Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

May 6, 1980

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Sante Fe, New Mexico 87501

RE: Application of Energy Reserves Group, Inc., for permission permitting the disposal of produced water from the Pictured Cliffs Formation into the Mesa Verde Formation, Gallegos Canyon Unit.

Gentlemen:

Energy Reserves Group, Inc., presents to the Oil Conservation Commission the following applications and requests that administrative approval be granted. The following data is submitted.

A. Applicant is a working interest owner and the operator of the Gallegos Canyon Unit, West Kutz Pictured Cliffs Field, located in Township 27, 28 and 29 North, Ranges 11, 12, and 13 West, San Juan County, New Mexico.

B. The applicant desires to dispose of water produced from the Pictured Cliffs formation from the Gallegos Canyon Unit into the Mesa-Verde formation into the wellbore of the following Gallegos Canyon Unit Wells: Number 306 located 2015' FSL, 830 FEL, Sec. 19-T29N-R12W and No. 307 located 1455' FSL, 510' FWL, Sec. 30-T29N-R12W, San Juan County, New Mexico.

Applicant presents the following in support of the application:

1. Exhibit A-Plat showing the location of the proposed input wells and location of all oil and gas wells including abandoned and dry holes and the names of operators within a two mile radius of the proposed input well.

Energy Reserves Group

2. Exhibit B - Water analysis of the Pictured Cliffs water. Approximately 500 BWPD will be disposed of into well No. 306 and approximately 750 BWPD into well No. 307.

3. It is proposed to inject the produced Pictured Cliffs water into the Mesa Verde formation: in the Gallegos Canyon Unit Number 306 through perforations from 3022'-3600', and in the Gallegos Canyon Unit Number 307 through perforations from 2952'-3500'. Exhibits C and D are the log sections of well numbers 306 and 307 respectively.

4. Exhibit E - Water analysis of the water contained in the Mesa Verde formation.

5. Exhibits F-G - Schematic diagrams of the wellbores of well numbers: 306 and 307 and showing all pertinent data.

6. Injection will be through 2-3/8" steel tubing with an injection packer set at about 50 feet above the top of the injection zone. Anticipated maximum injection pressure will be 900 psig in the Mesa Verde wells. The tubing casing annulus will be filled with water containing a corrosion inhibitor, oxygen scavenger and bactericide.

7. Exhibit H - Diagramatic wellbore sketches of all wells within one half mile radius that penetrate the Mesa Verde formation adjacent to the proposed Mesa Verde injection well number 306.

8. Exhibit I - Diagramatic wellbore sketches of all wells within one half mile radius that penetrate the Mesa Verde formation adjacent to the proposed Mesa Verde injection well number 307.

Energy Reserves Group

Sincerely,
ENERGY RESERVES GROUP, INC.

Curtis J. MacIntyre

Curtis J. MacIntyre
Production Engineer
Rocky Mountain District

CJM:erl

Form C-108
Revised 3-1-68

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR	ADDRESS
Energy Reserves Group, Inc.	P.O. Box 3280 - Casper, Wyoming 82602

LEASE NAME	WELL NO.	FIELD	COUNTY
Gallegos Canyon Unit	306	West Kutz	San Juan

LOCATION

UNIT LETTER I ; WELL IS LOCATED 2015 FEET FROM THE South LINE AND 830 FEET FROM THE East LINE, SECTION 19 TOWNSHIP 29N RANGE 12W NMPM.

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	9-5/8"	32.3#	235'	250	Surface	Circ. to surface
INTERMEDIATE						
LONG STRING	7"	20# & 23#	4154'	1060	Surface	Circ. to surface
TUBING			NAME, MODEL AND DEPTH OF TUBING PACKER			

NAME OF PROPOSED INJECTION FORMATION	TOP OF FORMATION	BOTTOM OF FORMATION
Mesaverde	2863'	4077

IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?	PERFORATIONS OR OPEN HOLE?	PROPOSED INTERVAL(S) OF INJECTION
Tubing	Perforations	3022'-3600'

IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?
Yes	It also was drilled as a Fruitland producer	It will be

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

This well will be dually completed as a Fruitland producer & Mesa Verde injector

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA
approximately 100'	Pictured Cliffs @ 1463	Gallup @ 5500'

ANTICIPATED DAILY INJECTION VOLUME (BBLS.) MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	IS INJECTION TO BE BY GRAVITY OR PRESSURE?	APPROX. PRESSURE (PSI)
500	200	open	Pressure	700 psi

ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE —	WATER TO BE DISPOSED OF	NATURAL WATER IN DISPOSAL ZONE	ARE WATER ANALYSES ATTACHED?
	Yes	Yes	Yes

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)

Federal Land

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (½) MILE OF THIS INJECTION WELL

Amoco Production Company - Security Life Building - Denver, Colorado 80202

RECEIVED
MAY 08 1980
OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL	
	Yes	Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)	LOGS IN AREA	ELECTRICAL LOG	DIAGRAMMATIC SKETCH OF WELL
	Yes	Yes	Yes

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

Curtis J. MacIntyre	Production Engineer	5/7/80
(Signature)	(Title)	(Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

Form C-108
Revised 3-1-68

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR		ADDRESS	
Energy Reserves Group, Inc.		P.O. Box 3280 - Casper, Wyoming 82602	
LEASE NAME	**WELL NO.**	**FIELD**	**COUNTY**
Gallegos Canyon Unit	307	West Kutz	San Juan

LOCATION

UNIT LETTER L ; WELL IS LOCATED 1455 FEET FROM THE South LINE AND 510 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 29N RANGE 12W NMPM.

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING					
9-5/8"	32.3#	236'	275	Surface	Cemented from top
INTERMEDIATE					
LONG STRING					
7"	20# & 23#	4013'	2240	Surface	Cement to surface
TUBING		NAME, MODEL AND DEPTH OF TUBING PACKER			

NAME OF PROPOSED INJECTION FORMATION	TOP OF FORMATION	BOTTOM OF FORMATION
Mesaverde	2745'	3990'

IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?	PERFORATIONS OR OPEN HOLE?	PROPOSED INTERVAL(S) OF INJECTION
Tubing	Perforations	2952'-3500'

IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?
Yes	It is also a Pictured Cliffs producer	It will be

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

This well will be dually completed as a Pictured Cliffs producer

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA
approximately 100'	Pictured Cliffs 1416'	Gallup @ 5500'

ANTICIPATED DAILY INJECTION VOLUME (BBLS.) MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	IS INJECTION TO BE BY GRAVITY OR PRESSURE?	APPROX. PRESSURE (PSI)
300	750	open	pressure	700

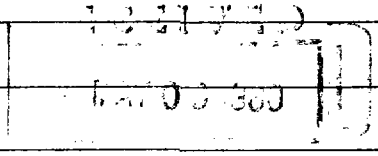
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE — WATER TO BE DISPOSED OF	NATURAL WATER IN DISPOSAL ZONE	ARE WATER ANALYSES ATTACHED?
Yes	Yes	Yes

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)

Bolack Land & Cattle Company - Farmington, New Mexico

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (½) MILE OF THIS INJECTION WELL

Amoco Production Company, Security Life Building - Denver, Colorado 80202



SANTA FE

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? SURFACE OWNER	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL
Yes	Yes

ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) PLAT OF AREA	ELECTRICAL LOG	DIAGRAMMATIC SKETCH OF WELL
Yes	Yes	Yes

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

Curtis J. MacIntyre — Production Engineer — May 7, 1980

(Signature) (Title) (Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

san juan testing laboratory, inc.

909 WEST APACHE • P. O. BOX 2079 • FARMINGTON, NEW MEXICO

PHONE: 327-9944

EXHIBIT B

Date October 6, 1976

Report to Energy Reserves Group, Inc.

Requested by T.C. Durham Sampled by Energy Reserves Group Personnel

Project GCU #123 Location Farmington, New Mexico

Source of Material Geological Formations Association, with GCU #123 - Pictured Cliffs

Lab No. 22419 Water Analysis for Petroleum Engineering

TEST RESULTS

WATER ANALYSIS FOR PETROLEUM ENGINEERING

Constituent:	
Total Solids	52,745ppm or 5.3% Salt Solu.
PH	6.8
Sp. Gravity	1.043 @ 72°F
Resistivity	0.113 ohms/meter @ 72°F
Conductivity	88,472 Micromhos/cm.
Organic Sulfides Present	

Constituents: Cations	Meq/L	ppm
Sodium	831	19,113
Calcium	48	960
Magnesium	24	287
Iron	neg.	1**
Barium	0	0

Hypothetical Combinations

Constituent	ppm
Sodium Chloride	48,580
Calcium Chloride	2,657
Magnesium Chloride	585
Magnesium Bicarbonate	918

Anions		
Chloride	890	31,600
Bicarbonate	13	780
Sulphate	neg.	4
Carbonate	0	0
Hydroxide	0	0

** In addition, a trace of iron hydroxide was present as a brown sediment.

Copies to Energy Reserves Group, Inc. (2)
Box 3280 Casper, Wyoming
Energy Reserves Group, Inc. (1)
Box 977 Farmington, New Mexico

Certified by:

TEST NO. 20030

3122

Form 360 7

EXHIBIT C

ERG Gallegos Canyon Unit Well No. 307
NE/SW Sec 30-T29N-R12W
San Juan County, New Mexico

