STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

4/3/98

GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

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

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

Gentlemen:

I have examined the application for the:

San Simon Water Disposal Co APD Federal # 1-8 10-23-3
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

None -

Yours very truly,

Chris Williams
Supervisor, District 1

/ed

SAN SIMON WATER DISPOSAL CO.
804 PALOMINO
MIDLAND, TEXAS 79705

March 30, 1998

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

ATT: Mr. Chris Williams

Ref: APPLICATION FOR SALT WATER DISPOSAL
Attachments: Form C-108 and Sundry Notices
J. C. Williamson APD Federal, Well No. 1
Unit O, Section 10, T23S, R34E, Lea Co., New Mexico

Dear Mr. Williams:

Attached are the required Federal and State of NM forms for the application of converting the subject well to a water disposal well. San Simon's North Gathering Battery is located on the same drilling pad as the subject well, the south quarter of which comprises our State of New Mexico Business Lease, BL-1407. This application, when approved, will provide an alternate injection well to our field-wide disposal system when the current injection well requires remedial work or an increase in injection capacity, which substantially increases the efficiency of our system.

Please advise if we have not included all of the required, or desired, information for your consideration of this application.

Sincerely,
San Simon Water Disposal Company, Inc.

Max E. Curry,
President

Original + 1copy
Sent to Santa Fe

STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

Oil Conservation Div.
2040 Pacheco St.
Santa Fe, NM 87505

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? __Yes ___No

II. OPERATOR: SAN SIMON WATER DISPOSAL CO., INC.

ADDRESS: 804 PALOMINO, MIDLAND, TEXAS 79705

CONTACT PARTY: MAX E. CURRY PHONE: (915) 528-7008

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project: X Yes ___No
If yes, give the Division order number authorizing the project ADMINISTRATIVE ORDER SWD-588

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/1 or less) overlying the proposed injection zone as well as any such sources 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: MAX E. CURRY TITLE: AGENT

SIGNATURE: Max E. Curry DATE: 5-27-98

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

ATTACHMENT TO C-108 SAN SIMON WATER DISPOSAL CO., INC.

RE: **APPLICATION FOR AUTHORIZATION TO INJECT**
EXPANSION OF EXISTING SYSTEM,
ADMINISTRATIVE ORDER SWD-588

INTERROGATORY DATA FROM C-108 FORM:

III. WELL DATA

A. 1. LEASE NAME: J. C. Williamson, APD Federal, Well No. 1, Unit O, Section 10 T23S, R34E, Lea County, NM, Located 990' FSL and 1940 FEL of the Section.

2. CASING STRING: See Exhibits "A", current casing; and Exhibit "B", proposed completion, each of which are attached to the Sundry Notices.

3. The tubing will be 2-3/8" OD EUE, 8 Rd, internally coated with epoxy.

4. The packer will be a Baker LockSet, internally coated w/epoxy and will be set at 4918'.

B. 1. Water will be injected into perforations in the Upper Bell Canyon (Olds and Ramsey) similar to the injection wells located in Section 22. The perforations will be selected in the interval between 5,110' and 5,650'.

2. The well is currently perforated between the interval 6,981' and 7,091', which will be isolated by setting a cast iron bridge plug @ 6,950' and 35' of cement will be dumped on top of the plug.

3. This well was originally drilled as an oil development well in the Brushy Canon (Del.) formation and was tested wet.

4. None except as shown on Exhibit "A" attached to the Sundry Notices.

5. None above the proposed perforations, the nearest lower producing zone is the Cherry Canyon which was tested wet in this well.

V. MAP OF AREA, See attached Exhibit "D" attached to the Sundry Notices.

VI. WELL DATA ON WELLS IN THE AREA OF REVIEW.

1. J. C. WILLIAMSON, Lisa Federal, Well No. 1 Unit N, Sec 10,
TYPE: Oil,
CONSTRUCTION: Cased and stage cemented above the top of the Delaware.
DATE DRILLED: Spudded, 6/08/82
TOTAL DEPTH: 9,869'
COMPLETION: Completed as a pumping Bone Spring oil well at 9,600' The zones contemplated as injection zones were logged as water bearing.

