

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
RECEIVED OGD 220 South St. Francis Drive, Santa Fe, NM 87505



API pending
Bebidas 16 State
SWD #2

2013 MAR 21 ADMINISTRATIVE APPLICATION CHECKLIST

COG Operating LLC

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☒ Application is One Which Requires Published Legal Notice
- [D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

BRIAN COLLINS
Print or Type Name

Signature

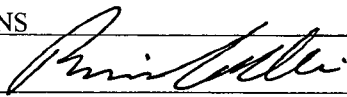
SENIOR OPERATIONS ENGINEER
Title

15 Mar 2013
Date

bcollins@concho.com
e-mail Address

SWD - 1411

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No
- II. OPERATOR: COG OPERATING LLC
ADDRESS: 2208 W. Main Street, ARTESIA, NM 88210
CONTACT PARTY: BRIAN COLLINS PHONE: 575-748-6940
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: BRIAN COLLINS TITLE: Senior Operations Engineer
SIGNATURE:  DATE: 15 Mar 2013
E-MAIL ADDRESS: bcollins@concho.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

C-108 Application for Authorization to Inject
BEBIDAS 16 STATE SWD #2
1980' FNL, 1980' FEL
Unit G, Sec 16 T23S R33E
Lea County, NM
API 30-025-XXXXX

COG Operating, LLC, proposes to drill the captioned well to a depth of 7400' and put well into SWD service into the Delaware Sand open hole interval from approximately 5050' to 7400'. We plan to mud log the Delaware section, and will likely run open hole logs, to ensure we don't inject into potentially hydrocarbon productive intervals. If we encounter potentially hydrocarbon productive shows, we will run 7" casing across the Delaware, cement from TD to 500' above the 9-5/8" intermediate casing shoe and selectively perforate the Delaware to ensure that we don't inject into potentially productive zones. A drilling permit will be submitted upon approval of this C-108.

- V. Map is attached.
- VI. No wells within the ½ mile radius area of review penetrate the proposed injection zone. We plan to drill the Bebidas State 3H and 4H within the AOR. Proposed wellbore schematics are attached.
- VII. 1. Proposed average daily injection rate = 5000 BWPD
Proposed maximum daily injection rate = 10000 BWPD
2. Closed system
3. Proposed maximum injection pressure = 1010 psi
(0.2 psi/ft. x 5050' ft.)
4. Source of injected water will be Delaware Sand and Bone Spring Sand produced water. No compatibility problems are expected. Analyses of Delaware and Bone Spring waters from analogous source wells are attached.
- VIII. The injection zone is the Delaware Sandstone, a fine-grained sandstone from 5050' to 7400'.
Any underground water sources will be shallower than 1350' (surface casing setting depth for new wells)
- IX. The Delaware sand injection interval might be acidized with approximately 20 gal/ft of 7 ½ % HCl acid and possibly fraced with approximately 200,000 lbs of sand.
- X. Well logs, if run, will be filed with the Division. A section of the neutron-density porosity log from a nearby analog well showing the injection interval is attached.
- XI. There is one fresh water well within a mile of the proposed SWD well. This well is located in the SW/4 SW/4 NE/4 SE/4 of Sec 17-23s-33e. A water analysis is attached.
- XII. After examining the available geologic and engineering data, no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Proof of Notice is attached.

III.

WELL DATA

INJECTION WELL DATA SHEET

OPERATOR: Concho Operating, LLC (Operates Concho Production, LLC)WELL NAME & NUMBER: Bebidas 16 State SWD No. 2WELL LOCATION: 1980' FNL 1980' FEL G 16 23s 33e
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATIC

See Attached Schematic

WELL CONSTRUCTION DATASurface CasingHole Size: 17 1/2" Casing Size: 13 3/8" @ ±1350'Cemented with: _____ sx. or 1000 ft³Top of Cement: Surface Method Determined: Circulated (Design)Intermediate CasingHole Size: 12 1/4" Casing Size: 7 5/8"Cemented with: _____ sx. or _____ ft³

Top of Cement: _____ Method Determined: _____

Production CasingHole Size: 12 1/4" Casing Size: 9 5/8" @ ±5050' ✓Cemented with: _____ sx. or 3200 ft³Top of Cement: Surface Method Determined: Circulated (Design)Total Depth: 8 3/4" hole to ±7400' ✓Injection Interval± 5050' feet to ± 7400'(Perforated or Open Hole; indicate which) ✓

Lining Material: Glassbore / Dvoline 20

Type of Packer: Nickel plated double grip retrievable

Other Type of Tubing/Casing Seal (if applicable): N/A

1. Is this a new well drilled for injection? ☒ Yes ☐ No

2. Name of the Injection Formation: Delaware Sand

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. *No*

Overlying: Delaware 5090-5158' (Sec 8, 17, 18) Not productive Sec. 16

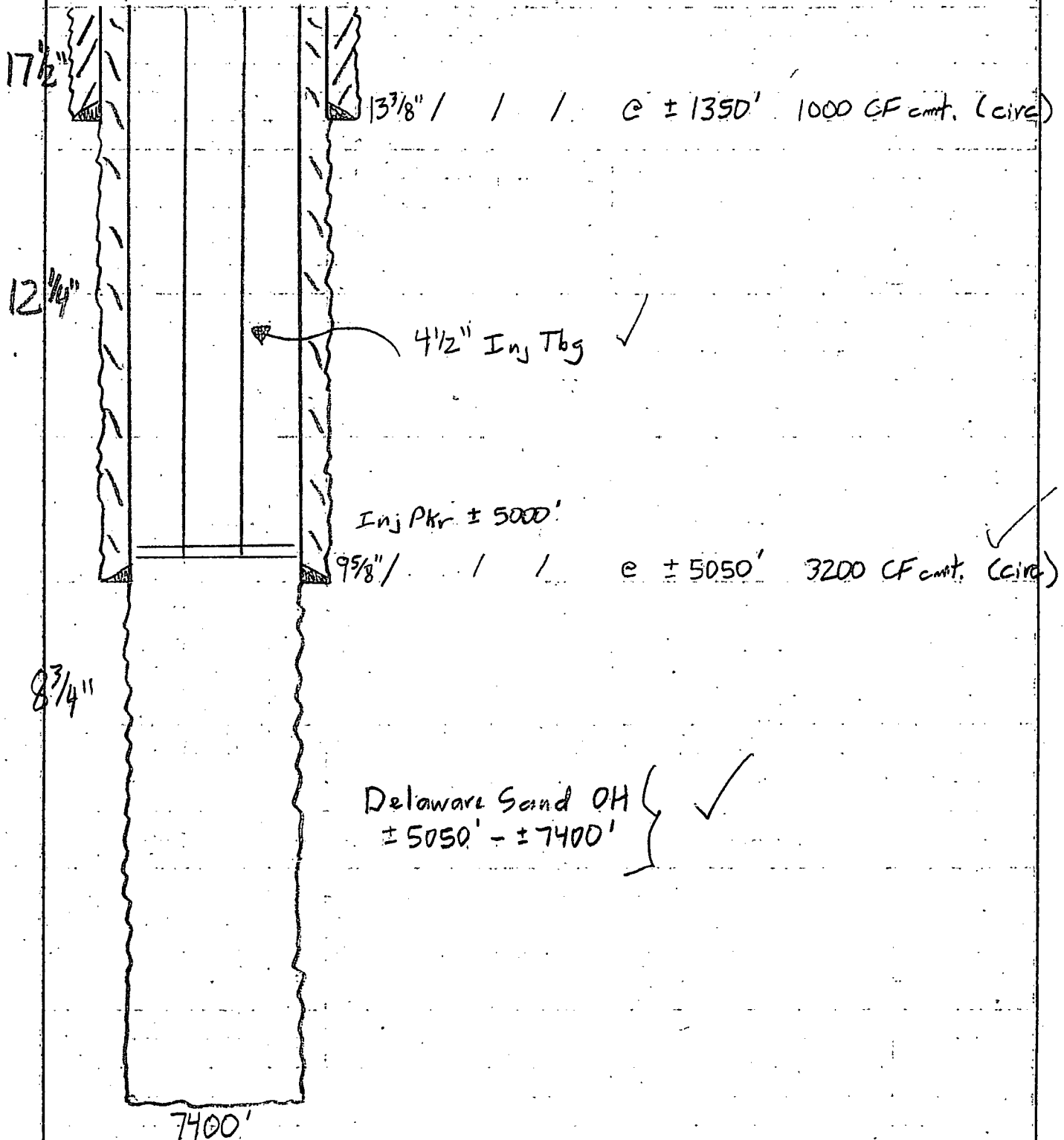
Underlying: Delaware 8865-8882' (Sec 10), Bone Spring 9343-12264'