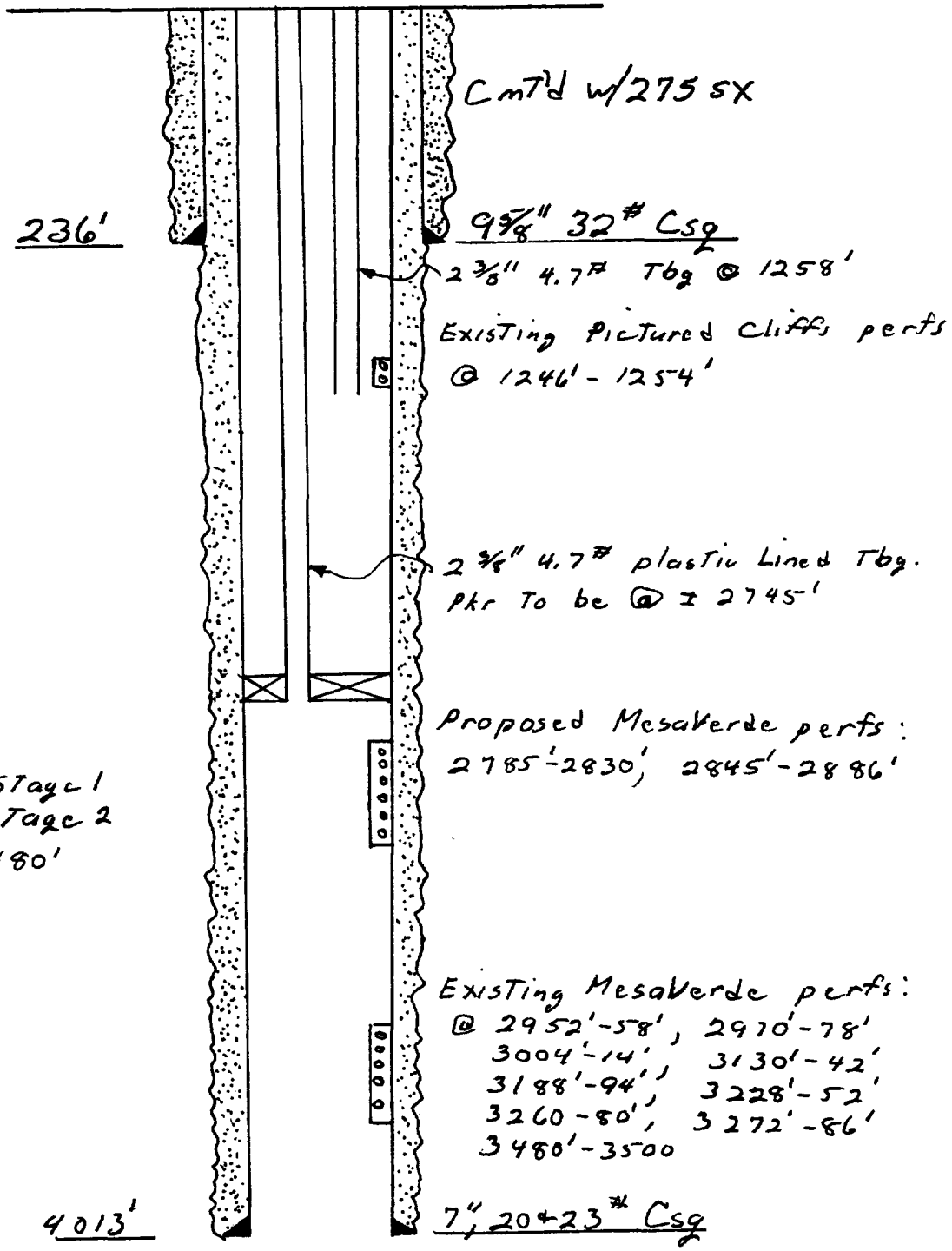


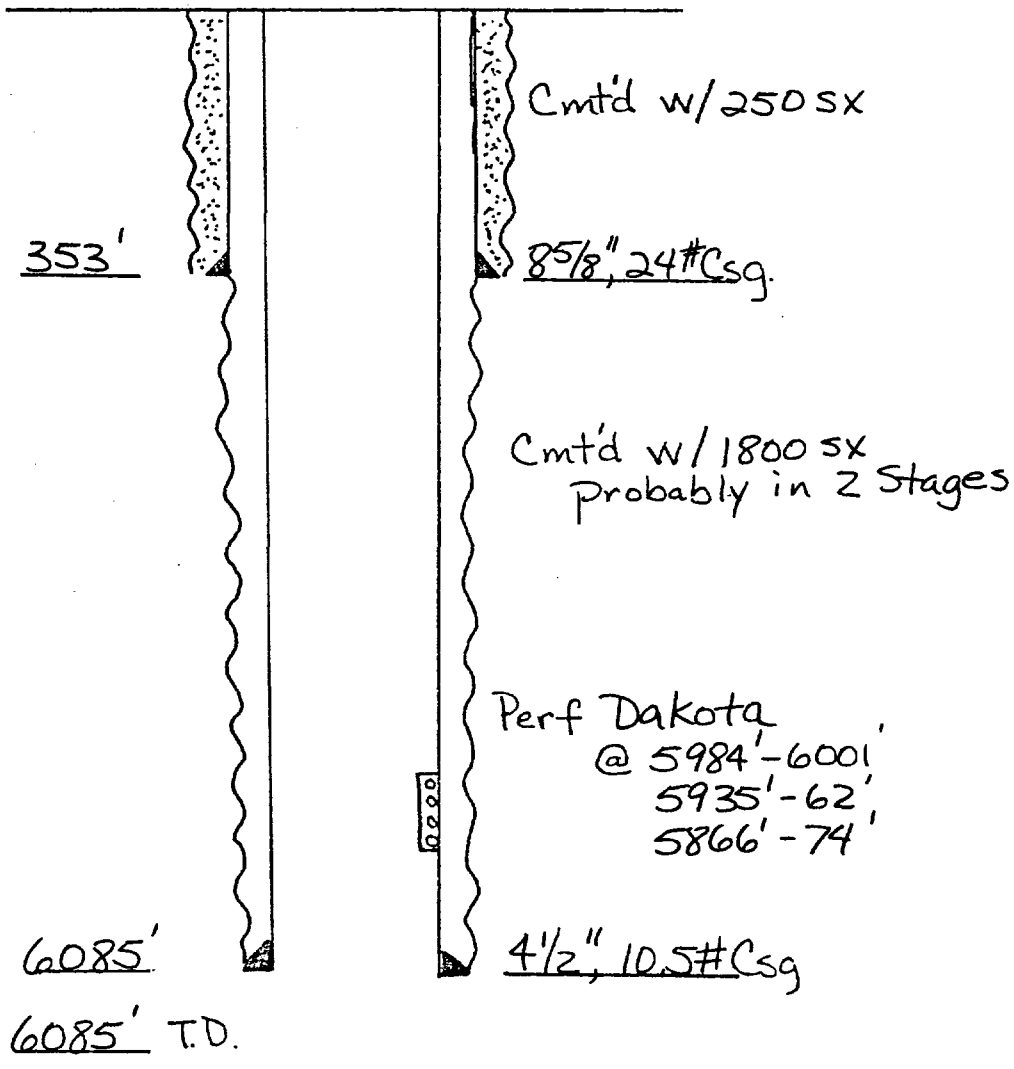
EXHIBIT H

Wellbore diagrams of wells adjacent to GCU #306

Amoco Gallegos Canyon Unit Well No. 263

NW NW Sec 20 T29N-R12W

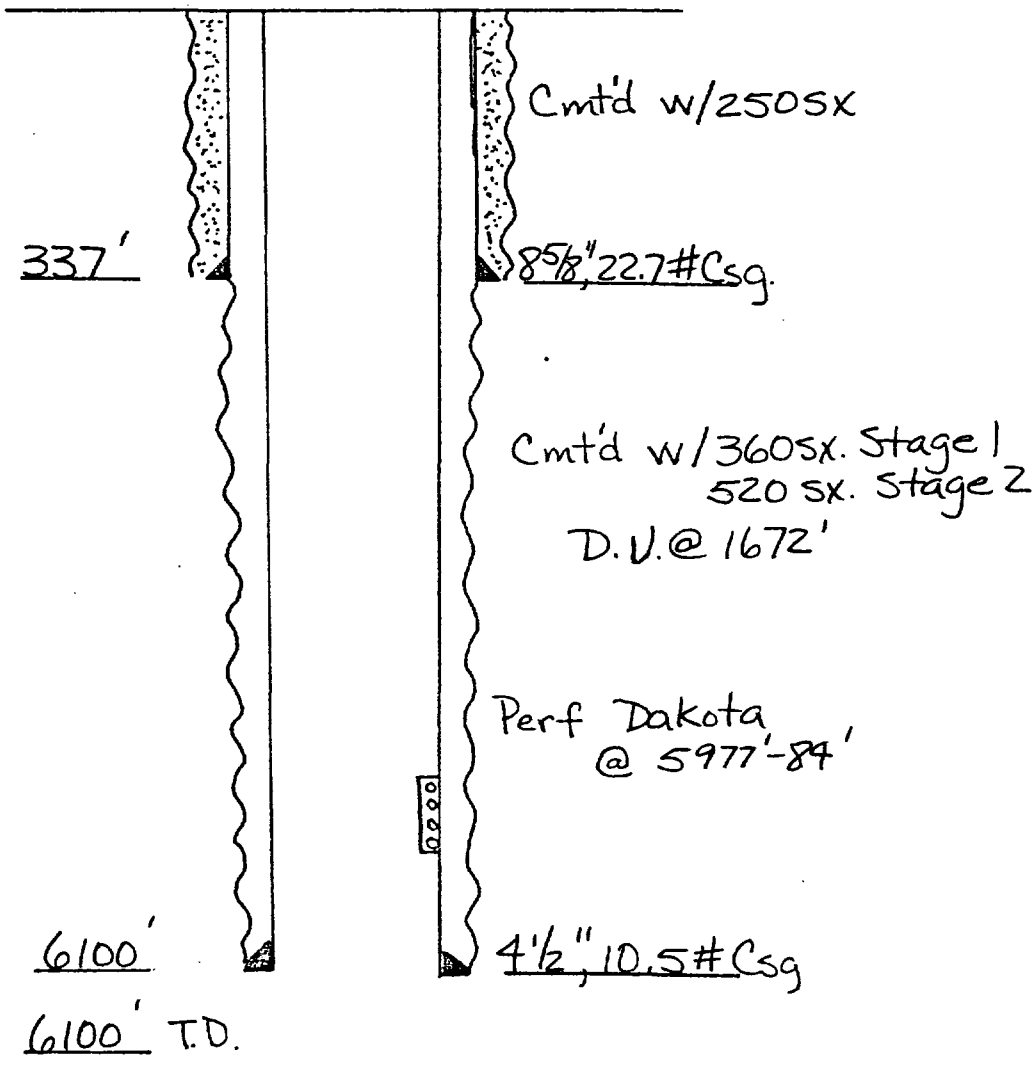
San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No. 111

NE SW Sec 20 T29N-R12W

San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No. 110

SWNE Sec 19 T29N-R12W

San Juan County, New Mexico

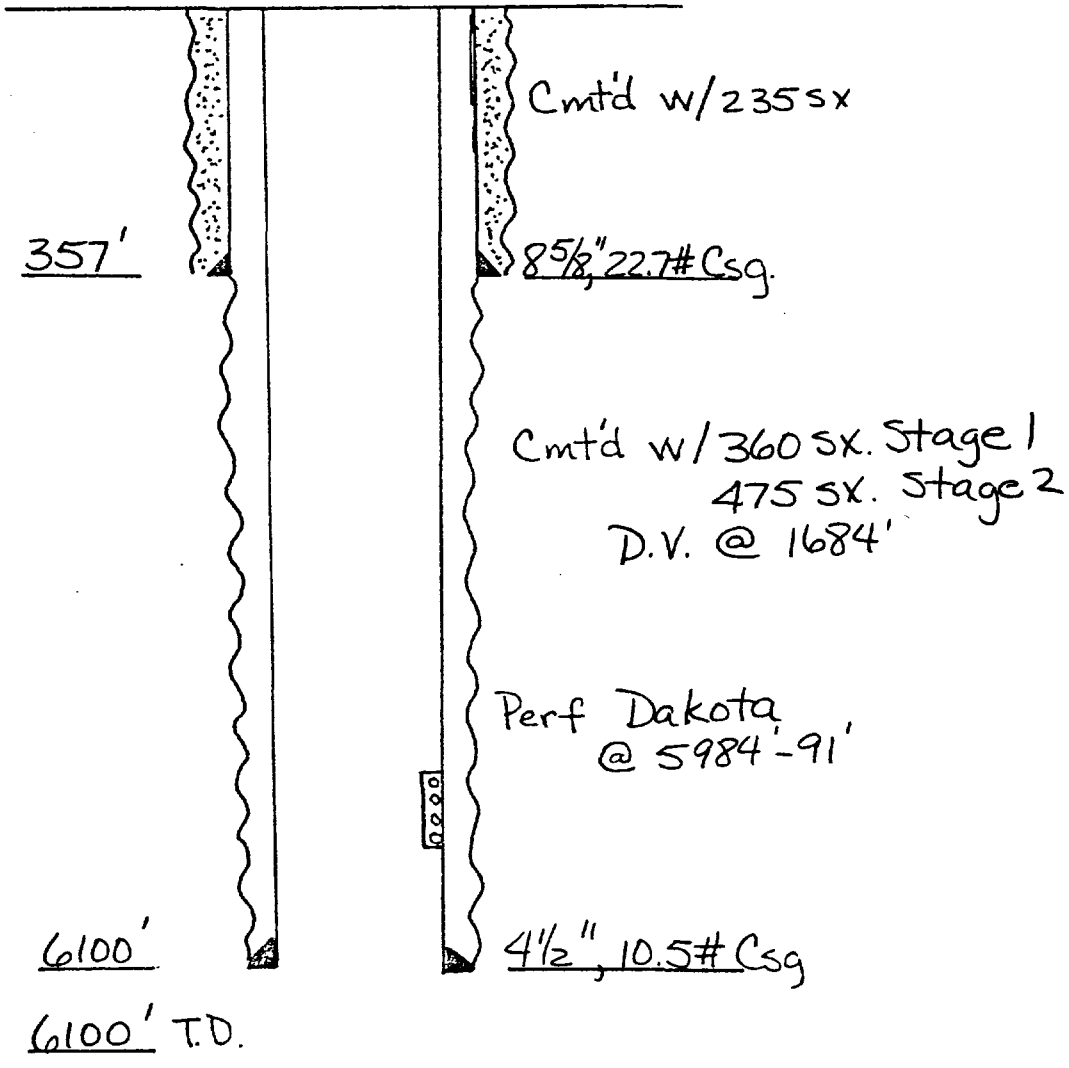


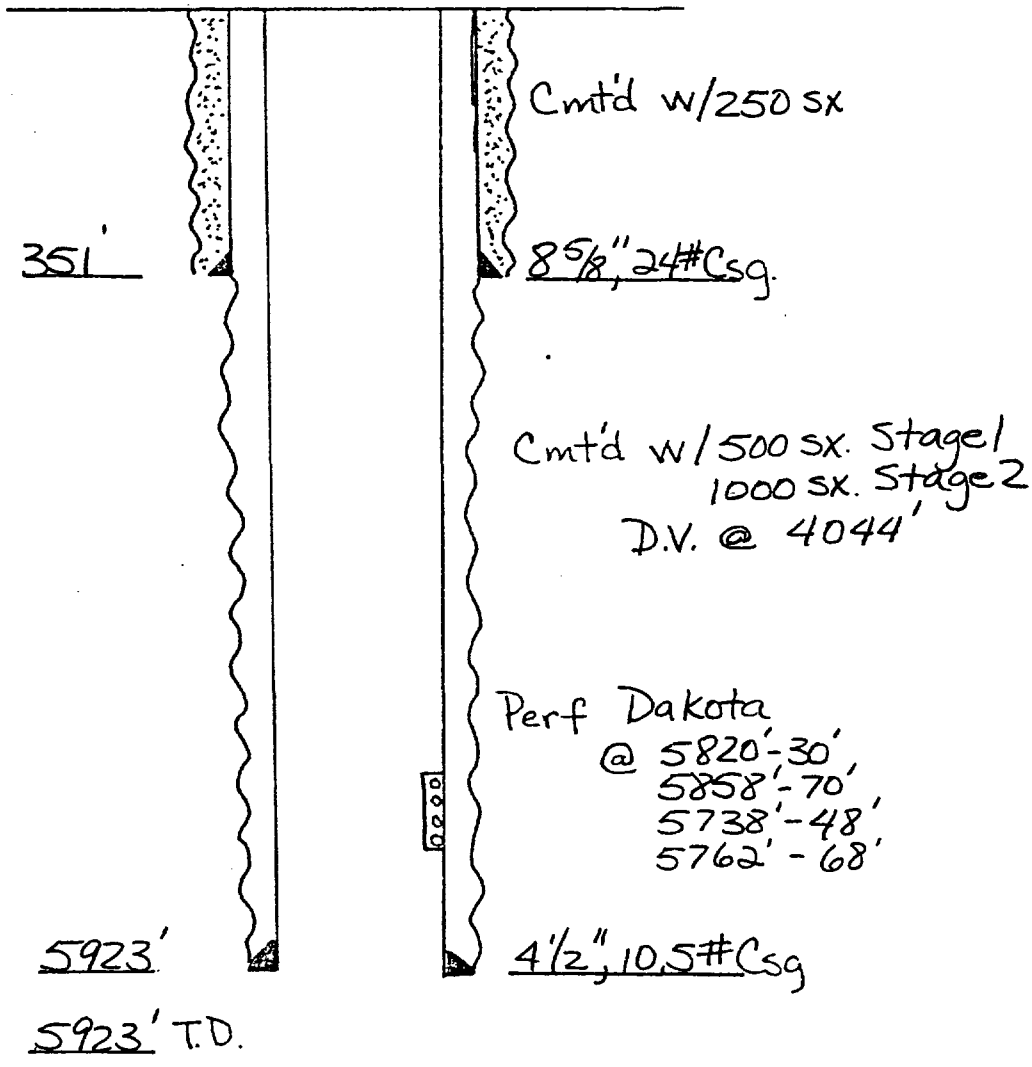
EXHIBIT I

Wellbore diagrams of wells adjacent to GCU #307

Amoco Gallegos Canyon Unit Well No. 187

SENW Sec 30 T29N-R12W

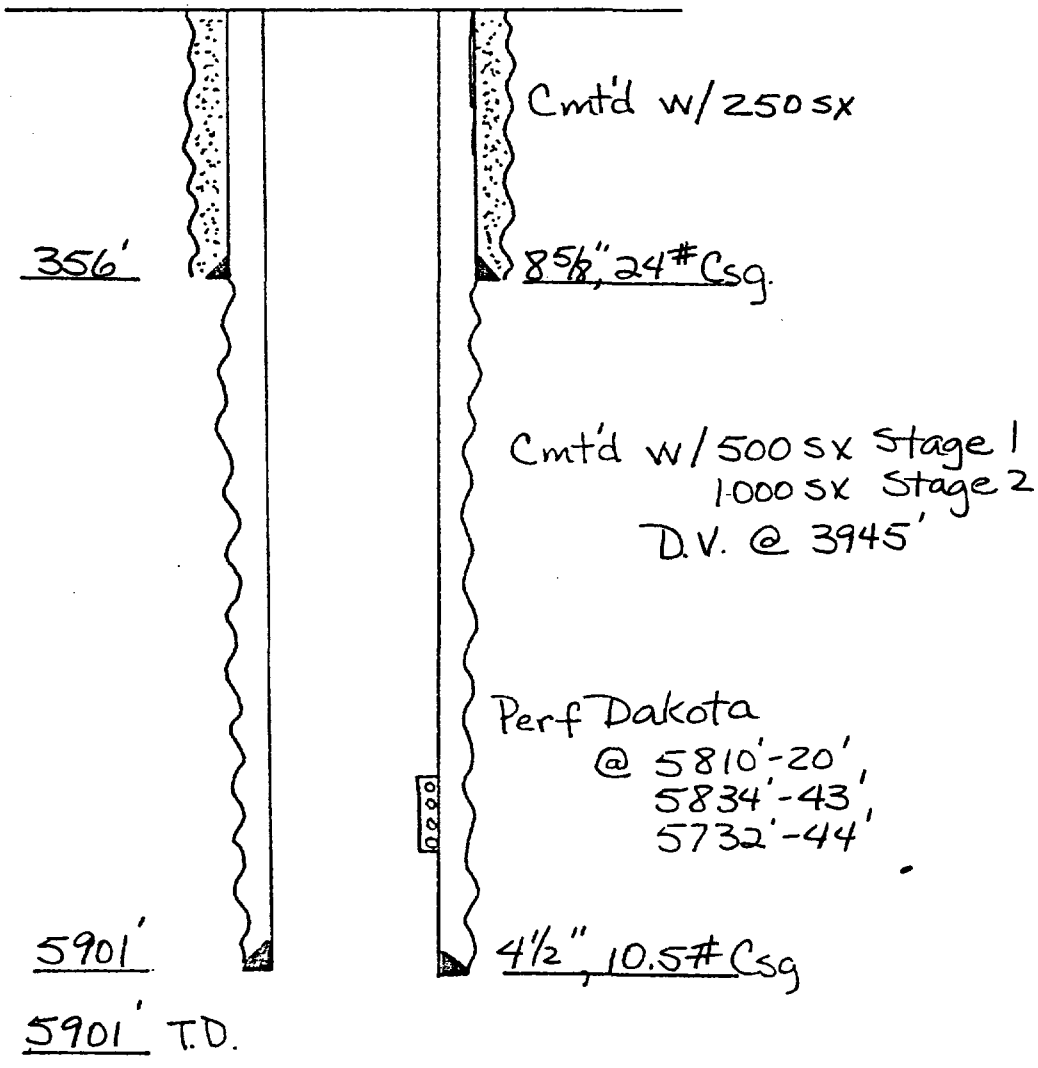
San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No. 188

