

date of first injection (production)

11-26-75

**FILE NOTATIONS**

Entered in MID File .....  
Location Map Pinned .....  
and Indexed .....

Checked by Chief .....  
Approval Letter 1-18-75  
Disapproval Letter .....

**COMPLETION DATA:**

Date Well Completed 11-10-75  
DW..... MW...✓.. TA.....  
OS..... PA.....

Location Inspected .....  
Bond released  
State or Fee Land .....

**LOGS FILED**

Driller's Log.....  
Electric Logs (No.) 1 ✓.....  
I..... Dual I Log..... GR-N..... Micro.....  
Sonic GR..... Log..... MI-L..... Sonic.....  
Log..... CLog..... Others.....

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL & GAS

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

8. Farm or Lease Name

Salt Water Disposal Well

9. Well No.

#3-31A3

10. Field and Pool, or Wildcat

Altamont-Duchesne River

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 31, T1S, R3W USB&M

12. County or Parrish 13. State

Duchesne Utah

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL

DEEPEN

PLUG BACK

b. Type of Well

Oil Well

Gas Well

Salt Water Disposal

Single Zone

Multiple Zone

2. Name of Operator

Chevron Oil Company - Western Division

3. Address of Operator

P. O. Box 599 Denver, Colorado 80201

4. Location of Well (Report location clearly and in accordance with any State requirements.\*)

At surface

1109' FNL & 964' FEL (NE $\frac{1}{4}$ NE $\frac{1}{4}$ )

At proposed prod. zone

same

14. Distance in miles and direction from nearest town or post office\*

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

964'

16. No. of acres in lease

facility well

17. No. of acres assigned to this well

facility well

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft.

+50'

19. Proposed depth

4800'

20. Rotary or cable tools

rotary

21. Elevations (Show whether DF, RT, GR, etc.)

6406' ungraded ground

22. Approx. date work will start\*

March 15, 1975

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8"	24#	300	to surface
7-7/8"	5-1/2"	14#	4800	to surface

We propose to drill and complete a 4800' produced water disposal well in the Duchesne River formation.

Attachments: Drilling Procedure  
Certified Plat  
12 pt Surface Use Plan w/attachments

APPROVED BY DIVISION OF OIL & GAS CONSERVATION

DATE FEB 18 1975

BY *Clean B. Ferguson*

3 STATE  
2 USGS  
1 JHD  
1 ALF  
2 FILE

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed *R. B. Wacker*

Title R. B. Wacker  
Division Drilling Supt.

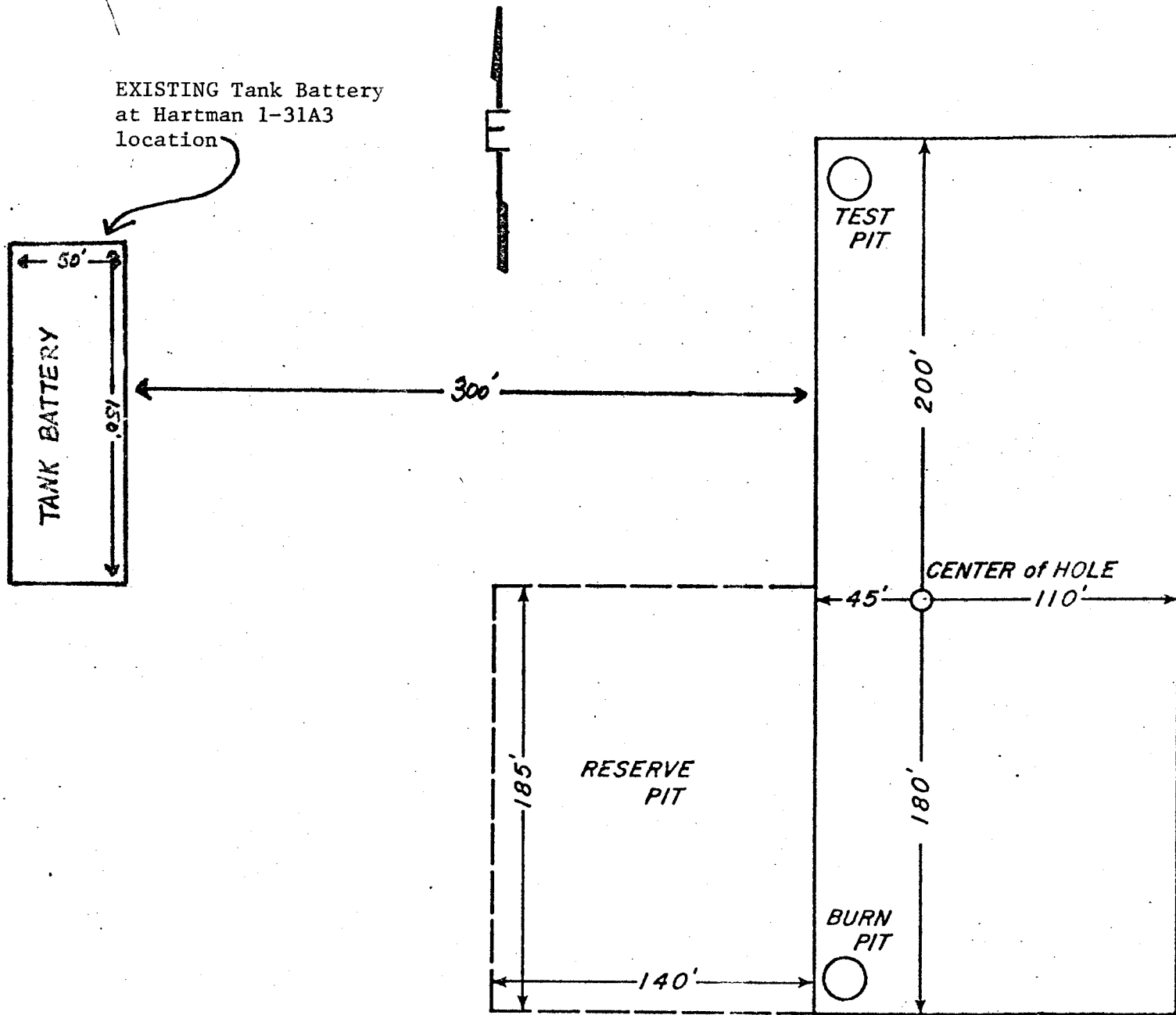
Date 1-30-75

(This space for Federal or State office use)

Permit No. .... Approval Date .....

Approved by..... Title..... Date.....  
Conditions of approval, if any:

CHEVRON OIL COMPANY  
WESTERN DIVISION  
Salt Water Disposal Well #3-31A3  
NE $\frac{1}{4}$  NE $\frac{1}{4}$ , Sec. 31, T1S, R3W, USB&M  
Duchesne County, Utah



Scale: 1.5" = 100'

Salt Water Disposal Well #3-31A3

DRILLSITE LOCATION PLAT  
MANNING RIG No. 7

CHEVRON OIL COMPANY  
DEVELOPMENT PLAN FOR SURFACE USE  
SALT WATER DISPOSAL WELL #3-31A3  
NE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec 31, T1S, R3W, USB&M  
Duchesne County, Utah

1. EXISTING ROADS  
Existing roads shown on attached topo map.
2. PLANNED ACCESS ROADS  
Access road shown on attached topo map. Road construction will be kept to a minimum.
3. LOCATION OF EXISTING WELLS  
One existing well within half-mile radius shown on attached topo map.
4. LATERAL ROADS TO WELL LOCATION  
All existing and proposed roads shown on attached topo map.
5. LOCATION OF TANK BATTERY AND FLOW LINE  
No tank battery - disposal well. Salt water disposal lines to be included in existing bundle.
6. SOURCE OF WATER SUPPLY  
Water supply will be from nearest canal where water is obtainable.
7. METHOD FOR HANDLING WASTE DISPOSAL  
Waste material will be disposed of in a surface pit at the drill site. When well is completed, pit will be closed and covered.
8. LOCATION OF CAMPS  
No permanent camp type structures will be constructed.
9. LOCATION OF AIRSTRIPS  
No airstrip will be constructed.
10. LOCATION OF LAYOUT  
Rig orientation layout shown on 1.5" = 100' drawing attached. Also see attached topo map.
11. PLAN FOR RESTORATION OF THE SURFACE  
All disturbed surface not needed for future operations will be restored to be in conformance with the appropriate regulatory agency requirements.
12. OTHER PERTINENT INFORMATION  
This well site has been located on as flat an area as possible, consistent with reasonable geological requirements, to minimize cut and fill for location site access road and disposal line. All reasonable precautions will be taken to protect the surface environment and wildlife habitat.



# LITE RESEARCH LABORATORIES

P.O. Box 119

Fort Duchesne, Utah 84026

(801) 722 2254

LABORATORY NUMBER W-2822  
 SAMPLE TAKEN \_\_\_\_\_  
 SAMPLE RECEIVED 11-10-75  
 RESULTS REPORTED 11-12-75

SAMPLE DESCRIPTION \_\_\_\_\_ FIELD NO. \_\_\_\_\_  
 COMPANY Chevron Oil Co. LEASE Hartman WELL NO. 3-301A3  
 FIELD \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ 3-31A3  
 SAMPLE TAKEN FROM \_\_\_\_\_  
 PRODUCING FORMATION 3576 TOP 3686  
 REMARKS S.W.D.W.

SAMPLE TAKEN BY \_\_\_\_\_

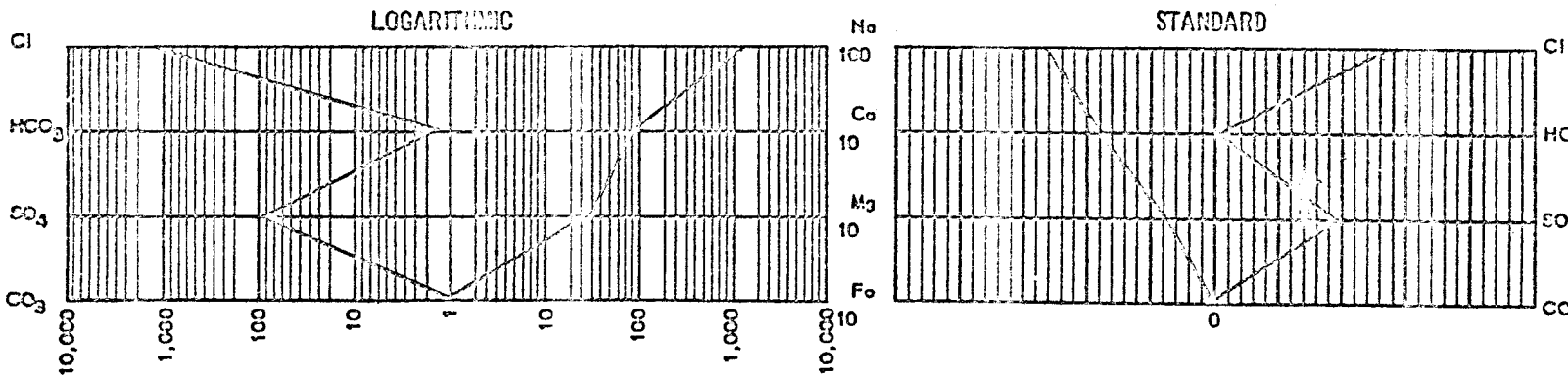
## CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.0647 pH 7.35 RES. 0.12 OHM METERS @ 77°F

TOTAL HARDNESS 6618.0 mg/L as CaCO<sub>3</sub> TOTAL ALKALINITY 83.0 mg/L as CaCO<sub>3</sub>

CONSTITUENT	MILLIGRAMS PER LITER mg/L.	MILLEQUIVALENTS PER LITER MEQ/L	REMARKS
CALCIUM - Ca <sup>++</sup>	1850.0	92.50	
MAGNESIUM - Mg <sup>++</sup>	481.0	39.43	
SODIUM - Na <sup>+</sup>	30000.0	1304.35	
BARIUM (INCL. STRONTIUM) - Ba <sup>++</sup>	0	0	
TOTAL IRON - Fe <sup>++</sup> AND Fe <sup>+++</sup>	11.50	0.41	1436.69
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	83.0	1.36	
CARBONATE - CO <sub>3</sub> <sup>-</sup>	0	0	
SULFATE - SO <sub>4</sub> <sup>-</sup>	4700.0	97.92	
CHLORIDE - CL <sup>-</sup>	48980.4	1379.73	1479.03
TOTAL DISSOLVED SOLIDS	85160		

MILLEQUIVALENTS PER LITER



ANALYST \_\_\_\_\_

CHECKED \_\_\_\_\_

DRILLING PROCEDURE

Field Altamont Well Salt Water Disposal Well #3-31A3

Location 1109' ENL & 954' FEL, NE1/4, Sec 31, T1S, R3W, USB&M, Duchesne County, Utah

Drill X Deepen \_\_\_\_\_ Elevation: GL 6406 KB \_\_\_\_\_ Total Depth 4800  
ungraded

Non-Op Interests Shell, Gulf, Barber, Duncan et al

1. Casing Program (O = old, N = new)

	<u>Surface</u>	<u>O/N</u>	<u>Intermediate</u>	<u>O/N</u>	<u>Oil String/ Liner</u>	<u>O/N</u>
Hole Size	<u>12-1/4</u>				<u>7-7/8</u>	
Pipe Size	<u>8-5/8</u>	<u>N</u>			<u>5-1/2</u>	<u>O</u>
Grade	<u>K</u>				<u>K</u>	
Weight	<u>24#</u>				<u>14#</u>	
Depth	<u>300</u>				<u>4800</u>	
Cement	<u>to surface</u>				<u>to surface</u>	
Time WOC	<u>+ 6 hrs</u>				<u>+ 6 hrs</u>	
Casing Test	<u>None</u>				<u>3000 psi</u>	
BOP	<u>None</u>				<u>S-900 Hydril</u>	
Remarks						

2. Mud Program

<u>Depth Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Water Loss</u>
<u>0-300</u>	<u>Gel Water</u>			
<u>300-4800</u>	<u>Gel Water</u>			

3. Logging Program

Surface Depth DILL8 and BHC Sonic-GR-Caliper

Intermediate Depth \_\_\_\_\_

Oil String Depth \_\_\_\_\_

Total Depth \_\_\_\_\_

4. Mud Logging Unit None

Scales: 2" = 100' \_\_\_\_\_ to \_\_\_\_\_ ; 5" = 100' \_\_\_\_\_ to \_\_\_\_\_

5. Coring & Testing Program

<u>Core</u>	<u>DST</u>	<u>Formations</u>	<u>Approximate Depth</u>	<u>Approximate Length of Core</u>
<u>None</u>	<u>None</u>			

6. Objectives & Significant Tops: Objectives: Duchesne River Sands

<u>Formations</u>	<u>Approximate Depth</u>	<u>Formations</u>	<u>Approximate Depth</u>

7. Anticipated Bottom Hole Pressure < 2075 psi

8. Completion & Remarks: Perf csg\*, break perfs down. Run plastic coated packer on new plastic lined tbg and flange well up.

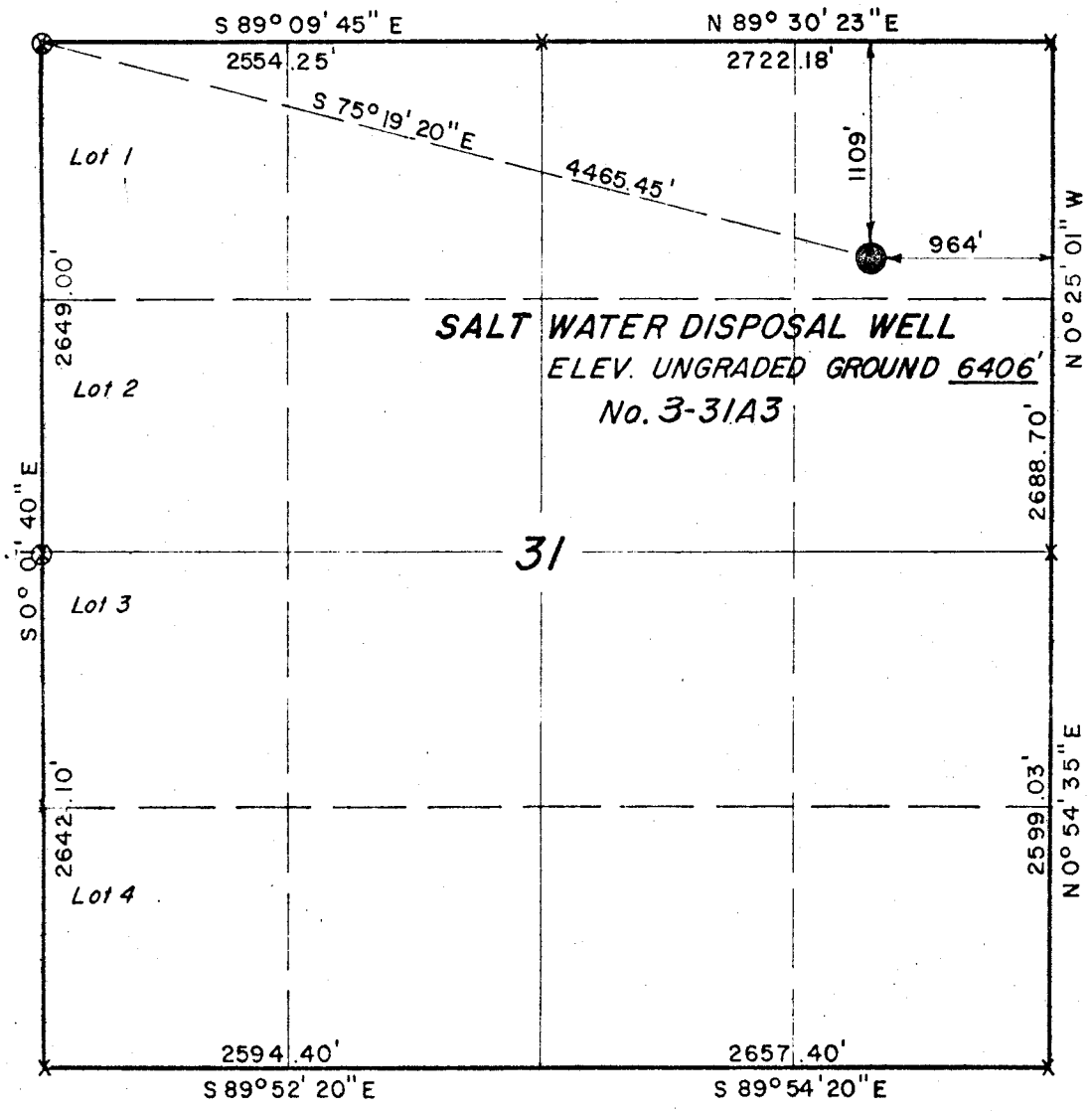
\*Swab to recover water for analysis

Division Development Geologist [Signature] 1/31/75 Division Drilling Superintendent [Signature]  
Chief Development Geologist \_\_\_\_\_ Date 1/31/75

PROJECT  
**CHEVRON OIL COMPANY**

Well location located as shown in  
the NE1/4 NE1/4 Section 31, T1S, R3W,  
U.S.B.&M. Duchesne County, Utah.  
**SWD No. 3-31A3**

**T1S, R3W, U.S.B.&M.**



CERTIFICATE

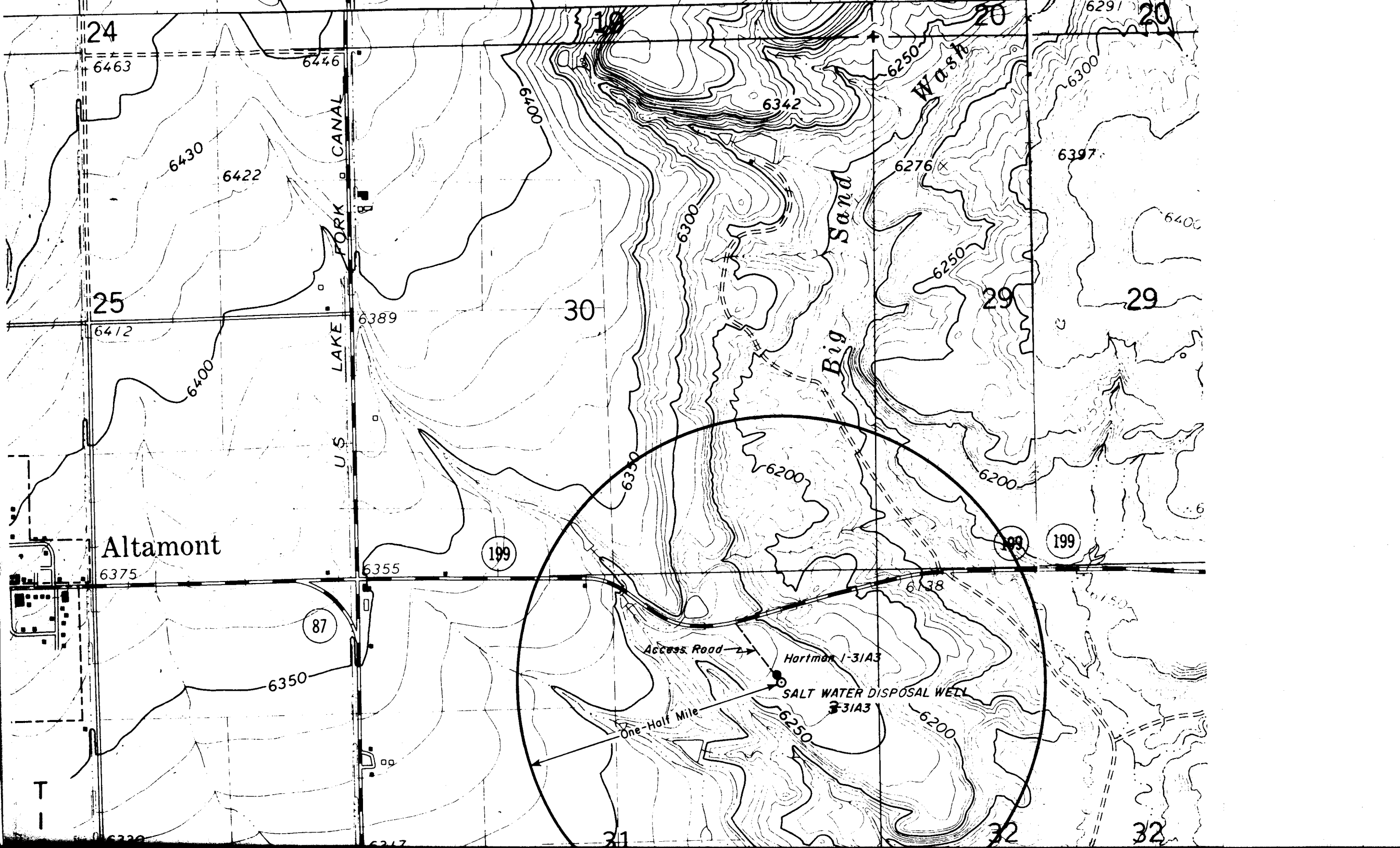
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

*Richard L. Hall*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO 2454  
STATE OF UTAH

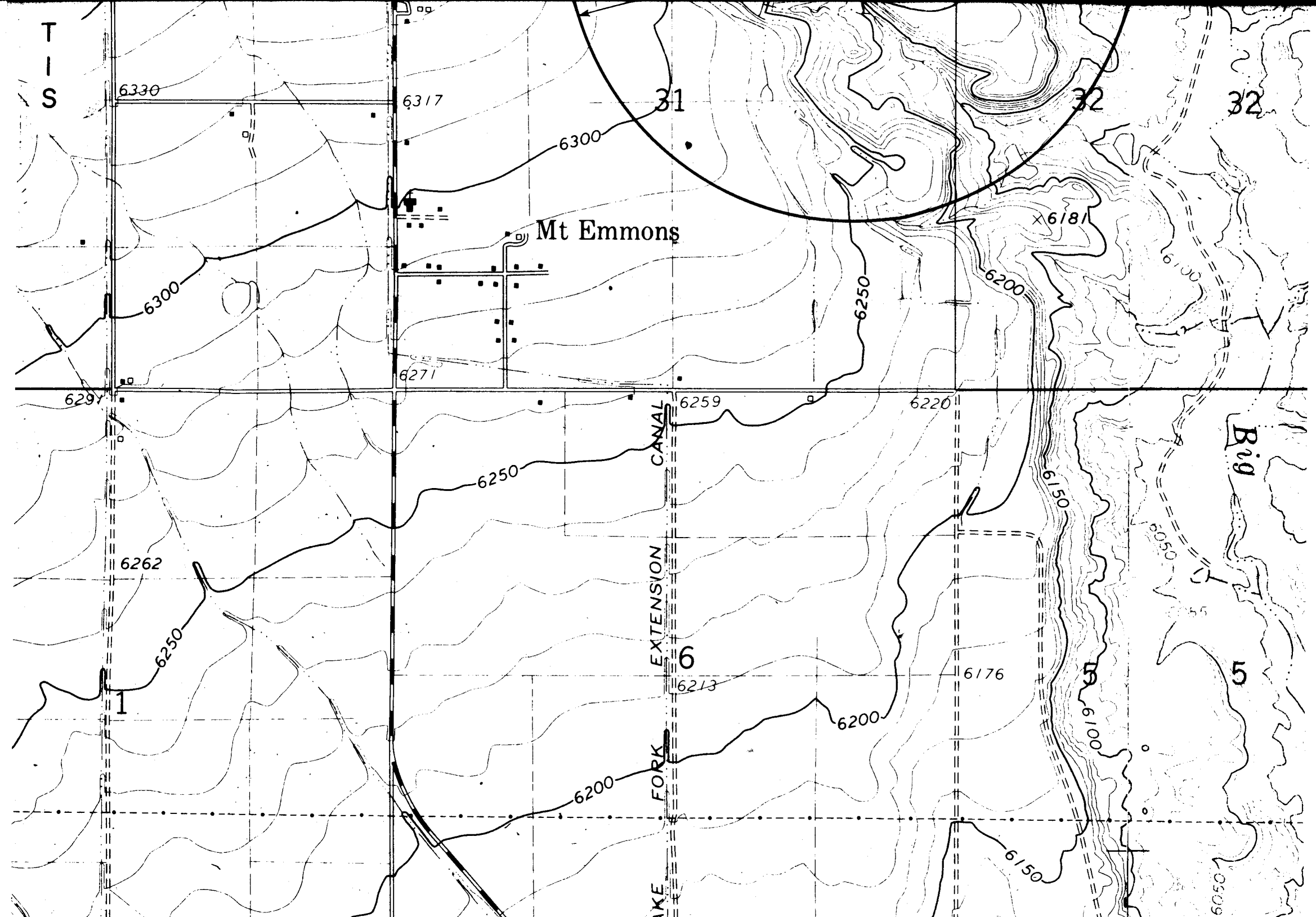
**UINTAH ENGINEERING & LAND SURVEYING**  
P.O. BOX Q - 110 EAST - FIRST SOUTH  
**VERNAL, UTAH - 84078**

X = Section Corners Located  
⊗ = Section Corners Used for Above Survey.