2. J. C. WILLIAMSON, Triple "A" Federal, Well No. 2 Unit J, Sec 10,
TYPE: Oil,
CONSTRUCTION: Cased and stage cemented above the top of the Delaware.
DATE DRILLED: Spudded, 10/14/81
TOTAL DEPTH: 11,300'
COMPLETION: Completed as a pumping Cherry Canyon (Del.) oil well at 7,000' The zones contemplated as injection zones were logged as water bearing..

2. PATTERSON PETR., Triple "A" Fed. Well No. 3, Unit G, Section 10
TYPE: Oil,
CONSTRUCTION: Cased and stage cemented above the top of the Delaware formation.
DATE DRILLED: Spudded, 11/22/94
TOTAL DEPTH: 7,200'
COMPLETION: Completed as a pumping Cherry Canyon (Del.) oil well at 6,960' The zones contemplated as injection zones were logged as water bearing.

3. MID-CONTINENT, Belco Fed. No. 2, Unit P, Section 10.
TYPE: Gas
CONSTRUCTION: Cased and all casing circulated cement to the surface.
DATE DRILLED: Spudded, November 13, 1982
TOTAL DEPTH: 13,239'
COMPLETION: Completed as a high pressure Pennsylvanian gas well below 12,000' The zones contemplated as injection zones were logged as water bearing.

4. MID-CONTINENT, Adobe Fed. Well No. 1, Unit G, Section 15.
TYPE: Gas
CONSTRUCTION: Cased and all casing circulated cement to the surface.
DATE DRILLED: Spudded, approximately June, 1981
TOTAL DEPTH: 13,400,
COMPLETION: Completed as a high pressure Pennsylvanian gas well below 12,000' The zones contemplated as injection zones were logged as water bearing.

5. TOCO, LLP, Newkumet Fed. Well No. 1, Unit H, Section 10.
TYPE: Oil
CONSTRUCTION: Cased and all casing circulated cement above injection zone.
DATE DRILLED: Spudded,
TOTAL DEPTH: 8,008'
COMPLETION: Completed as an oil well in the Brushy Canyon. The zones contemplated as injection zones were logged as water bearing.

VII. OPERATING DATA

1. The current volume injected will be 900 bbls per day, but the system will be designed for 2,000 bbls per day. The system will be automatic and the rates will be minimal.

2. The system is closed to the central gathering point as the water is collected directly from the heater-treater vessels into the gathering lines, but no oil blanket is intentionally kept on the central tank where it is pumped into the disposal well. Very little, if any, oxygen gets into the system prior to it's injection due to skim oil and gas pressure.

3. Proposed pressures will vary between and average 600 psig and a maximum of 1100 psig.

4. All of the water produced is produced water and, at this point is all Delaware water. Other injection systems have had no compatibility problems in this area, and none have been in our existing system.

5. See attached Exhibit :WATER SAMPLES" .

VIII. GEOLOGIC DATA

1. All injection wells in this field area are injecting into the proposed Delaware formations. The water produced from these zones is very salty and is not useful for irrigation or watering livestock. The overall interval proposed for injection in this well, (5,110' to 5,650') consists of various sand stringers between shale and limestone bodies, of which most sands vary between 10 and 40 feet in thickness. The stringers are easily correlatable over the entire field area and beyond.

Bottom of potable water sand in this area is less than 600' with surface casing being customarily set through this depth and cemented back to surface in order to control the well while drilling the salt sections between that depth and the top of the Delaware at or about 5,000'.

IX STIMULATION PROGRAM

The only stimulation required on previous wells in this formation has been small acid treatments, most of which break at 1400 psig and go on a vacuum immediately after treatment. Most injection pressures vary from none to about 450 psig when the wells are new. It is not contemplated that the well will be treated with more than 3000-4000 gallons of acid.

X WELL LOGS. All logs have been previously submitted to the Division for filing.

XI FRESH WATER SAMPLES.