Wolfcamp 13002-13622', Atoka 14725-14742'

Morrow 15330-15672'

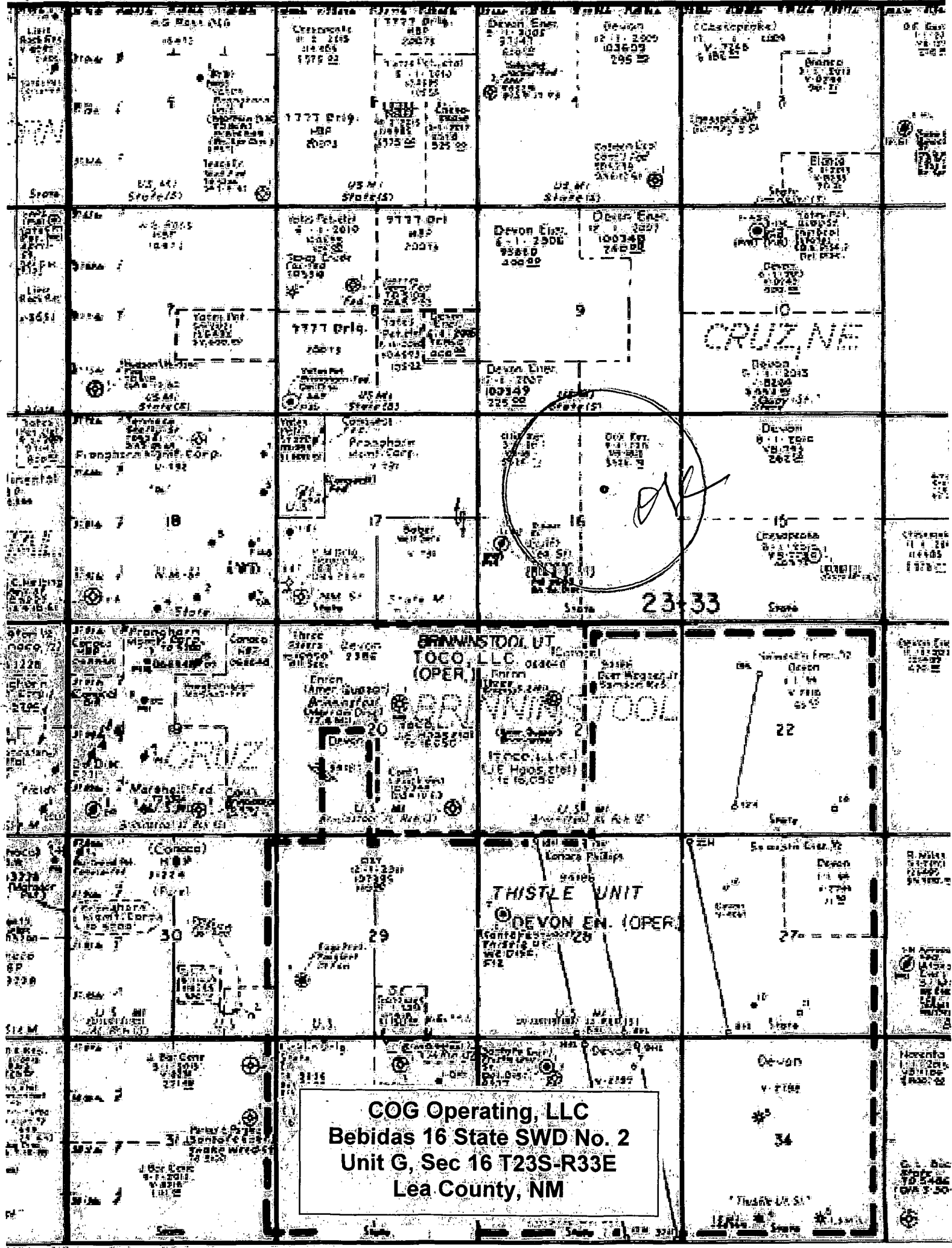
30-025-

Bebidas 16 State SWD 2 ✓
1980' FNL, 1980' FEL
G-16-23s-33e
Lea, NM

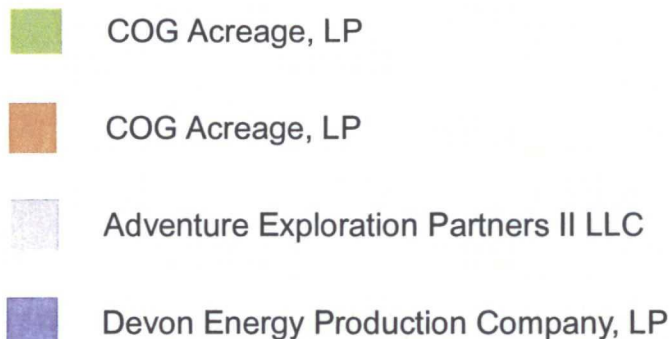


V.

MAP



COG Operating, LLC
Bebidas 16 State SWD No. 2
Unit G, Sec 16 T23S-R33E
Lea County, NM



Bebidas 16 State SWD No. 2
Unit G, Sec. 16; T23s - R33e
Lea County, New Mexico

VI.