SCALE 1" = 1000'	DATE Jan. 22, 1975
PARTY B.R. B.H. T.F.	REFERENCES GLO Plat
WEATHER Cold	FILE CHEVRON OIL CO.







T  
S

6330

6317

6300

31

32

32

Mt Emmons

x6181

6300

6250

6200

6297

6271

6259

6220

CANAL

6250

Big

6262

6250

EXTENSION

6

6213

6176

6200

6200

FORK

6100

15

6150

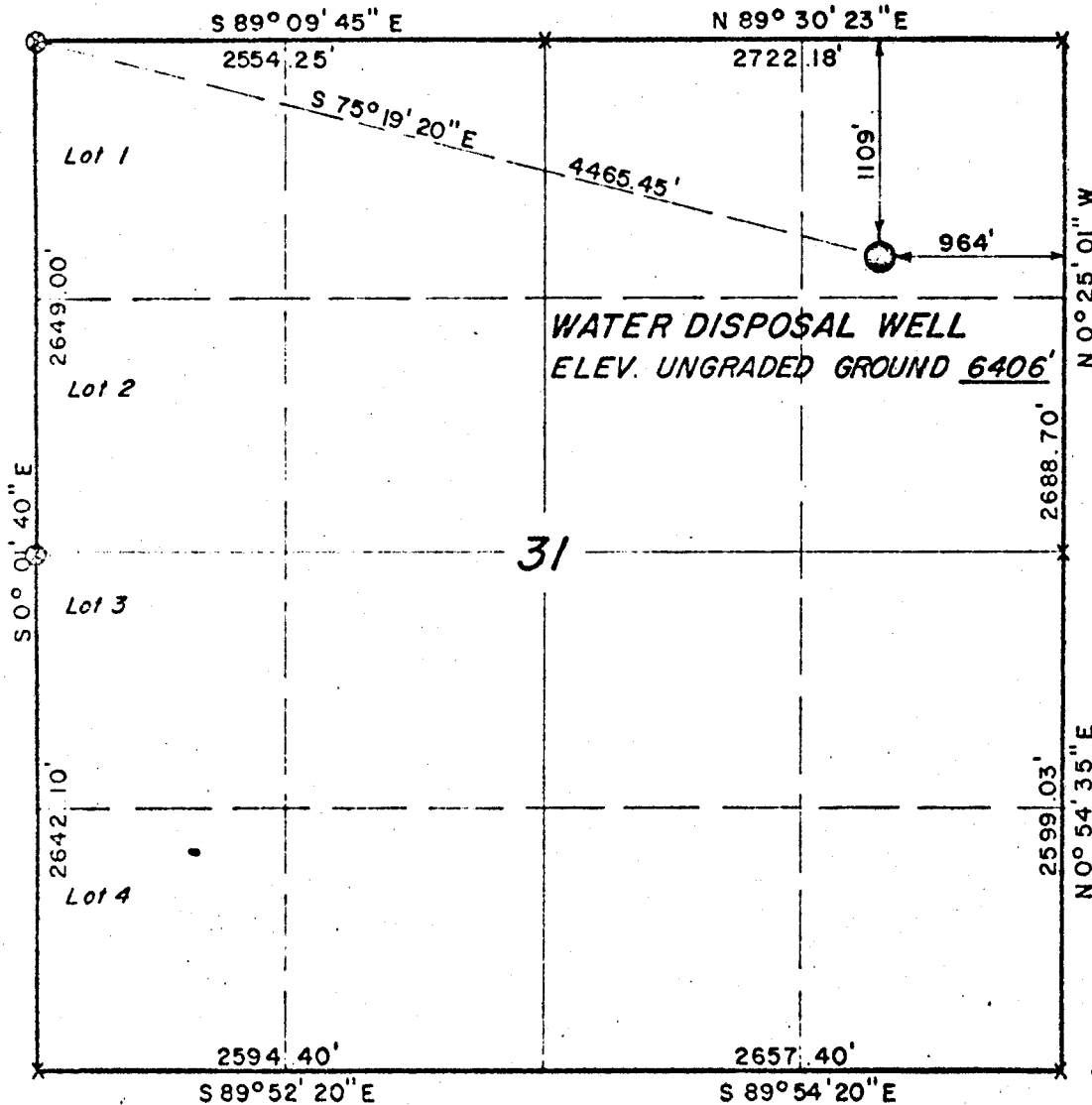
6050

T1S, R3W, U.S.B.&M.

PROJECT  
CHEVRON OIL COMPANY

Well location located as shown in  
the NE1/4 NE1/4 Section 31, T1S, R3W,  
U.S.B.&M. Duchesne County, Utah.

EXHIBIT "A"



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

*Nelson [Signature]*

REGISTERED LAND SURVEYOR  
REGISTRATION NO 2454  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P.O. BOX Q - 110 EAST - FIRST SOUTH  
VERNAL, UTAH - 84078

X = Section Corners Located  
⊗ = Section Corners Used for Above Survey.

SCALE 1" = 1000'	DATE Jan. 22, 1975
PARTY B.R. B.H. T.F.	REFERENCES GLO Plat
WEATHER Cold	FILE CHEVRON OIL CO.

BEFORE THE BOARD OF OIL AND GAS CONSERVATION  
DEPARTMENT OF NATURAL RESOURCES  
IN AND FOR THE STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF )  
CHEVRON OIL COMPANY, WESTERN DIVISION )  
FOR ADMINISTRATIVE APPROVAL, PURSUANT )  
TO RULE C-11, AUTHORIZING THE ) A P P L I C A T I O N  
DRILLING OF AN INJECTION WELL FOR )  
DISPOSING OF WATER PRODUCED WITH OIL )  
IN THE ALTAMONT FIELD, DUCHESNE COUNTY, )  
UTAH )

Comes now applicant, CHEVRON OIL COMPANY, WESTERN DIVISION, by and through its undersigned attorney, and in support of this application respectfully shows:

(1) Chevron Oil Company is a corporation organized and existing under the laws of the State of California, and is duly authorized to and is doing business in the State of Utah.

(2) Applicant is an operator in the Altamont Field, Duchesne County, Utah.

(3) Applicant is now utilizing surface pits to retain the salt water produced at the battery sites until hauled by truck to the Chevron owned Salt Water Disposal well located in Section 3, T1S, R2W in the Bluebell Field. This disposal well and its facilities are reaching their injection capacities. Therefore this proposed well will provide additional capacity to adequately and safely dispose of this increased salt water production.

(4) Unless sub-surface disposal is provided, the salt water accompanying further production of oil could cause surface damage and possible pollution of potable surface water.

(5) That Applicant proposes to drill a well for disposing of produced salt water by injection into the lower portion of the Duchesne River formation. The proposed well will be drilled in the NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> Section 31, T1S, R3W, USB&M as shown on attached plat marked Exhibit "A".

(6) Pursuant to Rule C-11, of the General Rules and Regulations of the Board, the following information is submitted:

(a) Attached hereto as Exhibit "B", "C", "D", and "E" and by this reference made a part hereto, are the following respectively.

1. Names of lessees of record within one-half mile of the proposed disposal well.

2. Plat of all wells within one-half mile of proposed disposal well.
  3. A copy of a log of the Duchesne River formation showing the interval proposed for injection. This log was obtained in the Shell Oil Company Hansen No. 2-4B3 well located approximately 2.25 miles from the proposed disposal well as shown on Exhibit "C" next above.
  4. A water analysis of the water recovered from the Duchesne River formation in the well from which the log next above was obtained.
- (b) Applicant proposes to inject produced salt water into the lower Duchesne River formation. The lower Duchesne River formation is of the Tertiary age and consists of sandstones, white to tan, which appear in drill cuttings as unconsolidated sand grains, very fine to medium and occasionally coarse to very coarse grained, subround and poorly sorted. In places the sandstones are porous and permeable and occur in thinner interbeds of soft, varicolored shale, predominantly ocher with lesser red, gray-green and lavender, slightly calcareous, occasionally very finely sandy.
- (c) Prior to injection electrical and radioactive logs will be run throughout the Duchesne River formation in the proposed disposal well. From the information obtained from such logs, the well will be perforated in the lowermost zones of capacity for disposal of the produced salt water.
- (d) The description of the proposed disposal well casing is as follows:
- (a) 30' - 18" pipe cemented to surface.
  - (b) 300' - 8-5/8" surface casing cemented to surface.
  - (c) 4800' - 5-1/2" casing cemented to surface.
- Before use of the well for injection, the casing will be tested to 3000 psi.
- (e) The minimum estimated amount of water to be injected, produced in association with oil from the Wasatch

CERTIFICATE OF MAILING

STATE OF COLORADO )  
 ) SS  
CITY AND COUNTY OF DENVER )

I, W. M. Balkovatz, Attorney for Chevron Oil Company, Western Division, hereby certify that on the 31st day of January, 1975, I deposited in the United States Post Office at Denver, Colorado by certified mail postage thereon fully prepaid, a sealed envelope containing a copy of the Application of Chevron Oil Company, Western Division, to the Board of Oil and Gas Conservation of the State of Utah to which this Certificate is attached, addressed to the following:

Shell Oil Company  
1700 Broadway  
Denver, Colorado 80202

Pennzoil  
P. O. Box 1139  
Denver, Colorado 80201

Sabine Exploration Corp.  
2627 Tenneco Building  
Houston, Texas 77002

Tenneco Oil Co.  
Suite 1200 - Lincoln Tower Bldg.  
1860 Lincoln Street  
Denver, Colorado 80203

King Silver Corporation  
P. O. Box 666  
Vernal, Utah 84078

Hiko Bell Mining and Oil Co.  
Bank of Vernal Building  
Vernal, Utah 84078

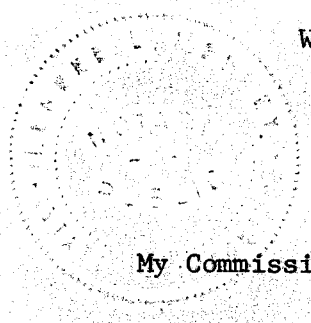
W. M. Balkovatz  
W. M. Balkovatz

STATE OF COLORADO )  
 ) SS  
CITY AND COUNTY OF DENVER )

The foregoing instrument was subscribed and sworn to before me this 31st day of January, 1975.

Witness my hand and official seal.

Lenore L. Mooney Lenore L. Mooney  
Notary Public Notary Public  
In and For State of Colorado  
Residing at Denver, Colorado  
My Commission Expires ~~My Commission expires~~ May 3, 1975



formation, is  $\pm$  1,000 BWP. The present designed capacity of pumping facilities are capable of injecting 3,000 BWP.

(7) As shown on Exhibit "E" the waters native to the Duchesne River formation are extremely brackish with the total dissolved solids of 60,000 ppm. The salt water produced from the Wasatch formation varies from 8,000 to 20,000 ppm total solids. Thus the water Applicant proposes to dispose of is of better quality than that already present in the Duchesne River formation at the selected disposal well site.

WHEREFORE, Applicant respectfully requests that the Board of Oil and Gas Conservation, pursuant to Rule C-11 administratively approve the disposal of water produced with oil all as more fully set forth herein.

DATED this 31st day of January, 1975.

CHEVRON OIL COMPANY, WESTERN DIVISION

By W. M. Balkovatz  
W. M. Balkovatz  
Its Attorney  
P. O. Box 599  
Denver, Colorado 80201

VERIFICATION

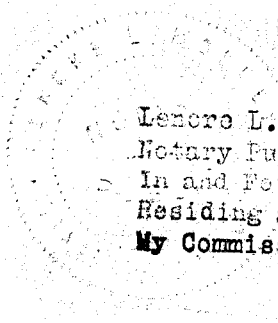
I, W. M. Balkovatz, do solemnly swear that I have read the foregoing Application by me subscribed, and that I have been reliably informed and verily believe the facts therein stated to be true.

W. M. Balkovatz  
W. M. Balkovatz

STATE OF COLORADO            )  
  ) SS  
CITY AND COUNTY OF DENVER )

Subscribed and sworn to before me this 31st day of January, 1975.

Lenore L. Mooney  
Notary Public



Lenore L. Mooney  
Notary Public  
In and For State of Colorado  
Residing at Denver, Colorado  
My Commission expires May 3, 1975

R 3 W

T 1 S

T 2 S

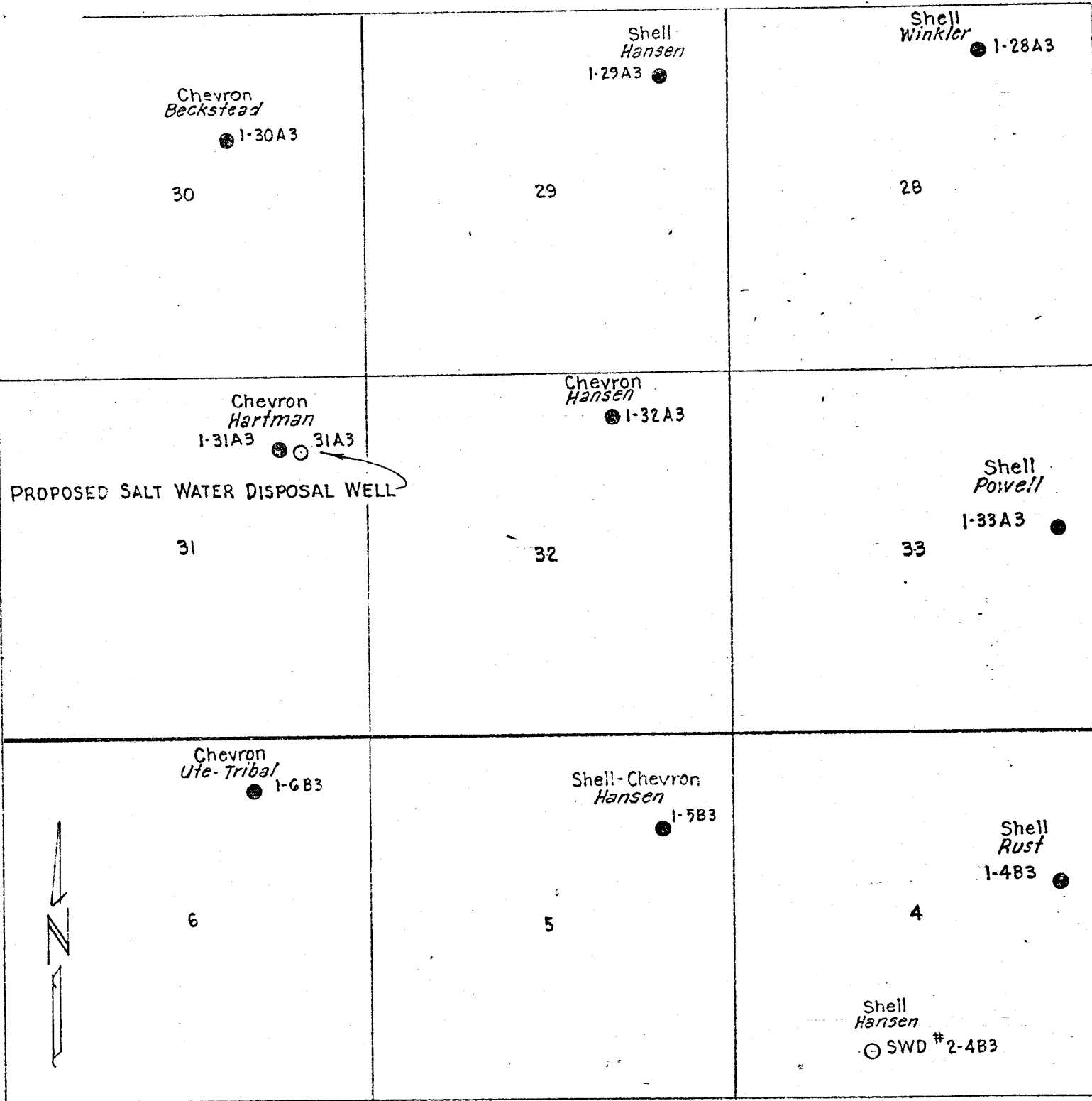
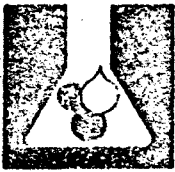


EXHIBIT "C"

PLAT SHOWING ALL WELLS WITHIN  
 1/2 MI. OF CHEVRON SWD WELL  
 DUCHESNE CO., UTAH  
 SCALE: 1"=2000'



# LITE RESEARCH LABORATORIES

P.O. Box 119

Fort Duchesne, Utah 84026

(801) 722-2254

## EXHIBIT "E"

LABORATORY NUMBER W-1602  
 SAMPLE TAKEN 11-19-74 10:45 am  
 SAMPLE RECEIVED 11-21-74  
 RESULTS REPORTED 11-26-74

SAMPLE DESCRIPTION  
 COMPANY SHELL OIL COMPANY LEASE Hanson FIELD NO. SWD WELL NO. 2-4B3  
 FIELD \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_  
 SAMPLE TAKEN FROM \_\_\_\_\_  
 PRODUCING FORMATION \_\_\_\_\_ TOP \_\_\_\_\_  
 REMARKS Sample from Gross Perforations 3000' - 3292'

SAMPLE TAKEN BY \_\_\_\_\_

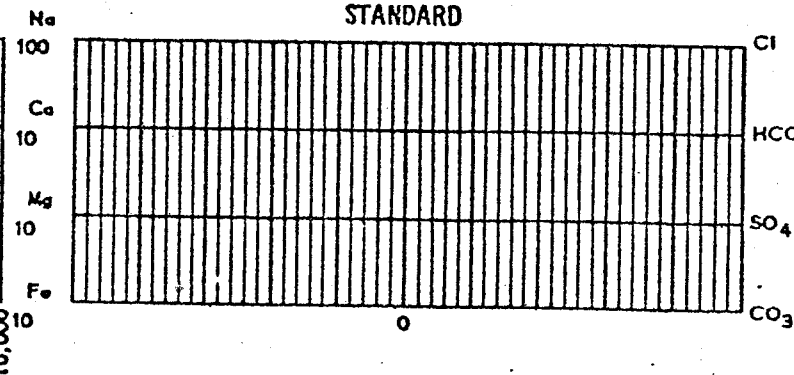
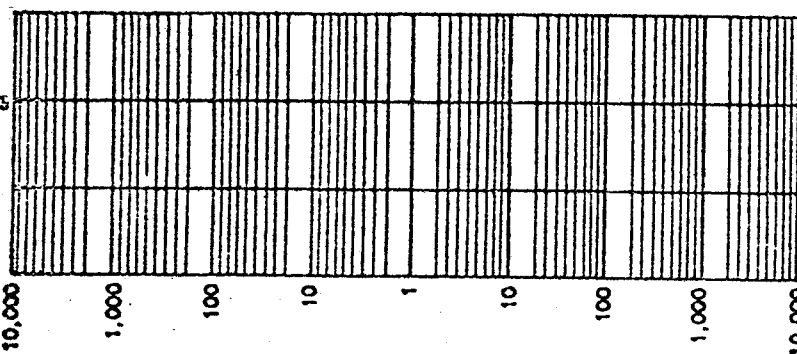
CHEMICAL AND PHYSICAL PROPERTIES 0.15 g.m.  
 SPECIFIC GRAVITY @60/60° F. .977 pH 8.66 RES. 1.50 OHM METERS @ 77°F  
 TOTAL HARDNESS 6363.6 Mg/L as CaCO<sub>3</sub> TOTAL ALKALINITY 36 Mg/L as CaCO<sub>3</sub>

CONSTITUENT	MILLIGRAMS PER LITER Mg/L.	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca ++	1790.0	89.5		
MAGNESIUM - Mg ++	460.0	37.7		
SODIUM - Na +	17526.0	762.0		
BARIUM (INCL. STRONTIUM) - Ba ++	28.9	0.42		
TOTAL IRON - Fe ++ AND Fe +++	0.32	0.01	889.6	
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	20	0.33		
CARBONATE - CO <sub>3</sub> <sup>-</sup>	16	0.53		
SULFATE - SO <sub>4</sub> <sup>-</sup>	7500.	156.25		
CHLORIDE - CL <sup>-</sup>	25989.6	732.10	889.21	
TOTAL DISSOLVED SOLIDS	59,720.0			

MILLEQUIVALENTS PER LITER

LOGARITHMIC

STANDARD



ANALYST \_\_\_\_\_

CHECKED \_\_\_\_\_





**Chevron Oil Company**  
**Western Division**

1700 Broadway, P.O. Box 599, Denver, CO 80201

January 31, 1975

AIRMAIL

State of Utah  
Department of Natural Resources  
Board of Oil and Gas Conservation  
1588 West North Temple  
Salt Lake City, Utah 84116

Attention C. B. Feight, Esq., Director

Gentlemen:

Pursuant to Rule C-11 of the Board's General Rules and Regulations, enclosed herewith, in duplicate, are Chevron Oil Company, Western Division's applications requesting administrative approval to drill two water disposal wells - one in Bluebell Field and the other in the Altamont Field, all as more particularly set forth in the enclosed applications. Also enclosed is an Application for Permit to Drill each of said wells.

A copy of the application has been mailed to the lessees within one-half mile of each of the proposed wells.

Very truly yours,

  
W. M. Balkovatz  
Staff Attorney

WMB:dw

Enclosures

February 18, 1975

Chevron Oil Company  
Box 599  
Denver, Colorado 80202

ATTENTION: William M. Balkovatz, Staff Attorney

Re: Well No's:  
SWD #2-10B1  
Sec. 10, T. 2 S, R. 1 W,  
SWD #3-31A3  
Sec. 31, T. 1 S, R. 3 W,  
Duchesne County, Utah

Dear Mr. Balkovatz:

Pursuant to Rule C-11, General Rules and Regulations and Rules of Practice and Procedure, no objections having been received within a 15 day period, administrative approval to drill the above water disposal wells is hereby granted.

Should you have any questions relative to the above please do not hesitate to call or write.

Very truly yours,

DIVISION OF OIL AND GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sw  
cc: U.S. Geological Survey

March 20, 1975

Chevron Oil Company  
P.O. Box 599  
Denver, Colorado 80202

ATTENTION: William M. Balkovatz, Staff Attorney

Re: Well No's:  
SWD #2-10B1  
Sec. 10, T. 2 S, R. 1 W,  
SWD #3-31A3  
Sec. 31, T. 1 S, R. 3 W,  
Duchesne County, Utah

Dear Mr. Balkovatz:

Pursuant to our letter of February 18, 1975, pertaining to the above referred to salt water disposal wells; you are hereby advised that said approval letter should have had the following provisions of the Order issued in Cause No. 139-9 outlined as follows:

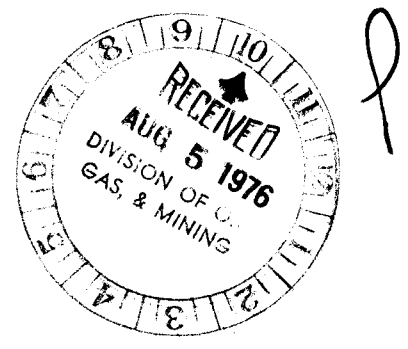
- 1) Applicant will take two samples of formation water by production swab tests, one from the upper interval and one from a lower interval.
- 2) Applicant will notify this office prior to taking such samples in order that a member of our staff may be present to witness such tests, and take independent samples.
- 3) Applicant will provide continuous monitoring of the salt water disposal well as to the volume of fluids injected and injection pressures.  
(This provision also applies to your Disposal #1 well located in Sec. 3, T. 1 S, R. 2 W, )

Should you have any questions relative to the above, please do not hesitate to call or write.