NW SE Sec 30 T29N-R12W

San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No. 172

SE SE Sec 25 T29N-R13W

San Juan County, New Mexico

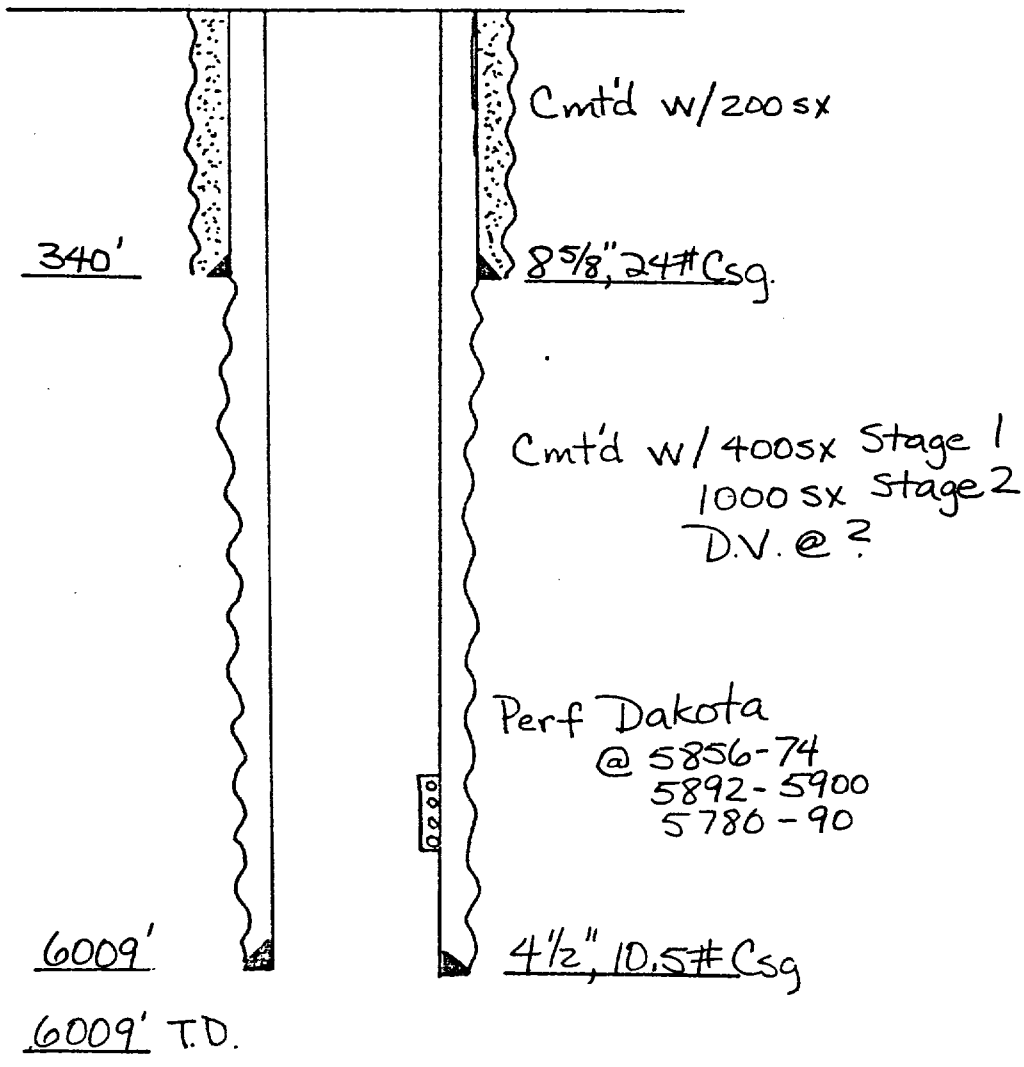


EXHIBIT F

ERG Gallegos Canyon Unit Well No. 306

NESE Sec 19 T29N-R12W

San Juan County, New Mexico

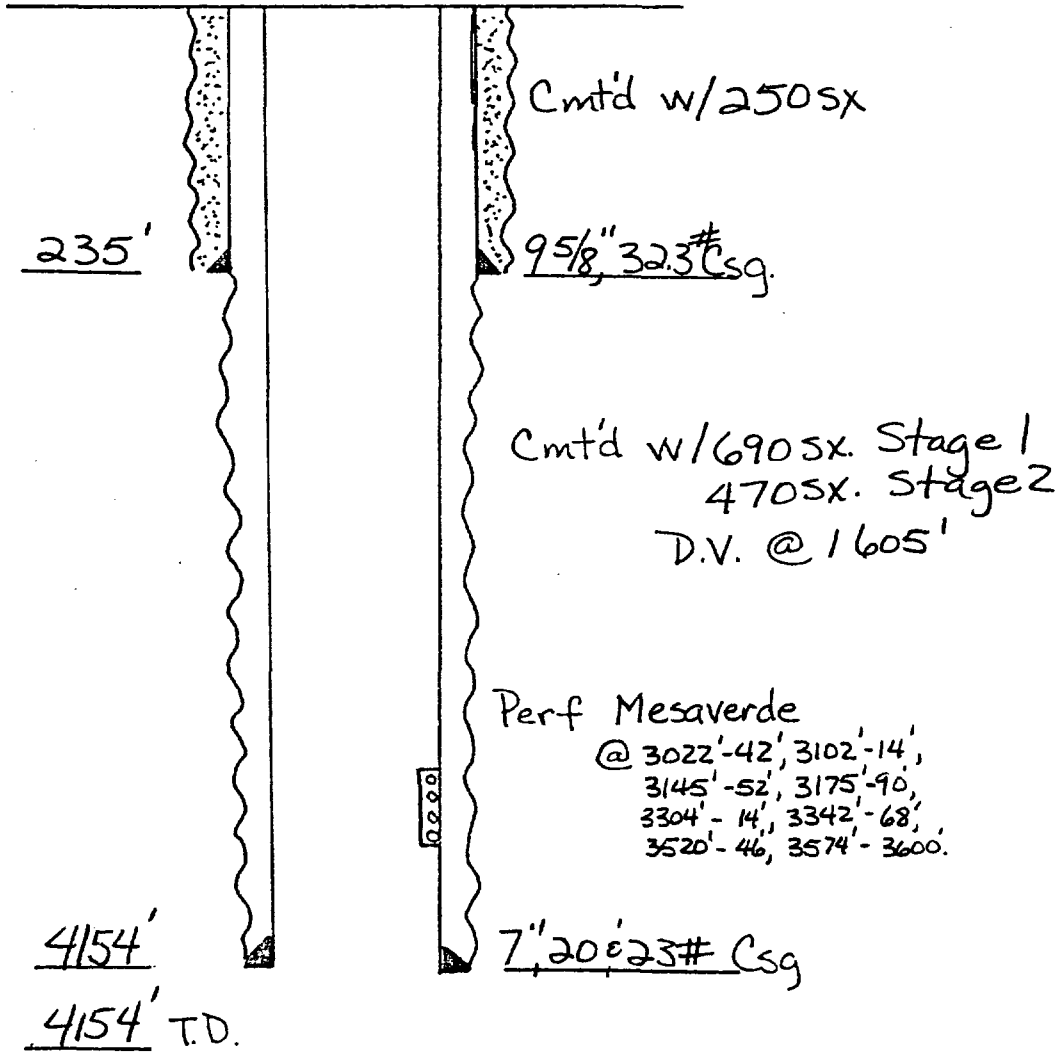
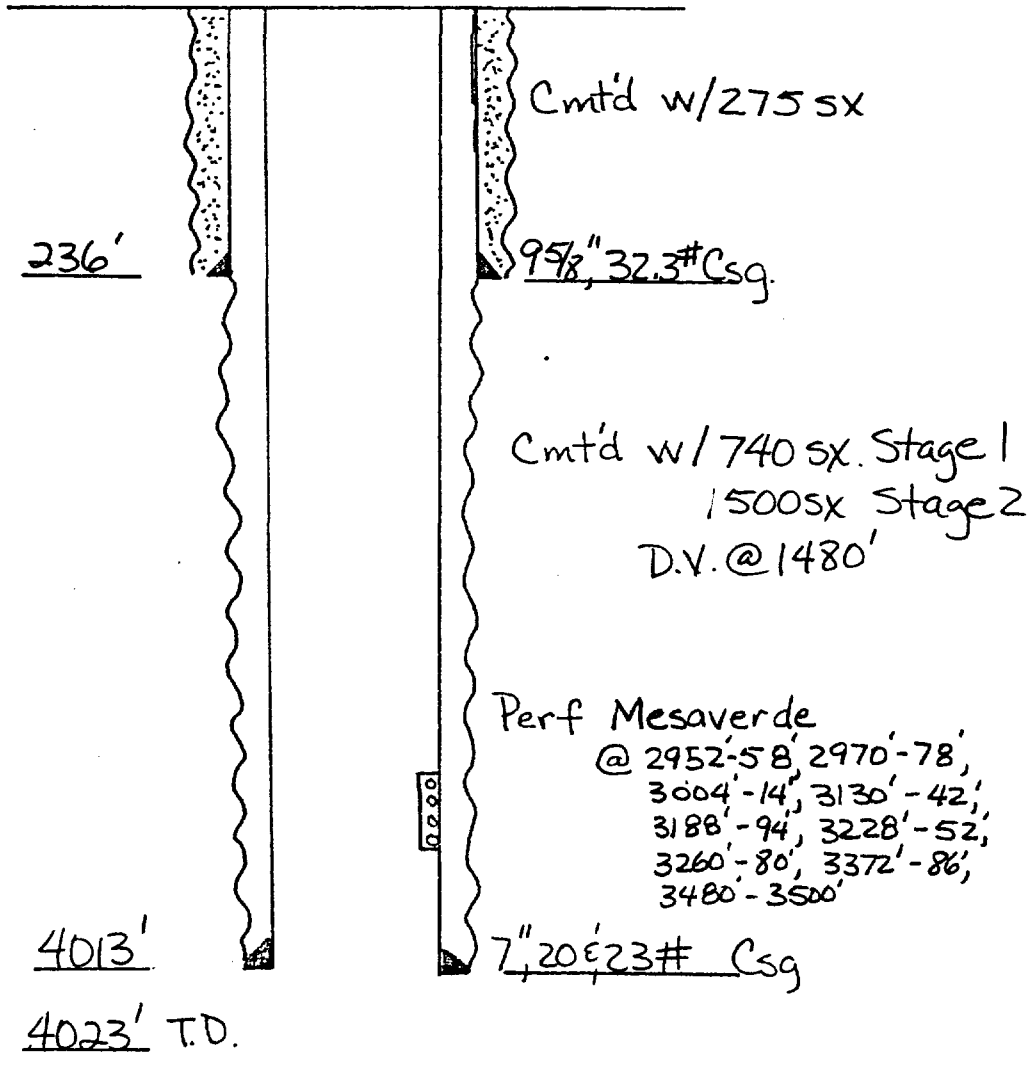


Exhibit C

ERG Gallegos Canyon Unit Well No. 307

NE SW Sec 30 T29N-R12W

San Juan County, New Mexico



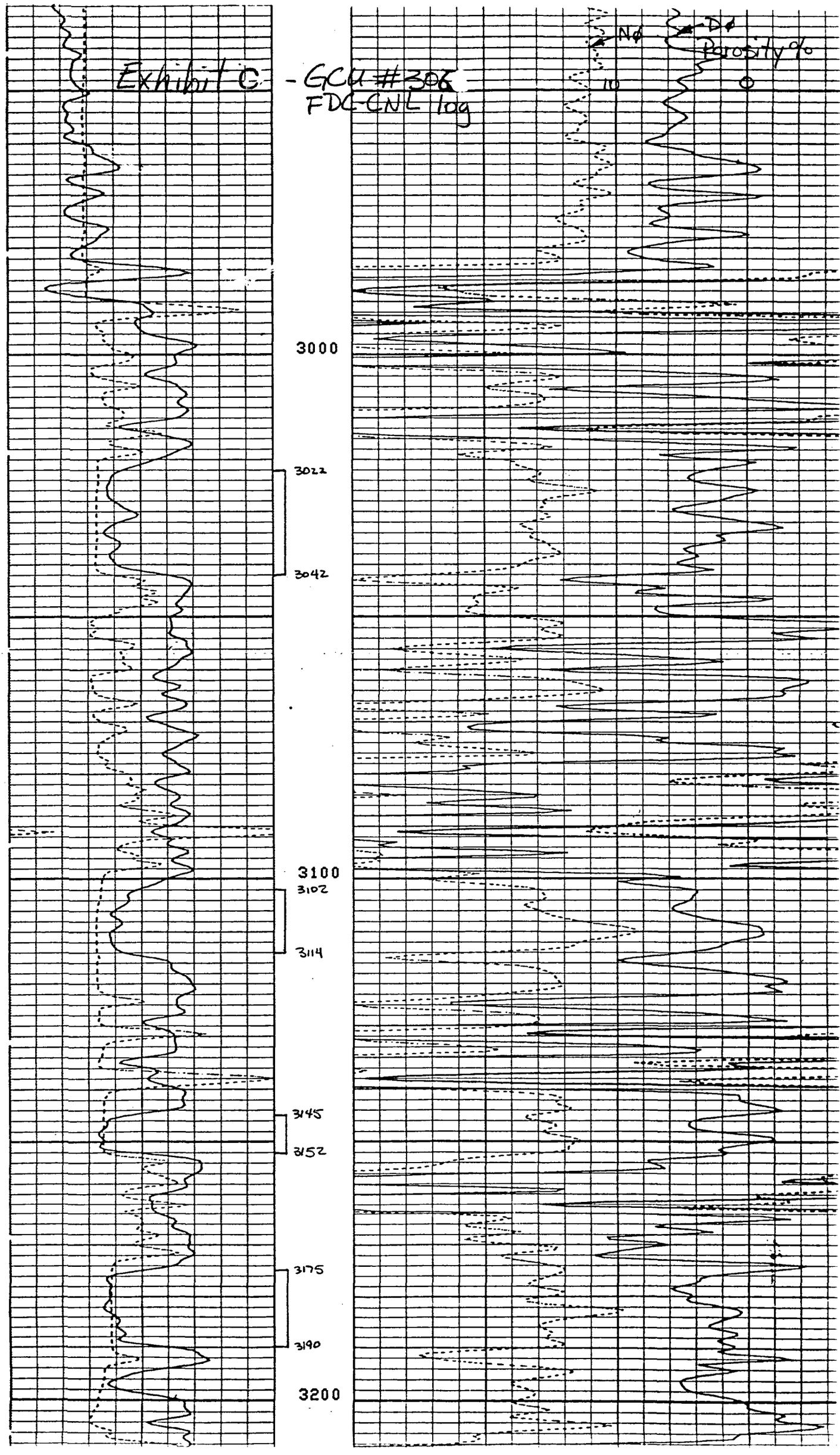
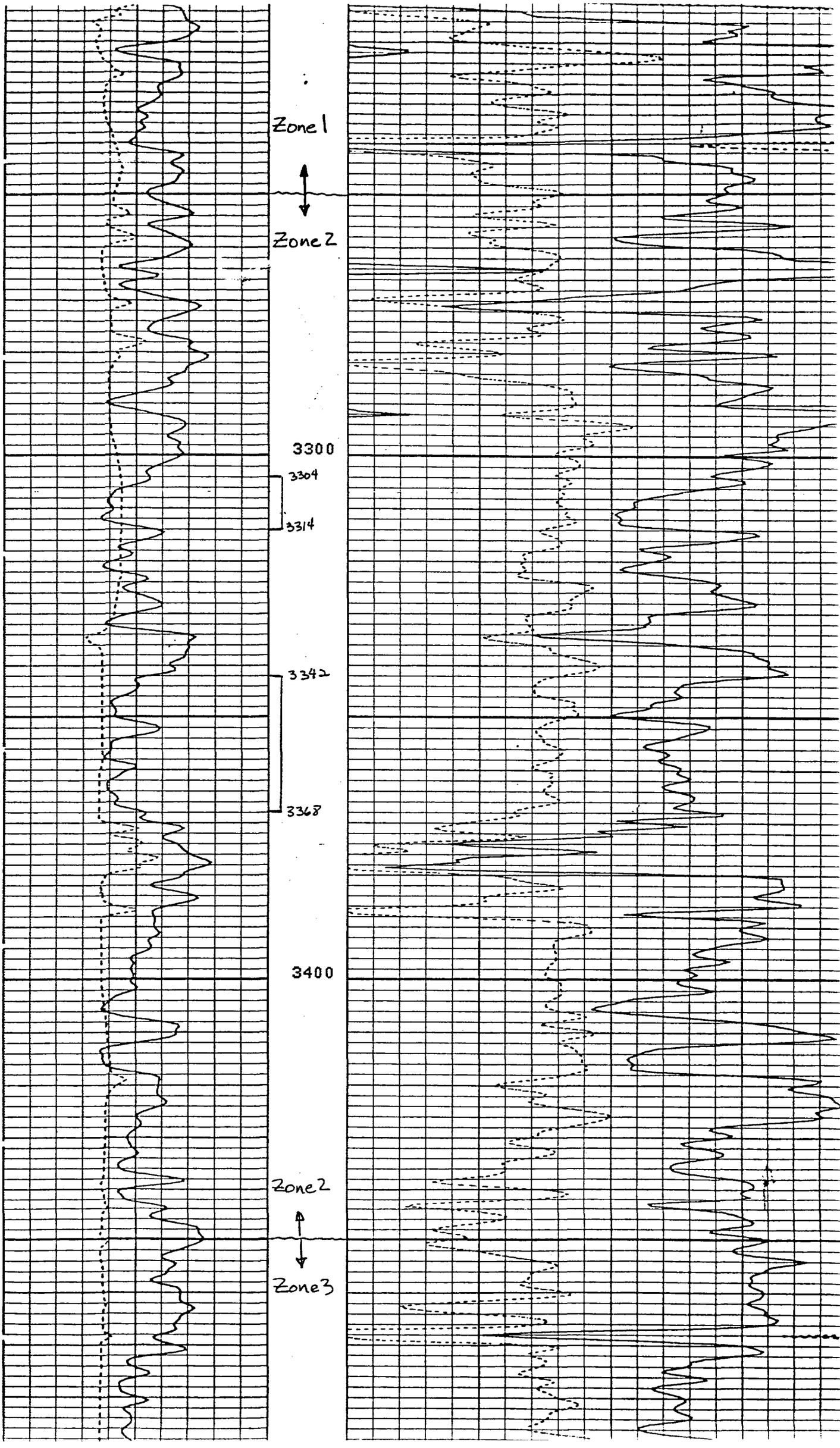
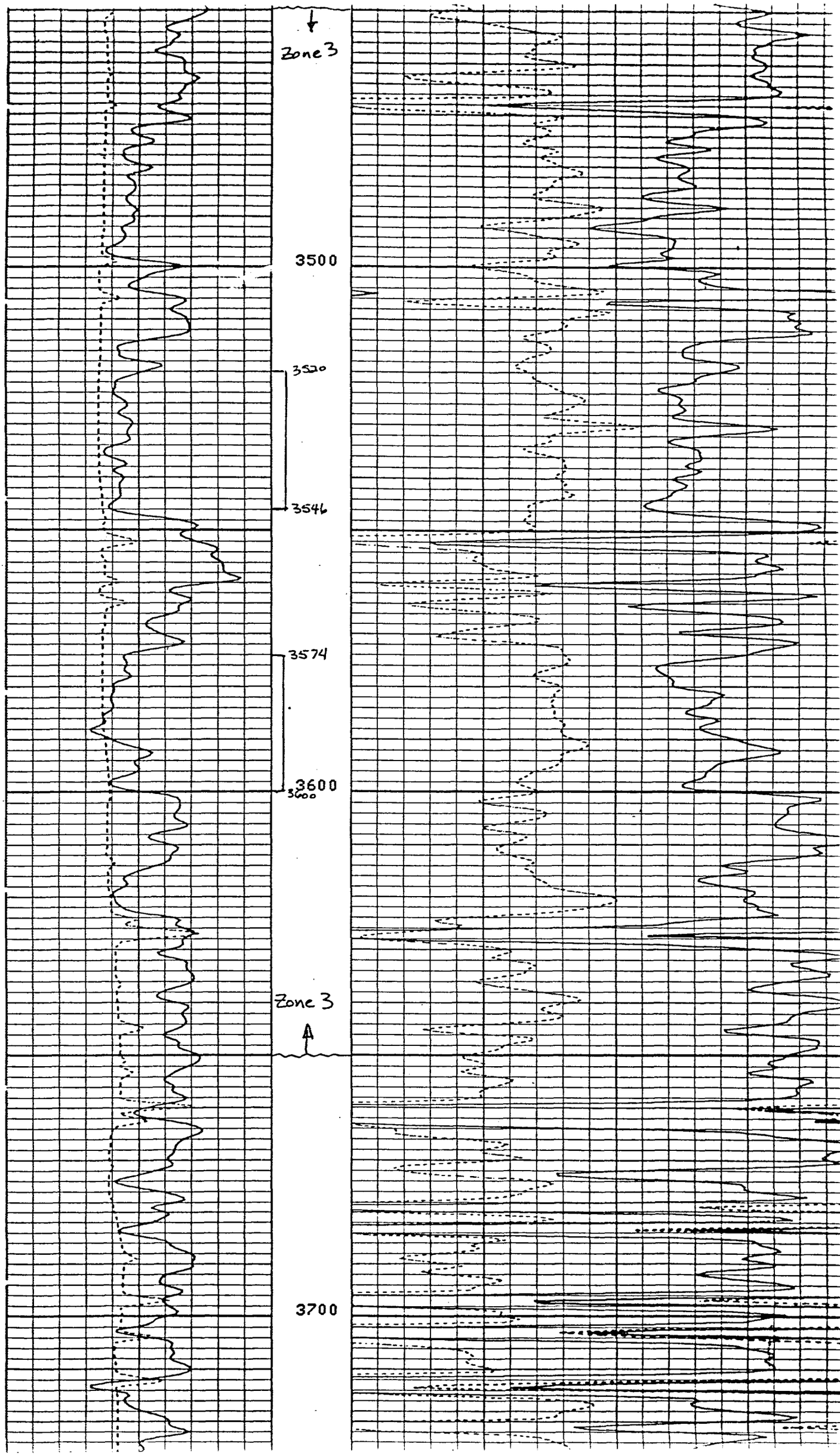