Wells Penetrating Proposed Disposal Interval Within Half Mile Area of Review

30-025-40856

Sebidas State 3 H
391' FSL, 1887' FEL (surface)
330' FNL, 1887' FEL (EOL)
O-16-236-33e
Lea, NM

17 1/2" 13 3/8" / 5415 / J55 / @ 1350' 900 sx cmt. (circ)

12 1/4" TOC 4900'
9 5/8" / 3640 / J55 / @ 5100' 1100 sx cmt. (circ)

7/8"

Within 1/2 Mile Area of Review
(Not Drilled Yet)

Bone Spring

5 1/2" / 17 / P110 / @ 15496'

15496' MD

TVD ± 11000'

2200 sx cmt

30-025-40857

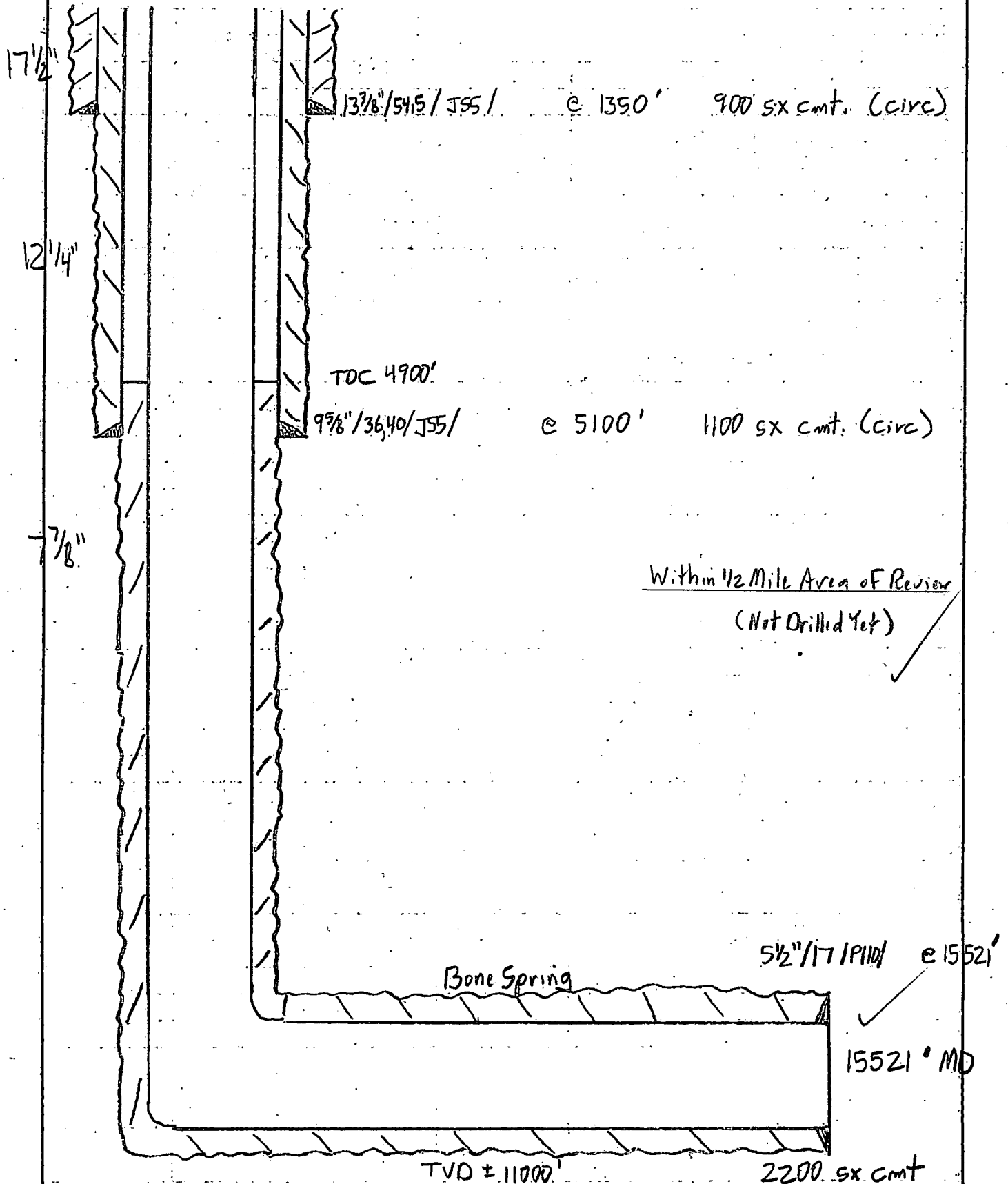
Bebidas State 4 H

388' FSL, 380' FEL (surface)

330' FNL, 380' FEL (EOL)

P - 16-23s - 33e

Lea, NM



VII.

Water Analysis Produced and Receiving Formation Water

Bone Spring Produced Water Sample

Analytical Laboratory Report for:

MARBOB ENERGY CORPORATION



Chemical Services

Account Representative:
Pete Bill

Production Water Analysis

Listed below please find water analysis report from: LPC 31 FED, 1

Lab Test No: 2006151411

Sample Date:

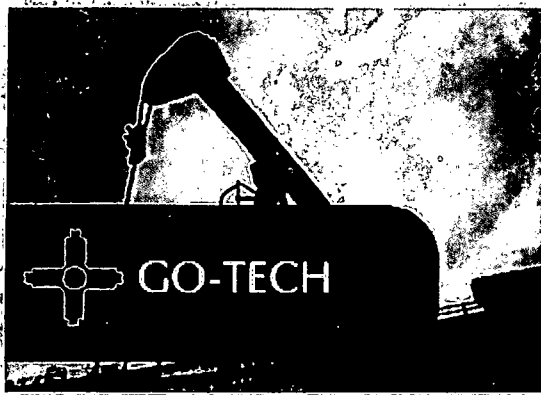
12/13/2006

Specific Gravity: 1.135

TDS: 206425

pH: 6.49

Cations:	mg/L	as:
Calcium	11067	(Ca ⁺⁺)
Magnesium	1751	(Mg ⁺⁺)
Sodium	64721	(Na ⁺)
Iron	58.20	(Fe ⁺⁺)
Potassium	1164.0	(K ⁺)
Barium	0.83	(Ba ⁺⁺)
Strontium	407.00	(Sr ⁺⁺)
Manganese	1.35	(Mn ⁺⁺)
Anions:	mg/L	as:
Bicarbonate	220	(HCO ₃ ⁻)
Sulfate	1400	(SO ₄ ⁻)
Chloride	125800	(Cl ⁻)
Gases:		
Carbon Dioxide	170	(CO ₂)
Hydrogen Sulfide	17	(H ₂ S)



- ~ Home
- ~ Production Data ▶
- ~ Well Data ▶
- ~ NM Pricesheet
- ~ Water Data ▶
- ~ Projects ▶
- ~ Software ▶
- ~ Archive ▶
- ~ Other Links ▶
- ~ Help ▶

North
American Oil
and Gas
News

IEA claims
global
warming
may lead
to 'Miami
Beach in
Boston'
situation
unless
urgent
action is
taken

Enbridge
reports
second
quarter
adjusted
earnings of
\$277
million

Imperial
Resources;
SWDF full
disposal
test to
commence

Drako
Capital
announces
update on
Stolberg
well

Source: Oil
Voice

NYMEX LS Crude 88.73

Navajo WTXI 0

Henry Hub 3.01

Updated : 8/1/2012

State Land Office Data Access

OCD well/log image files

PRRC NM-TECH NM-BGMR

*Delaware Sample
Representative of
Produced and Receiving
Formations*

☐ NM WAIDS

☐ Data

- Produced Water
- Ground Water
- Conversion Tools

☐ Scale

- Scale details
- Stiff
- Oddo
- Probable Mineral Composition mix

☐ Corrosion

☐ Theory

- Uniform
- Galvanic
- Crevice
- Hydrogen Damage
- EIC
- Erosion

☐ Equipment

General Information About: Sample 4412			
HANAGAN B FEDERAL			
API	3002508151	Sample Number	
Unit/Section/Township/Range	O / 15 / 24S / 32E	Field	DOUBLE X
County	Lea	Formation	DEL
State	NM	Depth	
Lat/Long	32.21178 , - 103.66422	Sample Source	UNKNOWN
TDS (mg/L)	229709	Water Type	
Sample Date (MM/DD/YYYY)		Analysis Date (MM/DD/YYYY)	
Remarks/Description			
Cation Information (mg/L)		Anion Information (mg/L)	
Potassium (K)		Sulfate (SO)	491
Sodium (Na)		Chloride (Cl)	142100

- Artificial
- Casing and Tubing
- Surface
- Enhanced
- ☒ Gases
 - O2
 - CO2
 - H2S
- Microbes
- Prevention
- References
- ☒ Maps
 - ☒ Trend Maps
 - GW
 - PW
 - Geology
 - PLSS
 - Help
 - Online Map

Calcium (Ca)		Carbonate (CO ₃)	
Magnesium (Mg)		Bicarbonate (HCO ₃)	168
Barium (Ba)		Hydroxide (OH)	
Manganese (Mn)		Hydrogen Sulfide (H ₂ S)	
Strontium (Sr)		Carbon Dioxide (CO ₂)	
Iron (Fe)		Oxygen (O)	

PETROLEUM RECOVERY RESEARCH CENTER, SOCORRO, NM-87801

X.