There are no fresh water wells in operation within 2 miles of the proposed well; however, past samples of the closest fresh water well located in Unit O, Section 15 is attached.

XII FAULTING IN THE AREA. There is no faulting in this area after Wolfcamp time. We have spent considerable in the area an know of no open faults or hydrological anomalies that might connect the injection zones into fresh water reservoirs.

XIII PROOF OF NOTICE will be given when the Operators listed below have responded to the certified, "Return Receipt Requested" notices by copies of this application mailed to them. A copy of the public notice will be furnished when that notice is published in the Hobbs Daily News-Sun.

OPERATORS IN THE AREA OF REVIEW

MID-CONTINENT ENERGY OPERATING COMPANY
100 West Fifth Street, Suite 450
Tulsa, Oklahoma 74103-4287
ATT: Mr. Paul D. Witt, President

PATTERSON PETROLEUM, INC.
P. O. Drawer 1416
Snyder, Texas 79550
ATT: Mr. Cloyce Talbot, President

TOCO, LLP
P. O. Box 754
Midlan, Texas 79702
ATT: Mr. C. W. Trainer

BTA OIL PRODUCERS
104 S. Pecos
Midland, Texas 79701
ATT: Barry Beal, President

J. C. WILLIAMSON
P. O. Box 16
Midland, Texas 79701

BROUGHTON PETROLEUM, INC.-
#13 Townhouse Court
Bellaire, Texas

Each of the above Operators will receive a copy of this Application to Inject with "Return Receipt Requested" Certified letter requesting their approval.

LAB. NO.

TO: Mr. Max Curry DATE REC 5-29-97

804 Palomino, Midland, TX 79705 RR

COMPANY San Simon SWD Lisa Federal #1

FIELD Antelope Ridge

SEC 10 BLK SURVEY T-23S & R-34E CO. Lea, NM

NO. 1 Produced water - taken from Federal #1. 5-29-97

NO. 2

NO. 3.

NO. 4

REMARKS:	Bone Springs
Specific Gravity @ 60oF.	1.1964
pH When Sampled	
pH When Received	5.84
Bicarbonate, as HC03	67
Supersaturated, as CaC03	
Undersaturated, as CaC03	
Total Hardness, as CaC03	87500
Calcium, as Ca	29200
Magnesium, as Mg	3524
Sodium and/or Potassium	85635
Sulfate, as SO4	296
Chloride, as Cl	193830
Iron, as Fe	62.4
Barium, as Ba	
Turbidity	
Color	
Total Solids, Calc.	312552
Temperature, oF.	
Carbon Dioxide	
Oxygen	
Hydrogen Sulfide	0.0
Resistivity, ohms/m @ 77oF.	0.045
Suspended Oil	
Filtrable Solids	
Volume Filtered, ml	

Remarks: In comparing this water with our records in this field, we find it clearly does not resemble what we would expect from a natural Bone Springs. In further comparing with our records, we find it has characteristics that are decidedly similar to what we would expect from the Brushy Canyon or Cherry Canyon interval.

RESULTS REPORTED AS MILLIGRAMS PER LITER
MARTIN WATER LABS., INC.

EXHIBIT: WATER SAMPLES

Seaco Products Co.

WATER ANALYSIS REPORT

SAMPLE

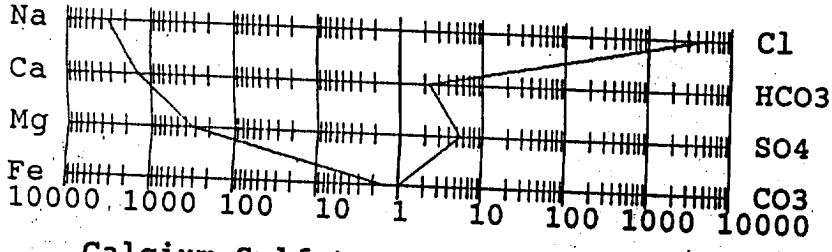
Oil Co. : J. C. WILLIAMSON
Lease : Curry State
Well No.: # 1 2
Salesman:

Sample Loc. :
Date Analyzed: 26-January-1996
Date Sampled :

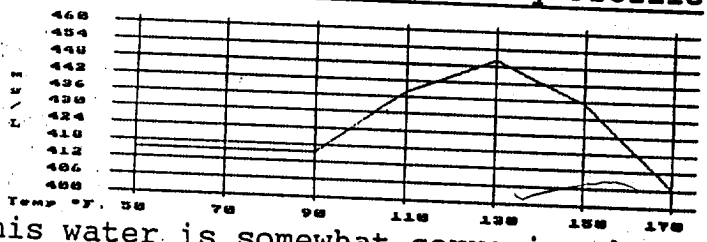
ANALYSIS

1.	pH		5.920		
2.	Specific Gravity 60/60 F.		1.196		
3.	$CaCO_3$ Saturation Index	@ 80 F.	+2.227		
		@ 140 F.	+3.147		
	Dissolved Gasses		**MG/L**	**EQ. WT.**	***MEQ/L**
4.	Hydrogen Sulfide		Not Present		
5.	Carbon Dioxide		Not Determined		
6.	Dissolved Oxygen		Not Determined		
	Cations				
7.	Calcium	(Ca^{++})	27,755	/ 20.1 =	1,380.85
8.	Magnesium	(Mg^{++})	3,829	/ 12.2 =	313.85
9.	Sodium	(Na^{+}) (Calculated)	72,597	/ 23.0 =	3,156.39
10.	Barium	(Ba^{++})	0	/ 68.7 =	0.00
	Anions				
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	132	/ 61.1 =	2.16
14.	Sulfate	($SO_4^{=}$)	250	/ 48.8 =	5.12
15.	Chloride	(Cl^{-})	171,961	/ 35.5 =	4,843.97
16.	Total Dissolved Solids		276,524		
17.	Total Iron (Fe)		26	/ 18.2 =	1.43
18.	Total Hardness As $CaCO_3$		85,076		
19.	Resistivity @ 75 F. (Calculated)		0.001 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	2.16	175
$CaSO_4$	68.07	5.12	349
$CaCl_2$	55.50	1,373.56	76,233
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	313.85	14,946
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	3,156.56	184,532

*Milli Equivalents per Liter

This water is somewhat corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

EXHIBIT: WATER SAMPLES

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

Martin Water Laboratories, Inc.

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

RESULT OF WATER ANALYSES

TO: Mr. Fred W. Taylor
P. O. Box 16, Midland, TX 79702

LABORATORY NO. 295181
SAMPLE RECEIVED 2-18-95
RESULTS REPORTED 2-22-95

COMPANY J. C. Williamson LEASE As listed
FIELD OR POOL Antelope Ridge
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Raw water - taken from Antelope Ridge Warehouse water well.
NO. 2 Produced water - taken from Triple "A" #3.
NO. 3
NO. 4
REMARKS: 2. Delaware

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0037	1.1914		
pH When Sampled				
pH When Received	8.07	6.03		
Bicarbonate as HCO_3	212	46		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	316	93,000		
Calcium as Ca	82	32,600		
Magnesium as Mg	27	2,795		
Sodium and/or Potassium	49	77,132		
Sulfate as SO_4	92	274		
Chloride as Cl	108	184,649		
Iron as Fe	1.1	18.0		
Barium as Ba		0		
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	570	297,497		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	12.70	0.046		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks It is our understanding these waters are to be utilized for drilling purposes. We see no evidence that would cause any need for concern in the water from the water well. However, the water from Triple "A" #3 shows an abnormally high calcium and magnesium; and if a high-pH drilling brine is anticipitated, it is necessary to add significantly more treatment to raise the pH above 9.0 in that magnesium and some calcium would precipitate as hydroxides before getting the pH on up to the level normally used for drilling purposes. Otherwise, we see no need for concern regarding the use of this water from Triple "A" #3.

By Waylan C. Martin, M.A.

EXHIBIT: WATER SAMPLES

Seaco Products Co.