Exhibit C - GCU #306
FDC-CNL log
Nϕ
Dϕ
Porosity %
10
0
3000
3022
3042
3100
3102
3114
3145
3152
3175
3190
3200


Zone 1
Zone 2
3300
3304
3314
3342
3368
3400
Zone 2
Zone 3


Zone 3
3500
3520
3546
3574
3600
Zone 3
3700

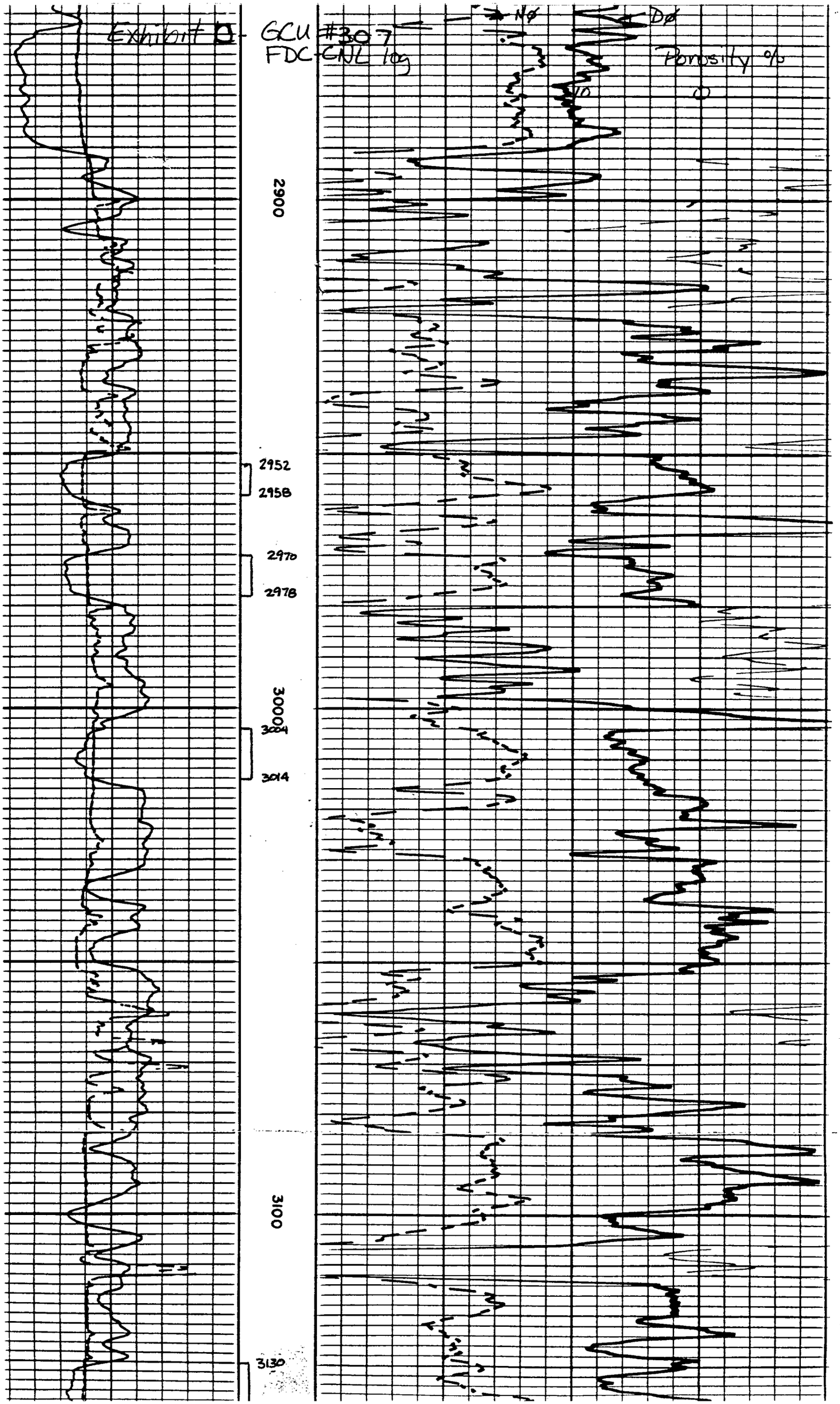
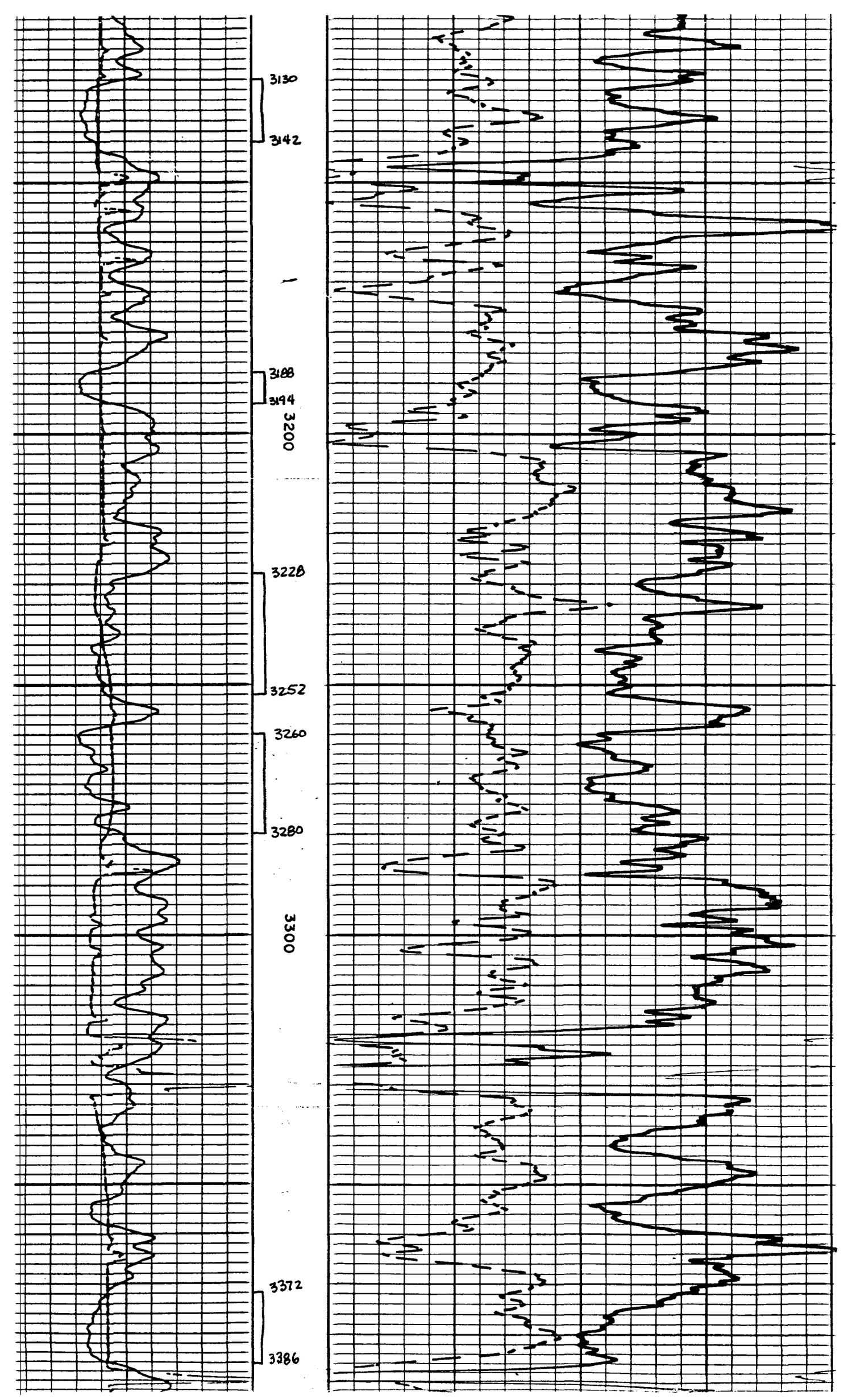
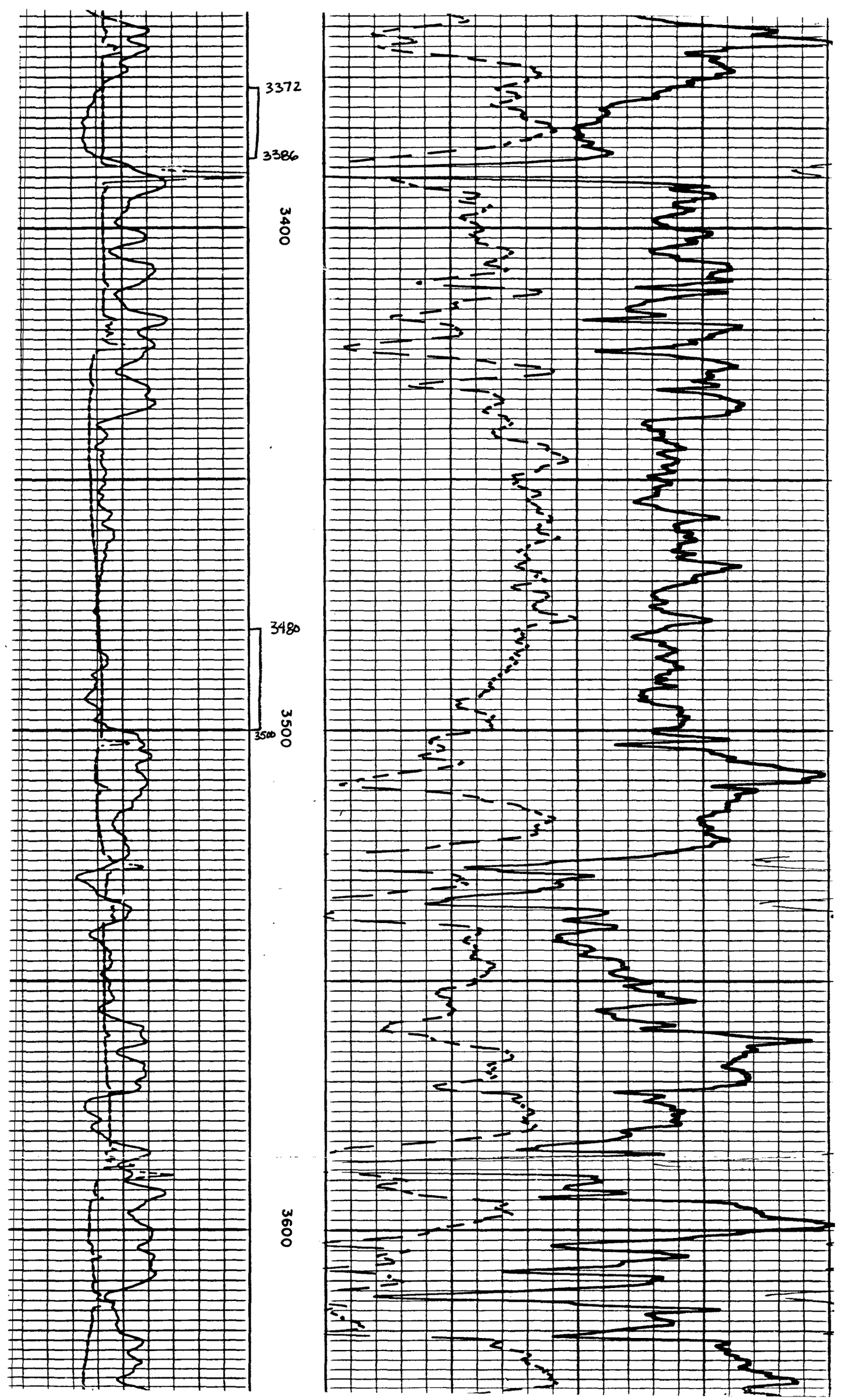


Exhibit B - GCU #307
FDC-CNL log
Nø
Dø
Porosity %
30
0
2900
2952
2958
2970
2978
3000
3004
3014
3100
3130


3130
3142
3188
3194
3200
3228
3252
3260
3280
3300
3372
3386


3372
3386
3400
3480
3500
3500
3600

LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

January 8, 1981

Energy Reserves Group
P. O. Box 3280
Casper, Wyoming 82602

Re: Injection Pressures
Gallegos Canyon Unit
Wells Nos. 306 and 307
SWD-225

Gentlemen:

After reviewing the instantaneous shut down pressures for the above mentioned wells, you are hereby authorized to inject salt water at a surface injection pressure not to exceed 1200 psig.