**Log Across Proposed
Delaware Sand
Injection Interval
From Nearby Analog
Well**

1980FS 860FW

CW TRAINER

RL #1



30-025-25518

Combination Logging Systems

Compensated **Densilog**
Compensated **Neutron**



COMPANY GULF ENERGY & MINERALS CO-U.S.

WELL _____ LEA RL STATE NO. 1

FIELD MORROW (UNDESIGNATED)

COUNTY LEA STATE NEW MEXICO

LOCATION:
1980' FSL & 660' FWL

Other Services
D-L/GR

SEC 16 TWP 23-S RGE 33-F

GROUND LEVEL Elev 3695

K. B. 20 Ft. Above Permanent Datum

K. B. GL 3695

Evaluations

КБ 3715

Dr: _____

GL 3695

Drilling Measured from

Date	8-22-77		
Run No.	ONE		
Service Order	80844		
Depth—Driller	15950		
Depth—Logger	15938		
Bottom Logged Interval	15936		
Top Logged Interval	SURFACE		
Casing—Driller	75/8 12478		
Casing—Logger	12458		
Bit Size	6 1/2"		
Type Fluid in Hole	SALT MUD		
Density and Viscosity	14.8 57		
pH and Fluid Loss	10 4 cc		
Source of Sample	PIT		
Rm @ Meas. Temp	.053 78 F		
Rmf @ Meas. Temp	.053 78 F		
Rmc @ Meas. Temp	-		
Source of Rmf and Rmc	MEAS.		
Rm @ BHT	.021 195 F		
Time Since Circ	14 HOURS		
Max Rec. Temp Deg F	195 F		
Equip. No. and Location	6118 HOBBS		
Recorded By	DUFWEKE		
Witnessed By	PIE KARSKI		

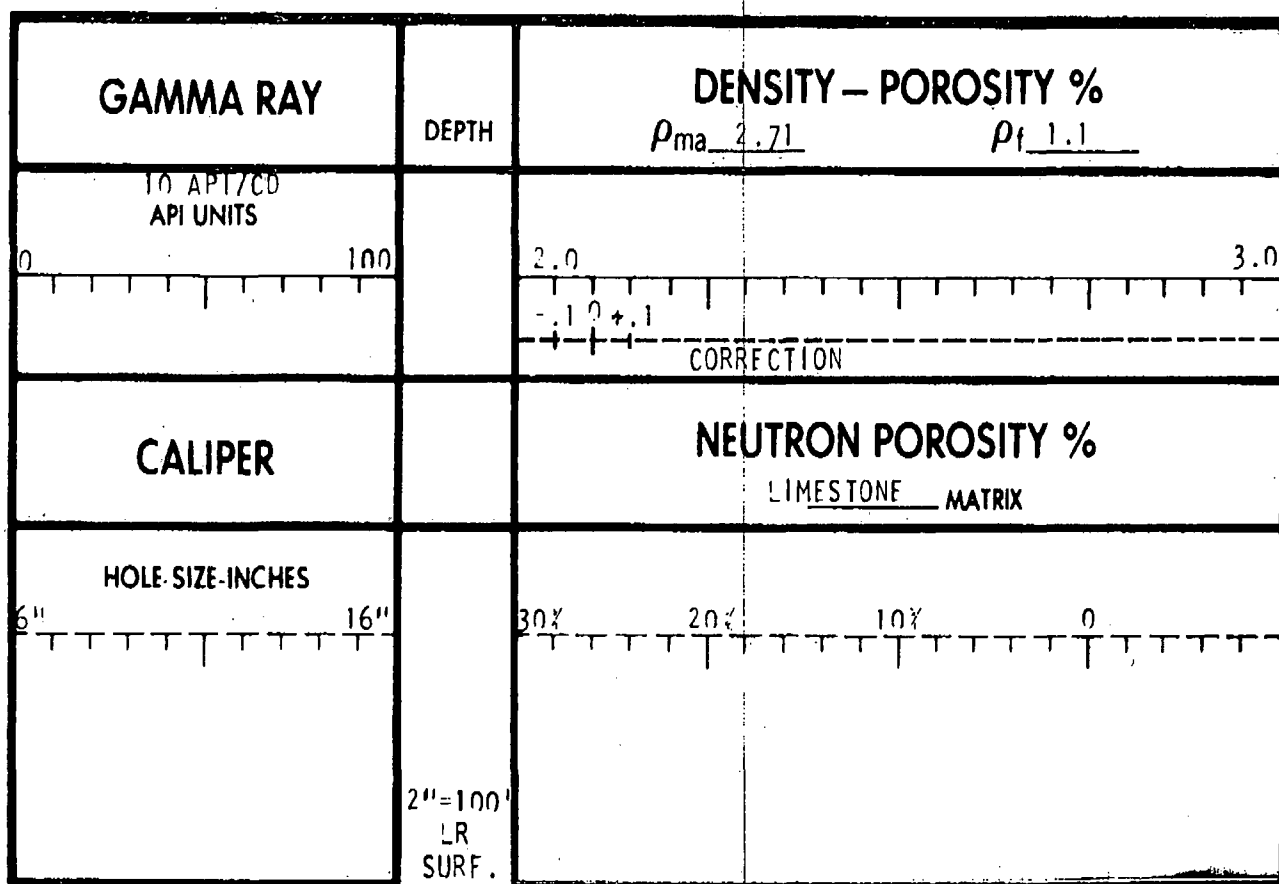
2010 45 20

... NEUTRON RECORDED WITH BOWSPRING DECEMBER 17/13.