Very truly yours,

CLEON B. FEIGHT  
DIRECTOR

*11/18 file*



STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS CONSERVATION  
1588 West North Temple  
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name and Number SWD 3-31A3

Operator Chevron Oil Company

Address P. O. Box 599 Denver, Colorado 80201

Contractor Willard Pease Drilling Co.

Address P. O. Box 548 Grand Junction, Colorado 81501

Location NE 1/4, NE 1/4, Sec. 31; T. 1 <sup>N</sup>~~N~~<sub>S</sub>; R. 3 <sup>X</sup>~~X~~<sub>W</sub>; Duchesne County

Water Sands:

	<u>Depth:</u>		<u>Volume:</u>	<u>Quality:</u>
	From-	To-	Flow Rate or Head -	Fresh or Salty -
1.	<u>3576</u>	<u>- 3686</u>	<u>Swabbed 4 bbls/hr.</u>	<u>Salty (see attached)</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on Reverse Side if Necessary)

Formation Tops: The well was drilled with mud as a salt water disposal well.  
The above interval was perforated and tested through casing.

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
  - (b) Report on this form as provided for in Rule C-20, General Rules And Regulations and Rules of Practice and Procedure.
  - (c) if a water quality analysis has been made of the above reported zone, please forward a copy along with this form.

*CC - TR file  
OGC  
DG*

SUBMIT IN DUPLICATE\*

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other Water Disposal

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Chevron Oil Company - Western Division

3. ADDRESS OF OPERATOR  
P. O. Box 599 Denver, Colorado 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1109' FNL & 964' FEL (NE $\frac{1}{4}$ NE $\frac{1}{4}$ )  
At top prod. interval reported below same  
At total depth same

14. PERMIT NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN; ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Salt Water Disposal Well

9. WELL NO.  
3-31A3

10. FIELD AND POOL, OR WILDCAT  
Altamont-Duchesne River

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

S 31, T1S, R3W, USB&M

12. COUNTY OR PARISH  
Duchesne  
13. STATE  
Utah

15. DATE SPUDDED 9-24-75 16. DATE T.D. REACHED 10-2-75 17. DATE COMPL. (Ready to prod.) 11-10-75 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 6416 KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 4800' 21. PLUG, BACK T.D., MD & TVD 4700 PBDT 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY \_\_\_\_\_ ROTARY TOOLS Yes CABLE TOOLS No

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
3576-4660 Duchesne River 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN  
DIFL, BHC/AL/GR/CAL 27. WAS WELL CORED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	319'	12-1/4"	350 sx	
5-1/2"	14#	4800'	7-7/8"	1419 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NONE				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	3546'	3541'

31. PERFORATION RECORD (Interval, size and number)

3576-3592, 3626-3640, 3675-3686, 3856-3872, 3912-3924, 4268-4282, 4390-4441, 4630-4660 w/4 shots/ft.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	<u>SEE ATTACHED</u>

33. SALT WATER DISPOSAL PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)					
<u>11-20-75</u>	<u>Inj. Triplex</u>	<u>Injecting</u>					
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
<u>11-21-75</u>	<u>24</u>	<u>-</u>	<u>→</u>	<u>-</u>	<u>-</u>	<u>750</u>	<u>-</u>
HEAVE TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
<u>1200-1800</u>	<u>-</u>	<u>→</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) \_\_\_\_\_ TEST WITNESSED BY J. H. Daggett

35. LIST OF ATTACHMENTS  
Acidizing Recrod

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNED J. A. Mishler TITLE Engineering Assistant DATE 12-8-75

\* (See Instructions and Spaces for Additional Data on Reverse Side)  
3-STATE, 2-USGS, 1-DND, 1-DBB, 1-ALF, 2-FILE

# INSTRUCTIONS

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If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

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**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP
	NONE			Uintah	3260	(+3156)
				TD 4800	4800	(+1516)

**37. SUMMARY OF POROUS ZONES:**  
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

**38. GEOLOGIC MARKERS**

SALT WATER DISPOSAL WELL 3-31A3  
ALTAMONT FIELD  
ACIDIZING RECORD

ZONES	AMOUNT
4630-4660	1700 gals 15% HCl
4390-4441	2860 gals 15% HCl
4268-4282	825 gals 15% HCl
3856-3924	1650 gals 15% HCl
3675-3686	660 gals 15% HCl
3626-3640	825 gals 15% HCl
3576-3592	935 gals 15% HCl

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <u>Water Disposal</u>										5. LEASE DESIGNATION AND SERIAL NO.
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____										6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR <b>Chevron Oil Company - Western Division</b>										7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR <b>P. O. Box 599 Denver, Colorado 80201</b>										8. FARM OR LEASE NAME <b>Salt Water Disposal Well</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface <b>1109' FNL &amp; 964' FEL (NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>)</b> At top prod. interval reported below <b>same</b> At total depth <b>same</b>										9. WELL NO. <b>3-31A3</b>
14. PERMIT NO. _____ DATE ISSUED _____										10. FIELD AND POOL, OR WILDCAT <b>Altamont-Duchesne River</b>
15. DATE SPUDDED <b>9-24-75</b> 16. DATE T.D. REACHED <b>10-2-75</b> 17. DATE COMPL. (Ready to prod.) <b>11-10-75</b>										11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA <b>S 31, T1S, R3W, USB&amp;M</b>
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* _____										12. COUNTY OR PARISH <b>Duchesne</b>
19. ELEV. CASINGHEAD _____										13. STATE <b>Utah</b>
20. TOTAL DEPTH, MD & TVD <b>4800'</b> 21. PLUG, BACK T.D., MD & TVD <b>4700 PBTD</b>										24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* <b>3576-4660 Duchesne River</b>
22. IF MULTIPLE COMPL., HOW MANY* _____										25. WAS DIRECTIONAL SURVEY MADE <b>No</b>
23. INTERVALS DRILLED BY _____ ROTARY TOOLS <b>Yes</b> CABLE TOOLS <b>No</b>										26. TYPE ELECTRIC AND OTHER LOGS RUN <b>DIFL, BHC/AL/GR/CAL</b>
27. WAS WELL CORED <b>No</b>										
29. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
8-5/8"		24#		319'		12-1/4"		350 sx		
5-1/2"		14#		4800'		7-7/8"		1419 sx		
29. LINER RECORD										
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)		
NONE										
30. TUBING RECORD										
SIZE		DEPTH SET (MD)		PACKER SET (MD)						
2-7/8"		3546'		3541'						
31. PERFORATION RECORD (Interval, size and number) <b>3576-3592, 3626-3640, 3675-3686, 3856-3872, 3912-3924, 4268-4282, 4390-4441, 4630-4660 w/4 shots/ft.</b>										
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.										
DEPTH INTERVAL (MD)					AMOUNT AND KIND OF MATERIAL USED					
SEE ATTACHED										
33.* SALT WATER DISPOSAL PRODUCTION										
DATE FIRST PRODUCTION <b>11-20-75</b> INJECTION METHOD (Flowing, gas lift, pumping—size and type of pump) <b>Triplex</b>										WELL STATUS (Producing or shut-in) <b>Injecting</b>
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N. FOR TEST PERIOD		OIL—BBL.		GAS—MCF.
11-21-75		24		-		-		-		750
MAX TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL—BBL.		GAS—MCF.		WATER—BBL.
1200-1800		-		-		-		-		-
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)										TEST WITNESSED BY <b>J. H. Daggett</b>
35. LIST OF ATTACHMENTS <b>Acidizing Recrod</b>										
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records <b>J. A. Mishler</b>										
SIGNED <b>J. A. Mishler</b>					TITLE <b>Engineering Assistant</b>			DATE <b>12-8-75</b>		



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If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

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**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

**37. SUMMARY OF POROUS ZONES:**

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		
				NAME	TOP	
				MEAS. DEPTH	TRUE VERT. DEPTH	
	NONE			Uintah	3260	(+3156)
				TD 4800	4800	(+1516)

SALT WATER DISPOSAL WELL 3-31A3  
ALTAMONT FIELD  
ACIDIZING RECORD

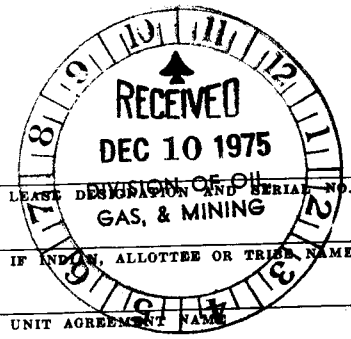
ZONES	AMOUNT
4630-4660	1700 gals 15% HCl
4390-4441	2860 gals 15% HCl
4268-4282	825 gals 15% HCl
3856-3924	1650 gals 15% HCl
3675-3686	660 gals 15% HCl
3626-3640	825 gals 15% HCl
3576-3592	935 gals 15% HCl

K

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION



5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE, NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Salt Water Disposal Well

9. WELL NO.  
3-31A3

10. FIELD AND POOL, OR WILDCAT  
Altamont-Duchesne River

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

S 31, T1S, R3W, USB&M

12. COUNTY OR PARISH  
Duchesne

13. STATE  
Utah

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*  
6416 KB

23. INTERVALS DRILLED BY  
ROTARY TOOLS: Yes  
CABLE TOOLS: No

25. WAS DIRECTIONAL SURVEY MADE  
No

27. WAS WELL CORED  
No

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other Water Disposal

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Chevron Oil Company - Western Division

3. ADDRESS OF OPERATOR  
P. O. Box 599 Denver, Colorado 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1109' FNL & 964' FEL (NE 1/4 NE 1/4)  
At top prod. interval reported below same  
At total depth same

14. PERMIT NO. 43-013-30368  
DATE ISSUED

15. DATE SPUDED 9-24-75  
16. DATE T.D. REACHED 10-2-75  
17. DATE COMPL. (Ready to prod.) 11-10-75

20. TOTAL DEPTH, MD & TVD 4800'  
21. PLUG, BACK T.D., MD & TVD 4700 PBTD  
22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
3576-4660 Duchesne River

26. TYPE ELECTRIC AND OTHER LOGS RUN  
DIFL, BHC/AL/GR/CAL

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	319'	12-1/4"	350 SX	
5-1/2"	14#	4800'	7-7/8"	1419 SX	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
NONE					2-7/8"	3546'	3541'

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
INTERVAL	SIZE	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3576-3592, 3626-3640, 3675-3686, 3856-3872, 3912-3924, 4268-4282, 4390-4441, 4630-4660 w/4 shots/ft.		SEE ATTACHED	

33.* SALT WATER DISPOSAL				PRODUCTION			
DATE FIRST PRODUCTION	INJECTION METHOD	WELL STATUS (Producing or shut-in)	DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	TEST WITNESSED BY
11-20-75	Inj. Triplex	Injecting	11-21-75	24	-	-	J. H. Daggett
1200-1800	-	-					

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

35. LIST OF ATTACHMENTS  
Acidizing Recrod

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNED: J. A. Mishler TITLE: Engineering Assistant DATE: 12-8-75

\*(See Instructions and Spaces for Additional Data on Reverse Side)

3-STATE, 2-USGS, 1-CHD, 1-DRB, 1-ALF, 2-FILE

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37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	
			NAME	
			MEAS. DEPTH	
			TOP	
			TRUE VERT. DEPTH	
	NONE		Uintah 3260	(+3156)
			TD 4800	4800 (+1516)

SALT WATER DISPOSAL WELL 3-31A3  
ALTAMONT FIELD  
ACIDIZING RECORD

ZONES	AMOUNT
4630-4660	1700 gals 15% HCl
4390-4441	2860 gals 15% HCl
4268-4282	825 gals 15% HCl
3856-3924	1650 gals 15% HCl
3675-3686	660 gals 15% HCl
3626-3640	825 gals 15% HCl
3576-3592	935 gals 15% HCl



CALVIN L. RAMPTON  
*Governor*

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

STATE OF UTAH

GUY N. CARDON  
*Chairman*

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

CHARLES R. HENDERSON  
ROBERT R. NORMAN  
JAMES P. COWLEY  
HYRUM L. LEE

CLEON B. FEIGHT  
*Director*

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771  
July 30, 1976

Chevron Oil Company  
P. O. Box 599  
Denver, Colorado 80201

Re: Well No. SWD 3-31A3  
Sec. 31, T. 1S, R. 3W  
Duchesne County, Utah

Gentlemen:

Our records indicate that you have not filed a " Report of Water Encountered during Drilling" for the above referred to well.

Rule C-22, General Rules and Regulations and Rules of Practice and Procedure, requires that said reports be filed with the Commission.

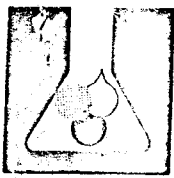
In order that we may complete our records, please file this report and any water analysis reports as soon as possible.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

KATHY OSTLER  
RECORDS CLERK



# LITE RESEARCH LABORATORIES

P.O. Box 119

Fort Duchesne, Utah 84026

(801) 722-2254

LABORATORY NUMBER W-2822  
 SAMPLE TAKEN \_\_\_\_\_  
 SAMPLE RECEIVED 11-10-75  
 RESULTS REPORTED 11-12-75

SAMPLE DESCRIPTION \_\_\_\_\_ FIELD NO. \_\_\_\_\_  
 COMPANY Chevron Oil Co. LEASE Hartman WELL NO. 3-31A3  
 FIELD \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ **3-31A3**  
 SAMPLE TAKEN FROM \_\_\_\_\_  
 PRODUCING FORMATION 3576 TOP 3686  
 REMARKS S.W.D.W.

SAMPLE TAKEN BY \_\_\_\_\_

## CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.0647 pH 7.35 RES. 0.12 OHM METERS @ 77°F

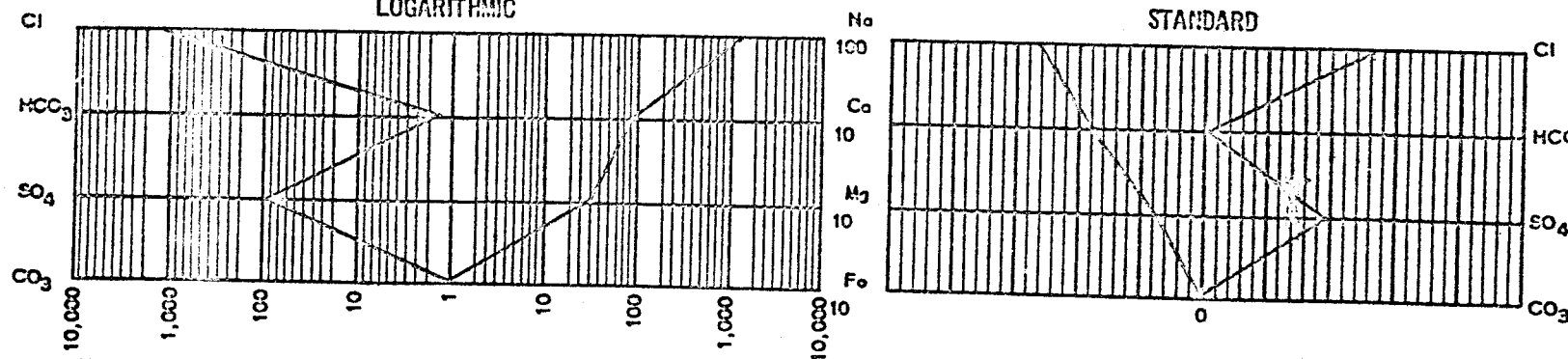
TOTAL HARDNESS 6618.0 mg/L as CaCO<sub>3</sub> TOTAL ALKALINITY 83.0 mg/L as CaCO<sub>3</sub>

CONSTITUENT	MILLIGRAMS PER LITER mg/L	MILLEQUIVALENTS PER LITER MEQ/L	REMARKS
CALCIUM - Ca ++	1850.0	92.50	
MAGNESIUM - Mg ++	481.0	39.43	
SODIUM - Na +	30000.0	1304.35	
BARIUM (INCL. STRONTIUM) - Ba ++	0	0	
TOTAL IRON - Fe ++ AND Fe +++	11.50	0.41	1436.69
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	83.0	1.36	
CARBONATE - CO <sub>3</sub> <sup>==</sup>	0	0	
SULFATE - SO <sub>4</sub> <sup>--</sup>	4700.0	97.92	
CHLORIDE - CL <sup>-</sup>	48980.4	1379.73	1479.07
TOTAL DISSOLVED SOLIDS	85160		

MILLEQUIVALENTS PER LITER

LOGARITHMIC

STANDARD



ANALYST \_\_\_\_\_

CHECKED \_\_\_\_\_

CIRCULATE TO:

DIRECTOR \_\_\_\_\_  
PETROLEUM ENGINEER \_\_\_\_\_  
MINE COORDINATOR \_\_\_\_\_  
ADMINISTRATIVE ASSISTANT \_\_\_\_\_  
ALL \_\_\_\_\_  
RETURN TO K.O.  
FOR FILING

July 8, 1977

Re: Saltwater Disposal Wells  
Greater Bluebell-Altamont Area

Chevron Oil Co.  
SDW #3 (1-31A3)  
Sec. 31, T. 1 S., R. 3 W.

This disposal well was in operation at the time of the visit. The maximum pressure was recorded at 1,250 pounds psi, and the cumulative meter reading was 348,806 barrels. This locations is undoubtedly the dirtiest within the greater Bluebell-Altamont field.

\* \* \*

Shell Oil Co.  
SDW #2-4B3  
Sec. 4, T. 2 S., R. 3 W.

At the time of the visit, the recording meter was broken and apparently had been in this condition for some time. The pressure gauge on the well indicated a pressure of 800 pounds psi. There was a valve leaking in the engine house and spilling a considerable amount of water within the area. This location is not consistent with typical Shell operations.

\* \* \*

Mapco Inc.  
Allred 2-16 (SDW)  
Sec. 16, T. 1 S., R. 3 W.

At the time of the visit, the well was being actively operated and injecting produced water at 900 pounds psi. The cumulative meter reading was 242,101 barrels. As usual, Mapco's housekeeping was exceptionally high.

\* \* \*

Chevron Oil Co.  
SWD Well #1-3A2  
Sec. 3, T. 1 S., R. 2 W.

This location was visited and, at the time of the visit, the well was not operating. No pressure gauge was evident and a cumulative meter reading was 664,882 barrels.

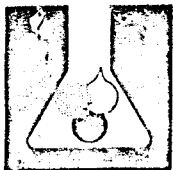
This is a relatively dirty and poorly kept facility.

  
PATRICK L. DRISCOLL  
CHIEF PETROLEUM ENGINEER

PLD/src







# LITE RESEARCH LABORATORIES

P.O. Box 119

Fort Duchesne, Utah 84026

(801) 722-2254

LABORATORY NUMBER W-2822  
 SAMPLE TAKEN \_\_\_\_\_  
 SAMPLE RECEIVED 11-10-75  
 RESULTS REPORTED 11-12-75

SAMPLE DESCRIPTION \_\_\_\_\_ FIELD NO. \_\_\_\_\_  
 COMPANY Chevron Oil Co. LEASE Hartman WELL NO. 3-301A3  
 FIELD \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ 3-3143  
 SAMPLE TAKEN FROM \_\_\_\_\_  
 PRODUCING FORMATION 3576 TOP 3686  
 REMARKS S.W.D.W.

SAMPLE TAKEN BY \_\_\_\_\_

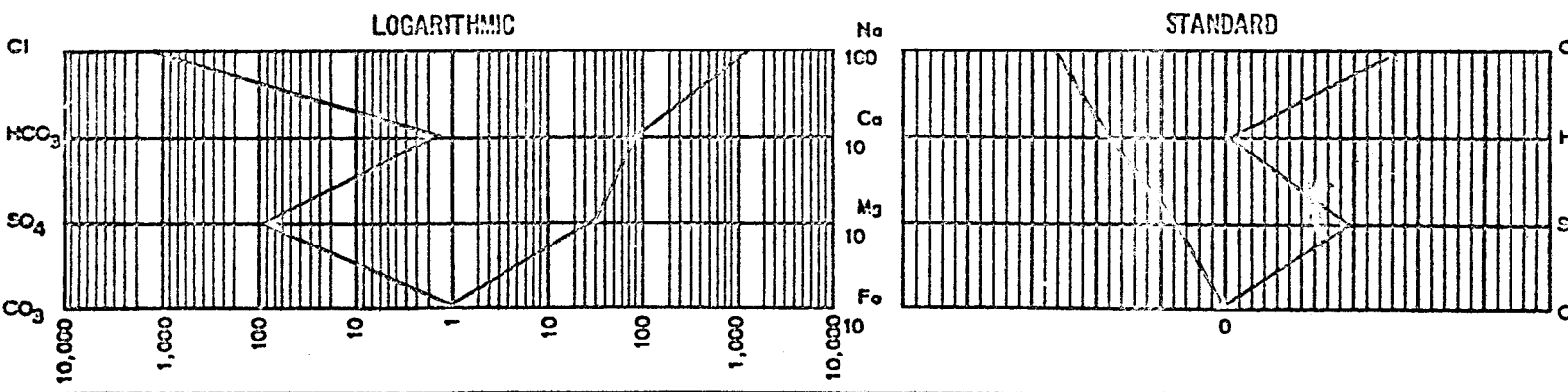
### CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.0647 pH 7.35 RES. 0.12 OHM METERS @ 77°F

TOTAL HARDNESS 6618.0 mg/L as CaCO<sub>3</sub> TOTAL ALKALINITY 83.0 mg/L as CaCO<sub>3</sub>

CONSTITUENT	MILLIGRAMS PER LITER mg/L.	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca <sup>++</sup>	1850.0	92.50		
MAGNESIUM - Mg <sup>++</sup>	481.0	39.43		
SODIUM - Na <sup>+</sup>	30000.0	1304.35		
BARIUM (INCL. STRONTIUM) - Ba <sup>++</sup>	0	0		
TOTAL IRON - Fe <sup>++</sup> AND Fe <sup>+++</sup>	11.50	0.41	1436.60	
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	83.0	1.36		
CARBONATE - CO <sub>3</sub> <sup>==</sup>	0	0		
SULFATE - SO <sub>4</sub> <sup>==</sup>	4700.0	97.92		
CHLORIDE - CL <sup>-</sup>	48980.4	1379.73	1479.01	
TOTAL DISSOLVED SOLIDS	85160			

MILLEQUIVALENTS PER LITER



ANALYST \_\_\_\_\_

CHECKED \_\_\_\_\_



SCOTT M. MATHESON  
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple

Salt Lake City, Utah 84116

(801) 533-5771

CHARLES R. HENDERSON  
Chairman

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

CLEON B. FEIGHT  
Director

TO: All Water Disposal Well  
Operators

DATE: September 30, 1980

FROM: CLEON B. FEIGHT

SUBJECT: Waste Water Disposal  
WELL'S

A recent survey of the WDW'S in the Uintah Basin was made and the following apparent deficiencies were noted:

(1) If a high-low pressure shut-off switch was installed, in most instances the high shut-off was far above the formation break-down pressure. Also, on many wells, a pressure chart or gauge for injection pressure had not been installed.

(At this point we'd like to remind all operators that one of the conditions for the utilization of WDW'S was the selection of 0.5/lb. square inch/ft. of depth as the overall formation fracture gradient).

(2) In numerous cases we were unable to determine the presence of a recording device or meter for daily volume injected. (This Division does not at this time specify the type of recording device to be utilized, however, in the case of continued absence of any recorder, it shall and will be the prerogative of the Division to shut the WDW in until such time a working recording device is installed).

(3) Housekeeping in many areas is totally inadequate, and results in unnecessary pollution.

(4) Well identification signs were missing on several locations.

This Division would appreciate if all operators would take immediate steps to put these wells in proper operating order no later than October 30, 1980.

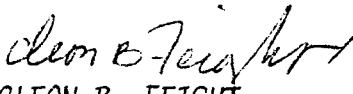
Due to the recent adoption of Rules & Regulations for underground injection of produced water, as well as secondary recovery, etc. by the EPA, a representative from said agency will accompany a member of this Division on our November inspection.

Memo  
September 30, 1980  
Page Two

So at this time we ask and hope that these wells be in First Class condition.

THANK YOU

DIVISION OF OIL, GAS AND MINING

  
CLEON B. FEIGHT  
DIRECTOR

CBF/bjh

T. LEE

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE  
(Other instructions on  
reverse side)

**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. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Water Disposal</u>		5. LEASE DESIGNATION AND SERIAL NO.
2. NAME OF OPERATOR <u>CHEVRON U.S.A. INC.</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR <u>P. O. Box 599, Denver, CO 80201</u>		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <u>1109' FNL and 964' FEL NENE</u>		8. FARM OR LEASE NAME <u>Salt Water Disposal Well</u>
14. PERMIT NO.	15. ELEVATIONS (Show whether OF, RT, OR, etc.) <u>KB 6416</u>	9. WELL NO. <u>3-31A3</u>
		10. FIELD AND POOL, OR WILDCAT <u>Altamont - Duchesne River</u>
		11. SEC. T., S., M., OR BLE. AND SURVEY OR AREA <u>Sec. 31, T1S, R3W, USB&amp;M</u>
		12. COUNTY OR PARISH <u>Duchesne</u>
		13. STATE <u>Utah</u>

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(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.)