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : T. C. WILLIAMSON
Lease : Fed
Well No.: # 2 AAA
Salesman:

Sample Loc. :
Date Analyzed: 26-January-1996
Date Sampled :

ANALYSIS

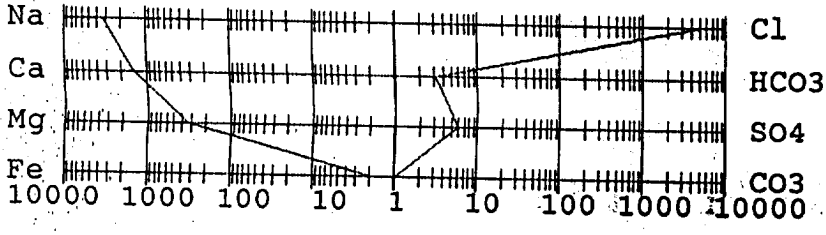
1.	pH		6.040		
2.	Specific Gravity 60/60 F.		1.201		
3.	$CaCO_3$ Saturation Index	@ 80 F.	+2.487		
		@ 140 F.	+3.407		

	Dissolved Gasses	MG/L	EQ. WT.	*MEQ/L
4.	Hydrogen Sulfide	Not Present		
5.	Carbon Dioxide	Not Determined		
6.	Dissolved Oxygen	Not Determined		

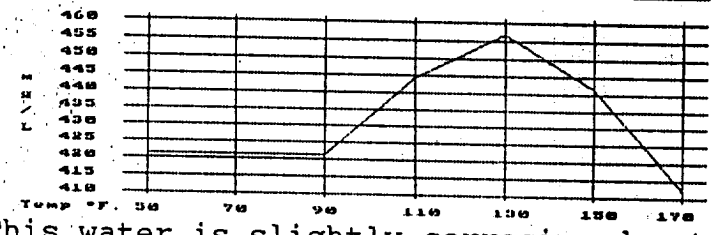
	Cations			MG/L	EQ. WT.	*MEQ/L
7.	Calcium	(Ca^{++})		27,355	/ 20.1 =	1,360.95
8.	Magnesium	(Mg^{++})		3,890	/ 12.2 =	318.85
9.	Sodium	(Na^{+})	(Calculated)	73,621	/ 23.0 =	3,200.91
10.	Barium	(Ba^{++})		0	/ 68.7 =	0.00

	Anions		MG/L	EQ. WT.	*MEQ/L
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	($CO_3^{=}$)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	185	/ 61.1 =	3.03
14.	Sulfate	($SO_4^{=}$)	275	/ 48.8 =	5.64
15.	Chloride	(Cl^{-})	172,961	/ 35.5 =	4,872.14
16.	Total Dissolved Solids		278,287		
17.	Total Iron (Fe)		31	/ 18.2 =	1.70
18.	Total Hardness As $CaCO_3$		84,325		
19.	Resistivity @ 75 F. (Calculated)		0.001 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	3.03	245
$CaSO_4$	68.07	5.64	384
$CaCl_2$	55.50	1,352.28	75,052
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	318.85	15,184
$NaHCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	3,201.01	187,131

*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

EXHIBIT: WATER SAMPLES

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions reverse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER CONVERT WELL TO WATER INJECTION

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR
J. C. WILLIAMSON

8. FARM OR LEASE NAME
APD FEDERAL

3. ADDRESS OF OPERATOR
P.O. Box 16, Midland, Texas 79701

9. WELL NO.
WELL No. 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface
Unit O, Sec. 10, T23S, R34E. Lea County, NM.
Located 990 FSL and 1940' FEL of Sec.