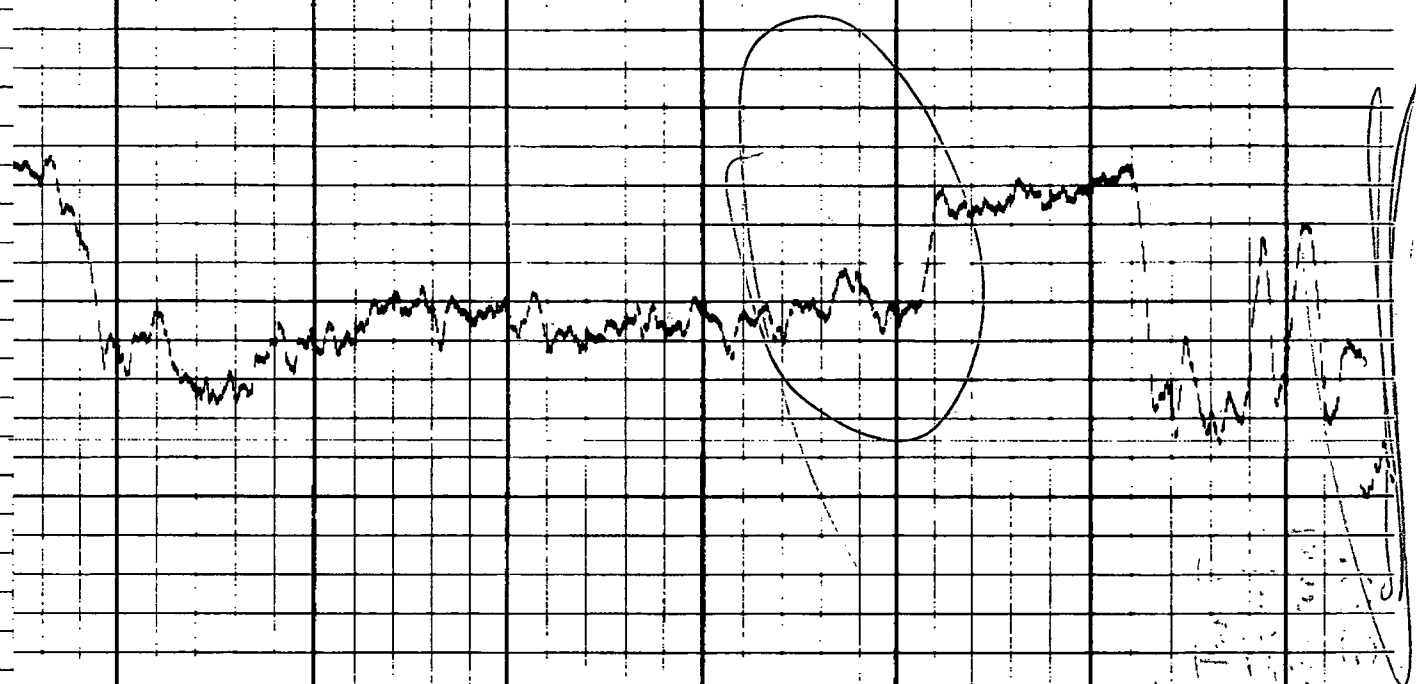
REPEAT SECTION & BOTTOM OF HOLE SEVERLY AFFECTED BY HOLE RUGOSITY.

EQUIPMENT DATA

		RUN NO 2			RUN NO 3		
		COL	CNI	GR	COL	CNI	GR
2207M	2413						
24715	29895						
5.5"	3.62"						
IGLOX	D6N3						
GEIGER	SCINT.						
	6'						
S3T20	S17S20S						
423	34354						
2254	2254						
29318	29473						
	3606						
	31917						