It is proposed to acidize this well as per the attached procedure.

3-State  
2-USGS  
1-LRH  
1-Sec. 723  
1-File

**APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING**

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_

No additional surface  
disturbances required  
for this activity.

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

SIGNED J. Johnson

TITLE Engineering Assistant

DATE December 1, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

DISPOSAL WELL #3-31A3  
 ALTAMONT, DUCHESNE CO., UTAH  
 November 10, 1981  
 Page 2

Well Data: TD: 4800'  
 PBTD: 4700'  
 Csg: 5-1/2" 14# J-55 @ 4800'  
 Tbg: 2-7/8" 6.5# N-80 @ 3546'  
 Pkr: Baker 5-1/2" Ret. D @ 3541  
 Perfs: 3576'-4660' (164 levels, 656 holes)

Procedure:

1. MIR & RU
2. POOH w/ tbg. & pkr.
3. RIH w/ bit and scraper and circulate hole clean to PBTD w/ produced water.
4. POOH w/ tools & RIH w/ pkr & RBP to isolate and acidize the following intervals (test tbg to 5000 psig):

	<u>Interval</u>	<u>Acid Volume</u>	<u># Balls</u>
1)	3576'-3592' <sup>10</sup>	1000 gal	75
2)	3626'-3640' <sup>14</sup>	1400 gal	65
3)	3675'-3686' <sup>11</sup>	1100 gal	15
4)	3856'-3872' <sup>16</sup>	1000 gal	75
5)	3912'-3924' <sup>12</sup>	1200 gal	55
6)	4268'-4282' <sup>10</sup>	1400 gal	65
7)	4390'-4441' <sup>51</sup>	1400 gal	200
8)	4630'-4660' <sup>30</sup>	1400 gal	100

Fluids: Acid: 15% HCl plus necessary additives  
 Flush: Produced water  
 Nitrogen: ± 500 scf/bbl throughout all fluids

Pump Requirements: Pressure: 5000 psig max  
 Rate: Max rate @ 5000 psig  
 HHP: 2000 should be available

Pumping Procedure (all zones):

1. Pump 50 bbls produced water
2. Follow w/ acid containing 7/8", 1.1 S.G. balls throughout
3. Flush to top of perfs

DISPOSAL WELL #3-31A3  
ALTAMONT, DUCHESNE CO., UTAH  
November 10, 1981  
Page 3

Procedure: (continued)

5. Flow/swab back complete load from each zone 15-30 minutes after shut down. Haul dirty acid water away - do not dispose of water into Chevron's system.
6. POOH w/ all tools after final zone is treated.
7. RIH w/ ret. pkr on tbg. Test tbg to 5000 psig while RIH. Displace annulus w/ 2% KCl water containing 1 drum Champion R 228 corrosion inhibitor (or equivalent) & set pkr @ 3541'. Fill annulus to surface w/ Diesel.
8. RD WOR & return well to injection.
9. Arrange for a temp/tracer survey to be run on this well within a few days after returning the well to injection.

WELL NAME: SWD 3-31A3

FIELD: Altamont

PROPOSED TREATMENT PROCEDURE

1. Objective: Open up perms to increase disposal capacity.
2. Size and type of treatment: 9,900 gals 15% HCL.
3. Intervals to be treated: 3576-4660
  
4. Treatment down casing or tubing: Tubing
5. Method of localizing its effects: Packer and retrievable bridge plug to straddle intervals.
6. Disposal of treating fluid: Spent acid will be swabbed back to frac tank.
7. Name of company to do work: Dowell, Halliburton or Western
8. Anticipated additional surface disturbances: None
9. Estimated work date: December 18, 1981
10. Present status, current production and producing interval:

Date

BOPD

MCFD

BWPD

Nov 1-16, 1981

1355 Injecting





SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

CLEON B. FEIGHT  
*Director*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
*Chairman*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

August 11, 1981

Chevron USA Inc.  
P.O. Box 266  
Neola, UT 84053

Re: SWD 3-31A3  
Sec. 21, T. 1S, R. 3W  
Water Disposal #1 (44-3C)  
Sec. 3, T. 1S, R. 2 W  
SWD #2-10B1  
Sec. 10, T. 2S, R. 1W  
Duchesne County, UT

Gentlemen:

Please be advised that an inspection was made on the above mentioned disposal facilities, at which time a few deficiencies were noted:

- 1) SWD 3-31A3 and W.D. #1 (44-3C) need to have the pits cleaned up and burned-off.
- 2) The SWD #2-10B1 pumping facility needs to be cleaned up and a cumulator needs to be installed.

Your prompt attention to the above matters will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

THALIA R. PRATT  
UNDERGROUND INJECTION SPECIALIST

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING

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 Water Disposal
2. NAME OF OPERATOR CHEVRON U.S.A. INC.
3. ADDRESS OF OPERATOR P. O. Box 599, Denver, CO 80201
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1109' FNL and 964' FEL NENE
14. PERMIT NO. 15. ELEVATIONS (Show whether DF, ST, OR, etc.) KB 6416
6. LEASE DESIGNATION (AND SERIAL NO.)
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME Salt Water Disposal Well
9. WELL NO. 3-31A3
10. FIELD AND POOL, OR WILDCAT Altamont - Duchesne River
11. SEC., T., R., M., OR BLK. AND SURVEY OR ABBA Sec. 31, T1S, R3W, USB&M
12. COUNTY OR PARISH 13. STATE Duchesne Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO: TEST WATER SHUT-OFF [ ] FULL OR ALTER CASING [ ] FRACTURE TREAT [ ] MULTIPLE COMPLETE [ ] SHOOT OR ACIDIZE [X] ABANDON\* [ ] REPAIR WELL [ ] CHANGE PLANS [ ] (Other) [ ]
SUBSEQUENT REPORT OF: WATER SHUT-OFF [ ] REPAIRING WELL [ ] FRACTURE TREATMENT [ ] ALTERING CASING [ ] SHOOTING OR ACIDIZING [ ] ABANDONMENT\* [ ] (Other) [ ]
(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.)

It is proposed to acidize this well as per the attached procedure.

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

DATE: BY:

3-State
2-USGS
1-LRH
1-Sec. 723
1-File

No additional surface disturbances required for this activity.

18. I hereby certify that the foregoing is true and correct
SIGNED [Signature] TITLE Engineering Assistant DATE December 1, 1981
(This space for Federal or State office use)

APPROVED BY CONDITIONS OF APPROVAL, IF ANY: TITLE DATE

DISPOSAL WELL #3-31A3  
ALTAMONT, DUCHESNE CO., UTAH  
November 10, 1981  
Page 2

Well Data: TD: 4800'  
PBSD: 4700'  
Csg: 5-1/2" 14# J-55 @ 4800'  
Tbg: 2-7/8" 6.5# N-80 @ 3546'  
Pkr: Baker 5-1/2" Ret. D @ 3541  
Perfs: 3576'-4660' (164 levels, 656 holes)

Procedure:

1. MIR & RU
2. POOH w/ tbg. & pkr.
3. RIH w/ bit and scraper and circulate hole clean to PBSD w/ produced water.
4. POOH w/ tools & RIH w/ pkr & RBP to isolate and acidize the following intervals (test tbg to 5000 psig):

	<u>Interval</u>	<u>Acid Volume</u>	<u># Balls</u>
1)	3576'-3592'	1000 gal	75
2)	3626'-3640'	1400 gal	65
3)	3675'-3686'	1100 gal	15
4)	3856'-3872'	1000 gal	75
5)	3912'-3924'	1200 gal	55
6)	4268'-4282'	1400 gal	65
7)	4390'-4441'	1400 gal	200
8)	4630'-4660'	1400 gal	100

Fluids: Acid: 15% HCl plus necessary additives  
Flush: Produced water  
Nitrogen: + 500 scf/bbl throughout all fluids

Pump Requirements: Pressure: 5000 psig max  
Rate: Max rate @ 5000 psig  
HHP: 2000 should be available

Pumping Procedure (all zones):

1. Pump 50 bbls produced water
2. Follow w/ acid containing 7/8", 1.1 S.G. balls throughout
3. Flush to top of perfs

Procedure: (continued)

5. Flow/swab back complete load from each zone 15-30 minutes after shut down. Haul dirty acid water away - do not dispose of water into Chevron's system.
6. POOH w/ all tools after final zone is treated.
7. RIH w/ ret. pkr on tbg. Test tbg to 5000 psig while RIH. Displace annulus w/ 2% KCl water containing 1 drum Champion R 228 corrosion inhibitor (or equivalent) & set pkr @ 3541'. Fill annulus to surface w/ Diesel.
8. RD WOR & return well to injection.
9. Arrange for a temp/tracer survey to be run on this well within a few days after returning the well to injection.

WELL NAME: SWD 3-31A3

FIELD: Altamont

PROPOSED TREATMENT PROCEDURE

1. Objective: Open up perms to increase disposal capacity.
2. Size and type of treatment: 9,900 gals 15% HCL.
3. Intervals to be treated: 3576-4660
  
4. Treatment down casing or tubing: Tubing
5. Method of localizing its effects: Packer and retrievable bridge plug to straddle intervals.
6. Disposal of treating fluid: Spent acid will be swabbed back to frac tank.
7. Name of company to do work: Dowell, Halliburton or Western
8. Anticipated additional surface disturbances: None
9. Estimated work date: December 18, 1981
10. Present status, current production and producing interval:

Date

BOPD

MCFD

BWPD

Nov 1-16, 1981

1355 Injecting

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

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  Water Disposal

2. NAME OF OPERATOR  
CHEVRON U.S.A. INC.

3. ADDRESS OF OPERATOR  
P. O. Box 599, Denver, CO 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
1109' FNL and 964' FEL NENE

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
KB 6416

6. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Salt Water Disposal Well

9. WELL NO.  
3-31A3

10. FIELD AND FOOT, OR WILDCAT  
Altamont - Duchesne River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 31, T1S, R3W, USB&M

12. COUNTY OR PARISH  
Duchesne

13. STATE  
Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>
(Other) <input type="checkbox"/>		(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.)

It is proposed to acidize this well as per the attached procedure.

3-State  
2-USGS  
1-LRH  
1-Sec. 723  
1-File

No additional surface disturbances required for this activity.

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

SIGNED [Signature]

TITLE Engineering Assistant

DATE December 1, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

DISPOSAL WELL #3-31A3  
ALTAMONT, DUCHESNE CO., UTAH  
November 10, 1981  
Page 2

Well Data: TD: 4800'  
PBSD: 4700'  
Csg: 5-1/2" 14# J-55 @ 4800'  
Tbg: 2-7/8" 6.5# N-80 @ 3546'  
Pkr: Baker 5-1/2" Ret. D @ 3541  
Perfs: 3576'-4660' (164 levels, 656 holes)

Procedure:

1. MIR & RU
2. POOH w/ tbg. & pkr.
3. RIH w/ bit and scraper and circulate hole clean to PBSD w/ produced water.
4. POOH w/ tools & RIH w/ pkr & RBP to isolate and acidize the following intervals (test tbg to 5000 psig):

	<u>Interval</u>	<u>Acid Volume</u>	<u># Balls</u>
1)	3576'-3592'	1000 gal	75
2)	3626'-3640'	1400 gal	65
3)	3675'-3686'	1100 gal	15
4)	3856'-3872'	1000 gal	75
5)	3912'-3924'	1200 gal	55
6)	4268'-4282'	1400 gal	65
7)	4390'-4441'	1400 gal	200
8)	4630'-4660'	1400 gal	100

Fluids: Acid: 15% HCl plus necessary additives  
Flush: Produced water  
Nitrogen: + 500 scf/bbl throughout all fluids

Pump Requirements: Pressure: 5000 psig max  
Rate: Max rate @ 5000 psig  
HHP: 2000 should be available

Pumping Procedure (all zones):

1. Pump 50 bbls produced water
2. Follow w/ acid containing 7/8",  
1.1 S.G. balls throughout
3. Flush to top of perfs

DISPOSAL WELL #3-31A3  
ALTAMONT, DUCHESNE CO., UTAH  
November 10, 1981  
Page 3

Procedure: (continued)

5. Flow/swab back complete load from each zone 15-30 minutes after shut down. Haul dirty acid water away - do not dispose of water into Chevron's system.
6. POOH w/ all tools after final zone is treated.
7. RIH w/ ret. pkr on tbg. Test tbg to 5000 psig while RIH. Displace annulus w/ 2% KCl water containing 1 drum Champion R 228 corrosion inhibitor (or equivalent) & set pkr @ 3541'. Fill annulus to surface w/ Diesel.
8. RD WOR & return well to injection.
9. Arrange for a temp/tracer survey to be run on this well within a few days after returning the well to injection.



Form UIC 10  
August, 1982

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
4241 State Office Building  
Salt Lake City, Utah 84114

WELL INTEGRITY REPORT

Date 11/4/82

Water Disposal Well  Enhanced Recovery Well  Other

DOGM/UIC Cause Number \_\_\_\_\_

Company Chevron U.S.A., Inc.

Address 700 South Colorado Blvd.

City and State Denver, Colorado Zip Code 80201

Lease Name or Number \_\_\_\_\_ Well Name or Number SWD #3-31A3

API Well Number 43-013-30021 Location 1/4 of 1/4 of

Section 31 Township 1 S Range 3 W County Duchesne

Present at Completion: \_\_\_\_\_ Yes  No

Casing Tested in My Presence:  Yes \_\_\_\_\_ No Pressure 1000 PSI 10 Minutes

Packer Tested in My Presence:  Yes \_\_\_\_\_ No Pressure 1000 PSI 10 Minutes

Surface-Prod. Csg. Annulus \_\_\_\_\_ PSI Prod. Csg.-Tubing Annulus 1000 PSI

Disposed/Injected Water Sample Taken:  
\_\_\_\_\_ Yes  No (Attach water analysis when obtained)

This well seems to be completed in accordance with DOGM Rule I:  
Yes  No \_\_\_\_\_. If NO, write report.

Remarks: not rejected at time of pressure test.

I hereby certify that this report is true and complete to the best of my knowledge.

Name of Operator Chevron U.S.A., Inc.

Karl Johnson Field Engineer  
(Signature) (Title)

D. Van F - R.T.F.  
DOGM Field Inspector

STATE OF UTAH  
 DIVISION OF OIL, GAS, AND MINING  
 ROOM 4241 STATE OFFICE BUILDING  
 SALT LAKE CITY, UTAH 84114  
 (801) 533-5771  
 (RULE I-5)

FORM NO. DOGM-UIC-1

IN THE MATTER OF THE APPLICATION OF  
Chevron U.S.A. Inc.  
 ADDRESS P. O. Box 599  
Denver, Colorado ZIP 80201  
 INDIVIDUAL  PARTNERSHIP  CORPORATION   
 FOR ADMINISTRATIVE APPROVAL TO DISPOSE OR  
 INJECT FLUID INTO THE S.W.D. 3-31A3 WELL  
 SEC. 31 TWP. 1S RANGE 3W  
Duchesne COUNTY, UTAH

CAUSE NO. \_\_\_\_\_

ENHANCED RECOVERY INJ. WELL	<input type="checkbox"/>
DISPOSAL WELL	<input checked="" type="checkbox"/>

APPLICATION

Comes now the applicant and shows the Division the following:

1. That Rule 1-5 (b) 6 authorizes administrative approval of enhanced recovery injections or disposal operations.
2. That the applicant submits the following information.

Lease Name <u>Salt Water Disposal</u>	Well No. <u>3-31A3</u>	Field <u>Altamont</u>	County <u>Duchesne</u>
Location of Enhanced Recovery Injection or Disposal Well <u>NE NE</u> Sec. <u>31</u> Twp. <u>1S</u> Rge. <u>3W</u>			
New Well To Be Drilled Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Old Well To Be Converted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Casing Test Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Date <u>11-4-82</u>	
Depth-Base Lowest Known Fresh Water Within 1/2 Mile <u>2310</u>	Does Injection Zone Contain Oil-Gas-Fresh Water Within 1/2 Mile YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		State What
Location of Injection Source(s) <u>Altamont Field</u>	Geologic Name(s) and Depth of Source(s) <u>Wasatch ± 15,000</u>		
Geologic Name of Injection Zone <u>Uintah Formation</u>	Depth of Injection Interval <u>3576</u> to <u>4660</u>		
a. Top of the Perforated Interval: <u>3576'</u>	b. Base of Fresh Water: <u>2310'</u>	c. Intervening Thickness (a minus b) <u>1266'</u>	
Is the intervening thickness sufficient to show fresh water will be protected without additional data? <u>YES</u> NO			
Lithology of Intervening Zones <u>Sand and Shale</u>			
Injection Rates and Pressures Maximum _____ 3000 B/D _____ 1500 PSI			
The Names and Addresses of Those To Whom Copies of This Application and Attachments Have Been Sent			

State of Colorado  
 County of \_\_\_\_\_

Ruth Elliott - Chevron USA, Inc 4/25/83  
 Applicant

Before me, the undersigned authority, on this day personally appeared R. H. ELLIOTT known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states, that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Suscribed and sworn to before me this 25 day of April, 1983

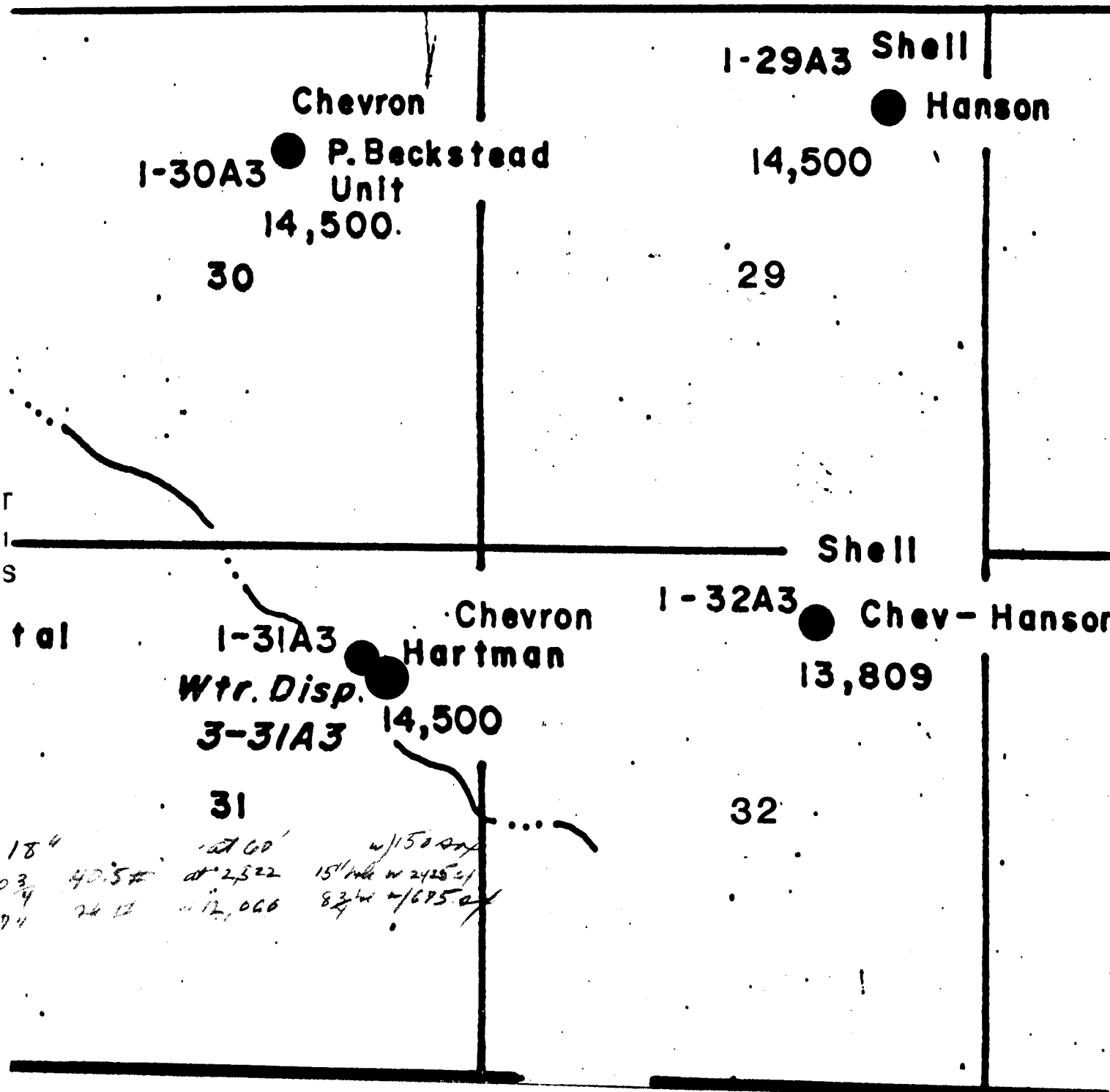
SEAL My commission expires July 5, 1983.

My business address is:  
 My commission expires \_\_\_\_\_  
700 South Colorado Blvd.  
Denver, CO 80222

Lain J. Thompson  
 Notary Public in and for State of Colorado

(OVER)

R3W

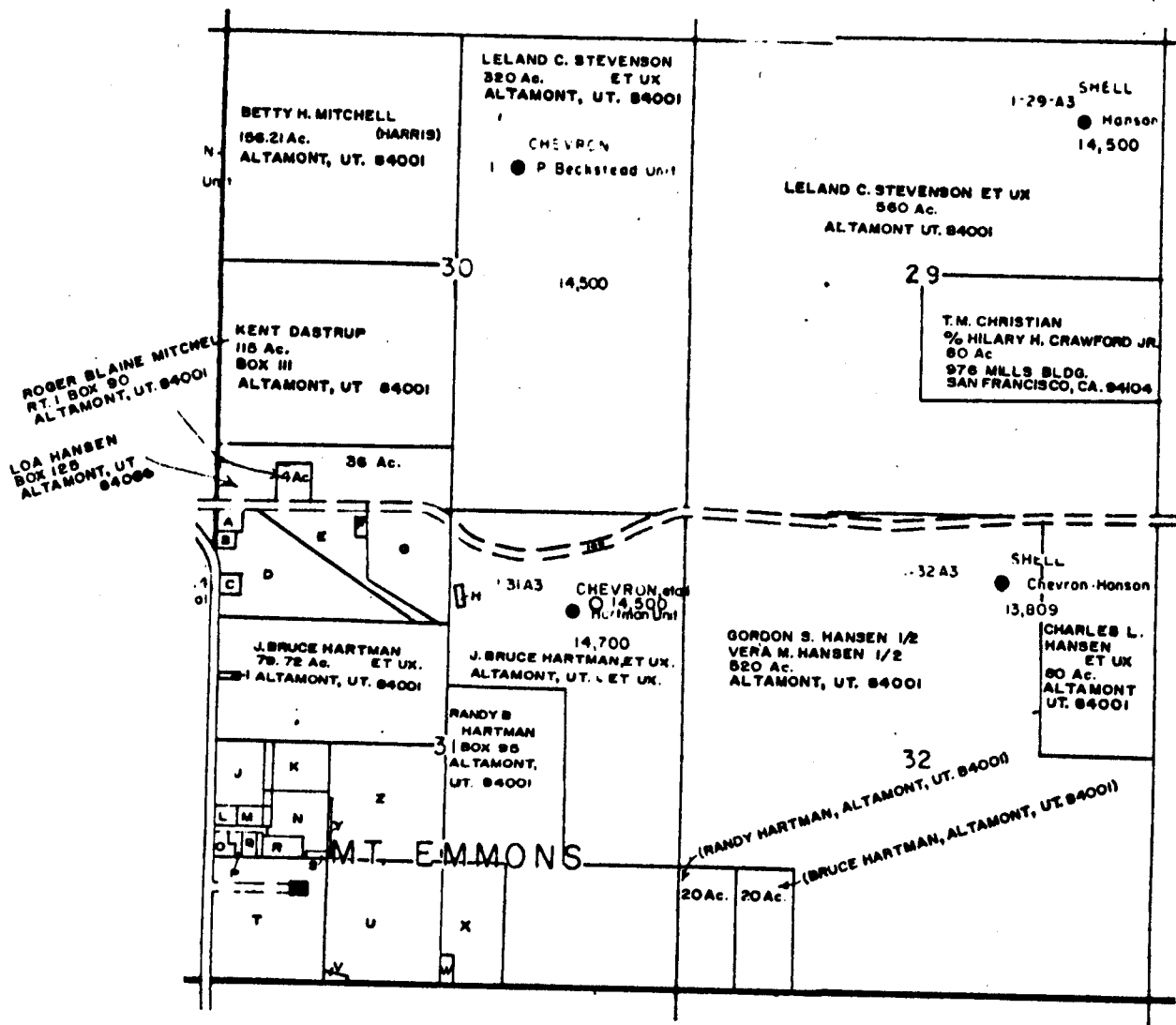


18"  
 103 40.5#  
 4 26 11  
 74 12,060  
 15' well w 2425' of  
 82' w 1695' of

1.18 x 695 = 796  
 796 x 6.6533 = 5296  
 12,060  
 5,296  
 -----  
 6,764 Top of Curve  
 Does not cover pipe in  
 offset SWD

Figure 1

R 3 W



T  
1  
S

Figure 2

# LAND OWNERS

- A. SUCARAN FRED CO.  
BOX 1989  
ROOSEVELT, UT 84088  
1 Ac.
- B. NELSON-RICKS CREAMERY CO.  
314 WEST 3RD  
SALT LAKE CITY, UT 84101  
0.81 Ac.
- C. WILLIAM C. JESSEN ET UX  
ALTAMONT, UT 84001  
0.81 Ac.
- D. E. MAX HARTMAN  
BOX 28  
ALTAMONT, UT 84001  
37.88 Ac.
- E. E. MAX HARTMAN ET UX  
BOX 28  
ALTAMONT, UT 84001  
18.13 Ac.
- F. PAUL R. MONSON ET UX  
ALTAMONT, UT 84001  
0.34 Ac.
- G. WILLIAM J. CHRISTENSON ET UX  
ALTAMONT, UT 84004  
23.83 Ac.
- H. NEIL BINGHAM  
BOX 187  
ALTAMONT, UT 84001
- I. RANDY B. HARTMAN ET UX  
BOX 96  
ALTAMONT, UT 84001  
0.26 Ac.
- J. JAMES E. SOBCKOCK  
ALTAMONT, UT  
9.88 Ac.
- K. MAX L. FARNWORTH ET UX  
9.88 Ac.
- L. WILLIAM W. WALL  
ALTAMONT, UT  
1.24 Ac.
- M. DONALD S. WALL ET AL  
ALTAMONT, UT 84001  
1.33 Ac.
- N. LAMAR SIBEL ET UX  
BOX 15  
ALTAMONT, UT  
11.8 Ac.
- O. VIRGINIA H. SLAGLE  
BOX 70  
ALTAMONT, UT 84001  
1.28 Ac.
- P. VAL MCCONALD ET UX  
9.26 Ac.
- Q. JOSEPH NEPHI NEMELKA  
883 S. 1300 W.  
SALT LAKE CITY, UT 84106
- R. LEONARD J. WALL ET UX  
3088 S. 400 W.  
BOONTIPUL, UT 84018
- S. LAWRENCE YOUNG ET UX  
6.16 Ac.
- T. MT. EMMONS TOWNSITE  
38.3 Ac.
- U. BRENT E. FISHER ET UX  
BOX 82  
ALTAMONT, UT 84001
- V. LAWRENCE YOUNG ET AL  
BOX 388  
SPRINGDALE, UT 84787  
0.81 Ac.
- W. GEORGE ROGERS  
ALTAMONT, UT 84001
- X. BRENT E. FISHER ET UX  
BOX 82  
ALTAMONT, UT 84001
- Y. MAX L. FARNWORTH ET UX  
BOX 61  
MT. HOME, UT 84051  
6.26 Ac.
- Z. RANDY B. HARTMAN ET UX  
BOX 96  
ALTAMONT, UT 84001  
28.74 Ac.