Yours very truly,

JOE D. RAMEY
Director

JDR/MH/fd

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

December 31, 1980

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

Subject: Request to increase injection pressure on Gallegos Canyon Unit #306 & #307 from 1000 psi to 1200 psi.

Gentlemen:

We are now limited to a surface injection pressure of 1000 psi for the above mentioned wells, as per your letter of 8-6-80. We can not obtain sufficient injection rate at this 1000 psi limit. We hereby request that the 1000 psi limit be increased to 1200 psi surface injection pressure in light of the following data:

Gallegos Canyon Unit #306
Acid treatment - Perfs 3,022'-3,190' - ISDP 1250 psi
Acid treatment - Perfs 3,306'-3,368' - ISDP 1200 psi
Acid treatment - Perfs 3,520'-3,600' - ISDP 1300 psi

Gallegos Canyon Unit #307
Acid treatment - Perfs 2,952'-3,014' - ISDP 1350 psi
Acid treatment - Perfs 3,188'-3,280' - ISDP 1200 psi
Acid treatment - Perfs 3,372'-3,500' - ISDP 1200 psi
Frac treatment - entire zone - ISDP 1400 psi

Since the instantaneous shutdown pressure for the frac treatment on GCU #307 was 1400 psi, and the instantaneous shutdown pressures for the acid treatments are very similar for both wells, it is believed that the 1200 psi limit would still be below the formation fracture pressure.

We will be spudding another disposal well for the Gallegos Canyon Unit shortly after the first of the year to dispose of excess water. This well will reduce the volume injection into #307.

Very truly yours,
ENERGY RESERVES GROUP, INC,

R.E. Schanaman
Produciton Engineer
Rocky Mountain District

RES:erl

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

December 31, 1980

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87501

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Acid treatment - Perfs 3,306'-3,368' - ISDP 1200 psi
Acid treatment - Perfs 3,520'-3,600' - ISDP 1300 psi

Gallegos Canyon Unit #307
Acid treatment - Perfs 2,952'-3,014' - ISDP 1350 psi
Acid treatment - Perfs 3,188'-3,280' - ISDP 1200 psi
Acid treatment - Perfs 3,372'-3,500' - ISDP 1200 psi
Frac treatment - entire zone - ISDP 1400 psi

Since the instantaneous shutdown pressure for the frac treatment on GCU #307 was 1400 psi, and the instantaneous shutdown pressures for the acid treatments are very similar for both wells, it is believed that the 1200 psi limit would still be below the formation fracture pressure.

We will be spudding another disposal well for the Gallegos Canyon Unit shortly after the first of the year to dispose of excess water. This well will reduce the volume injection into #307.

Very truly yours,
ENERGY RESERVES GROUP, INC,

R.E. Schanamann
Produciton Engineer
Rocky Mountain District

RES:erl

5847 San Felipe Suite 3600
Houston, Texas 77057
Telephone: (713) 780-5000
Fax (713) 780-5273
Telex 9108813603

March 11, 1991

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

BHP Petroleum
(Americas) Inc

Attention: Mr. David Catanach

RE: Administrative Amendment Request
Order No. SWD - 225
Gallegos Canyon Unit #306 (SWD)
NE¼ , SE¼ , Sec. 19, T29N, R12W
San Juan County, New Mexico

Dear Mr. Catanach:

BHP Petroleum respectfully requests that the above referenced Order be administratively amended to allow disposal of water produced from the Fruitland Coal formation along with the Pictured Cliffs produced water into the Mesaverde formation.

I recently discussed with you over the phone my written request of February 28, 1991, concerning BHP Petroleum's desire to increase the perforation density in the subject well. I appreciated your verbal approval to do the requested work conditioned by reducing the surface injection pressure back to 600 psi.

It now has come to my attention that the subject well is the closest salt water disposal well to some of our recently completed Fruitland Coal wells.

I've enclosed several water analyses representative of the water produced from our coal wells. I've also enclosed representative analysis of the water from the Mesaverde formation.

As you will notice the quality of the water produced from both the Pictured Cliffs and Fruitland Coal formations are quite similar.

Your earliest review and response would be greatly appreciated.

Please don't hesitate to call me at (713) 780-5448, if you have any questions or need any additional information.

Sincerely,

Melissa Forbet

for Chuck Williams
Administrator, Field Services
Inland Business Unit

CW:rm

Enclosures - Water analyses

cc: Ernie Busch, NMOCD in Aztec, NM.
Well file

API WATER ANALYSIS REPORT FORM

Laboratory No. 25-910206-4B

Company	Sample No.	Date Sampled
BHP PETROLEUM		

Field	Legal Description	County or Parish	State
	Sec. 25, T29N, R13W	SAN JUAN	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
	GCU 393		FRUITLAND COAL	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	25035	1088.5
Calcium, Ca	224	18.4
Magnesium, Mg	262	21.6
Barium, Ba		

ANIONS		
Chloride, Cl	39586	1117
Sulfate, So_4		
Carbonate, CO_3		
Bicarbonate, HCO_3	702	11.5

Total Dissolved Solids (calc.) 65809

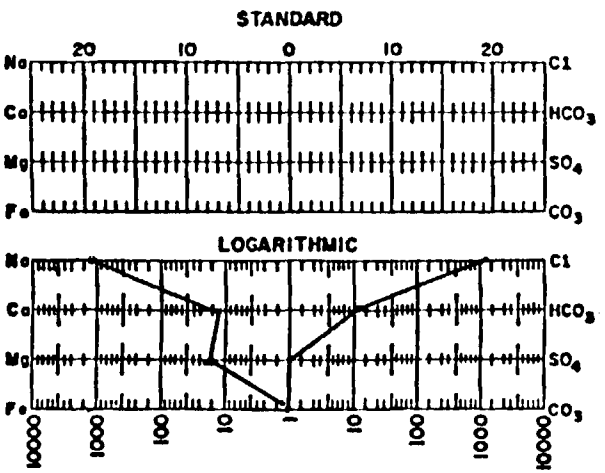
Iron, Fe (total)

Sulfide, as H_2S

OTHER PROPERTIES

pH	6.51
Specific Gravity, 60/60 F.	1.042
Resistivity (ohm-meters) 68° F.	2.129

WATER PATTERNS — *me/l*



REMARKS & RECOMMENDATIONS:

Date Received	Preserved	Date Analyzed	Analyzed By
2-6-91		2-8-91	MKL

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

API WATER ANALYSIS REPORT FORM

Laboratory No.

Company	Sample No.	Date Sampled
BHP	2	

Field	Legal Description	County or Parish	State
	Sec 20 T29N R12W	SJ	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
Gallegos Canyon	#381		Frt. Coal	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
	Production Unit	J.C. Harris

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	14,730	640
Calcium, Ca	421	21.0
Magnesium, Mg	183	15.0
Barium, Ba		

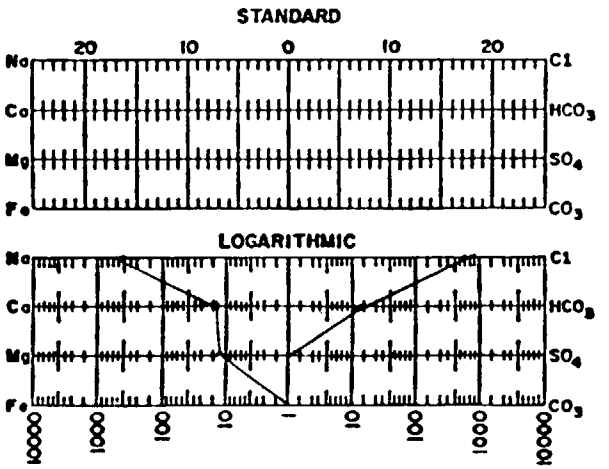
ANIONS		
Chloride, Cl	24,430	660
Sulfate, So_4	0	0
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	1010	16.5

Total Dissolved Solids (calc.)	40,770
Iron, Fe (total)	
Sulfide, as H_2S	0

OTHER PROPERTIES

pH	7.55
Specific Gravity, 60/60 F.	1.0307
Resistivity (ohm-meters) 72° F.	0.200

WATER PATTERNS — *me/l*



REMARKS & RECOMMENDATIONS:

Date Received	Preserved	Date Analyzed	Analyzed By
7/31/90		8/1/90	BT

2503-3068

API WATER ANALYSIS REPORT FORM

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

Laboratory No.

Company	Sample No.	Date Sampled
BHP		5/24

Field	Legal Description	County or Parish	State

Lease or Unit	Well	Depth	Formation	Water, B/D
	CCW 385		Ft Coal	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
	Prod. Unit	

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	15641	6830
Calcium, Ca	321	16.0
Magnesium, Mg	170	14.0
Barium, Ba		

ANIONS		
Chloride, Cl	24673	695.0
Sulfate, So_4	0	0
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	1098	18.0

Total Dissolved Solids (calc.) 31,900

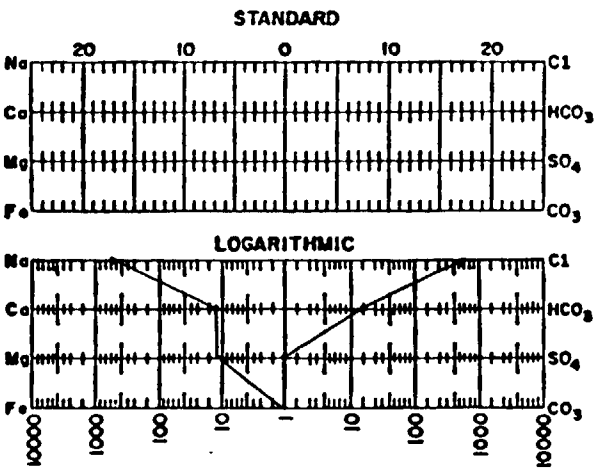
Iron, Fe (total)

Sulfide, as H_2S

OTHER PROPERTIES

pH	7.45
Specific Gravity, 60/60 F.	1.016
Resistivity (ohm-meters) 77° F.	.28

WATER PATTERNS — *me/l*



REMARKS & RECOMMENDATIONS:

Date Received	Preserved	Date Analyzed	Analyzed By
		5/29/90	Jacque Wehart

API WATER ANALYSIS REPORT FORM

Laboratory No. 25-910111-2C

Company	Sample No.	Date Sampled
BHP PETROLEUM		1-9-91

Field	Legal Description	County or Parish	State
	NE/NE S13-T29N-R13W	SAN JUAN	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
	GCU 386		FRUITLAND	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	12896	560.7
Calcium, Ca	637	31.8
Magnesium, Mg	207	17
Barium, Ba		

ANIONS		
Chloride, Cl	21412	604
Sulfate, So_4		ND
Carbonate, CO_3		
Bicarbonate, HCO_3	336	5.5

Total Dissolved Solids (calc.) 35488

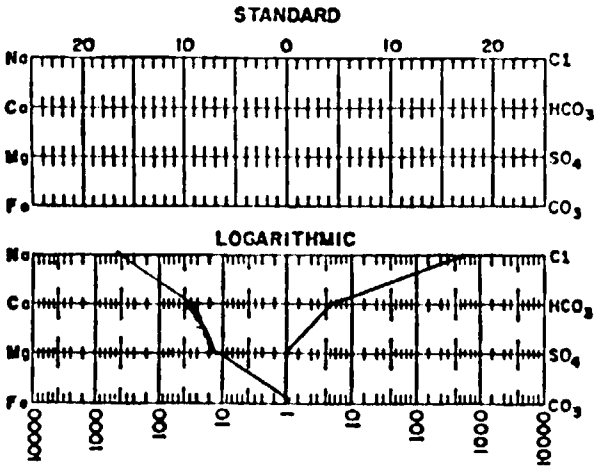
Iron, Fe (total)

Sulfide, as H_2S

OTHER PROPERTIES

pH	6.63
Specific Gravity, 60/60 F.	1.032
Resistivity (ohm-meters) 64° F.	0.19

WATER PATTERNS — *me/l*



REMARKS & RECOMMENDATIONS:

Date Received	Preserved	Date Analyzed	Analyzed By
1-11-91		1-14-91	MKL

CL1-12A (REV. 1964) Exhibit B

RECEIVED
AUG 22 1980
RMD CASPER

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group, Inc. DATE 8-19-80 LAB NO. 34974-2
WELL NO. Well No. 288 LOCATION
FIELD Kutz-PC FORMATION Pictured Cliffs
COUNTY San Juan INTERVAL
STATE New Mexico SAMPLE FROM Separator (7-30-80)

REMARKS & CONCLUSIONS:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	16284	708.35	Sulfate	0	0.00
Potassium	80	2.05	Chloride	27000	761.40
Lithium	-	-	Carbonate	0	0.00
Calcium	659	32.88	Bicarbonate	525	8.60
Magnesium	325	26.72	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		770.00	Total Anions		770.00

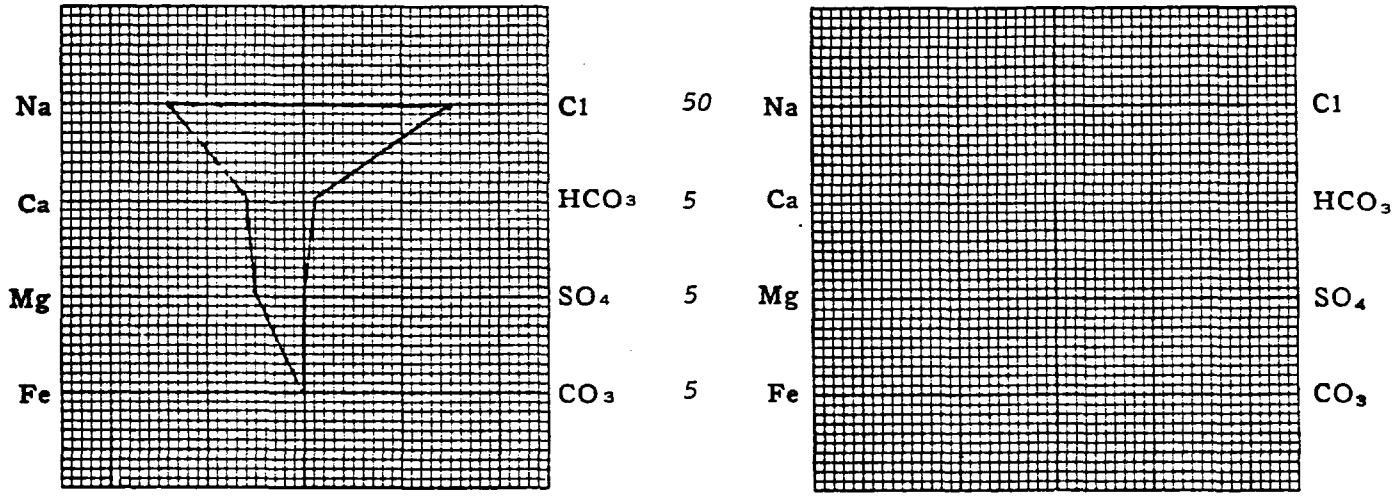
Total dissolved solids, mg/l 44606
NaCl equivalent, mg/l 44782
Observed pH 6.7

Specific resistance @ 68°F.:
Observed 0.164 ohm-meters
Calculated 0.155 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l=Milligrams per liter Meq/l= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

API WATER ANALYSIS REPORT FORM

Laboratory No. 25-910214-4A

Company	Sample No.	Date Sampled
B.H.P. Petroleum		2-8-91

Field	Legal Description	County or Parish	State
	NE/4, SE/4 Sec 7, T28N, R11W		

Lease or Unit	Well	Depth	Formation	Water, B/D
	G.C.U. 516		Picture Cliff	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
PSI: 200 * Temp: 58°F		

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	15,338	668
Calcium, Ca	1137	56.72
Magnesium, Mg	331	27.28
Barium, Ba		

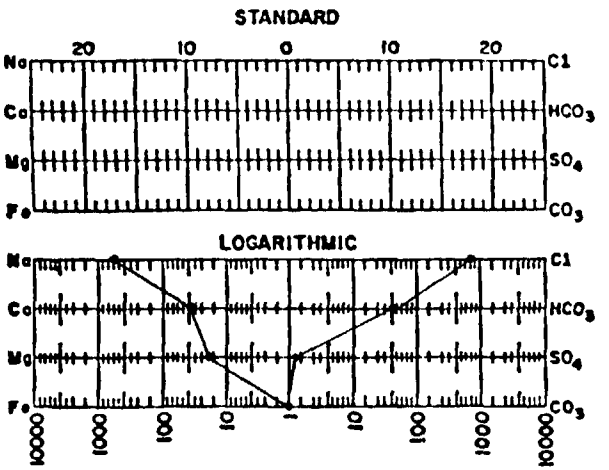
ANIONS		
Chloride, Cl	26410	745
Sulfate, So_4	14	0.3
Carbonate, CO_3		
Bicarbonate, HCO_3	428	7.02

Total Dissolved Solids (calc.)	43658
Iron, Fe (total)	
Sulfide, as H_2S	

OTHER PROPERTIES

pH	6.9
Specific Gravity, 60/60 F.	1.0344
Resistivity (ohm-meters) 71.6 F.	0.17

WATER PATTERNS — *me/l*



REMARKS & RECOMMENDATIONS:

Date Received	Prepared	Date Analyzed	Analyzed By
2-14-91		2-14-91	M.A.