tension curve



0100

0200

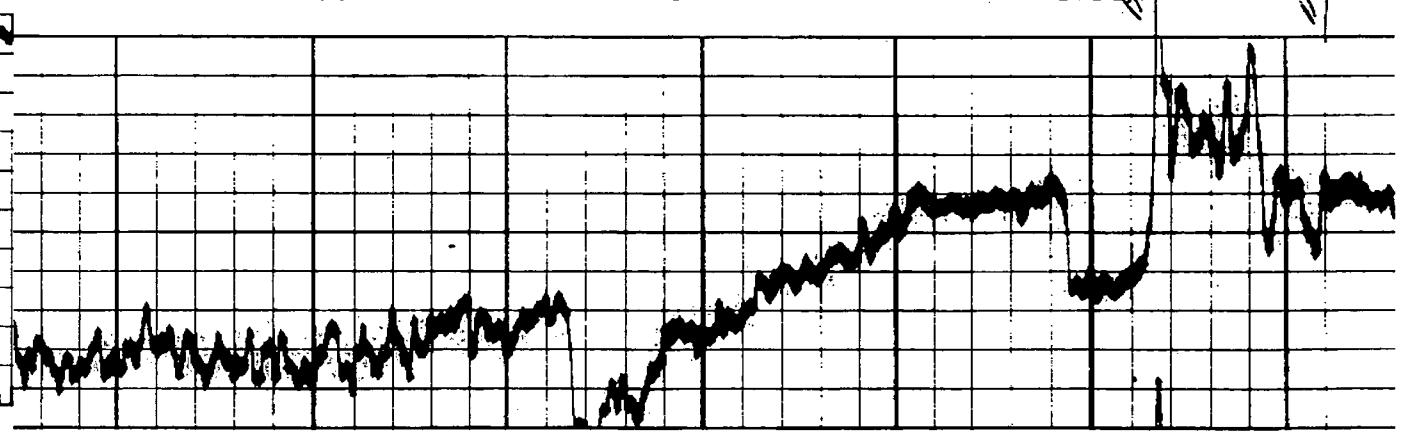
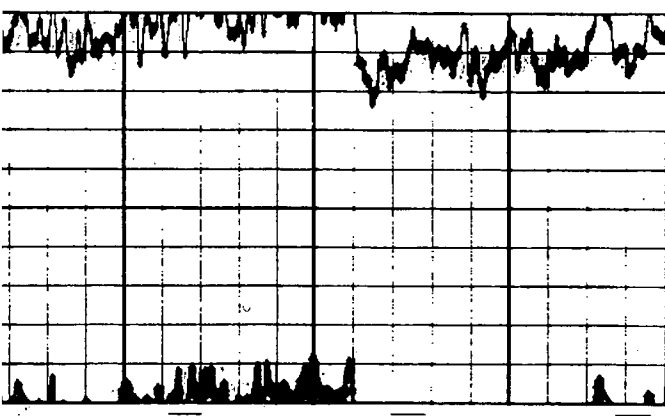
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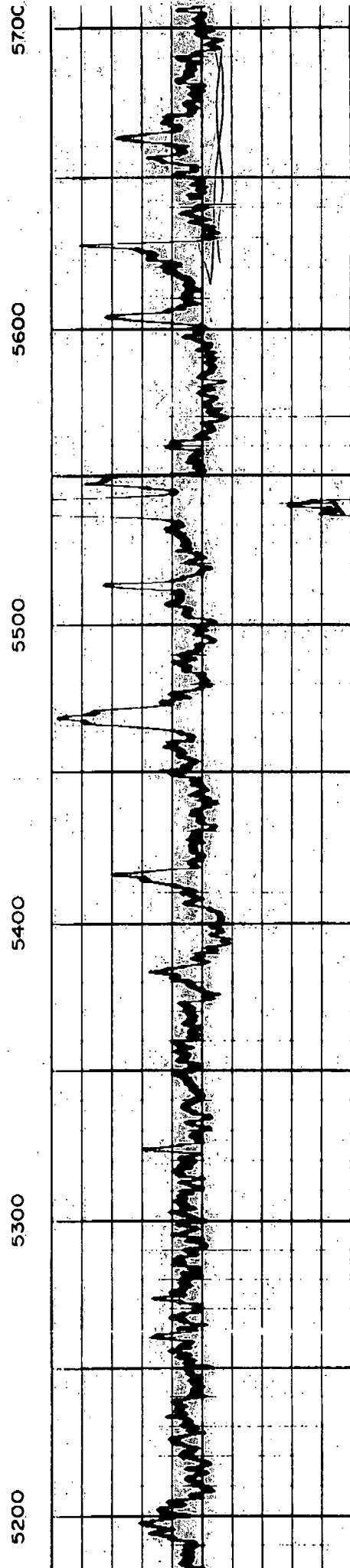
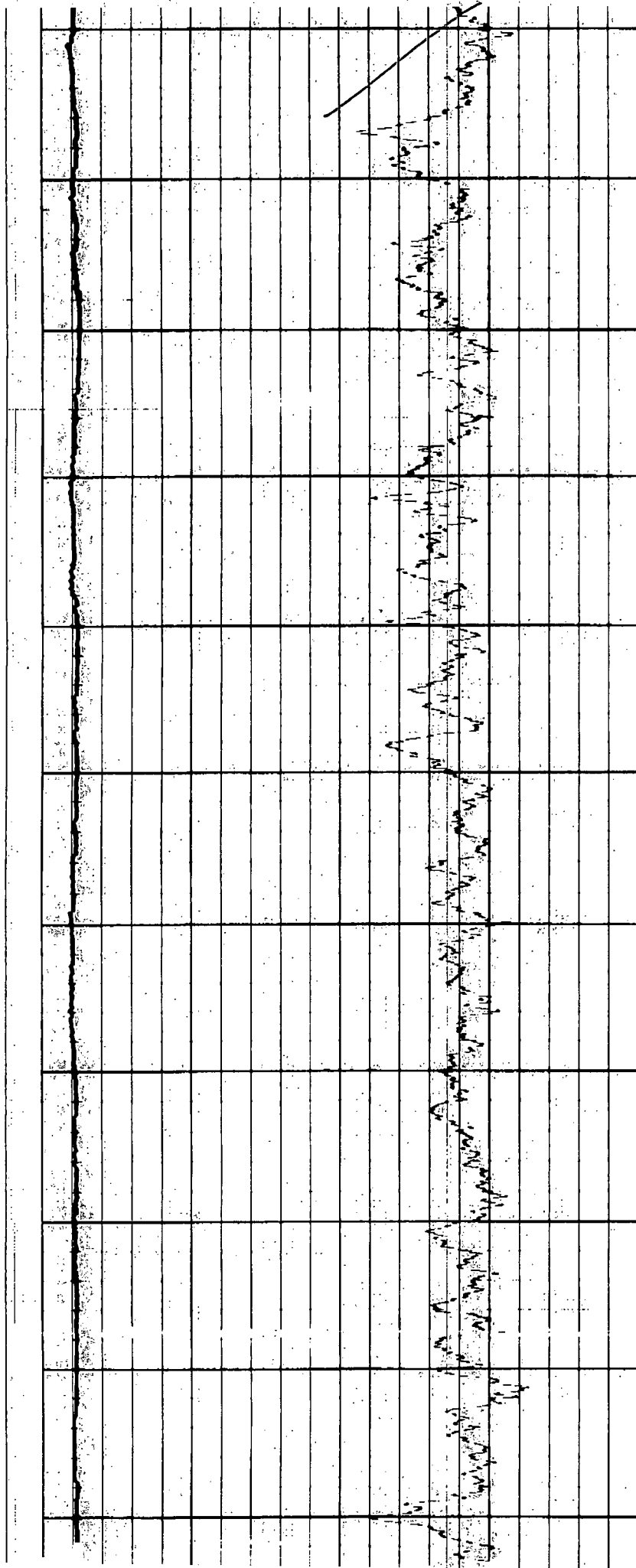
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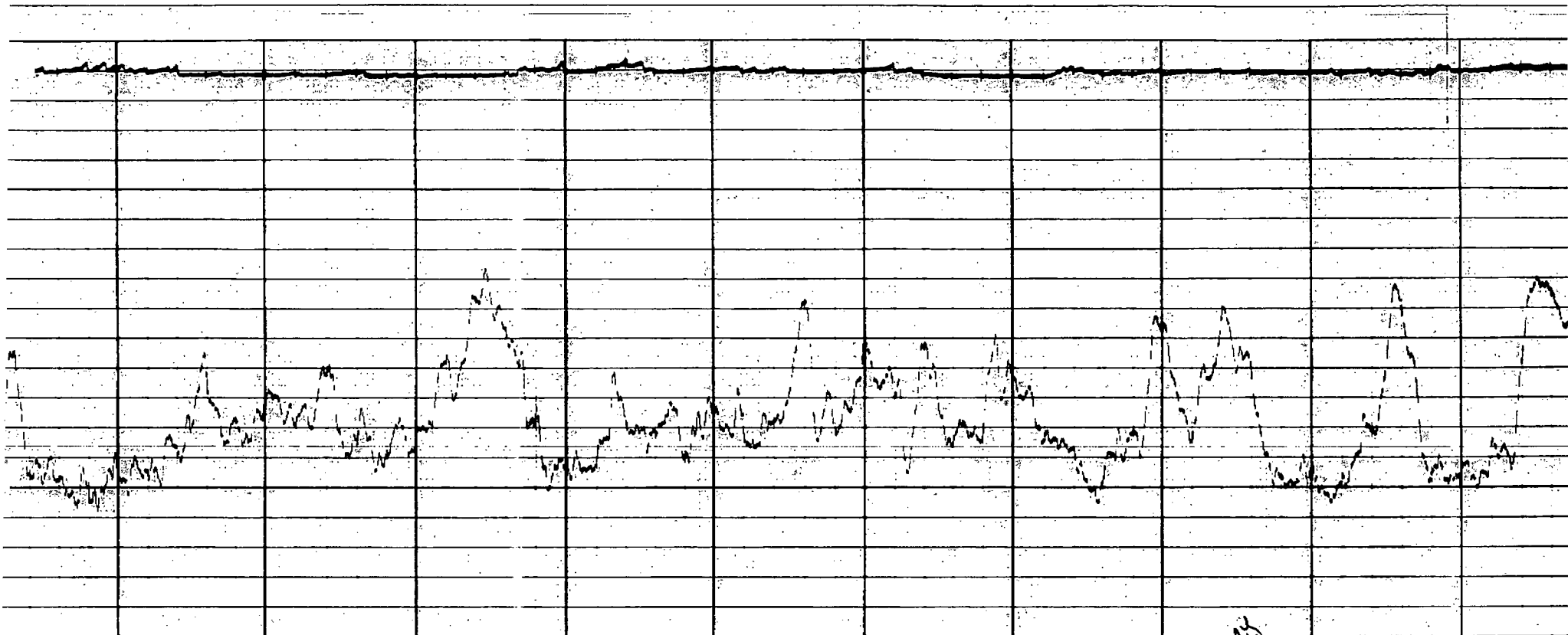
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1962