Figure 3

(To be filed within 30 days after drilling is completed)

DEPARTMENT OF NATURAL RESOURCES AND ENERGY

DIVISION OF OIL, GAS, AND MINING  
Room 4241 State Office Building  
Salt Lake City, Utah 84114

COUNTY  
LEASE NO.

COUNTY Duchesne SEC. 31 TWP. 1S RGE. 3W

COMPANY OPERATING Chevron U.S.A. Inc.

OFFICE ADDRESS P. O. Box 599

TOWN Denver STATE CO ZIP 80201

FARM NAME Water Disposal WELL NO. 3-31A3

DRILLING STARTED 9-24 19 75 DRILLING FINISHED 10-2 19 75

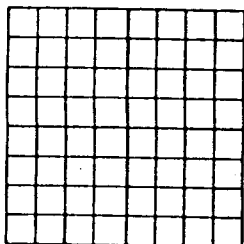
DATE OF FIRST PRODUCTION \_\_\_\_\_ COMPLETED 11-10-75

WELL LOCATED NE ¼ NE ¼ \_\_\_\_\_

1531 FT. FROM SW OF ¼ SEC. & 1676 FT. FROM WL OF ¼ SEC.

ELEVATION DERRICK FLOOR 6416 GROUND 6406

API NO  
640 Acres



Locate Well Correctly and Outline Lease

TYPE COMPLETION

Single Zone  Order No. \_\_\_\_\_

Multiple Zone \_\_\_\_\_ Order No. \_\_\_\_\_

Comingled \_\_\_\_\_ Order No. \_\_\_\_\_

LOCATION EXCEPTION \_\_\_\_\_ Order No. \_\_\_\_\_ Penalty \_\_\_\_\_

OIL OR GAS ZONES

Name	From	To	Name	From	To

CASING & CEMENT

Casing Set				Csg. Test	Cement		
Size	Wgt	Grade	Feet	Psi	Sax	Fillup	Top
8-5/8	24#	J-55	319'	350			surface
5-1/2	14#	K-55	4800'	1419			surface

TOTAL DEPTH 4800

PACKERS SET DEPTH 3541

FORMATION	1	2	3
FORMATION	Uintah		
SPACING & SPACING ORDER NO.			
CLASSIFICATION (Oil; Gas; Dry; Inj. Well)	Disposal Well		
PERFORATED	3576'-4660'		
INTERVALS			
ACIDIZED?	9455 gal 15% HCl		
FRACTURE TREATED?			

INITIAL TEST DATA

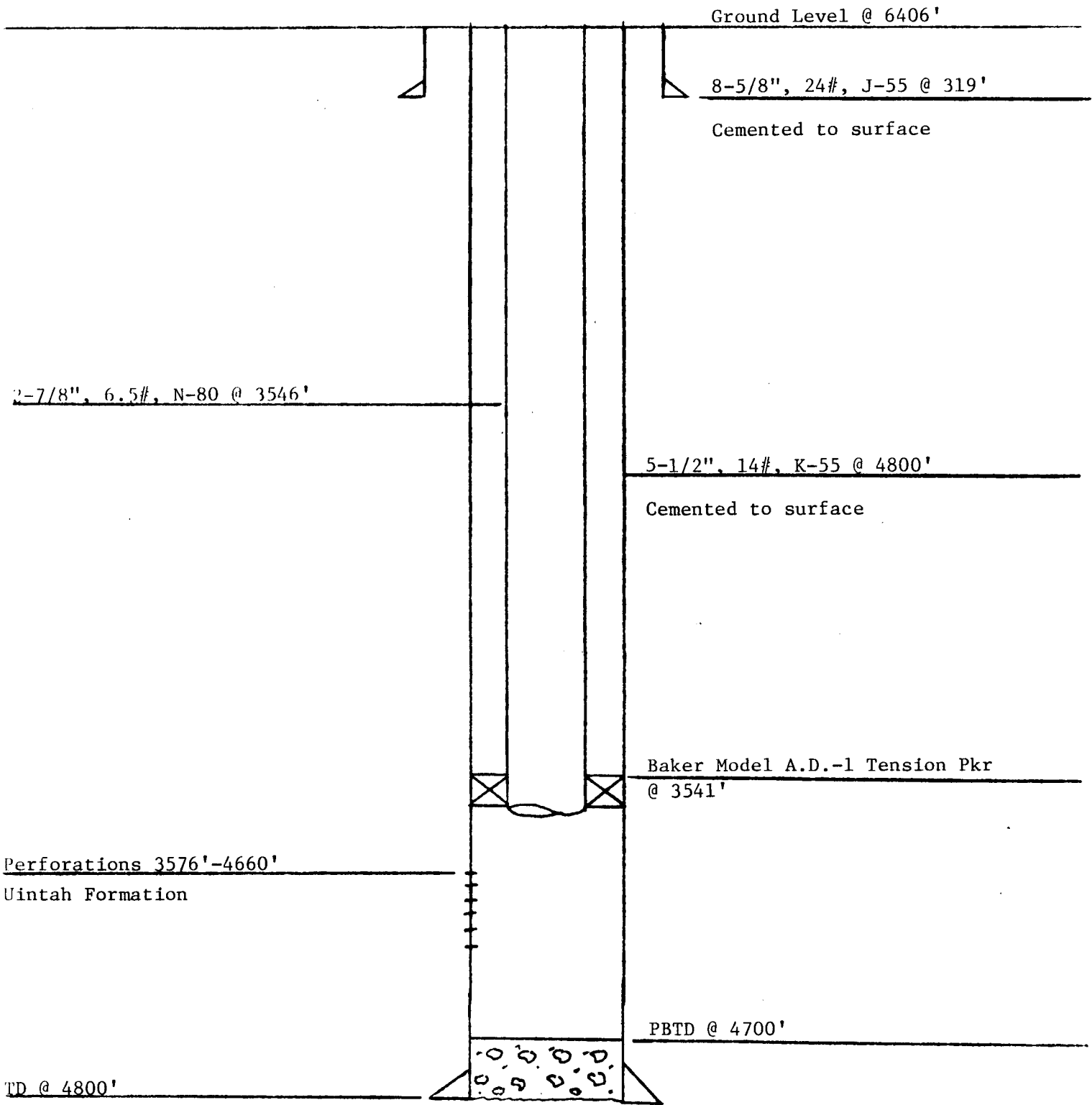
Date			
Oil. bbl./day			
Oil Gravity			
Gas. Cu. Ft./day			
Gas-Oil Ratio Cu. Ft./Bbl.			
Water-Bbl./day			
Pumping or Flowing			
CHOKE SIZE			
FLOW TUBING PRESSURE			

A record of the formations drilled through, and pertinent remarks are presented on the reverse. (use reverse side)

I, the undersigned, being first duly sworn upon oath, state that this well record is true, correct and complete according to the records of this office and to the best of my knowledge and belief.

Telephone \_\_\_\_\_ Name and title of representative of company \_\_\_\_\_

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_



Salt Water Disposal #3-31A3

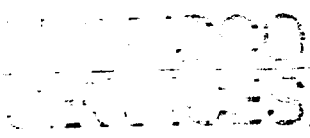


**Chevron U.S.A. Inc.**

Figure 4

DATE - 2-4-83

SCALE -



ACIDIZING • FRACTURING • MUDS • GELS • EMULSIONS

A DIVISION OF BIG THREE INDUSTRIES INC.  
P.O. BOX 472 • VERNAL, UTAH 84078 • (801) 789-3810

WATER ANALYSIS

CHEMICAL Chevron SAMPLE NO. SWD #3 DATE SAMPLED 10/6/82 DATE REPORTED 10/7/82  
WELL Bluebell COUNTY/PARISH Duchesne STATE Utah  
LOCATION Green/Wasatch WELL DEPTH  
FORMATION Formation SAMPLING POINT Wellhead  
ANALYZED BY Carl Johnson REPORT BY: Roy Palmer

\*\*\*\*\*

DISSOLVED SOLIDS

<u>CATIONS</u>		<u>ANIONS</u>	
SODIUM AND POTASSIUM	<u>310</u> ppm	CHLORIDE	<u>10,637</u> ppm
CALCIUM	<u>96</u> ppm	SULFATE	<u>200</u> ppm
MAGNESIUM	<u>100</u> ppm	CARBONATE	<u>120</u> ppm
BARIUM	<u>-</u> ppm	BICARBONATE	<u>915</u> ppm
STRONTIUM	<u>-</u> ppm	SULFIDE	<u>Good Trace</u> ppm
IRON (TOTAL)	<u>0</u> ppm		
TOTAL HARDNESS		<u>650</u> ppm	
TOTAL DISSOLVED SOLIDS		<u>12,378</u> ppm	

\*\*\*\*\*

OTHER PROPERTIES

PH 7.5  
SPECIFIC GRAVITY 1.004 AT 67 °F  
TEMPERATURE CM-METERS AT °F  


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# LITE RESEARCH LABORATORIES

P.O. Box 119

Fort Duchesne, Utah 84026

(801) 722-2254

LABORATORY NUMBER W-2822  
 SAMPLE TAKEN \_\_\_\_\_  
 SAMPLE RECEIVED 11-10-75  
 RESULTS REPORTED 11-12-75

SAMPLE DESCRIPTION \_\_\_\_\_ FIELD NO. \_\_\_\_\_  
 COMPANY Chevron Oil Co. LEASE Hartman WELL NO. 3-31A3  
 FIELD \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ 3-31A3  
 SAMPLE TAKEN FROM \_\_\_\_\_  
 PRODUCING FORMATION 3576 TOP 3686  
 REMARKS S.W.D.W.

SAMPLE TAKEN BY \_\_\_\_\_

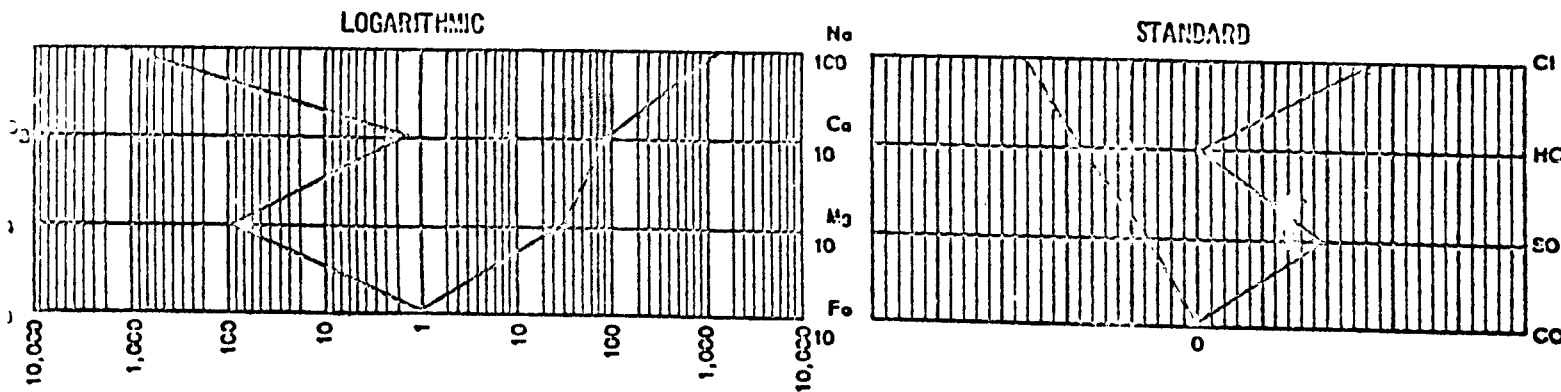
## CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.0647 pH 7.35 RES. 0.12 OHM METERS @ 77°F

TOTAL HARDNESS 6618.0 mg/L as CaCO<sub>3</sub> TOTAL ALKALINITY 83.0 mg/L as CaCO<sub>3</sub>

CONSTITUENT	MILLIGRAMS PER LITER mg/L.	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca ++	1850.0	92.50		
MAGNESIUM - Mg ++	481.0	39.43		
SODIUM - Na +	30000.0	1304.35		
BARIUM (INCL. STRONTIUM) - Ba ++	0	0		
TOTAL IRON - Fe ++ AND Fe +++	11.50	0.41	1436.69	
BICARBONATE - HCO <sub>3</sub> <sup>-</sup>	83.0	1.36		
CARBONATE - CO <sub>3</sub> <sup>-</sup>	0	0		
SULFATE - SO <sub>4</sub> <sup>-</sup>	4700.0	97.92		
CHLORIDE - CL <sup>-</sup>	48980.4	1379.73	1479.01	
TOTAL DISSOLVED SOLIDS	85160			

MILLEQUIVALENTS PER LITER



ANALYST \_\_\_\_\_

CHECKED \_\_\_\_\_

WJF

**SALT WATER DISPOSAL #3-31A3**  
**1S-3W-31**  
**DUCHESNE COUNTY, UTAH**

**APPLICATION INFORMATION**

Below is the required data needed as outlined in Rule I-5 of Cause No. 190-3.

**Rule I-5**

- A. Form DOGM-UIC-1 has been completed
- B. 1. The necessary plat is given in Figures 1 and 2 and a list of the surface owners is given in Figure 3.
2. Form DOGM-UIC-2 has been completed.
3. i, ii, iii, iv, v. A schematic diagram of the well is given in Figure 4.
- vi. The cement bond log indicates a good bond up to 3,100 ft.
- vii. S.W.D. #3-31A3 was drilled as a straight hole. Therefore, bottom hole location is given as approximately surface location.
4. The distance between the top of the disposal zone and the fresh water zone is approximately 1,266 feet. Therefore, there should be no danger of fracturing through the confining strata and contaminating the fresh water zone.
5. i. The maximum injection pressure and rate expected are 1,500 psi and 3,000 BWP. The injection system is designed with a safety shut-off gauge which will shut down the pump if the pressure exceeds 1,600 psi.
- ii. The source of the injection water is from the Wasatch (+15,000 feet) Formation in the area of Township 1S, Range 3W, Duchesne County, Utah.
- iii. A chemical analysis of water to be injected is given in Figure 5.
- iv. The injection zone is the Uintah Formation which is made up of shaly sandstone. The injection zone is from 3,576 feet to 4,660 feet deep and has an approximate lateral extent of 5 square miles. The confining zone is made up of sandy shale with an approximate lateral extent of 50 square miles.

**SALT WATER DISPOSAL #3-31A3**

**1S-3W-31**

**DUCHESNE COUNTY, UTAH**

**Page 2**

- v. The Upper Duchesne River Formation contains fresh water which extends from the surface to approximately 2,310 feet deep.
- vi. The analysis of injection formation water is given in Figure 6.
- 6. In the case of a well failure, the well will be shut-in and repaired as the situation warrants.
- 7. No formation testing program was done on this well.
- 8. The casing/tubing annulus was pressure tested to a 1,000 psi on 11/4/82.

The above information should satisfy the requirements for the approval of Chevron's Salt Water Disposal #3-31A3 as a Class II injection well.

SUNDRY NOTICE OF NAME CHANGE  
EXHIBIT A

ENTITY NUMBER	LEASE NAME	LEGAL DESC.	API #	REMARKS
	HAMBLIN 2-26A2 SMD	1S 2W 26	4301399993	SALT WATER DISPOSAL WELL 43-013-30389 WSTC
	SMD 1-3A2	1S 2W 3	4301399997	SALT WATER DISPOSAL WELL 43-013-30021 UNTA
	SMD 4-11A2	1S 2W 11	4301399994	SALT WATER DISPOSAL WELL 43-013-20255 GRPV
	SMD 3-31A3	1S 3W 31	4301399995	SALT WATER DISPOSAL WELL 43-013-30368 UNTA
	SMD 2-10B1	2S 1W 10	4301399996	SALT WATER DISPOSAL WELL 43-013-30367 UNTA
	✓ Boren 4-15A2	1S 2W 15	43-013-31186	- Drl. (conf.)
	✓ Reynolds 2-7B1E	2S 1E 7	43-047-31840	- Drl. (conf.)



**Chevron U.S.A. Inc.**  
P.O. Box 266, Neola, UT 84053 • Phone (801) 353-4397

June 14, 1983

State of Utah Natural Resources  
Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Ut 84114

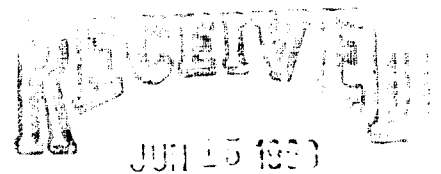
RE: Your Letter of June 6, 1983  
Well No. 3-31A3 SWD  
Sec. 31, T 1 S, R 3 W  
Duchesne County, Utah

We don't know the cause or source of the high tubing-casing annulus pressure in the subject injection well. However, we don't suspect a packer leak because we bled off the  $\pm 575$  psi into a water truck in 20 seconds. Hopefully, this high pressure resulted from thermal expansion of the tubing after injecting hot water.

Field personnel will check the casing pressure daily and we will notify you if excessive pressure again builds up. In this event, our engineering department in Denver will immediately prepare a workover to check the casing and repair any leaks.

L. R. Hamilton  
Bluebell/Altamont Field Foreman

KRJ/lm



DIVISION OF  
OIL, GAS & MINING

# Penzoil Step Rate Test

2/19/87

42,381 50 SHEETS 5 SQUARE  
42,382 100 SHEETS 5 SQUARE  
42,389 200 SHEETS 5 SQUARE  
NATIONAL

	Rate (bpm)	PSI	Time (min)
1	.3	1300	5 min
	.3	1300	10 min
	.3	1300	15 min
2	.5	1305	5 "
	.5	1315	10
	.5	1315	15
3	.8	1330	5
	.8	1340	10
	.8	1340	15
4	1.1	1365	5
	1.1	1375	10
	1.1	1375	15
5	1.6	1425	5
	1.6	1445	10
	1.6	1445	15
6	2.6	1605	5
	2.6	1605	10
	2.6	1615	15
7	3.6	1835	5 $\swarrow$ ~ 15 min.
8	4.6	2115	5
	4.6      1.84	2125	10 $\swarrow$ ~ 15 min.
9	5.6	2485	5
	5.6      2.80	2490	10
	5.6	2490	15 $\swarrow$ ~ 15 min.

42-881 50 SHEETS 3 SQUARE  
 42-882 100 SHEETS 3 SQUARE  
 42-883 200 SHEETS 3 SQUARE  
 NATIONAL

	Rate (BPM)	PSI	Time (min)
10.	6.6	2850	5
	6.6      3.30	2850	10
	6.6	2865	15
			> 15 min
11.	7.1	3025	5
	7.1      3.55	3010	10
	7.1	2975	15
			> 15 min.
12.	7.6	3055	5
	7.6      3.80	3065	10
	7.6	3095	15
			> 15 min.
13.	8.1	3250	5
	8.1      3.24	3245	10
	8.1	run out of water	> 15 min
14.	8.5	2770	5
	8.5      4.25	2785	10
	8.5	2805	15

CHECKLIST FOR INJECTION WELL APPLICATION AND FILE REVIEW

\* \* \* \* \*

Operator: Cherrow Well No. 3-31A3

County: Dodson T 15 R 34 Sec. 31 API# 43-013-30368

New Well  Conversion  Disposal Well  Enhanced Recovery Well

	<u>YES</u>	<u>NO</u>
UIC Forms Completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Plat including Surface Owners, Leaseholders, and wells of available record	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schematic Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fracture Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pressure and Rate Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adequate Geologic Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Fluid Source Greener-Wasatah

Analysis of Injection Fluid Yes  No  TDS

Analysis of Water in Formation to be injected into Yes  No  TDS

Known USDW in area Dodson River Depth 2310'

Number of wells in area of review 2 Prod. 2 P&A 0  
Water 0 Inj. 0

Aquifer Exemption Yes  NA

Mechanical Integrity Test Yes  No

Date 11-4-82 Type 1000 PSI - 10 min CTA

Comments: Tap of cement surface Bottom 4800

Reviewed by: \_\_\_\_\_



4

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
RECORD OF ABANDONMENT OPERATIONS

COMPANY NAME: PENNZOIL COMPANY

WELL NAME: SALT WATER DISPOSAL 3-31A3

QTR/QTR: NE/NE SECTION: 31 TOWNSHIP: 01S RANGE: 03W

COUNTY: DUSHENSE API NO: 43-013-30369<sup>68</sup>

INSPECTOR: DENNIS L. INGRAM TIME: 6:00 PM DATE: 8/4/95

SURFACE CASING SHOE DEPTH 319 FEET CASING PULLED YES  NO

CASING PULLED: SIZE N/A CUT DEPTH N/A FT/CSG RECOVERED N/A

CASING TESTED YES  NO  TESTED TO: 660 PSI TIME: 15 MIN:

CEMENTING COMPANY: SCHLUMBERGER DOWELL

CEMENTING OPERATIONS: P&A WELL:

PLUG 1. SET: FROM 3525 FT. TO 3325 FT. TAGGED YES  NO

SLURRY: 4.5 BBLS (25 SXS) 'H' @ 3.57 GPS WAS 17.0 PPG, YIELD 1.00

PLUG 2. SET FROM 415 FT. TO 0 FT. TAGGED YES  NO

SLURRY: 60 SACK SLURRY OF 'H' CEMENT @15.8PPG.

PLUG 3. SET FROM N/A FT. TO FT. TAGGED YES  NO

SLURRY: \_\_\_\_\_

PLUG 4. SET FROM N/A FT. TO FT. TAGGED YES  NO

SLURRY: \_\_\_\_\_

SURFACE PLUG: FROM N/A FT. TO FT.

ALL ANNULUS CEMENTED TO SURFACE: YES  NO

PLUGGING FLUID TYPE: \_\_\_\_\_

PERFORATIONS: FROM 4660 FT. TO 3576 FT.  
FROM FT. TO FT.