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

BAROID DIVISION
N L Industries, Inc.
P.O. Box 1675 Houston, Texas 77001

BARIOD TREATING CHEMICALS

WATER ANALYSIS TEST REPORT

Exhibit D

RECEIVED JUN 28 197

SHEET NUMBER			
COMPANY: Energy Reserves			DATE: 6-10-77
FIELD: Basin Dakota		COUNTY OR PARISH: San Juan	STATE: N Mexico
LEASE OR UNIT: King Gas Com.	WELL(S) NAME OR NO.: #1	WATER SOURCE (FORMATION): Mesaverde - Cliffhouse	
DEPTH, FT.:	BHT, F:	SAMPLE SOURCE:	TEMP, F:
WATER, BBL/DAY:	OIL, BBL/DAY:	GAS, MMCF/DAY:	
TYPE OF OIL:	API GRAVITY: °	TYPE OF WATER: ☒ PRODUCED WATER ☐ INJECTION WATER OTHER ____	

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)

	20	15	10	5	0	5	10	15	20	
Na^+										Cl^-
Ca^{++}										HCO_3^-
Mg^{++}										$SO_4^=$
Fe^{+++}										$CO_3^=$

DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness		
Sodium, Na^+ (calc.)		
Calcium, Ca^{++}	2	40
Magnesium, Mg^{++}	6	73
Iron (Total), Fe^{+++}		1.9
ANIONS		
Chloride, Cl^-		10,600
Sulfate, $SO_4^=$		90
Carbonate, $CO_3^=$		1,200
Bicarbonate, HCO_3^-	232	14,152
Hydroxyl, OH^-		-0-
Sulfide, $S^=$		
Phosphate - Meta, PO_3^-		
Phosphate - Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S		mg/l*
Carbon Dioxide, CO_2		mg/l*
Oxygen, O_2		mg/l*

PHYSICAL PROPERTIES

pH	8.4	
Eh (Redox Potential)		MV
Specific Gravity		
Turbidity, JTU Units		
Total Dissolved Solids (Calc.)		mg/l*
Stability Index @____F		
@____F		
$CaSO_4$ Solubility @____F		mg/l*
@____F		mg/l*
Max. $CaSO_4$ Possible (Calc.)		mg/l*
Max. $BaSO_4$ Possible (Calc.)		mg/l*
Residual Hydrocarbons		ppm(Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

BTC ENGINEER: Max Woolery	DIST. NO.:	ADDRESS: Farmington, NM	OFFICE PHONE: 325-9901	HOME PHONE:
TESTED BY: Woolery	DATE: 6-10-77	DISTRIBUTION: ☐ CUSTOMER ☐ BTC ENGINEER OR ☐ BTC LAB	☐ AREA OR	☐ DISTRICT OFFICE ☐ BTC SALES SUPERVISOR

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

May 3, 1991

BHP Petroleum
5847 San Felipe
Suite 3600
Houston, Texas 77057

Attention: Chuck Williams

Re: Amendment of Order No. SWD-306

Dear Mr. Williams:

Your request to utilize the Gallegos Canyon Unit Well No. 306 to dispose of produced Fruitland Coal water in addition to produced Pictured Cliff water is hereby approved.

Sincerely,

David Catanach

David Catanach
Engineer

xc: OCD-Aztec
File-SWD-306

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

August 11, 1981

State of New Mexico
Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

RE: Application of Energy Reserves Group, Inc.
For Modification of Administrative Order No. SWD-225,
To allow disposal of Pictured Cliffs water into the
Mesa Verde formation through existing perfs and add-
itional perfs in the Cliffhouse member of the Mesa
Verde formation.

Gentlemen:

Energy Reserves Group, Inc., is currently disposing of produced Pictured Cliffs water into the lower portion of the Mesa Verde formation in Gallegos Canyon Unit #307. This request is to allow the opening of the upper portion of the Mesa Verde formation for additional water disposal. The following application is presented and we request that administrative approval be granted. The following data is submitted.

A. Application is a working interest owner and the operator of the Gallegos Canyon Unit, West Kutz Pictured Cliffs Field, located in Township 27, 28, and 29 North, Ranges 11, 12, and 13 West, San Juan County, New Mexico.

B. The applicant desires to dispose of water produced from the Pictured Cliffs formation from the Gallegos Canyon Unit into the Mesa Verde formation via the wellbore of Gallegos Canyon Unit Well #307, located 1455' FSL, 510' FWL, Sec. 30-T29N-R12W, San Juan County, New Mexico.

Applicant presents the following in support of the application:

1. Exhibit A - Plat showing the location of the proposed input well and location of all oil and gas wells, including abandoned and dry holes, and the names of operators within a two mile radias of the proposed input well.

2. Exhibit B - Water analysis of the Pictured Cliffs water. Approximately 1075 BWPD will be disposed of into well No. 307.

3. It is proposed to inject the produced Pictured Cliffs water into the Mesa Verde Formation in the Gallegos Canyon Unit No. 307 through existing perforating from 2,952'-3,500', and additional perforations from 2,785'-2,886'. Exhibit C is the log section of well No. 307.

Energy Reserves Group

4. Exhibit D - Water analysis of the water contained in the Mesa Verde formation.

5. Exhibit E - Schematic diagrams of the wellbore of well No. 307 and showing all pertinent data.

6. Injection will be through 2-3/8" plastic lined steel tubing with an injection packer set at approximately 50 feet above the top of the injection zone. Well No. 307 produces from the Pictured Cliffs zone. (Dual Completion).

7. Exhibit F - Diagramtic wellbore sketches of all wells within one half mile radius that penetrate the Mesa Verde formation adjacent to the proposed Mesa Verde injection well No. 307.

Sincerely,
ENERGY RESERVES GROUP, INC.

Ron E. Schanamann
Production Engineer
Rocky Mountain District

RES:erl

enclosures

BAROID DIVISION
N L Industries, Inc.
P.O. Box 1675 Houston, Texas 77001

WATER ANALYSIS TEST REPORT

BAROID TREATING CHEMICALS

RECEIVED
JUN 23 1977
OIL CON. COM.
DIST. 3

Exhibit D

SHEET NUMBER

COMPANY: Energy Reserves

DATE: 6-10-77

FIELD: Basin Dakota

COUNTY OR PARISH: San Juan

STATE: N Mexico

LEASE OR UNIT: King Gas Comm.

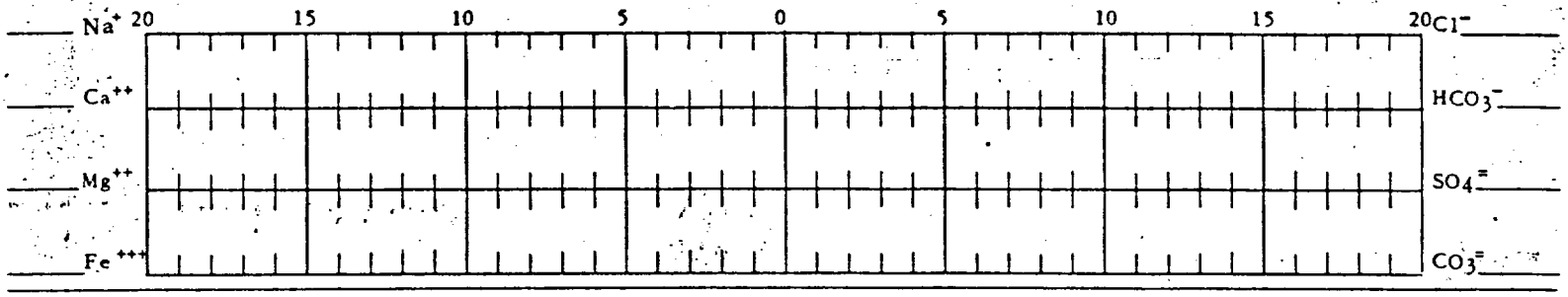
WELL(S) NAME OR NO.: #1

WATER SOURCE (FORMATION): Mesaverde - Cliffhouse

DEPTH, FT.	BHT, F	SAMPLE SOURCE	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY

TYPE OF OIL | API GRAVITY: o | TYPE OF WATER: ☒ PRODUCED WATER ☐ INJECTION WATER OTHER

WATER ANALYSIS PATTERN
(NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	8	
Sodium, Na+ (calc.)		
Calcium, Ca++	2	40
Magnesium, Mg++	6	73
Iron (Total), Fe+++		1.9
ANIONS		
Chloride, Cl-		10,600
Sulfate, SO4=		90
Carbonate, CO3=		1,200
Bicarbonate, HCO3-	232	14,152
Hydroxyl, OH-		-0-
Sulfide, S=		
Phosphate-Meta, PO3-		
Phosphate-Ortho, PO4≡		

DISSOLVED GASES

Hydrogen Sulfide, H_2S _____ mg/l*
Carbon Dioxide, CO_2 _____ mg/l*
Oxygen, O_2 _____ mg/l*

PHYSICAL PROPERTIES

pH 8.4
Eh (Redox Potential) _____ MV
Specific Gravity _____
Turbidity, JTU Units _____
Total Dissolved Solids (Calc.) _____ mg/l*
Stability Index @ _____ F _____
@ _____ F _____
$CaSO_4$ Solubility @ _____ F _____ mg/l*
@ _____ F _____ mg/l*
Max. $CaSO_4$ Possible (Calc.) _____ mg/l*
Max. $BaSO_4$ Possible (Calc.) _____ mg/l*
Residual Hydrocarbons _____ ppm(Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

BTC ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Max Woolery		Farmington, NM	325-5701	

TESTED BY: Woolery | DATE: 6-10-77 | DISTRIBUTION: ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ BTC ENGINEER OR ☐ BTC LAB ☐ BTC SALES SUPERVISOR

Form C-108
Revised 3-1-68

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR		ADDRESS	
Energy Reserves Group, Inc.		P.O. Box 3280 - Casper, Wyoming 82602	
LEASE NAME	WELL NO.	FIELD	COUNTY
Gallegos Canyon Unit	307	West Kutz	San Juan

LOCATION

UNIT LETTER L ; WELL IS LOCATED 1455 FEET FROM THE South LINE AND 510 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 29N RANGE 12W NMPM.

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	9-5/8"	32.3#	236'	275	Surface	Cement to surface
INTERMEDIATE						
LONG STRING	7"	20# & 23#	4,013'	1240	Surface	Cement to surface
TUBING			NAME, MODEL AND DEPTH OF TUBING PACKER		

NAME OF PROPOSED INJECTION FORMATION	TOP OF FORMATION	BOTTOM OF FORMATION
Mesa Verde	2,750'	3,990'

IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?	PERFORATIONS OR OPEN HOLE?	PROPOSED INTERVAL(S) OF INJECTION
Tubing	Perforations	2,788'-3,500'

IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?
Yes	It is also a Pictured Cliffs producer	Yes - Pictured Cliffs

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

Pictured Cliffs producer 1,246'-1,254' (Dual Completion)

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA
Approximately 100'	Pictured Cliffs 1,416'	Gallup @ 5,500'

ANTICIPATED DAILY INJECTION VOLUME (BBLS.) MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	IS INJECTION TO BE BY GRAVITY OR PRESSURE?	APPROX. PRESSURE (PSI)
300	1075	Open	Pressure	1200 psi

ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE —	WATER TO BE DISPOSED OF	NATURAL WATER IN DISPOSAL ZONE	ARE WATER ANALYSES ATTACHED?
	Yes	Yes	Yes

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)

Bolack Land & Cattle Company - Farmington, New Mexico

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (½) MILE OF THIS INJECTION WELL

Amoco Production Company

Security Life Building

Denver, Colorado 80202

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL
	Yes	Yes

ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)	PLAT OF AREA	ELECTRICAL LOG	DIAGRAMMATIC SKETCH OF WELL
	Yes	Yes	Yes

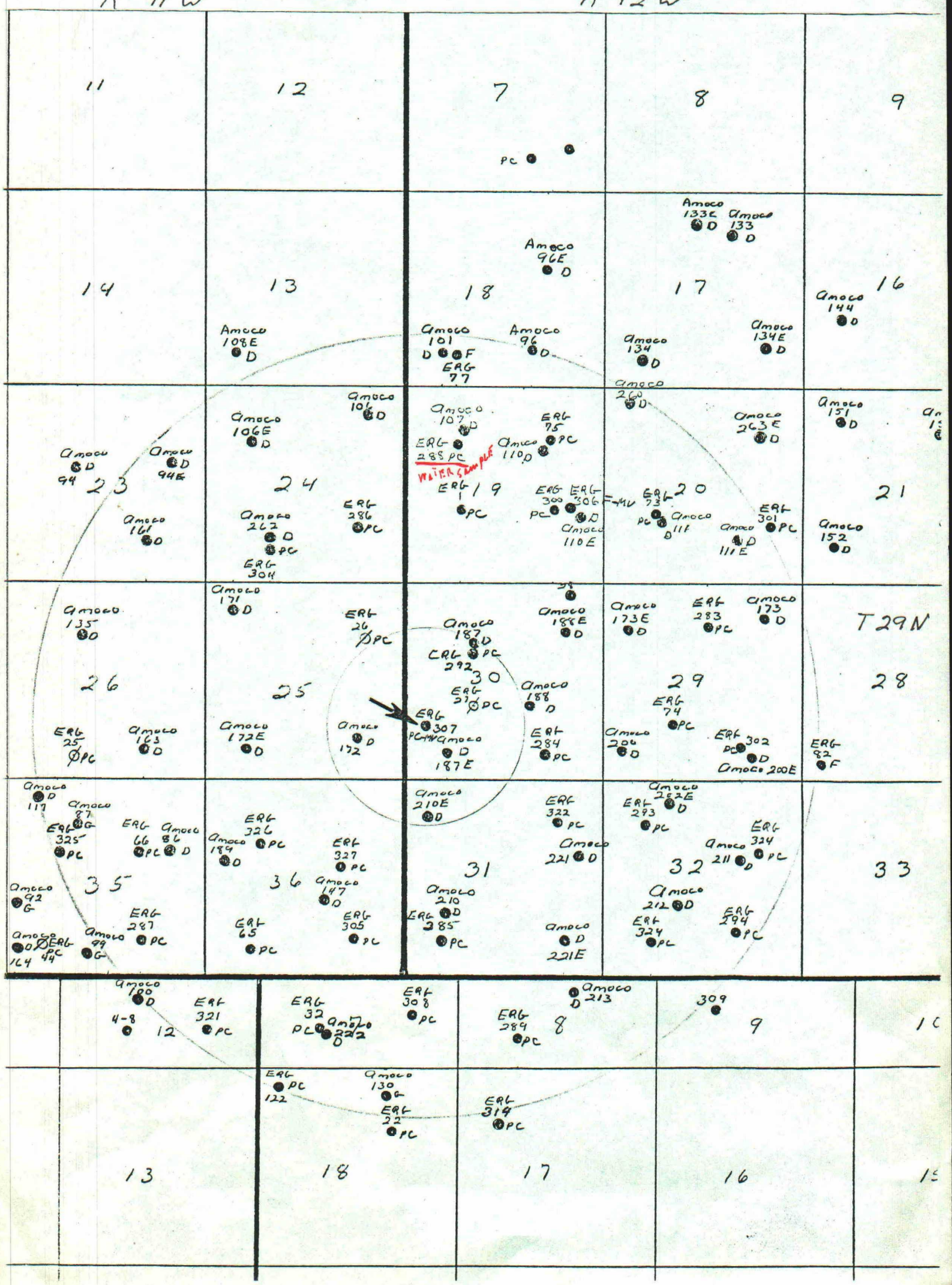
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