1964







5800

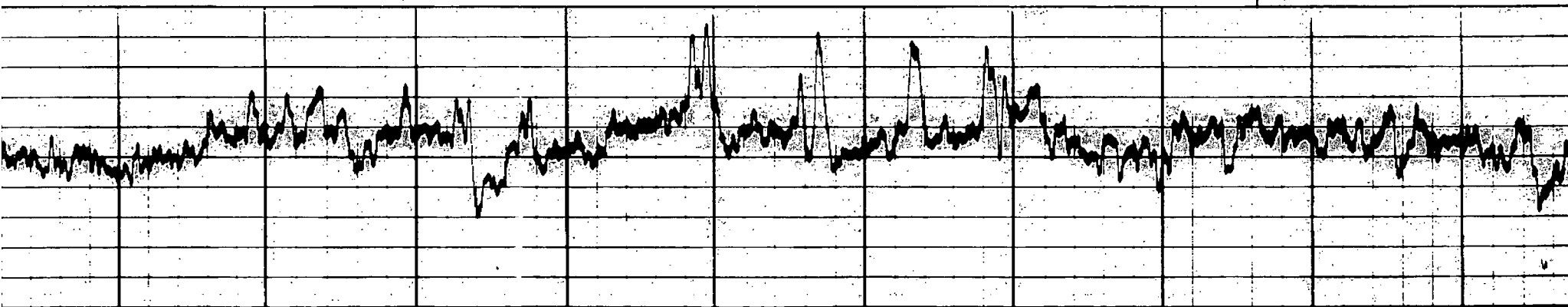
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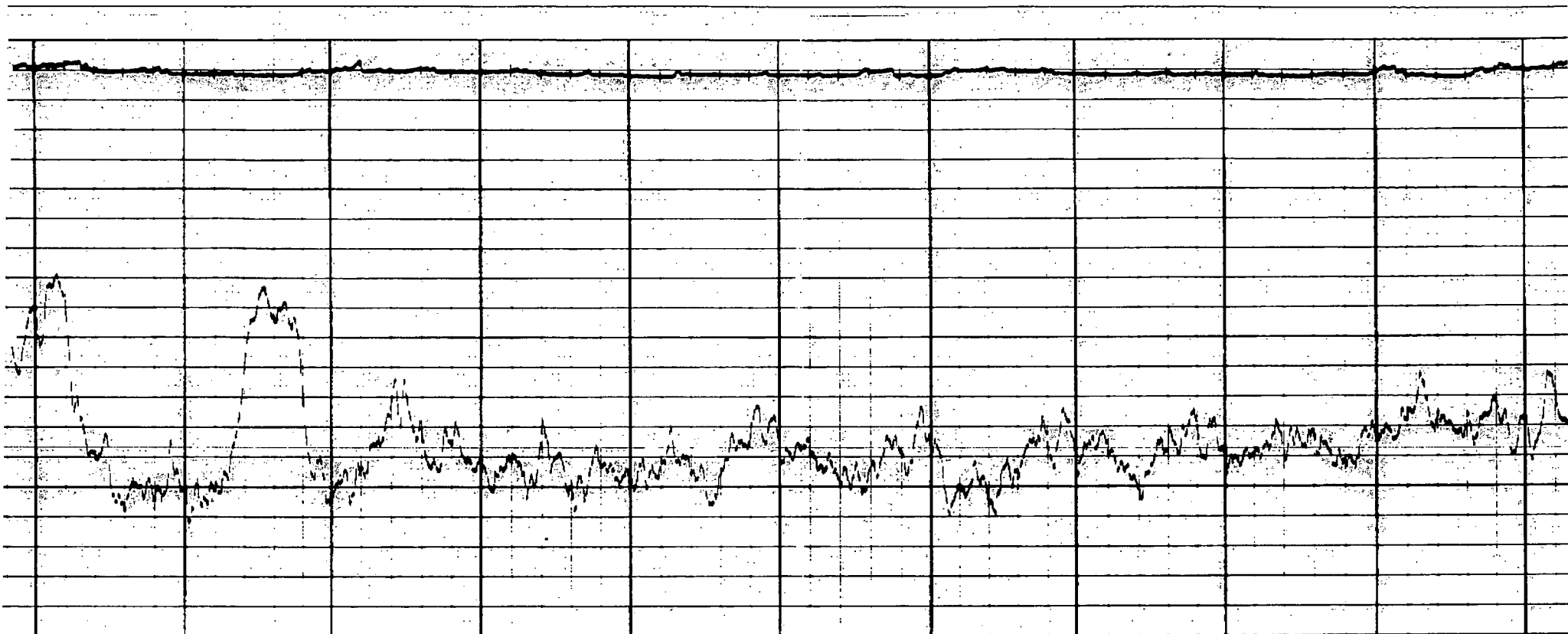
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6100

6200

Cherry





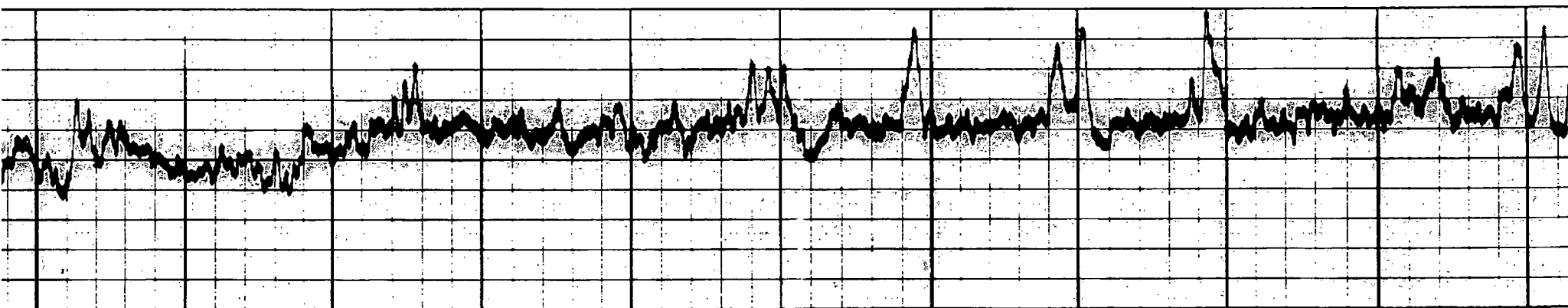
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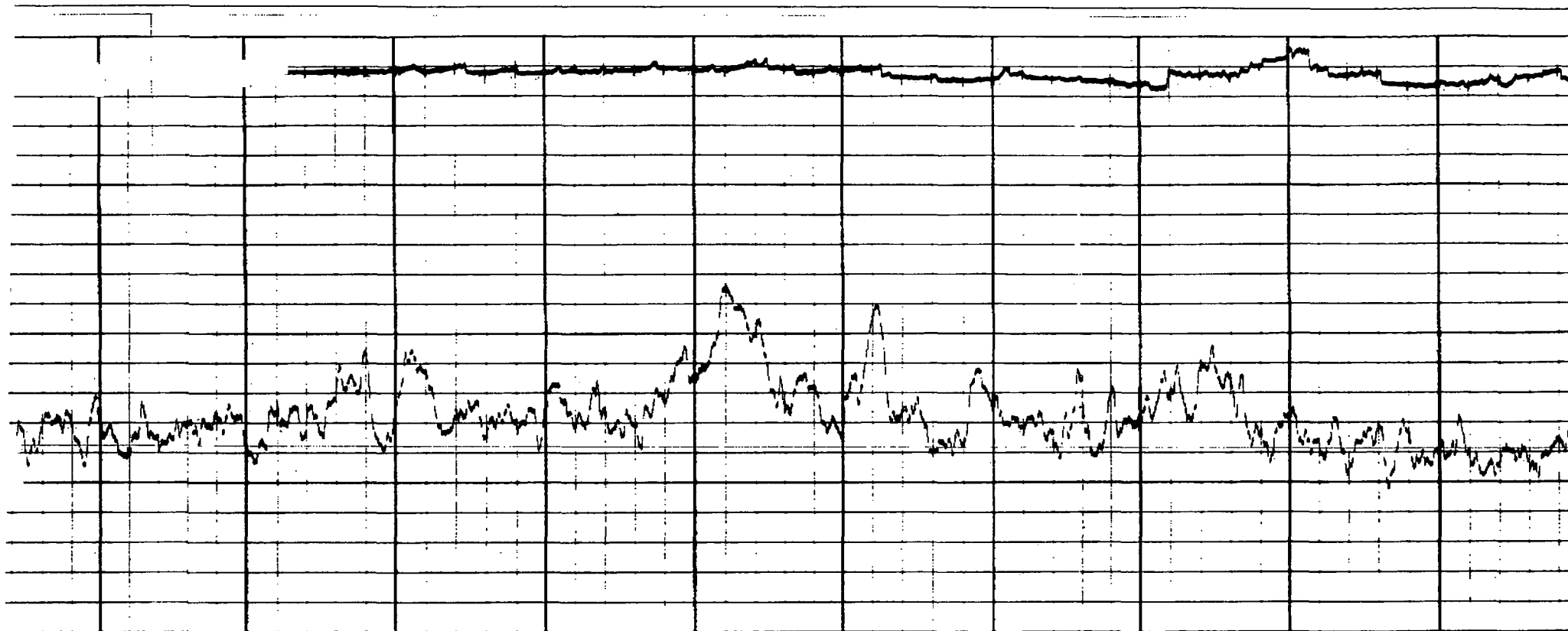
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6600