10. FIELD AND POOL, OR WILDCAT
Antelope Ridge

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10, T23S, R34E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
GL 3387' KB 3403'

12. COUNTY OR PARISH
Lea

13. STATE
NM

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☒	CHANGE PLANS	☐	(Other)			
(Other) SWD				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

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.)*

THIS SUNDRY NOTICE is a request for approval of remedial work required to convert the J. C. Williamson, APD Federal Well No. 1 to water disposal service as an extension of the existing duly approved water disposal system owned and operated by SAN SIMON WATER DISPOSAL CO., INC., which owns and operates a produced water gathering battery on the same lease pad as the subject well. San Simon Water Disposal Co., Inc. is in the process of acquiring the subject well from J. C. Williamson for the purpose of expanding their system. That system consists of a water tank battery, a transfer pump powered by electricity with appropriate power lines, poles and control panels and is confined within the limits of their State of New Mexico Business Lease No. BL 1407. The system is equipped to handle the gathering of produced water from various wells in Section 10 and the transfer pump automatically pumps the water through a 3" OD poly pipeline to the main battery, injection pump, and water disposal well located in Unit N, Section 22, T23S, R34E, a distance of approximately 2-1/4 miles. Both batteries are equipped to receive water hauled by trucks.

THIS REQUEST, if approved, will provide an alternate injection well for the system and will reduce the cost of transferring water 2-1/2 miles for new production contemplated by San Simon's customers in the immediate area of the subject well. This well will provide a disposal well on the north end of the field where most of the new development is projected and will be able to handle all of the water gathered in the field when the current injection well needs remedial work.

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

SIGNED [signature] TITLE Agent DATE 3-15-91

(This space for Federal or State office use)

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

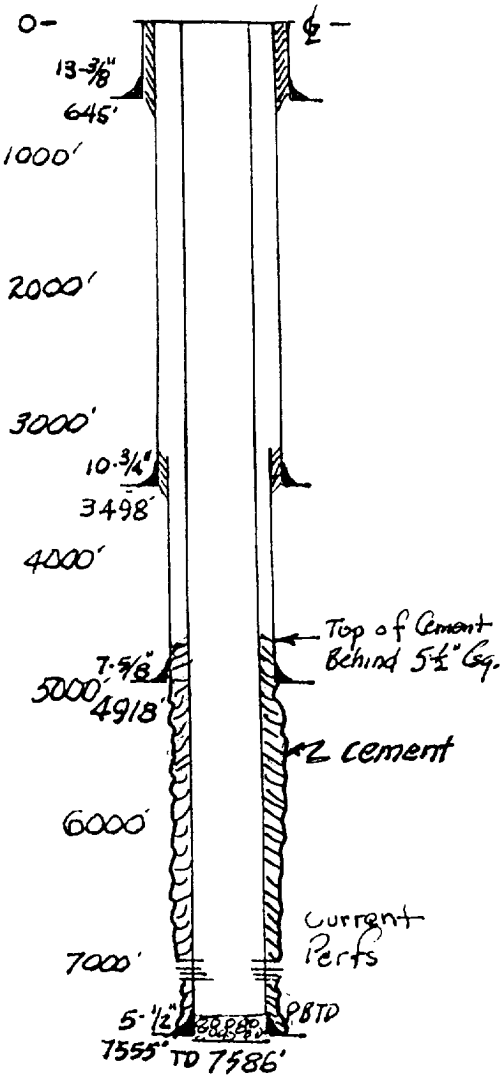
*See Instructions on Reverse Side

EXHIBIT "A" ATTACHMENT TO SUNDRY NOTICES

INJECTION WELL DATA

CURRENT CONDITIONS (BEFORE CONVERSION TO WATER DISPOSAL SERVICE)

SCHEMATIC DRAWING OF WELL



TUBULAR DATA

SURFACE CASING Set @ 645'
13-3/8" OD casing set at 645' and cemented with 700 sacks of cement, cement circulated.

INTERMEDIATE CASING Set @ 3,498'
10-3/4" OD casing set at 3,498' and cemented with 1,500 sacks of cement.

SECOND IN
TERMEDIATE CASING Set @ 4,918'
This string of 7-5/8" OD casing was set as a liner at the depth of 4,918" and was cemented with 1,530 sacks of cement. When Belnorth plugged the well they cut this string off at 3,310' and pulled the remaining 7-5/8" pipe. When the well was re-entered by Williamson, this over-lap was pressure tested and did not leak.