(Signature)	Production Engineer (Title)	August 11, 1981 (Date)

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

Exhibit A

Location of GCU #307 and all wells within a 2 mi radius of GCU #307. San Juan County, New Mexico



CL1-12A (REV. 1964)

Exhibit B

RECEIVED
AUG 22 1980
RMD CASPER

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group, Inc. DATE 8-19-80 LAB NO. 34974-2
WELL NO. Well No. 288 LOCATION
FIELD Kutz-PC FORMATION
COUNTY San Juan INTERVAL
STATE New Mexico SAMPLE FROM Separator (7-30-80)

REMARKS & CONCLUSIONS:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	16284	708.35	Sulfate	0	0.00
Potassium	80	2.05	Chloride	27000	761.40
Lithium	-	-	Carbonate	0	0.00
Calcium	659	32.88	Bicarbonate	525	8.60
Magnesium	325	26.72	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		770.00	Total Anions		770.00

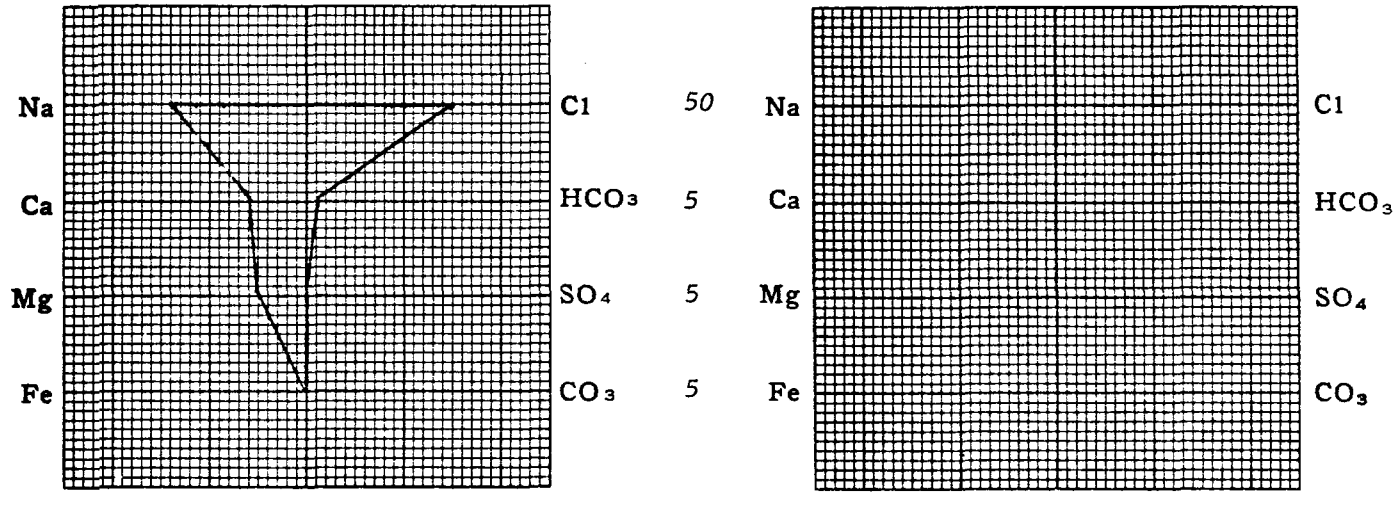
Total dissolved solids, mg/l 44606
NaCl equivalent, mg/l 44782
Observed pH 6.7

Specific resistance @ 68°F.:
Observed 0.164 ohm-meters
Calculated 0.155 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l=Milligrams per liter Meq/l= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

Gallegos Canyon Unit #501 Exhibit C
Sec. 30, T 29N - 12W
San Juan County, New Mexico
Proposed perfs - 2785' - 2830'; 2845' - 2896' w/2 JSPF
(174 perfs 86' net 101' gr-ss)