# 1 CIBP SET: INSIDE TUBING PLUG SET AT 3527 FEET

# 2 CIBP SET: \_\_\_\_\_

ABANDONMENT MARKER: PLATE:  PIPE:  CORRECT INFORMATION:

COMMENTS: CUT OFF TUBING AT 3162 FEET (INSIDE TUBING PLUG @3527'- TAGGED  
CEMENT WITH WIRE LINE @3217 FEET). BACKSIDE CASING WAS ALREADY FULL OF  
CEMENT (SEE PHOTO).

STATE OF UTAH  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF OIL, GAS, AND MINING

**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 Water Disposal

2. NAME OF OPERATOR  
Chevron U.S.A. Inc.

3. ADDRESS OF OPERATOR  
P. O. Box 599, Denver, CO 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
 See also space 17 below.)  
 At surface  
1109' FNL & 964' FEL NENE

14. PERMIT NO. \_\_\_\_\_

15. ELEVATIONS (Show whether OF, RT, OR, etc.)  
KB 6416'

5. LEASE DESIGNATION AND SERIAL NO. \_\_\_\_\_

6. IF INDIAN, ALLOTTEE OR TRIBE NAME \_\_\_\_\_

7. UNIT AGREEMENT NAME \_\_\_\_\_

8. FARM OR LEASE NAME  
Salt Water Disposal Well

9. WELL NO.  
3-31A3

10. FIELD AND POOL, OR WILDCAT  
Altamont-Duchesne River

11. SEC., T., R., M., OR BLE. AND SURVST OR AREA  
Sec. 31, T1S, R3W, USB&M

12. COUNTY OR PARISH  
Duchesne

13. STATE  
Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>cancelled acid proposal</u> <input checked="" type="checkbox"/>	
(Other) _____		(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.) \*

Please cancel Chevron's proposal to acidize well as submitted by Sundry Notice dated December 1, 1981. The work was not done and there are not any plans to acidize well at present time.

3-State  
 2-BLM  
 1-LRH  
 1-File

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

SIGNED [Signature] TITLE Engineering Assistant DATE July 8, 1983

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

May 29, 1985

Chevron U.S.A., Incorporated  
P.O. Box 266  
Neola, Utah 84053

Gentlemen:

RE: Salt Water Disposal Well #3-31A3

The guage on the casing tubing annulus of the above mentioned well does not appear to be working. Would you please remove it from the valve, so that the Division's guage can be attached.

Also, in checking the data filed with this Division as required by Rule I-5, the maximum authorized injection pressure for this well is 1500 psi. At 2:53 P.M. on May 21, 1985, the Murphy guage indicated an injection pressure of 1600 psi and the pressure chart an injection pressure of 1700 psi. Since no formation testing program was done on this well, it will be necessary to reduce the injection pressure to 1500 psi or request that a higher pressure be authorized by this Division; any higher injection pressure must not exceed an estimated formation fracture pressure gradient.

Thank you,

*Cleon B. Feight*  
Cleon B. Feight  
UIC Manager

mfp  
0009U-15



**Chevron U.S.A. Inc.**  
P.O. Box 266, Neola, UT 84053 • Phone (801) 353-4397

IS 3W Sec 31

June 7, 1985

RECEIVED

JUN 12 1985

DIVISION OF OIL  
GAS & MINING

Mr. Cleon B. Feight  
UIC Manager  
355 West North Temple  
3 Triad Center - Suite 350  
Salt Lake City, Utah 84180-1203

Dear Mr. Feight:

In response to your May 29, 1985 letter regarding Chevron's Salt Water Disposal Well #3-31A3 in the Bluebell Field, the following information is submitted.

A tee will be installed on the casing-tubing annulus riser allowing a point for Division personnel to check pressure. Also, regarding operating pressure exceeding maximum authorized injection pressure noted by Division personnel on May 23, 1985, immediate action will be taken to reduce operating pressure to within allowable pressure. Plans are to accomplish this by backflowing and possibly acidizing the well to increase injectivity. Results of the aforementioned work will be promptly reported back to the Division.

Please feel free to contact me if you require additional information.

Sincerely,

*G. D. Eckerdt*  
G. D. Eckerdt  
Production Foreman  
Bluebell Group

GDE:RS:jh

cc: R. H. Elliott

15-3w-31

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS CONSERVATION  
1588 West North Temple  
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name and Number SWD 3-31A3

Operator Chevron Oil Company

Address P. O. Box 599 Denver, Colorado 80201

Contractor Willard Pease Drilling Co.

Address P. O. Box 548 Grand Junction, Colorado 81501

Location NE 1/4, NE 1/4, Sec. 31; T. 1 <sup>S</sup> ~~XX~~; R. 3 <sup>W</sup> ~~XX~~; Duchesne County

Water Sands:

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head -	<u>Quality:</u> Fresh or Salty -
	<u>From</u>	<u>To</u>		
1.	<u>3576</u>	<u>- 3686</u>	<u>Swabbed 4 bbls/hr.</u>	<u>Salty (see attached)</u>
2.				
3.				
4.				
5.				

(Continue on Reverse Side if Necessary)

Formation Tops: The well was drilled with mud as a salt water disposal well.  
The above interval was perforated and tested through casing.

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
  - (b) Report on this form as provided for in Rule C-20, General Rules And Regulations and Rules of Practice and Procedure.
  - (c) if a water quality analysis has been made of the above reported zone, please forward a copy along with this form.

cc - TR file  
08cc  
DG



**Chevron U.S.A. Inc.**  
P.O. Box 266, Neola, UT 84053 • Phone (801) 353-4397

7

July 15, 1985

Mr. Cleon B. Feight, UIC Manager  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center - Suite 350  
Salt Lake City, Utah 84108-1203

RECEIVED

JUL 18 1985

DIVISION OF OIL  
GAS & MINING

IS SW Sec 31

Dear Mr. Feight:

Regarding Chevron's Salt Water Disposal Well #3-31A3 in the Altamont Field and as a follow up to my letter of June 7, 1985 regarding same, please be informed of the following.

On June 18, SWD #3 was backflowed, acidized and backflowed again to increase injectivity. As shown on the attached copy of the pressure chart, injection pressure dropped from 1700 psi to 1500 psi, which is the maximum authorized injection pressure for this well. Note that on July 12, injection pressure according to the chart was still 1500 psi.

If you require additional information, don't hesitate to contact me.

Sincerely,

*G.D. Eckerdt*  
G.D. Eckerdt  
Production Forman  
Bluebell Group

GDE:RS:cb

ATTACHMENT



**Chevron U.S.A. Inc.**  
P.O. Box 266, Neola, UT 84053 • Phone (801) 353-4397

7

July 17, 1985

RECEIVED

JUL 23 1985

DIVISION OF OIL  
GAS & MINING

Mr. Cleon B. Feight, UIC Manager  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center - Suite 350  
Salt Lake City, Utah 84108-1203

Dear Mr. Feight:

Enclosed is a copy of the pressure chart mentioned in my letter of July 15th concerning Chevron's Salt Water Disposal Well #3-31A3 in Altamont. The attachment was inadvertently omitted.

Sincerely,

*G. D. Eckerdt*  
G. D. Eckerdt  
Production Foreman  
Bluebell Group

GDE:RS:jh  
Attachment

*Dec. 31 15 3w*

 **PENNZOIL EXPLORATION AND PRODUCTION COMPANY**

P.O. DRAWER 1139 • DENVER, COLORADO 80201-1139 • (303) 832-6060

December 23, 1985

State of Utah  
Division of Oil, Gas and Mining  
Room 4241 State Office Building  
Salt Lake City, UT 84114

Attn: Gil Hunt

Re: Notice of Transfer of Ownership  
Disposal Wells  
Bluebell/Altamont Area  
Duchesne County, Utah

RECEIVED

DEC 26 1985

DIVISION OF OIL  
GAS & MINING

Gentlemen:

Please find attached copies of those certain Transfers of Ownership affecting the following disposal wells which Pennzoil has recently purchased from Chevron, U.S.A. Inc.

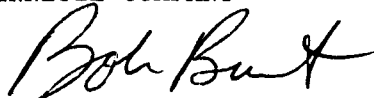
- |  |  |
|--|--|
| A) SWD 2-26A2 - 43-013-30389<br>26-1S-2W | E) SWD 1-3A2 43-013-30021<br>3-1S-2W     |
| B) SWD 2-17C5 - 43-013-30388<br>17-3S-5W | F) SWD 1-11A2 43-013-30255<br>11-1S-2W   |
| C) SWD 3-31A3 - 43-013-30368<br>31-1S-3W | G) SWD 2-28A2 - 43-013-30346<br>28-1S-2W |
| D) SWD 2-10B1 - 43-013-30367<br>10-2S-1W |  |

As indicated on the attached materials, the Order No. Authorizing Injection has been left blank affecting the SWD 2-26A2, SWD 2-17C5, and the SWD 2-28A2 wells, due to the fact that same could not be found during our initial review of Chevron's records.

If you should have any questions, please do not hesitate to contact this office.

Sincerely,

PENNZOIL COMPANY



Robert E. Burton, Jr.  
Land Project Supervisor

REB/cm

Attachments



RECEIVED

DEC 26 1985

RULE I-9

DIVISION OF OIL  
GAS & MINING

NOTICE OF TRANSFER OF OWNERSHIP

Classification of Well Transferred: Disposal Well  Enhanced Recovery Injection Well

Name of Present Operator Chevron U.S.A. Inc.

Address 700 South Colorado Boulevard  
Denver, Colorado 80222

Well Being Transferred:

Name: SWD 3-31A3 (Salt Water Disposal)

Location: Sec. 31 Twp. 1S Rng. 3W County Duchesne

Order No. Authorizing Injection UIC 190-3 Date April 20, 1983

Zone Injected Into: Duchesne River-Uinta Formation

Effective Date of Transfer December 2, 1985

J. Bond  
Signature

Dec 2 1985  
Date

Name of New Operator Pennzoil Company

Address 700 Milam, Houston, Texas 77002

DEC  
Signature of New Operator

12-2-85  
Date

FOR DOGM USE ONLY	
It is acknowledged by the Division of Oil, Gas, and Mining that <u>Pennzoil</u> is the new operator of the above-named well and may:	
<input checked="" type="checkbox"/> continue to inject fluids as authorized by Order No. <u>190-3</u> <input type="checkbox"/> not inject fluids until after Notice, Hearing, and Approval by the Division	
Signature <u>[Signature]</u>	Date <u>1/3/86</u>

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

PERMIT IN TRIPLICATE  
(Other instructions on reverse side)

3-25-86

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <small>(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.)</small>		5. LEASE DESIGNATION AND SERIAL NO.
1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>WATER DISPOSAL</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR <u>PENNZOIL COMPANY</u>		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR <u>P. O. BOX 290, NEOLA, UTAH 84053</u>		8. FARM OR LEASE NAME <u>SALT WATER DISPOSAL WELL</u>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  <u>1109' FNL &amp; 964' FEL NE NE</u>		9. WELL NO. <u>3-31A3</u>
14. PERMIT NO.	15. ELEVATIONS (Show whether OF, BY, OR, etc.) <u>KB 6416</u>	10. FIELD AND POOL, OR WILDCAT <u>ALTA MOUNT-DUCHESNE RIVER</u>
		11. SEC., T., R., M., OR BLE. AND SUBVY OR AREA <u>SEC 31, T1S, R3W</u>
		12. COUNTY OR PARISH   13. STATE <u>DUCHESNE   UTAH</u>

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input checked="" type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
(Other) _____		(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.) \*

PLAN TO ACIDIZE PERFS 3576-4660 (656 HOLES) ON 3-22-86 AS FOLLOWS:

1. BACKFLOW FOR ONE DAY.
2. PRESSURE TBG-CSG ANNULUS TO 1000 PSI.
3. TIE ONTO TBG AND TREAT PERFS WITH 16,000 GALS OF DOWELL'S D.A.D. ACID (7 PARTS 7 1/2% ACID AND 3 PARTS TOLUENE AROMATIC SOLVENT). ROCK SALT WILL BE USED AS THE DIVERTING AGENT.
4. PLACE WELL BACK ON INJECTION SERVICE.

NOTE: VERBAL PERMISSION TO PERFORM THIS WORK GRANTED BY GIL HUNT ON 3-19-86.

**APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**  
DATE: 3/25/86  
BY: [Signature]

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

SIGNED Jess Delling TITLE ENGINEER DATE 3-21-86

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
ORDINAL OF APPROVAL, IF ANY:

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

**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 <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>WATER DISPOSAL</u>		5. LEASE DESIGNATION AND SERIAL NO.
2. NAME OF OPERATOR <u>PENNZOIL COMPANY</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR <u>P.O. BOX 290, NEOLA, UTAH 84053</u>		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  <u>1109 FNL &amp; 964 FEL NE NE</u>		8. FARM OR LEASE NAME <u>SALT WATER DISPOSAL WELL</u>
14. PERMIT NO.	15. ELEVATIONS (Show whether of, ft, gr, etc.) <u>KB 6416</u>	9. WELL NO. <u>3-31 A3</u>
16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data		10. FIELD AND POOL, OR WILDCAT <u>ALTA MONT-DUCHESNE RIVER</u>
NOTICE OF INTENTION TO: TEST WATER SHUT-OFF <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/> SHOOT OR ACIDIZE <input type="checkbox"/> ABANDON* <input type="checkbox"/> REPAIR WELL <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> (Other) <input type="checkbox"/>		11. SEC., T., R., M., OR B.L. AND SUBST OR AREA <u>SEC 31, T 15, R 3W</u>
		12. COUNTY OR PARISH <u>DUCHESNE</u> 13. STATE <u>UTAH</u>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO: TEST WATER SHUT-OFF <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> SHOOT OR ACIDIZE <input type="checkbox"/> REPAIR WELL <input type="checkbox"/> (Other) <input type="checkbox"/>	SUBSEQUENT REPORT OF: WATER SHUT-OFF <input type="checkbox"/> FRACTURE TREATMENT <input type="checkbox"/> SHOOTING OR ACIDIZING <input checked="" type="checkbox"/> (Other) <input type="checkbox"/> (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.)\*

*SEE ATTACHED REPORT*

**RECEIVED**  
MAR 25 1986

DIVISION OF  
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct  
SIGNED Jess Dullnig TITLE ENGINEER DATE 3-23-86

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

FIELD SERVICE REPORT

Field ALTAMONT-DUCHESNE RIVER Lease SWD 3-31A3 Well or Battery No. \_\_\_\_\_  
 Date Started 3-21-86 Date Completed 3-22-86

3-21-86: BACKFLOWED WELL TO PIT FOR 6 HRS. SHUT WELL IN OVERNIGHT.

3-22-86: RU DOWELL AND TREATED PERFS 3576-4660' (656 HOLES) WITH 16,000 GALS OF 7 1/2 % D.A.D. ACID (DOWELL ACID DISPERSION - 7 PARTS 7 1/2 % HCL + 3 PARTS P-121 TOLUENE AROMATIC SOLVENT) CONTAINING 1 GAL/1000 A-200 CORROSION INHIBITOR AND 2 GAL/1000 W-27 N.E. AGENT. PUMPED ACID SOLUTION AS FOLLOWS:

- A). PUMPED 2000 GALS ACID.
- B). PUMPED 500# ROCK SALT IN 500 GALS GELLED 10# BRINE.
- C). PUMPED 2000 GALS ACID.
- D). PUMPED 750# ROCK SALT IN 500 GALS GELLED 10# BRINE.
- E). PUMPED 2000 GALS ACID.
- F). PUMPED 1000# ROCK SALT IN 500 GALS 10# BRINE.
- G). PUMPED 2000 GALS ACID.
- H). PUMPED 1500# ROCK SALT IN 1000 GALS GELLED 10# BRINE.
- I). PUMPED 2000 GALS ACID.
- J). PUMPED 1000# ROCK SALT IN 500 GALS GELLED 10# BRINE.
- K). PUMPED 2000 GALS ACID.
- L). PUMPED 1000# ROCK SALT IN 500 GALS GELLED 10# BRINE.
- M). PUMPED 2000 GAL ACID.
- N). PUMPED 2080# ROCK SALT IN 1000 GALS GELLED 10# BRINE.
- O). PUMPED 2000 GALS ACID.
- P). FLUSHED WITH 10# BRINE WATER.

SAW SLIGHT DIVERSION. AVG INJ. RATE - 6 BPM. MIN PRES - 1650 #, MAX PRES - 2750 #, AVG PRES - 2100 #. ISIP - 1530 #, 5 MIN - 1490 #, 10 MIN - 1470 #, 15 MIN - 1460 #. TOTAL LOAD - 554 BBLs. RD DOWELL. CLEAN OUT DISPOSAL TANK. WILL RESUME INJECTION AS SOON AS POSSIBLE.

TOTAL COST - \$ 21,000

*Jess Gulling*  
 Neola, Ut

 **PENNZOIL EXPLORATION AND PRODUCTION COMPANY**

P. O. BOX 290 • NEOLA, UTAH 84053 • (801) 353-4397

**RECEIVED**  
MAR 12 1987

March 2, 1987

Gilbert Hunt  
State of Utah Natural Resources, Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt lake City, Utah 84180-1203

**DIVISION OF  
OIL, GAS & MINING**

Re: Request to increase maximum surface injection pressure on  
the Hartman 3-31A3 disposal well located in sec. 31, T1S, R3W.

Dear Mr. Hunt

Pennzoil is requesting that the maximum allowable surface injection pressure on the subject well be increased from 1500 psi to 2500 psi.

This request is based on results of a step rate test run on 2-19-87 (see attachment) which showed the formation parting pressure of the Duchesne River formation (injection zone) to be approximately 2850 psi surface or 4150 psi at the formation wall. A maximum surface injection pressure of 2500 psi would provide a safe operating margin below the formation parting pressure and allow Pennzoil to increase its water disposal capacity considerably.

Should there be any questions about the above request please do not hesitate to call.

Sincerely,  
Pennzoil Company



Peter W. Hagist  
Petroleum Engineer

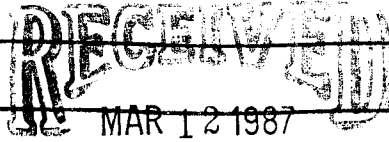
Enclosure

cc. George Sanfilippo  
Ralph Williams  
Harold Stromgren

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

**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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		3. LEASE DESIGNATION AND SERIAL NO.
2. NAME OF OPERATOR Pennzoil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. Box 290 Neola, Utah 84053		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any Survey. See also space 17 below.) At surface NENE		8. FARM OR LEASE NAME S.W.D. Well
14. PERMIT NO.	15. ELEVATIONS (Show whether OF, AT, OR, etc.) 6416' GR	9. WELL NO. 3-31A3
		10. FIELD AND POOL, OR WILDCAT Altamont-Duchesne Rv.
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 31, T1S, R3W
		12. COUNTY OR PARISH Duchesne
		13. STATE UT

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Step Rate Test</u>	
(Other) <input type="checkbox"/>		(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.)

A step rate test was performed on the subject well on 2-19-87. The purpose of the test was to determine the parting pressure of the injection zone between 3776' and 4660' (Duchesne River). The pressure and rate information gathered is attached. Analysis of the information showed the formation parted at approximately 2850 psi surface pressure or 4150 psi at the formation. The test was performed according to state specifications and with state officials present.

A request will be submitted along with this sundry to increase the maximum allowable surface injection pressure on this well from 1500 psi to 2500 psi.

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

SIGNED Peter W. Hagist TITLE Office 801-353-4397  
Petroleum Engineer DATE 3-2-87

(This space for signature of owner shall use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OR DEVIATIONS: \_\_\_\_\_

PENNZOIL COMPANY

HARTMAN 3-31A3

LOC. SEC. 31, T1S, R3W

DUCHESSNE COUNTY, UTAH

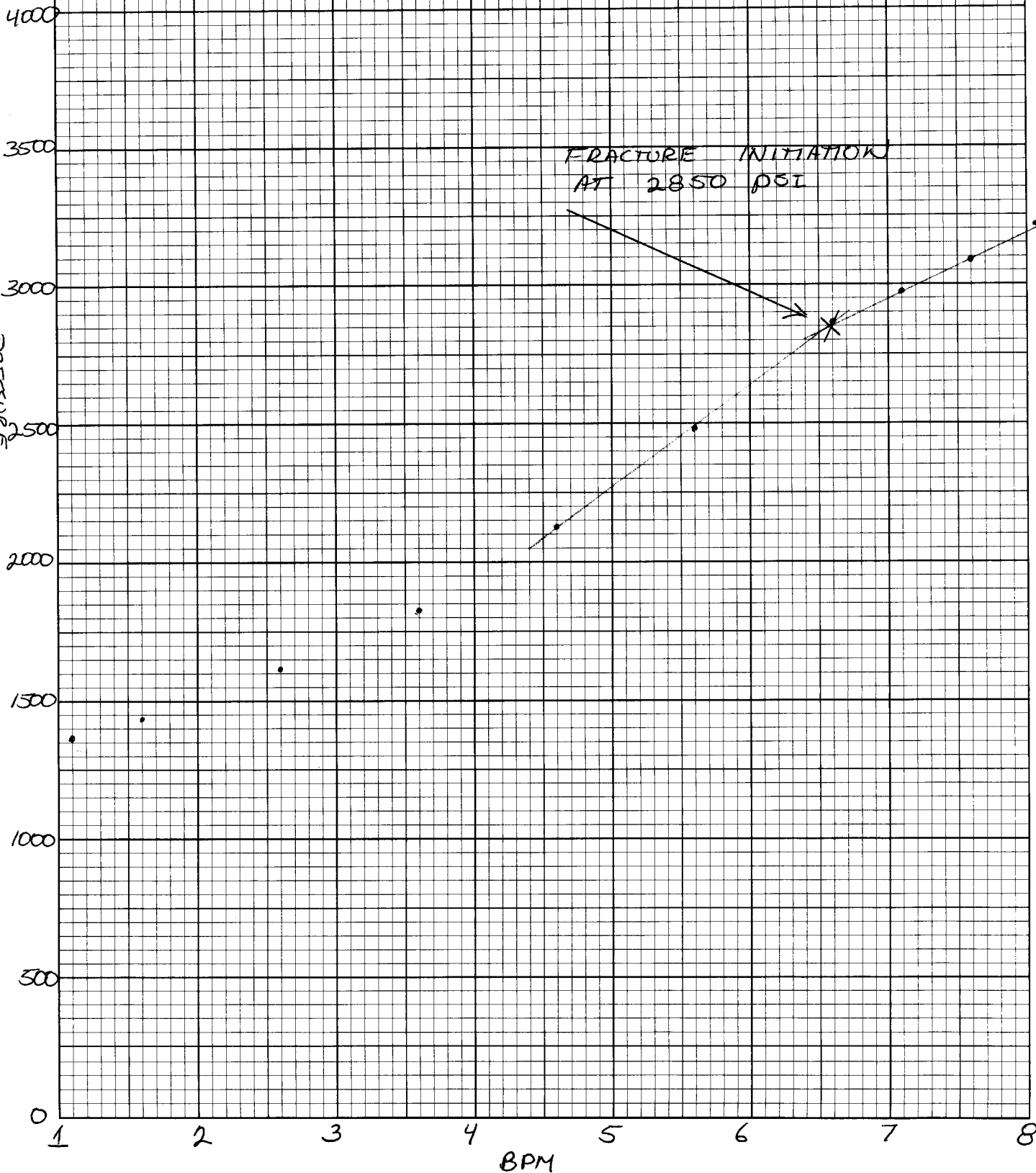
STEP RATE TEST 2-19-87

46 0780

SURFACE  
PRESSURE

FRACTURE INITIATION  
AT 2850 PSI

KE 10 X 10 TO THE INCH • 7 X 10 INCHES  
KEUFFEL & ESSER CO. MADE IN U.S.A.



HARTMAN 3-31A3 WATER DISOPASAL WELL

Results of step rate test performed on 2-19-87.

<b>RATE BPM</b>	<b>PRESSURE PSI</b>	<b>TIME MIN</b>
.3	1300	15
.5	1315	15
.8	1340	15
1.1	1375	15
1.6	1445	15
2.6	1605	15
3.6	1835	15
4.6	2125	15
5.6	2485	15
6.6	2865	15
7.1	2975	15
7.6	3095	15
8.1	3226	15
8.5	2770	15





STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

March 23, 1987

Mr. Peter W. Hagist  
Pennzoil Exploration and Production Company  
P.O. Box 290  
Neola, Utah 84053

Dear Mr. Hagist:

RE: Request to Increase Injection Pressure, Hartman 3-31A3 Disposal Well, Sec. 31, T1S, R3W, Duchesne County, Utah

This letter is written in response to the above referenced request and to present to you our analysis and interpretation of the step-rate test performed on the Hartman 3-31A3 disposal well. Also, recommendations are made concerning future increase of the maximum allowable surface injection pressure for the well.

#### Step-Rate Test

The test was performed on February 19, 1987. Halliburton was the contractor who performed the test and the test was witnessed by two Division employees, Dorothy Swindel and Dan Jarvis.

