBURTON DIVISION LABORATORY
 HALLIBURTON SERVICES
 MIDLAND DIVISION
 HOBBS, NEW MEXICO 88240
 LABORATORY WATER ANALYSIS

No. W85-562To H.L. BrownDate 9-30-85

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. _____

Well No. _____ Depth _____ Formation _____

County _____ Field _____ Source _____

Saunders A #1Resistivity _____ 0.74 @ 75 FSpecific Gravity _____ 1.006 @ 60°FpH _____ 8.1Calcium (Ca) _____ 500 *MPLMagnesium (Mg) _____ 300Chlorides (Cl) _____ 5000Sulfates (SO₄) _____ lightBicarbonates (HCO₃) _____ 240Soluble Iron (Fe) _____ nil

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Lee Hisey

cc:

HALLIBURTON COMPANY

By _____

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

RECEIVED
OCT - 8 1985
O.C.D.
HOBBS OFFICE

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W85-562To H.L. BrownDate 9-30-85

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by Skinner, Mills 683-5216 Date Rec. _____Well No. _____ Depth _____ Formation San AndresCounty Roosevelt Field _____ Source _____

	<u>Petco Fed. B #1</u>	<u>Avlon Perkins #1</u>	<u>#2</u>
Resistivity	<u>0.051 @ 75°F</u>	<u>0.74 @ 75°F</u>	<u>0.74 @ 75°F</u>
Specific Gravity	<u>1.196 @ 60°F</u>	<u>1.006 @ 60°F</u>	<u>1.006 @ 60°F</u>
pH	<u>6.4</u>	<u>7.0</u>	<u>7.6</u>
Calcium (Ca)	<u>18,000</u>	<u>1500</u>	<u>500</u> *MPL
Magnesium (Mg)	<u>10,800</u>	<u>1800 900</u>	<u>300</u>
Chlorides (Cl)	<u>180,000</u>	<u>5000</u>	<u>5000</u>
Sulfates (SO ₄)	<u>nil</u>	<u>light</u>	<u>nil</u>
Bicarbonates (HCO ₃)	<u>120</u>	<u>240</u>	<u>240</u>
Soluble Iron (Fe)	<u>nil</u>	<u>nil</u>	<u>nil</u>

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: _____

HALLIBURTON COMPANY

cc: Lee X Hisey

By _____

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

RECEIVED
OCT - 8 1985
C.C.D.
HOBBS OFFICE

HALLIBURTON DIVISION LABORATORY
 HALLIBURTON SERVICES
 MIDLAND DIVISION
 HOBBS, NEW MEXICO 88240
 LABORATORY WATER ANALYSIS

No. W85-562To H.L. BrownDate 9-30-85

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. _____

Well No. _____ Depth _____ Formation _____

County _____ Field _____ Source _____

Ross Ainsworth Windmill #3/Avlon Perkins #6

#7

Resistivity	<u>0.74 @ 75 F</u>	<u>0.74 @ 75 F</u>	<u>0.74 @ 75 F</u>
Specific Gravity	<u>1.006 @ 60 F</u>	<u>1.006 @ 60 F</u>	<u>1.006 @ 60 F</u>
pH	<u>7.1</u>	<u>8.2</u>	<u>8.0</u>
Calcium (Ca)	<u>500</u>	<u>500</u>	<u>500</u> *MPL
Magnesium (Mg)	<u>300</u>	<u>300</u>	<u>300</u>
Chlorides (Cl)	<u>5000</u>	<u>5000</u>	<u>5000</u>
Sulfates (SO ₄)	<u>light</u>	<u>light</u>	<u>nil</u>
Bicarbonates (HCO ₃)	<u>240</u>	<u>240</u>	<u>200</u>
Soluble Iron (Fe)	<u>nil</u>	<u>nil</u>	<u>nil</u>

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: XX Lee Hisey

HALLIBURTON COMPANY

cc:

By


 CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

RECEIVED
OCT - 8 1985
C.C.D.
HOBBS OFFICE

RECEIVED
OCT - 8 1985
HOBBS OFFICE

Submitted by _____ Date Received 10/4/85
Well No. _____ Formation Wolfcamp
Depth Bluff Source _____
County Federal D Field Federal E
0058' 0.06' 0059

S. G.	pH	Ca	Mg	Cl	SO ₄	HCO ₃
1.140 @ 60°F	6.3	12,000	9,500	125,000 Mod	120	Nil
1.131	6.0 6.2	12,500	6800	115,000 Mod	80	Nil
1.135	6.6	11,500	9,000	120,000 Mod	125	Nil

pH	Ca	Mg	Cl	SO ₄	HCO ₃	T Fe
6.3	12000	9500	125000 Mod	120	N.1	
6.6	12500	9800	120000 Mod	120	N.1	
6.6.2	12500	6800	115000 Mod	80	N.1	
			25			

[illegible]

RECEIVED
OCT - 8 1985
HOBBS OFFICE

Date Received 10/4/85
Formation WOLFcamp

Depth.

Blitt

Field

2014
Federal H

Source
Federal J

0.06	0.06
------	------

1.131

1,129

1.135

30

50

6.0

050

14,000

1000

7300

8400

600

120,000

115,000

120,000

111

Med

३०

60

600

1.000

14

Joey

1.

RECEIVED
OCT - 8 1985
HOBBS OFFICE

TO HL Brown

Submitted by _____

Well No. _____

County _____

Date Received 10/4/85

Depth _____

Field _____

Formation Wolfcamp

Source _____

Res. _____

S. G. 81.093600°F 1.100260°F
pH 6.4 Insufficient Sample
Ca 7000 15,000
Mg 4200 9,000
Cl 80,000 85,000
SO₄ light light
HCO₃ 60 60
T Fe Ni1 Ni1

RECEIVED
OCT - 8 1985
O.C.D.
HOBBS OFFICE

RECEIVED
OCT - 8 1985
O.C.D.
HOBBS OFFICE