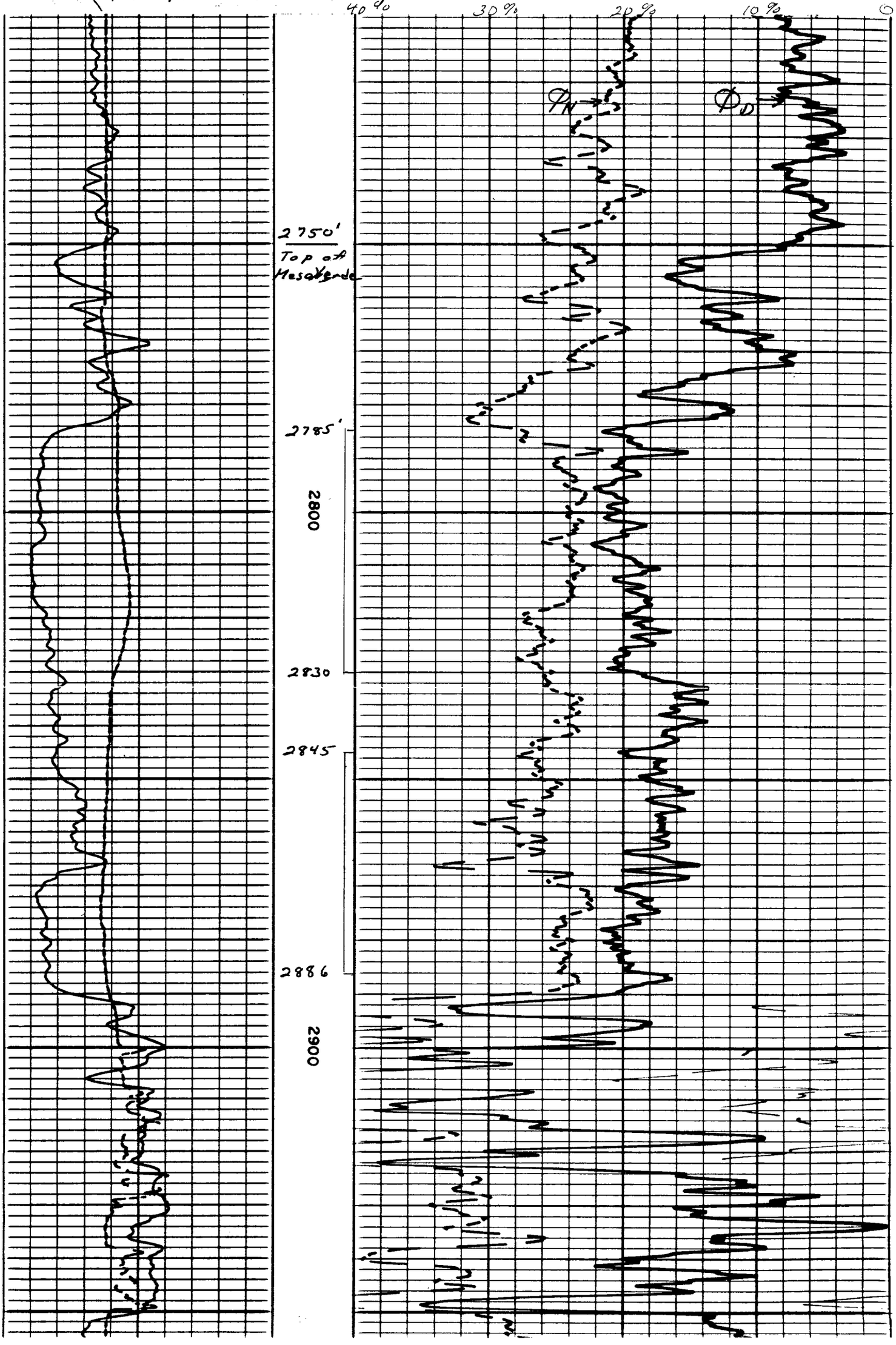


Exhibit E

ERG Gallegos Canyon Unit Well No. 307

NE/SW Sec 30-T29N-R12W

San Juan County, New Mexico

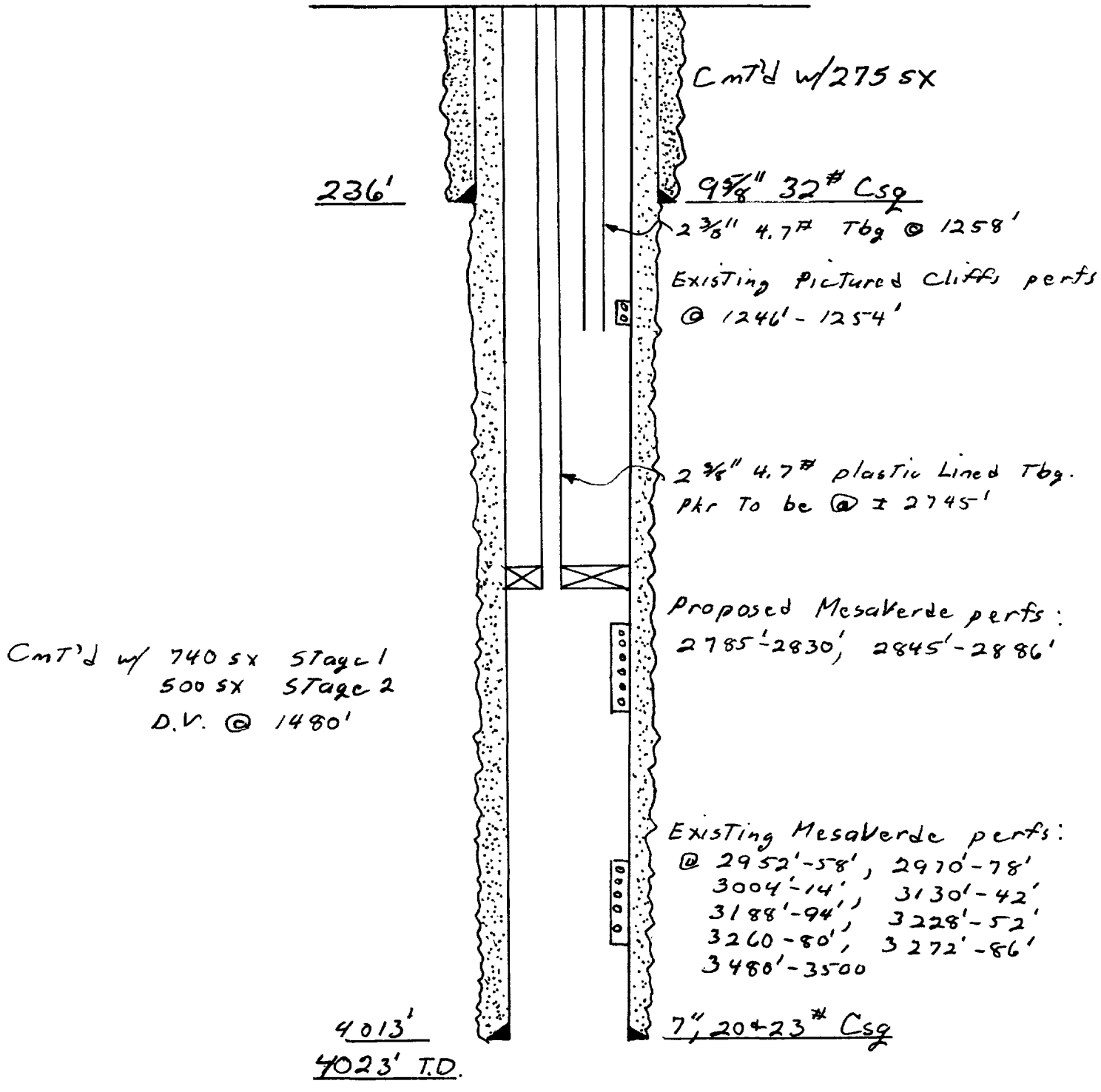


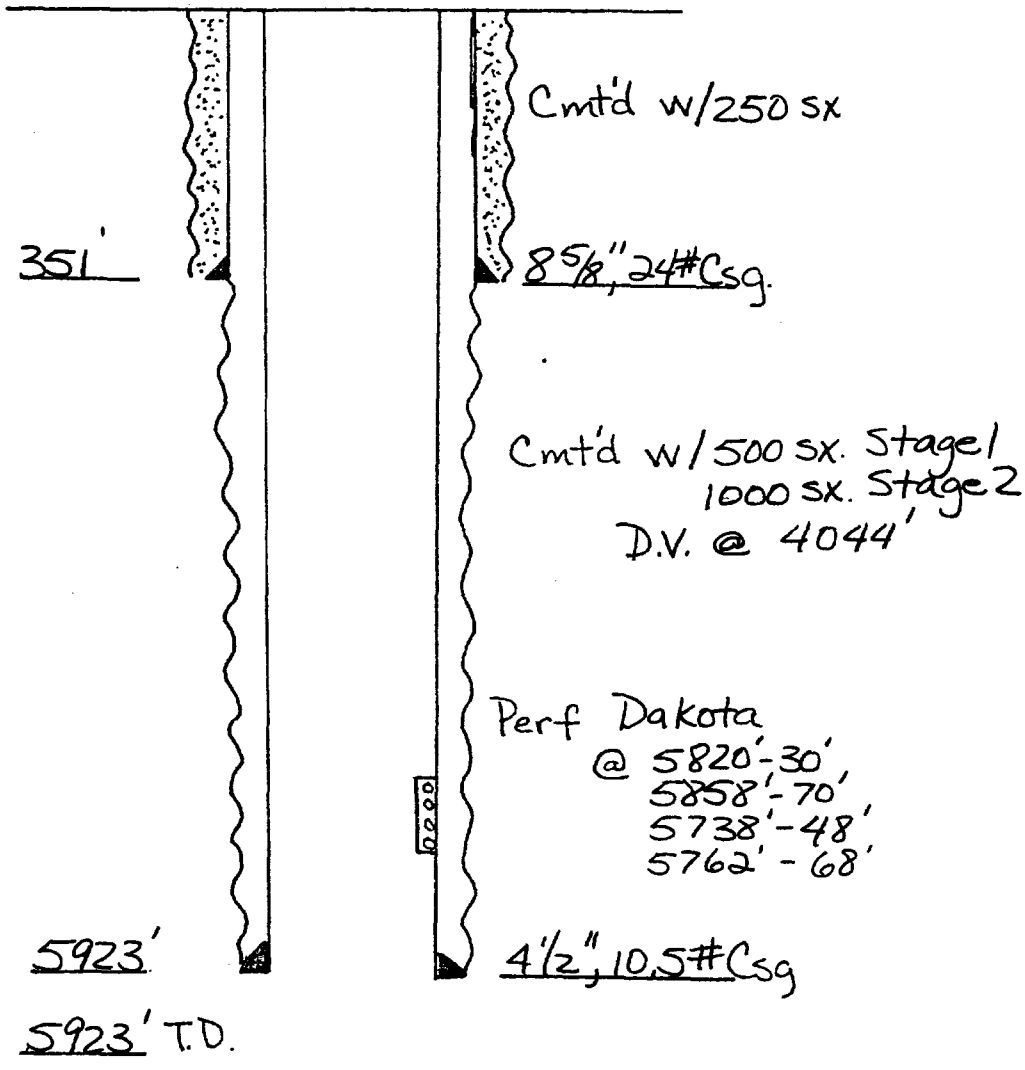
EXHIBIT F

Wellbore diagrams of wells adjacent to GCU #307

Amoco Gallegos Canyon Unit Well No. 187

SENW Sec 30 T29N-R12W

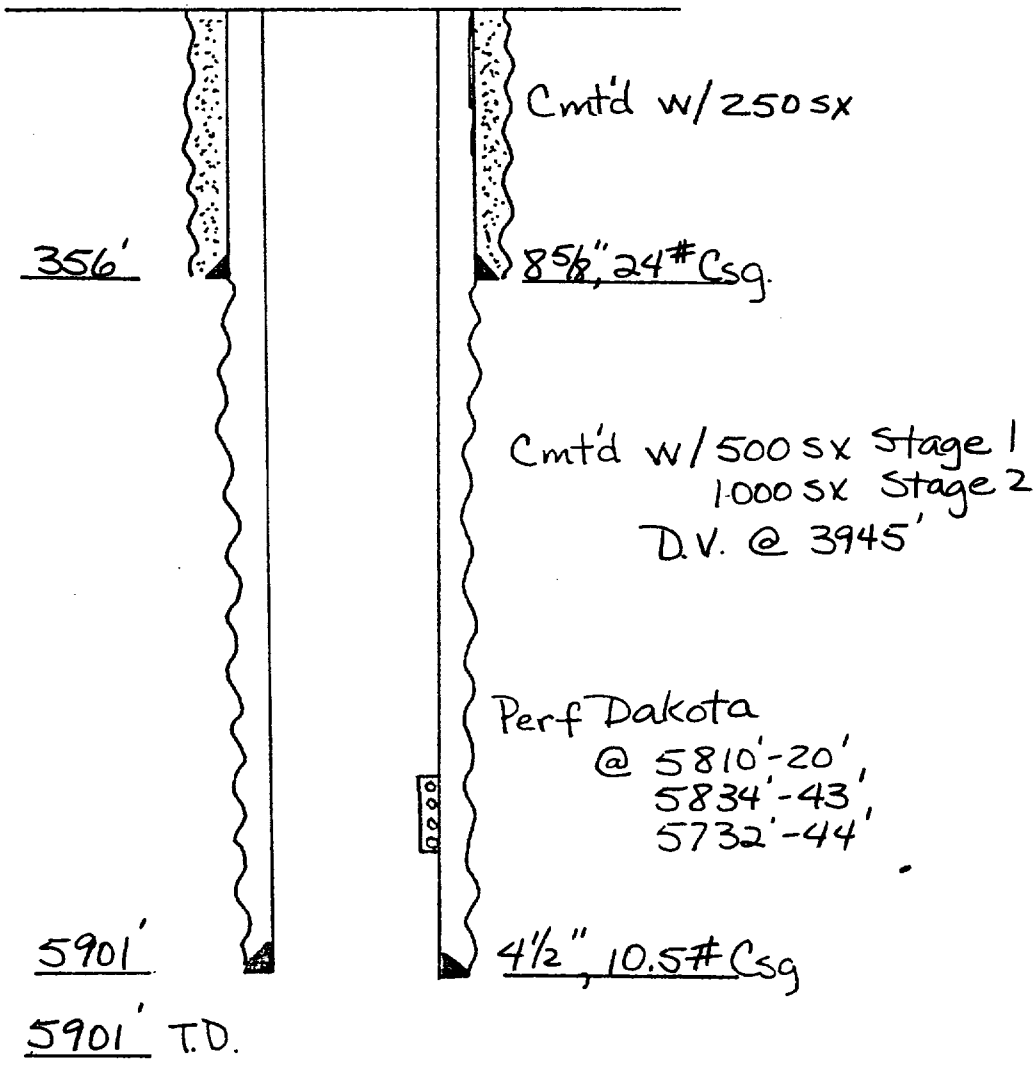
San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No. 188

NW SE Sec 30 T29N-R12W

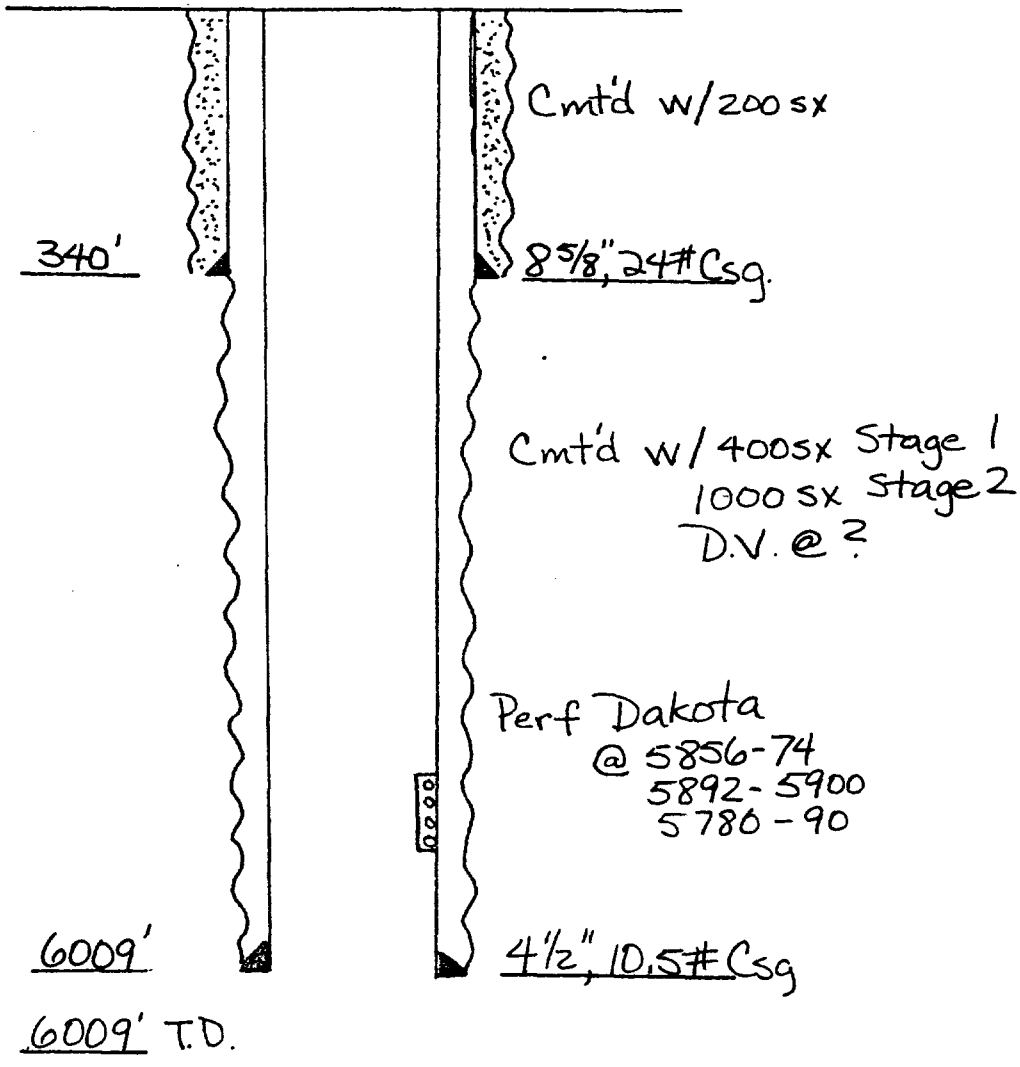
San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No. 172

SE SE Sec 25 T 29 N-R13W

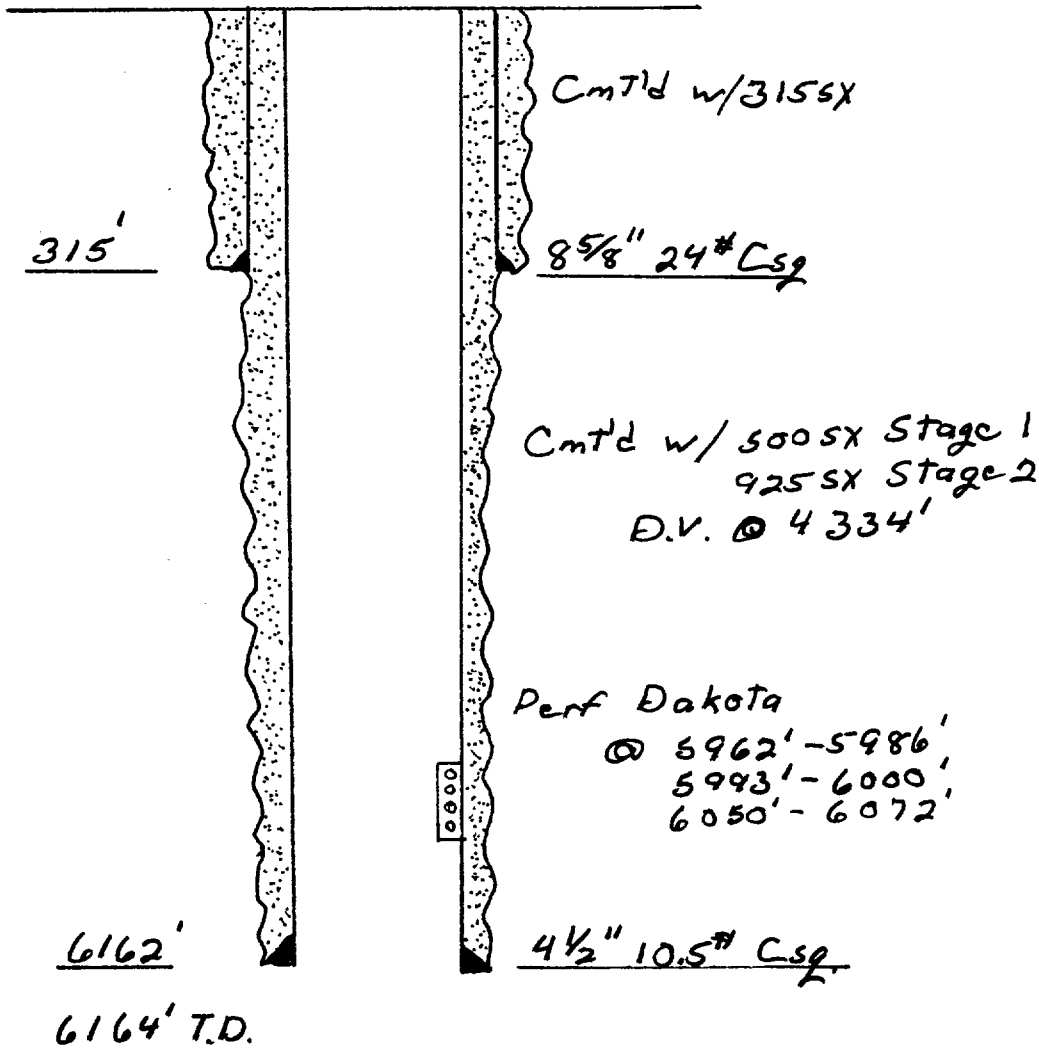
San Juan County, New Mexico



Amoco Gallegos Canyon Unit Well No 187E

SE/SW Sec 30, T29N-R12W

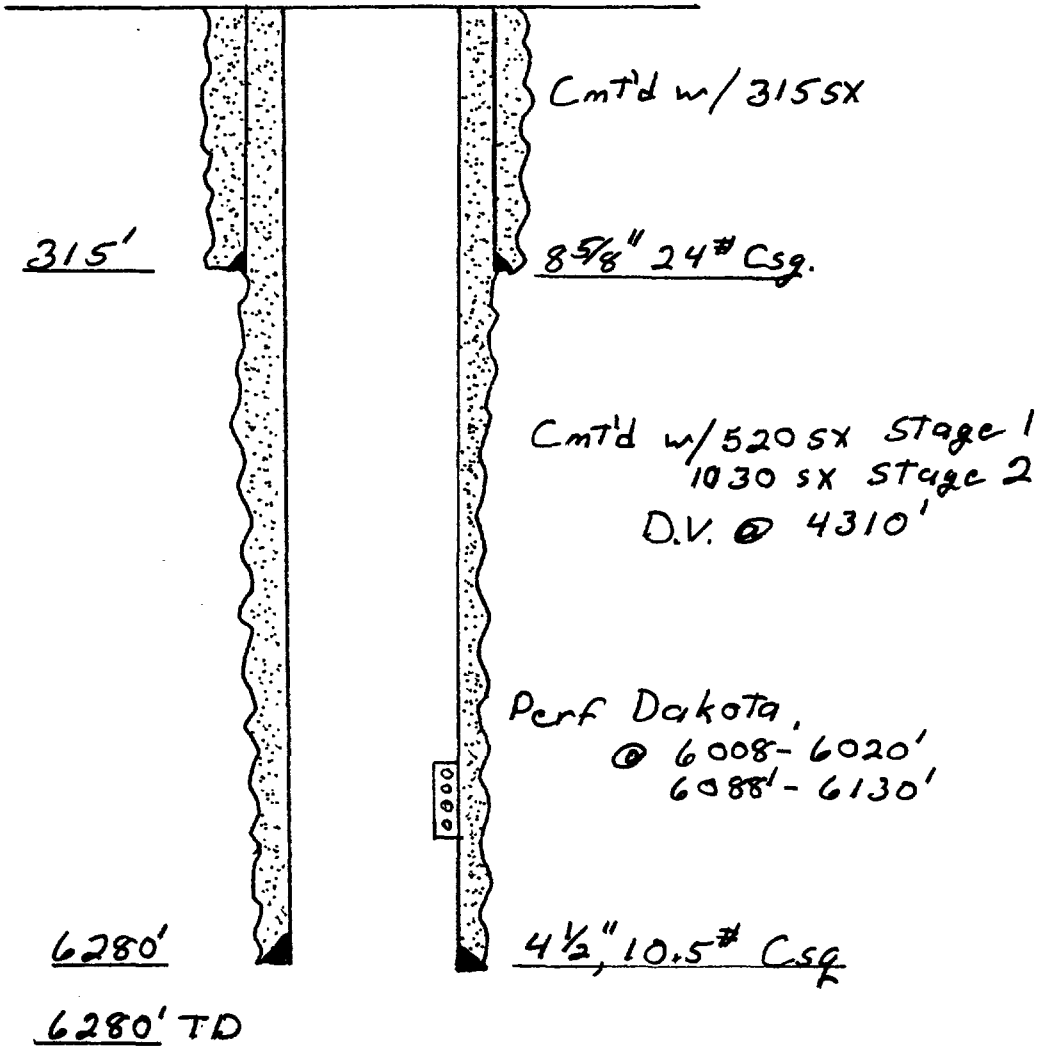
San Juan County, New Mexico



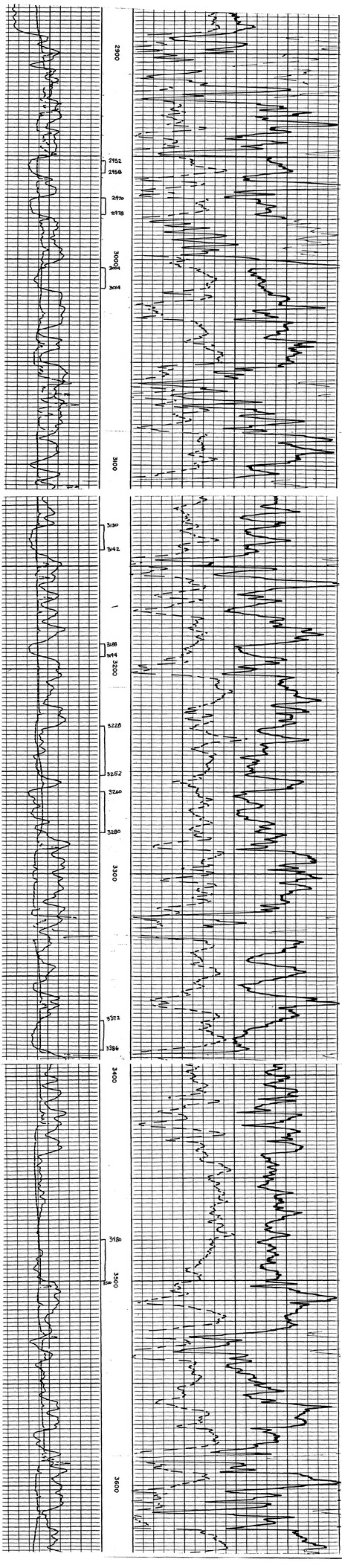
Amoco Gallegos Canyon Unit Well No. 210E

NE/NW Sec. 31, T29N-R12W

San Juan County, New Mexico



Existing Perfs in GCU #307



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

September 11, 1981

Energy Reserves Group Inc.
P. O. Box 3280
Casper, Wyoming 82602

Attention: Ron E. Schonaman

Re: Modification of SWD 225

Dear Mr. Schonaman:

Pursuant to Energy Reserves Group, Inc. letter of August 11, 1981 asking for a modification of Administrative Order No. SWD-225, your request is hereby granted.

The modification requested additional perforation from 2785' to 2886' to be placed in the easing of well #307 in the upper portion of the Mesa Verde formation.

Yours very truly,

JOE D. RAMEY
Division Director

JDR/jc

cc: Aztec Distric Office
1000 Rio Brazo Rd.
Aztec, New Mexico 87410