The data indicates a fracture or breakdown of some kind occurred between 1615 and 2125 psi surface injection pressure. Subsequent breakdowns are suggested at approximately 2850 and 3250 psi. These could indicate fracturing of different lithologic units and/or cement failure. The breakdown between 1615 and 2125 psi cannot be accurately determined because of an invalid data point at 1835 psi. The time period corresponding to this step was cut short because of inadequate water supply. The lower part of the pressure-rate plot (attachment #2) displays a curving upward which is common when time steps did not allow a reasonable level of rate and pressure stabilization during each step.

Another method of analysis (after Felsenthal) is illustrated with attachment #3. This technique is a multi-rate analysis for which the principle of superposition is used to calculate the variables. This plot shows a definite breakdown between 1835 and 2125 psi and possibly between 1615 and 2125 psi due to the short time period at 1835 psi displacing and invalidating point 7.

Attachment #4 presents the data in another form, this plot shows pressure change vs. rate. There is an obvious break in slope at approximately 2.1 bpm which corresponds to an injection pressure of about 1530 psi, this also corresponds to the instantaneous shutin pressure (ISIP) of 1530 psi which was attained during an acid job performed on the well on March 22, 1986.

Attachment #5 is a pressure-rate plot from a previous step-rate test performed on a well approximately 3.6 miles from the 3-31A3 well and which has technical characteristics very similar to the 3-31A3 well. This test showed a fracturing pressure of approximately 1618 psi. It may be more than coincidental that both tests show a breakdown slightly above 1600 psi.

#### Conclusions and Recommendations

All evidence seems to suggest that the first breakdown pressure for this disposal well occurs at around 1600 psi. This being the case, this Division cannot approve a maximum surface injection pressure of 2500 psi as requested.

If Pennzoil disagrees with our conclusions the Division recommends two possible courses of action:

- 1) Rerun the step-rate test utilizing an adequate water supply to avoid cutting time periods short and make time periods longer to allow for better stabilization at each step.
- 2) Use existing injection equipment to perform a step-rate test of sort by injecting at increasing pressure intervals, each interval lasting a day, and knowing volumes injected calculate an average rate and pressure for each day. This data could be plotted and hopefully would show a fracturing pressure.

If you have questions or comments concerning our conclusions and recommendations, please contact me.

Sincerely,



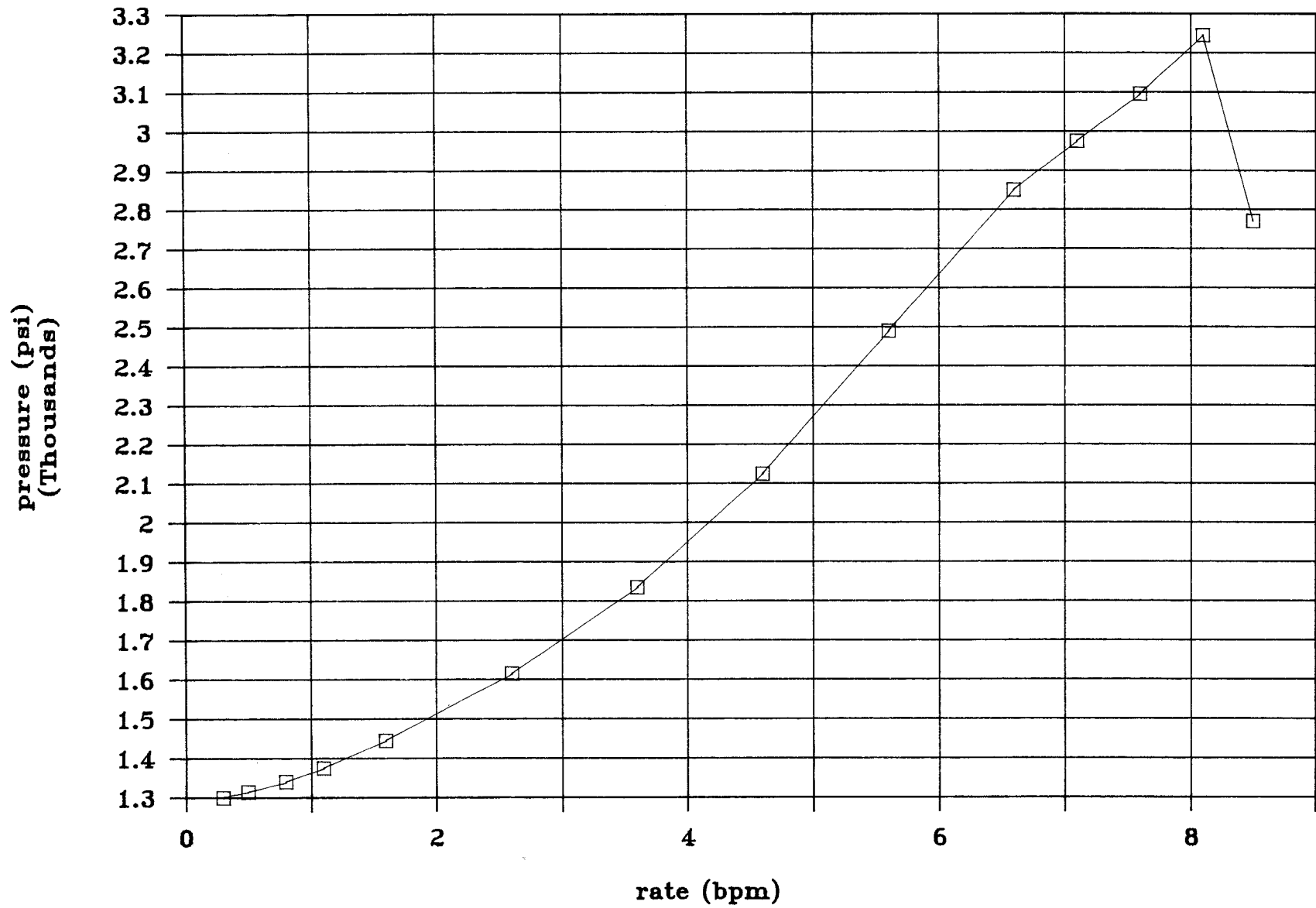
Gil Hunt  
UIC Program Manager

mfp  
0134U/48,49

N	t(hrs.)	q(b/d)	Ptf(psi)	(Pi-Ptf)/q	SUM <i>term</i>
0	0	0	1300	0	
1	0.25	-432	1300	0	-0.6019516
2	0.5	-720	1315	0.0208	-0.4213661
3	0.75	-1150	1340	0.0348	-0.3473774
4	1	-1580	1375	0.0475	-0.2685029
5	1.25	-2300	1445	0.063	-0.2498614
6	1.5	-3740	1615	0.0842	-0.2762738
7	1.58	-5180	1835	0.103	-0.4520724
8	2	-2650	2125	0.311	0.2479609
9	2.5	-4030	2490	0.295	0.1115976
10	3	-4750	2865	0.33	0.1838518
11	3.5	-5110	2975	0.328	0.2781418
12	4	-5470	3095	0.328	0.3457244
13	4.42	-4670	3245	0.4165	0.5698012
14	4.92	-6120	2805	0.246	0.3901177

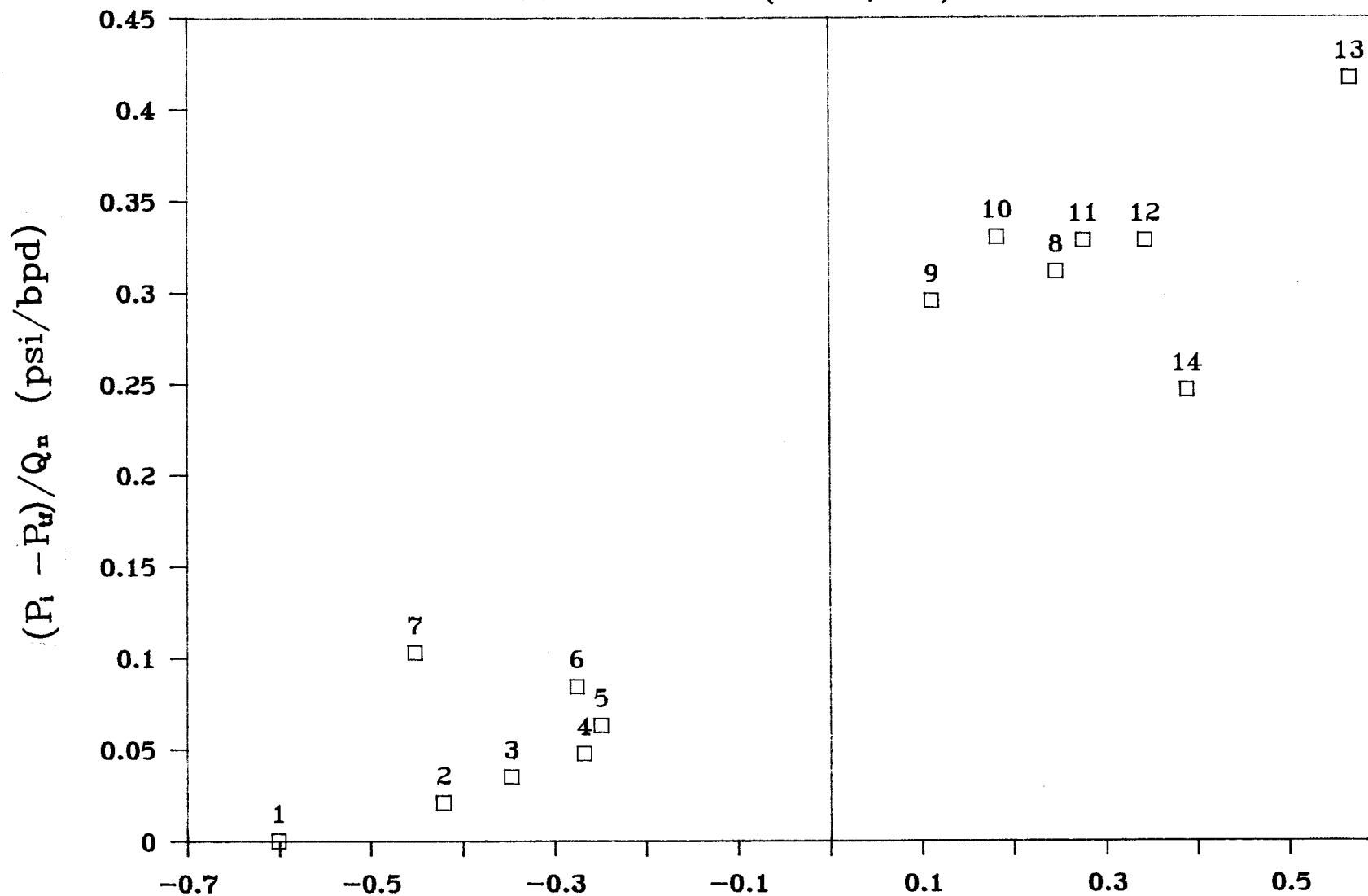
# STEP-RATE TEST (PENNZOIL 3-31A3)

2/19/87



# PENNZOIL 3-31A3

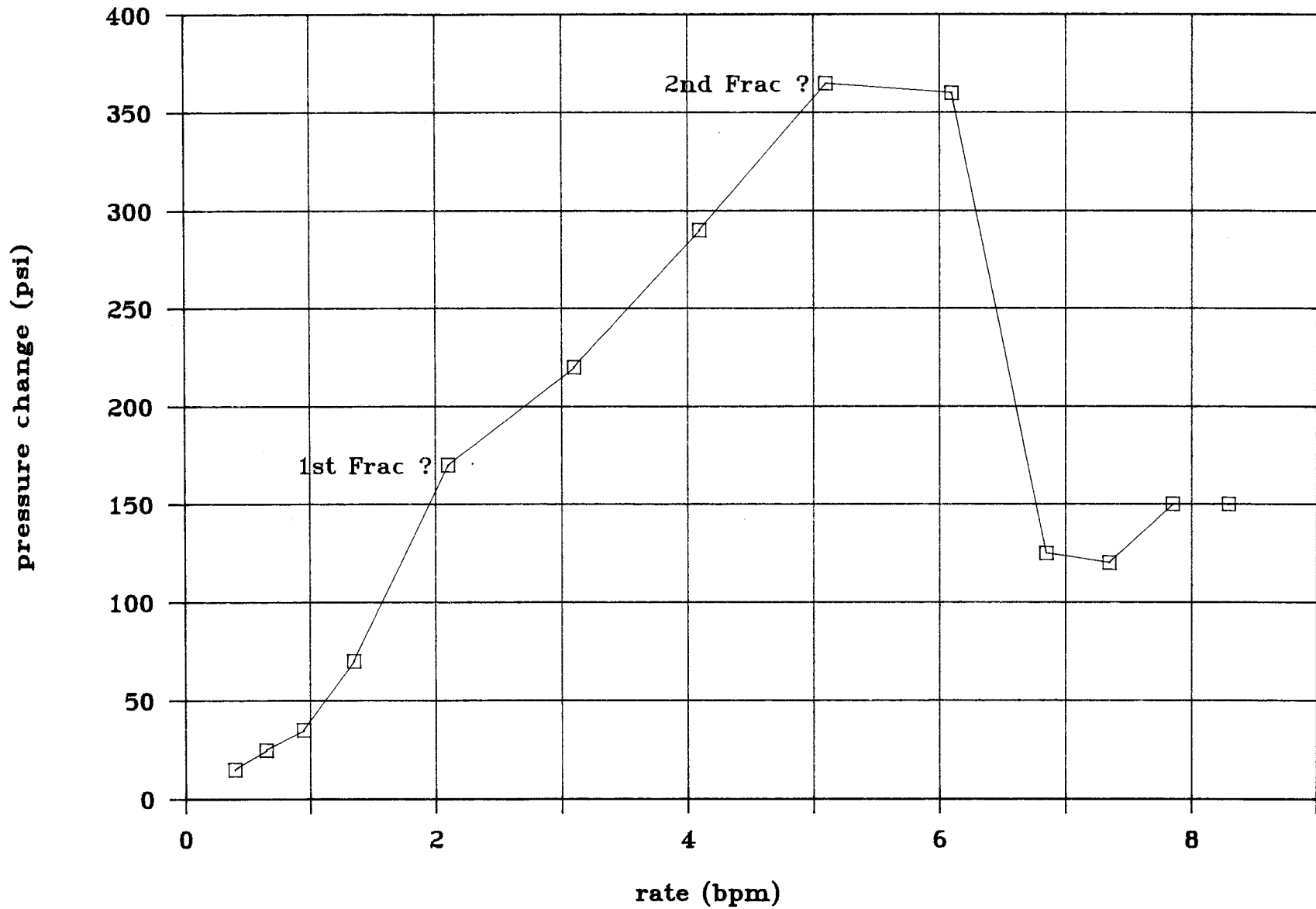
STEP-RATE TEST (FEB.19,1987)



$$\sum_{i=1}^n (Q_i - Q_{(i-1)}) / Q_n * \text{LOG}(T_n - T_{(i-1)})$$

# STEP-RATE TEST (PENNZOIL 3-31A3)

2/19/87



STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

INJECTION WELL - PRESSURE TEST  
\*\*\*\*\*

3:00 PM

TEST DATE: 11/10/87 WELL OWNER/OPERATOR: Pennzoil

DISPOSAL WELL:  ENHANCED RECOVERY WELL:  OTHER:

API NO: 43- 013-30368 WELL NAME/NUMBER: 3-31A3

SECTION: 31 TOWNSHIP: 15 RANGE: 3W

INITIAL CONDITIONS:

TUBING - rate: \_\_\_\_\_ pressure: 1500 psi

CASING/TUBING ANNULUS - pressure: 0

CONDITIONS DURING TEST:

TUBING pressure: 1500 psi for 15 minutes

CASING/TUBING ANNULUS pressure: 1000 psi

annulus pressure drop during test: 1000 psi

CONDITIONS AFTER TEST:

TUBING pressure: \_\_\_\_\_ psi

CASING/TUBING ANNULUS pressure: \_\_\_\_\_ psi

REMARKS:

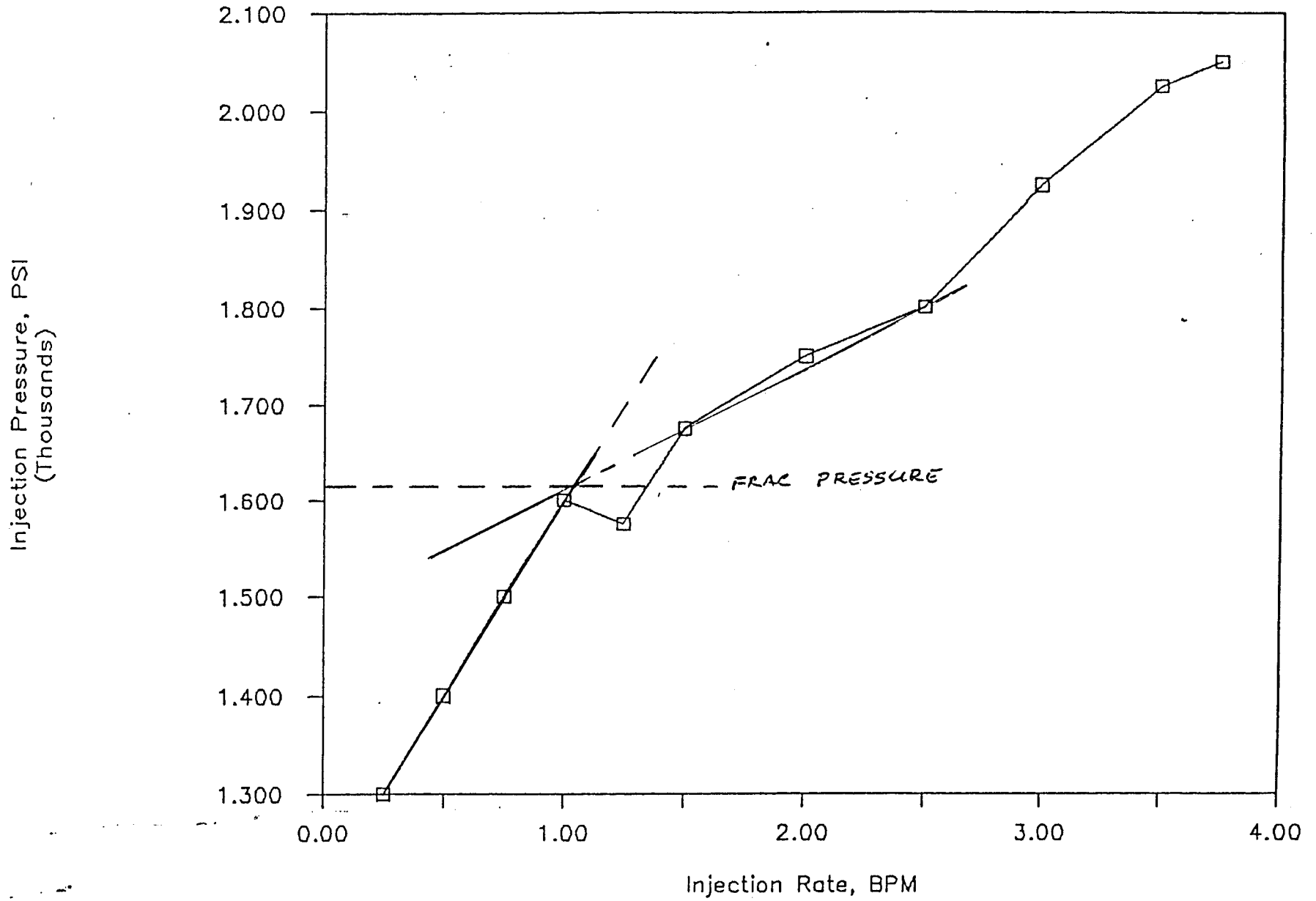
Well was pressure up twice and  
pressure bled off. Well Failed MIT  
Pennzoil was going to shut well in

Jess Dollrig  
OPERATOR REPRESENTATIVE

D. Jones  
BOGM WITNESS

# Allred 2-16A3 Salt Water Disposal

Step Rate Test, July 17, 1986







STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

November 12, 1987

Pennzoil Exploration and  
Production Company  
P O. Box 290  
Neola, Utah 84053

Dear Sirs:

Re: Mechanical Intergrity Tests

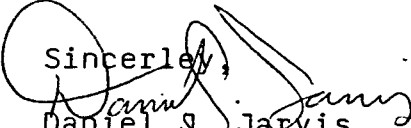
On November 10, 1987, pressure tests were conducted on six of Pennzoils' water disposal wells in the Altamont-Bluebell field, Duchesne County, Utah. The tests were witnessed by Mr. Jess Dolnig of Pennzoil and myself. The following five wells demonstrate adequate mechanical intergrity:

1. Lenorard Boren Fee 1-11A2
2. SWD 1-3A2
3. Bluebell SWD 2-28A<sup>2</sup>
4. C D SWD 2-26A2
5. SWD 2-10B1

The SWD 3-31A8 Well located in Section 31, Township 1 South, Range 3 West was pressured up to 1000 PSI and would not hold pressure, indicating mechanical failure. Please notify this office of your plans to correct this problem.

Thank you for your cooperation. If you have any questions, feel free to contact me at (801)- 538-5340

Sincerely,

  
Daniel S. Jarvis  
UIC Geologist

bd  
0131N-1

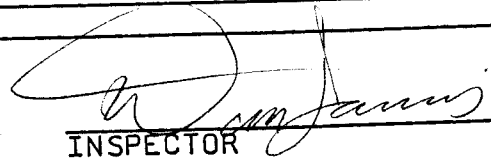
DIVISION OF OIL, GAS AND MINING  
UNDERGROUND INJECTION CONTROL PROGRAM

Pressure Test  
INSPECTION REPORT

DATE OF INSPECTION 12/15/87 TIME: ~~10:00~~ 11:20  
WELL NAME SUD 3-31A3 OPERATOR: Pennzoil  
FIELD Altamont Blue bell LEASE \_\_\_\_\_  
LEGAL DESCRIPTION: 1/4 1/4 SEC. 31 T. 15 R. 34  
COUNTY Duchess  
DISPOSAL WELL  ENHANCED RECOVERY \_\_\_\_\_ OTHER \_\_\_\_\_  
INJECTION PRESSURE 1500 @ surface  
PRESSURE CHART READING \_\_\_\_\_ ACCUMULATOR \_\_\_\_\_  
INJECTION RATE \_\_\_\_\_

REMARKS: Well was pressured up to 1000 psi  
by Ferry Hot Oil. Pressure held for 15 min  
Well passed M.T. witnessed by Jess Dobrig  
Pennzoil and myself

RECOMMENDATIONS: This well had recently sealed M.T.  
the surface casing patch had been  
welded on

  
INSPECTOR

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

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.)

RECEIVED  
DEC 21 1987

1. OIL WELL  GAS WELL  OTHER WATER DISPOSAL

2. NAME OF OPERATOR  
PENNZOIL COMPANY

3. ADDRESS OF OPERATOR  
P.O. BOX 290, NEOLA, UT 84053

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface  
1109' FNL & 964 FEL (NE NE)

14. PERMIT NO. \_\_\_\_\_ 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6416

5. LEASE DESIGNATION AND SERIAL NO. \_\_\_\_\_

6. IF INDIAN, ALLOTTEE OR TRIBE NAME \_\_\_\_\_

7. UNIT AGREEMENT NAME \_\_\_\_\_

8. FARM OR LEASE NAME  
SALT WTR DISPOSAL WELL

9. WELL NO.  
3-31A3

10. FIELD AND POOL, OR WILDCAT  
ALTAMONT - DUCHESNE RIVER

11. SEC., T., R., M., OR BLK. AND SUBVY OR AREA  
SEC 31, T15, R3W,

12. COUNTY OR PARISH  
DUCHESNE

13. STATE  
UTAH

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input checked="" type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	

(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.) \*

PLEASE SEE ATTACHED EXPLANATION.

18. I hereby certify that the foregoing is true and correct  
SIGNED Jess Gulling TITLE PETROLEUM ENGR. DATE 12-18-87  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:



**RECEIVED**  
JUN 13 1988

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

DIVISION OF  
OIL, GAS & MINING

**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.)

<p>1. <input type="checkbox"/> OIL WELL    <input type="checkbox"/> GAS WELL    <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR Pennzoil Company Utah Acct. # N0705</p> <p>3. ADDRESS OF OPERATOR P.O. Box 2967 Houston, TX 77252-2967</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface See Attached List of Wells</p>		<p>5. LEASE DESIGNATION AND SERIAL NO.</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME See Attached List</p> <p>9. WELL NO.</p> <p>10. FIELD AND POOL, OR WILDCAT Bluehell/Altamont</p> <p>11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA</p>
<p>14. API NUMBER</p>	<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.)</p>	<p>12. COUNTY OR PARISH Duchesne &amp; Uintah</p> <p>13. STATE Utah</p>

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
(Other) Operator Name Change <input checked="" type="checkbox"/>		(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.)\*

Change of operator name from Pennzoil Company to Pennzoil Exploration & Production Company, effective June 1, 1988.