PRODUCTION CASING Set @ 7,555'
5-1/2" OD. 17.0 and 15.5# casing set at 7,555' with DV tool set for two stage cementing. First stage cemented with 175 sacks and second stage of 125 sacks. Top of cement at 4690' by temperature survey. The current total depth of this well is 7,586'.

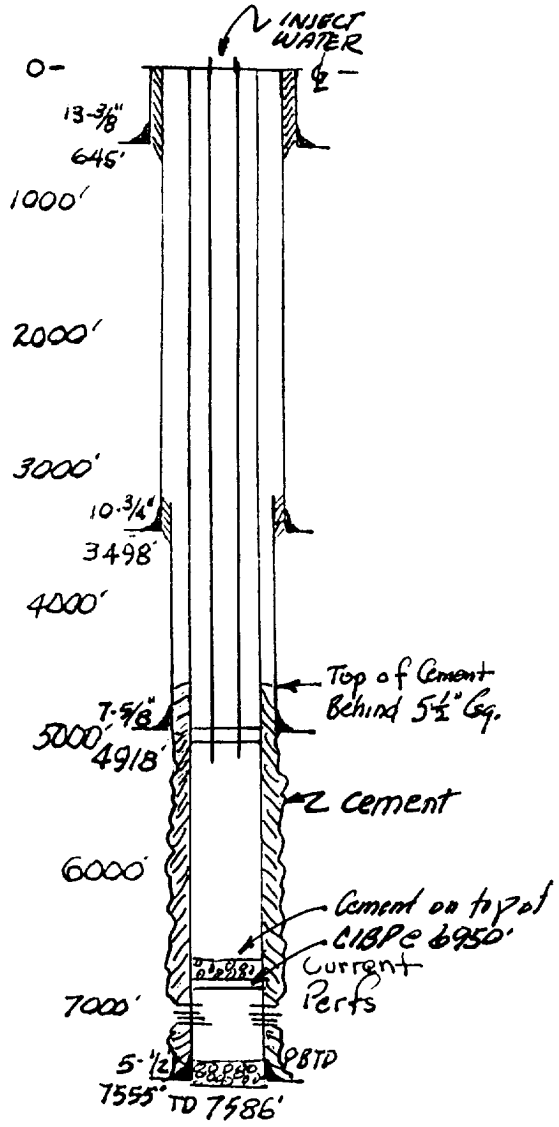
COMPLETION DATA IN 5-1/2" CASING (Delaware)
Perfs: One shot, 6981-84-86-93-97, 7003-05-07
A/2500 gals, F/10,000 gals. P/240 BW-3.5 BO
RePerfs: 7070-7091/13 shots, set Pkr @ 7041' A/2500 gals. Communicated to upper perfs. Placed frac sand from TD to7050. Sqeezed upper perfs w/200 sax. Drilled out. Re-Squeezed w/100 sax. Cleaned out hole to 7150'. Acidized top perfs w/2000 gals. Swabbed down and recovered at rate of 0.5 to 5.0 percent oil. Well has been shut in until present date (June 20, 1995 to March 15, 1997).

EXHIBIT "B" ATTACHMENT TO SUNDRY NOTICES

INJECTION WELL DATA

CONDITIONS AFTER CONVERSION TO WATER DISPOSAL SERVICE

SCHEMATIC DRAWING OF WELL



TUBULAR DATA

SURFACE CASING Set @ 645'
13-3/8" OD casing set at 645' and cemented with 700 sacks of cement, cement circulated.

INTERMEDIATE CASING Set @ 3,498'
10-3/4" OD casing set at 3,498' and cemented with 1,500 sacks of cement.

SECOND INTERMEDIATE CASING Set @ 4,918'
This string of 7-5/8" OD casing was set as a liner at the depth of 4,918" and was cemented with 1,530 sacks of cement. When Belnorth plugged the well they cut this string off at 3,310' and pulled the remaining 7-5/8" pipe. When the well was re-entered by Williamson, this over-lap was pressure tested and did not leak.