See Attached List of wells

OIL AND GAS	
DRN	RJF
JRB	GLH
DTS	SLS
TAS	
0 - MICROFILM <input checked="" type="checkbox"/>	
3 - FILE <input checked="" type="checkbox"/>	

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

SIGNED Mary P. San Filippo TITLE Western Div. Production Mgr. DATE 6-9-88

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

SUNDRY NOTICE OF NAME CHANGE  
EXHIBIT A

ENTITY NUMBER	LEASE NAME	LEGAL DESC.	API #	REMARKS
\	HAMBLIN 2-26A2 SWD	1S 2W 26	4301399993	SALT WATER DISPOSAL WELL 43-013-30389 WSTC
\	SWD 1-3A2	1S 2W 3	4301399997	SALT WATER DISPOSAL WELL 43-013-30021 UNTA
\	SWD 4-11A2	1S 2W 11	4301399994	SALT WATER DISPOSAL WELL 43-013-20255 GRW
\	SWD 3-31A3	1S 3W 31	4301399995	SALT WATER DISPOSAL WELL 43-013-30368 UNTA
\	SWD 2-10B1	2S 1W 10	4301399996	SALT WATER DISPOSAL WELL 43-013-30367 UNTA
✓	Boren 4-15A2	1S 2W 15	43-013-31186	- Dr. (conf.)
✓	Reynolds 2-7B1E	2S 1E 7	43-047-31840	- Dr. (conf.)

**RECEIVED**  
JUN 13 1988

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

DIVISION OF  
OIL, GAS & MINING

**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.)

<p>1. <input type="checkbox"/> OIL WELL    <input type="checkbox"/> GAS WELL    <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR Pennzoil Company Utah Acct. # N0705</p> <p>3. ADDRESS OF OPERATOR P.O. Box 2967 Houston, TX 77252-2967</p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface See Attached List of Wells</p>		<p>5. LEASE DESIGNATION AND SERIAL NO.</p> <p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</p> <p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME See Attached List</p> <p>9. WELL NO.</p> <p>10. FIELD AND POOL, OR WILDCAT Bluebell/Altamont</p> <p>11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA</p>
<p>14. API NUMBER</p>	<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.)</p>	<p>12. COUNTY OR PARISH Duchesne &amp; Uintah</p> <p>13. STATE Utah</p>

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	FULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	
(Other) Operator Name Change <input checked="" type="checkbox"/>		(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.)\*

Change of operator name from Pennzoil Company to Pennzoil Exploration & Production Company, effective June 1, 1988.

See Attached List of wells

OIL AND GAS	
DRN	RJF
JRB	GLH
DTS	SLS
TAS	
① - MICROFILM ✓	
3 - FILE ✓	

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

SIGNED George P. San Filippo TITLE Western Div. Production Mgr. DATE 6-9-88

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

**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 water disposal

2. NAME OF OPERATOR  
Pennzoil Exploration and Production Company

3. ADDRESS OF OPERATOR  
P.O. Box 2967, Houston, TX 77252

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface  
1109' FNL, 964' FEL (NENE)

5. LEASE DESIGNATION AND SERIAL NO.  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
7. UNIT AGREEMENT NAME  
8. NAME OR LEASE NAME  
9. WELL NO.  
3-31A3

10. FIELD AND POOL, OR WILDCAT  
Altamont/Duchesne River

11. SEC., T., R., M., OR BLM. AND SURVEY OR ARDA  
Section 31, T1S, R3W

12. COUNTY OR PARISH  
Duchesne

13. STATE  
UT

14. PERMIT NO.  
43-013-99995-00 30308

15. ELEVATIONS (Show whether of, to, or, etc.)  
KB 6416

**RECEIVED**  
NOV 30 1989  
DIVISION OF OIL, GAS & MINING

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

(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.)

SUMMARY OF STIMULATION TREATMENT PERFORMED 11/14/89

RU Dowell and treated disposal perms 3576-4660' down 2-7/8" tbg with 5000 gallons xylene with 1000 ball sealers. Avg injection rate, 4 BPM @ 2000 psi. Observed no ball action. Flowed back 500 bbls of xylene and water. Treated perms with 10,000 gallons 15% HCL with 1000 ball sealers. Avg injection rate, 7 BPM @ 2400 psi. Observed slight ball action. Flowed back 450 bbls acid water and formation water. Returned well to disposal service 11/15/89.

OIL AND GAS	
DRN	RJF
JRB	GLH ✓
DTS	SLS
2-TAS	
MICROFILM	
3-UIC FILE	

UIC	
GLH ✓	
DJJ ✓	
BGH	
COMPUTER ✓	
MICROFILM	
FILE	

Jess Dullnig  
11/15/89

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

SIGNED Ralph G. Well TITLE Supervising Engineer DATE 11-27-89

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CORRECTIONS OF APPROVAL, IF ANY: \_\_\_\_\_





State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Lovvitt  
Governor

Ted Stewart  
Executive Director

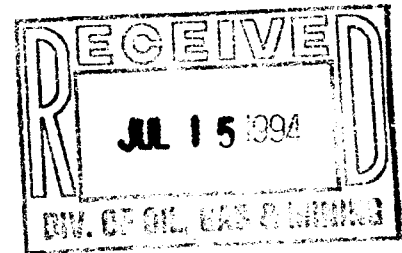
James W. Carter  
Division Director

355 West North Temple  
3 Trid Contor, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

RECEIVED  
JUL 7 1994  
FIELD OFFICE

June 30, 1994

Pennzoil  
P.O. Box 290  
Neola, Utah 84053



Re: Pressure Test for Mechanical Integrity, Boran Fee 4-11A2, SWD 1-3A2 and the 3-31A3, Injection Wells, Located in Duchesne County, Utah

Gentlemen:

The Underground Injection Control Program which the Division of Oil, Gas and Mining (DOGM) administers in Utah, requires that all Class II injection wells demonstrate mechanical integrity. Rule R649-5-5.3 of the Oil and Gas Conservation General Rules requires that the casing-tubing annulus above the packer be pressure tested at a pressure equal to the maximum authorized injection pressure or 1,000 psi, whichever is lesser, provided that no test pressure is less than 300 psi. This test shall be performed at least every five year period beginning October, 1982. Our records indicate the above referenced wells are due for testing. Please make arrangements and ready the well for testing during the week of July 18, 1994 as outlined below:

1. Operator must furnish connections, and accurate pressure gauges, hot oil truck (or other means of pressuring annulus), as well as personnel to assist in opening valves etc.
2. The casing-tubing annulus shall be filled prior to the test date to expedite testing, as each well will be required to hold pressure for a minimum of 15 minutes.
3. If mechanical difficulties or workover operations make it impossible for the wells to be tested on this date the tests may be rescheduled.



Page 2  
Pressure Test  
June 30, 1994

4. Company personnel should meet DOGM representatives at the field office or other location as negotiated.
5. All bradenhead valves with exception of the tubing on the injection wells must be shut in 24 hours prior to testing.

Please contact Dan Jarvis at (801)538-5340 to arrange a meeting time and place or negotiate a different date if this one is unacceptable.

Sincerely,



Gil Hunt  
UIC Program Manager

ldc  
Attachment  
WOI52



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

June 30, 1994

Pennzoil  
P.O. Box 290  
Neola, Utah 84053

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UIC Program Manager

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Gil Hunt  
UIC Program Manager

ldc  
Attachment  
WOI52

 **PENNZOIL EXPLORATION AND PRODUCTION COMPANY**

*Interoffice correspondence*

July 13, 1994

**TO:** File

**FROM:** Jess Dullnig

**SUBJECT:** State of Utah -  
Department of Natural Resources, Division of Oil, Gas & Mining  
Mechanical Integrity Testing of Pennzoil's SWD wells

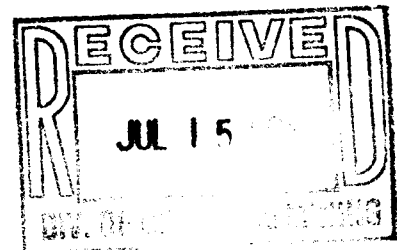
On 6-30-94, the State of Utah sent Pennzoil a letter requesting that we schedule Mechanical Integrity Tests (annular pressure tests) at three of our company operated SWD wells in the Bluebell-Altamont Field. A copy of the letter is attached. The three wells in question are listed below:

SWD 1-3A2	30021
SWD 4-11A2	20255
SWD 3-31A <del>2</del> 3	30368

On 7-13-94, I phoned the State representative, Dan Jarvis, and reminded him that successful Mechanical Integrity Tests were conducted at all three wells in July of 1992 as per EPA requirements. He said the State would accept the EPA's results and would not require new tests at this time. I thanked Dan and mailed him copies of the EPA tests on 7-13-94.

*Jess Dullnig*

pc Joel Pettit - Pennzoil, Neola, Utah  
Dan Jarvis - State of Utah, Salt Lake City, Utah





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500  
DENVER, COLORADO 80202-2466

APR 20 1995

RECEIVED  
APR 25 1995  
FIELD OFFICE

Ref: 8WM-DW

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Jess Dullnig  
Pennzoil Company  
P.O. Box 290  
Neola, Utah 84053

RE: UNDERGROUND INJECTION CONTROL (UIC)  
Approval of P & A Plans  
Bennion #1-25A4 (EPA #2662-02718)  
Altamont #3-31A3 (EPA #2663-02719)  
Duchesne County, Utah

Dear Mr. Dullnig:

We received your proposed plugging and abandonment plans for the Bennion #1-25A4 and Altamont #3-31A3 SWD wells on April 13, 1995. The plans have been reviewed and approved, with one exception. One additional balanced plug will be required inside the 7" casing in the Bennion #1-25A4 well. The plug is to be set from 3,800 to 3,850 feet, opposite the indicated base of possible underground sources of drinking water (USDWs).

Please contact this office prior to plugging the wells so that we can arrange to witness the operations. Within sixty (60) days of plugging each well, please complete and submit one of the enclosed Plugging Records (EPA Form 7520-13).

If you have any questions or comments concerning this letter, you may contact John Carson at (303) 293-1435. Also, please direct all correspondence to the attention of John Carson at Mail Code 8WM-DW. Thank you for your continued cooperation.

Sincerely,

Max H. Dodson  
Director  
Water Management Division

Enclosures: EPA Form 7520-13





STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

MAY 15 1995

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill new wells, deepen existing well, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT - for such proposals

6. Lease designation and Serial Number  
7. Indian Allottee or Tribe Name  
8. Unit or Communitization Agreement

1. Type of Well  
 Oil Well  Gas well  Other (specify) Water Disposal

9. Well Name and Number  
SWD 3-31A3

2. Name of Operator  
Pennzoil Company

10. API Well Number  
43-013-9995-00 or 43-013-30368-00

3. Address of Operator  
P.O. Box 290 Neola, Utah 84053

4. Telephone  
801-353-4397

11. Field and Pool, or Wildcat  
Altamont

5. Location of Well  
Footage : 1109' FNL & 964' FEL County : Duchesne  
QQ, Sec, T., R., M. : Section 31, T1S, R3W State : Utah

**CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**NOTICE OF INTENT**  
(Submit in Duplicate)

Abandonment  New Construction  
 Casing Repair  Pull or Alter Casing  
 Change of Plans  Recompletion  
 Conversion to Injection  Shoot or Acidize  
 Fracture Treat  Vent or Flare  
 Multiple Completion  Water Shut-Off  
 Other \_\_\_\_\_

Approximate Date Work Will Start 17-May-95

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

Abandonment \*  New Construction  
 Casing Repair  Pull or Alter Casing  
 Change of Plans  Shoot or Acidize  
 Conversion to Injection  Vent or Flare  
 Fracture Treat  Water Shut-Off  
 Other \_\_\_\_\_

Date of Work Completion \_\_\_\_\_

Report results of Multiple Completion and Recompletion to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form  
\* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface location and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see attached plugging proposal dated 4-12-95. Also attached is a letter from the EPA dated 4-20-95 granting approval to plug the subject well in this manner.

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 5-17-95  
BY: [Signature]

*Use fresh water treated system for mud to be left in hole.*

14. I hereby certify that the foregoing is true and correct  
Name & Signature Jess Dullnig [Signature] Title Petroleum Engineer Date 12-May-95

(State Use Only)

**SWD 3-31A3  
PROPOSED ABANDONMENT PLAN  
12-Apr-95**

*Proposed cmt in annulus* →

*Proposed 10 sx surf plug*

*Proposed cmt plug from  
270' to 370'*

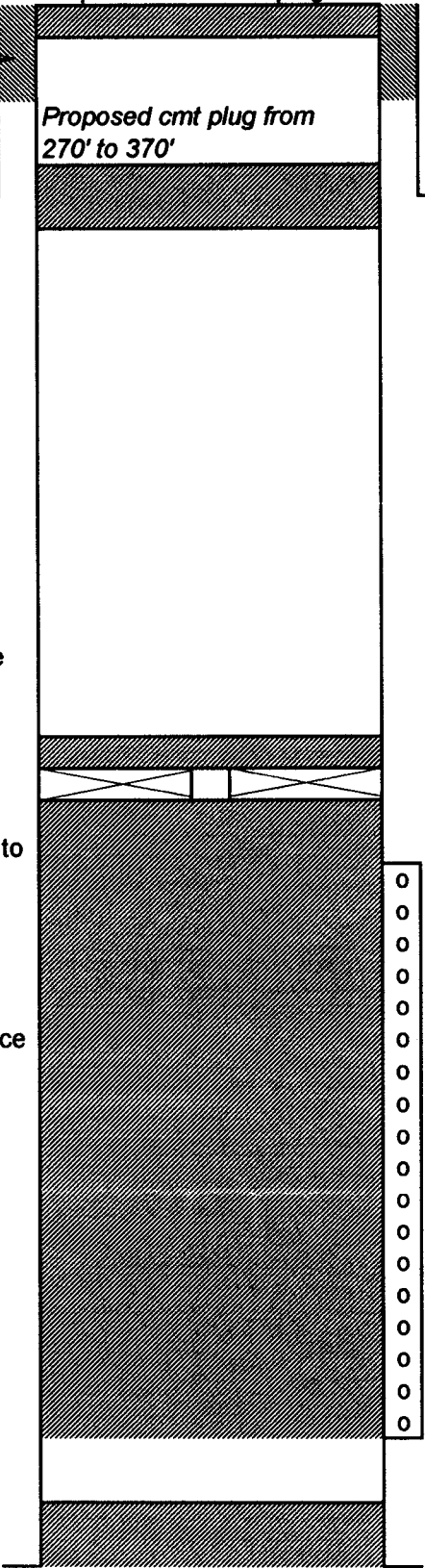
8-5/8" @ 319'  
Cemented w/ 350 sxs (circulated cmt)

**PLUGGING PROCEDURE**

- 1) Release Baker 5-1/2" AD-1 tension pkr at 3546' and POOH w/ 2-7/8" tbg and pkr.
- 2) Set 5-1/2" retainer at 3500' and squeeze disposal perfs 3576-4660' with 150 sxs Class H cmt. Cap retainer with 30' cmt.
- 3) Test 5-1/2" csg above retainer to 500 psi for 15 minutes. Isolate and repair any leaks.
- 4) Circulate hole with mud (10 ppg brine with salt gel).
- 5) Spot Class H cmt plug from 370' to 270' (across surf csg shoe).
- 6) Fill 10-3/4" x 7' annulus at surf with Class H cmt.
- 7) Spot 10 sxs Class H cmt at surface and install dry hole marker
- 8) Reclaim location.

FORMATION TOPS	
Duchesne River	Surface
Uinta	3260'
TD	4800' (in Uinta)

*Proposed cement retainer at 3500'  
Squeeze perfs 3576-4660' w/ 150 sxs  
Cap retainer with 30' cmt*



3576'

DISPOSAL PERFS

4660'

Current PBTD - 4700'

5-1/2", 14#, J-55 @ 4800' (DV tool at 2512')  
Cemented 1st stage with 486 sxs  
Cemented 2nd stage with 933 sxs  
(circulated cmt to surface on 2nd stage)

# Mechanical Integrity Test Casing/Annulus Pressure Test

U.S. Environmental Protection Agency  
Underground Injection Control Program, UIC Implementation Section, 8WM-DW  
999 18th Street, Suite 500, Denver, CO 80202-2466

EPA Witness: CHUCK WILLIAMS / JOHN CARSON Date 7/15/92 Time 10:25 (am/pm)  
 Test conducted by: REBEL HOT OIL SERVICE FOR PENNZOIL  
 Others present: J.C. HYDER (REBEL) AND JESS DULLNIG (PENNZOIL)

Well name SWD 3-31A3 43-013-30368/WDW EPA Number UT 02719  
 Field name ALTA MOUNT  
 Location \_\_\_\_\_ qtr qtr; 31 Section; 1S Township; 3W Range  
 Owner/Operator PENNZOIL EXPLORATION AND PRODUCTION

Time	Test #1	Test #2	Test #3
0 min	<u>550</u> psig	_____ psig	_____ psig
5	<u>550</u>	_____	_____
10	<u>550</u>	_____	_____
15	<u>550</u>	_____	_____
20	<u>550</u>	_____	_____
25	<u>550</u>	_____	_____
30 min	_____	_____	_____
35	_____	_____	_____
40	_____	_____	_____
45	_____	_____	_____
50	_____	_____	_____
55	_____	_____	_____
60 min	_____	_____	_____

Tubing press 1500 psig \_\_\_\_\_ psig \_\_\_\_\_ psig

Result (circle) Pass Fail      Pass Fail      Pass Fail

*See back of page for any additional comments & compliance followup.*

# NOTICE OF INSPECTIO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII, 999 18TH STREET - SUITE 500  
DENVER, COLORADO 80202-2405

Date: 7/15/92

Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300f et seq.).

Hour:

Firm Name: Plungel Exploration & Production Co.

Firm Address: P.O. Box 290, Neola UT 84053

REASON FOR INSPECTION:

*Witness MITS (4)  
Orientation Inspections*

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable condition of permit or rule authorization.

SECTION 1445(b) of the SAFE DRINKING WATER ACT is quoted below:

Section 1445(b)(1): Except as provided in Paragraph (2), the Administrator, or representatives of the Administrator duly designated by him, upon presenting appropriate credentials, and a written notice to any supplier of water or other person subject to (a), or person subject (A) a national primary drinking water regulation prescribed under Section 1412(B) an applicable Underground Injection Control Program, or (C) any requirement to monitor an unregulated contaminant pursuant to subsection (a), or person in charge of any of the property of such supplier or other person referred to in clause (A), (B), or (C), is authorized to enter any establishment, ... facility, or other property of such supplier or other person in order to determine whether such supplier or other person has acted or is acting in compliance with this title, including for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source. The Administrator or the Comptroller General (or any representative designated by either) shall have access for the purpose of audit and examination to any records, reports, or information of a grantee which are required to be maintained under subsection (a) or which are pertinent to any financial assistance under this title.

Chuck Williams / John Carson  
Inspector's Name & Title (Print)

Chuck Williams  
Inspector's Signature  
*John Carson*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

AUG 14 1995

<p><b>SUNDRY NOTICES AND REPORTS ON WELLS OF OIL, GAS &amp; MINING</b></p> <p>Do not use this form for proposals to drill new wells, deepen existing wells, or to ream or plug and abandoned wells. Use APPLICATION FOR PERMIT for such proposals.</p>		6. Lease designation and Serial Number	
		7. Indian Allottee or Tribe Name	
		8. Unit or Communitization Agreement	
		9. Well Name and Number	SWD 3-31A3
		10. API Well Number	43-013-30368-00
		11. Field and Pool, or Wildcat	Altamont

1. Type of Well  
 Oil Well     Gas well     Other (specify) Water Disposal

2. Name of Operator  
Pennzoil Company

3. Address of Operator  
P.O. Box 290    Neola, Utah    84053

4. Telephone  
801-353-4397

5. Location of Well  
 Footage : 1109' FNL & 964' FEL  
 QQ, Sec, T., R., M. : Section 31, T1S, R3W

County : Duchesne  
 State : Utah

**CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

**NOTICE OF INTENT**  
 (Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Approximate Date Work Will Start 17-May-95

**SUBSEQUENT REPORT**  
 (Submit Original Form Only)

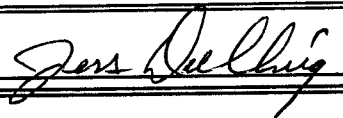
- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair            | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans          | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection  | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat           | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____              |   |

Date of Work Completion 4-Aug-95

Report results of Multiple Completion and Recompletion to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form  
 \* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface location and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see attached EPA Plugging Record for description of completed plugging information.

14. I hereby certify that the foregoing is true and correct  
 Name & Signature Jess Dullnig  Title Petroleum Engineer Date 9-Aug-95

(State Use Only)

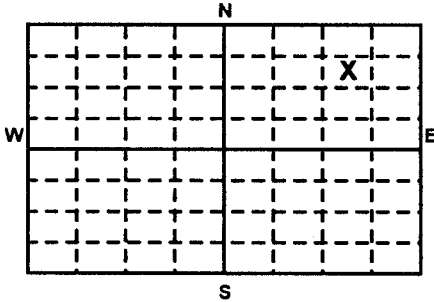
**EPA**

**PLUGGING RECORD**

NAME AND ADDRESS OF EXISTING PERMITTEE  
Pennzoil Company  
P.O. Box 290  
Neola, UT 84053

NAME AND ADDRESS OF CEMENTING COMPANY  
Dowell Schlumberger Incorporated  
1170 East Main, Box 940  
Vernal, UT 84078

LOCATE WELL AND OUTLINE UNIT ON  
SECTION PLAT - 640 ACRES



STATE **Utah** COUNTY **Duchesne** PERMIT NUMBER **UT02719**  
API No. **43-013-30368-00**

SURFACE LOCATION DESCRIPTION  
SW 1/4 OF NE 1/4 OF NE 1/4 SECTION **31** TOWNSHIP **1S** RANGE **3W**

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT  
Surface Location **1109** ft. from (N/S) **N** Line of quarter section  
and **964** ft. from (E/W) **E** line of quarter section

TYPE OF AUTHORIZATION  
 Individual Permit  
 Area Permit  
 Rule  
Number of wells \_\_\_\_\_

Describe in detail the manner in which the fluid was placed and the method used in introducing it into the hole.  
Backflowed well; H2S too high. Got verbal approval from St & EPA (John Carson) to alter procedure to eliminate need to backflow. Set 2-7/8" CIBP in tbg at 3527' above pkr. Perf'd 4 circulating holes at 3521-3525' & spotted cmt from 3525' to 3325' in 5.5" csg. Waited 48 hrs & tagged cmt at 3220'. Cut off tbg at 3162'. Tested 5.5" csg to 680 psi for 15 min., lost 15 psi. Circulated hole w/ 9.2 ppg mud, pulled end of tbg to 400' & spotted cmt from 400' to surf. Cut off wellhead, installed P&A marker. Did not pump cmt down 5.5" x 8.625" annulus because this was already done in 1987 during csg repair job.

Lease Name **SWD 3-31A3**

NOTE: All plugging operations witnessed by Mr. Dennis Ingram (St of UT, DOGM). Permission to begin job & modify plans to avoid H2S granted by Mr. John Carson (EPA) 7-31 & 8-1-95 and Mr. Frank Matthews (St of UT, DOGM) on same dates. Plugging operations took place from 8-2-95 through 8-4-95.

CASING AND TUBING RECORD AFTER PLUGGING				
SIZE	WT (LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE
8-5/8"	24		319	12-1/4"
5-1/2"	14		4800	7-7/8"
2-7/8"	6.5		384' (from 3162' to 3546')	5-1/2", 14# csg
5-1/2"	Baker AD-1 tension pkr		Packer at 3546'	5-1/2", 14# csg

WELL ACTIVITY	METHOD OF PLACEMENT OF CMT PLUGS
<input type="checkbox"/> CLASS I	<input checked="" type="checkbox"/> Balance Method
<input checked="" type="checkbox"/> CLASS II	<input type="checkbox"/> Dump Bailer
<input checked="" type="checkbox"/> Brine Disposal	<input type="checkbox"/> Two-plug Method
<input type="checkbox"/> Enhance Recovery	<input checked="" type="checkbox"/> Other (CIBP & pkr)
<input type="checkbox"/> Hydrocarbon Storage	
<input type="checkbox"/> CLASS III	

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (in.)	2-7/8" tbg	inside 5-1/2" csg	inside 5-1/2" csg				
Depth to Bottom of Tubing or Drill Pipe (ft.)		3525'	400'				
Sacks of Cement To Be Used (each plug)	2-7/8" CIBP	25	60				
Slurry Volume To Be Pumped (cu. ft.)		25	69				
Calculated Top of Plug (ft.)	3527	3325'	Surface				
Measured Top of Plug (if tagged ft.)	3527	3220'	Surface				
Slurry Wt. (Lb./Gal.)		17.0	15.8				
Type Cement or Other Material (Class III)		Class G	Class G				

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS			
From	To	From	To
3576'	4660' (perforations)		

Signature of Cementer or Authorized Representative: *J. Dullnig*  
Signature of EPA Representative: \_\_\_\_\_

**CERTIFICATION**  
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (REF. 40 CFR 122.22)

NAME AND OFFICIAL TITLE (Please type or print) <b>Jess Dullnig</b>	SIGNATURE <i>Jess Dullnig</i>	DATE SIGNED <b>9-Aug-95</b>
---	----------------------------------	--------------------------------