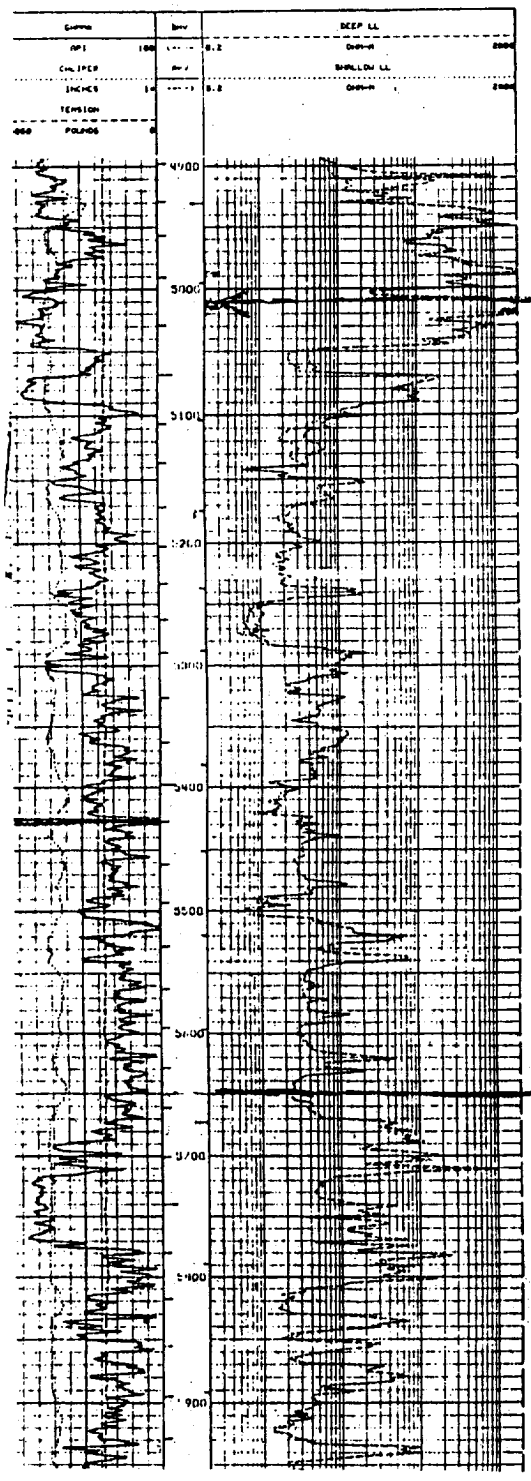
PRODUCTION CASING Set @ 7,555'
5-1/2" OD. 17.0 and 15.5# casing set at 7,555' with DV tool set for two stage cementing. First stage cemented with 175 sacks and second stage of 125 sacks. Top of cement at 4690' by temperature survey. The current total depth of this well is 7,586'.

COMPLETION DATA IN 5-1/2" CASING (Delaware)
A Cast Iron Bridge Plug will be set @ 6,950' with 35' of cement on top of the plug. The well will be perforated at selected intervals in the Olds and Ramsey sands of the Delaware formation (5,110' to 5,650') all in the Bell Canyon Series of the Delaware. All disposal wells in the area are completed within this interval.
An epoxy coated packer (Baker Loc-Set or equivalent) will be run on internally epoxy coated 2-3/8" OD EUE J-55 or better grade tubing and the packer set at/or near the top of the Delaware formation (5,080') and water will be disposed of down the tubing at pressures below 1,100 psig.

EXHIBIT "C" ATTACHMENT TO SUNDRY NOTICE

WELL LOG OF APD FEDERAL, WELL No. 1
HALLIBURTON - DUAL LATERLOG

VARIOUS SAND SECTIONS WILL BE SELECTED FOR PERFORATION



TOP OF INJECTION INTERVAL

BOTTOM OF INJECTION INTERVAL

J. C. WILLIAMSON, APD FEDERAL No. 1 SWSE 10-23S-34E

EXHIBIT "D" ATTACHMENT TO SUNDRY NOTICES
MAP OF THE ANTELOPE RIDGE AREA T23S, R34E LEA