6700





6800

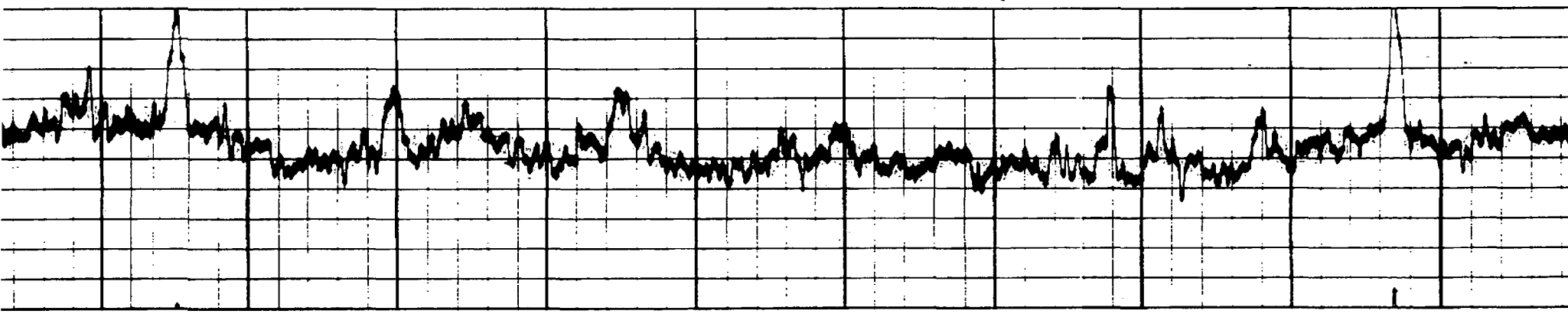
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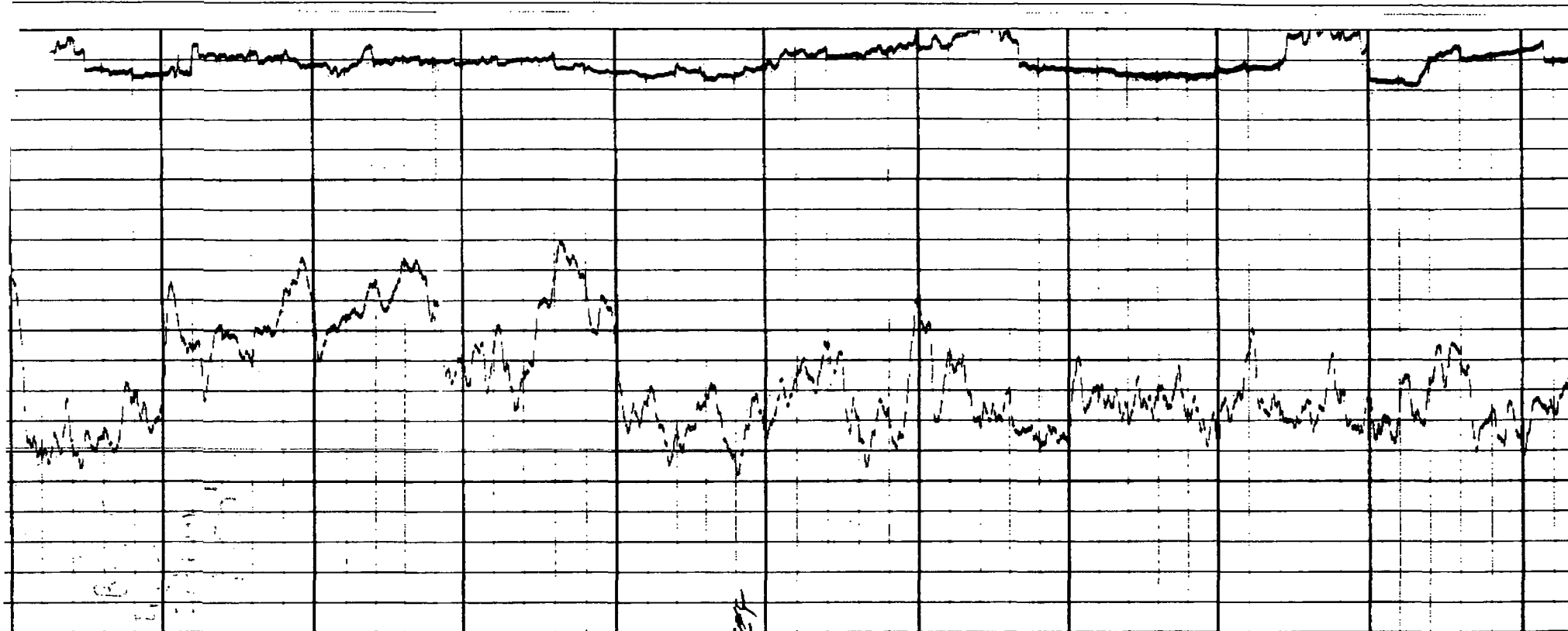
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7200

7





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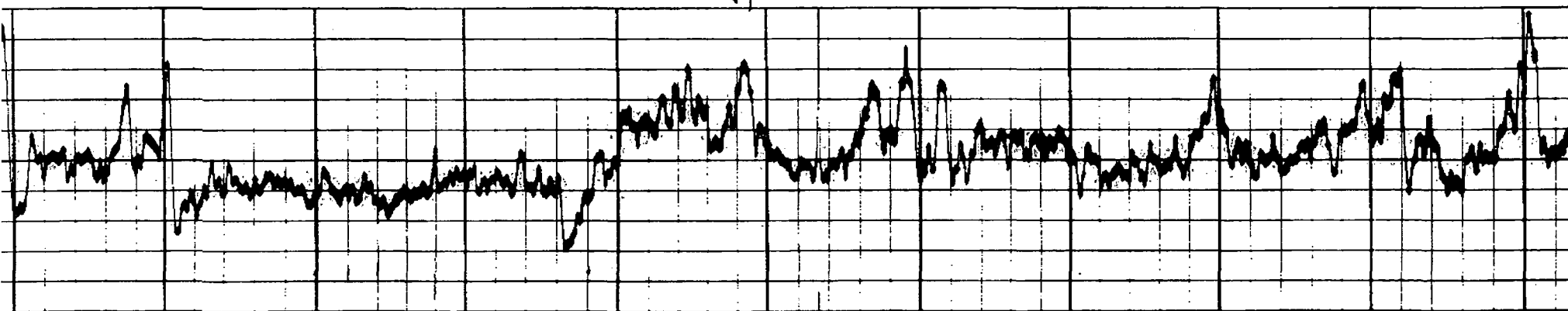
7400

7500

7600

7700

7800



XI.

**Fresh Water Sample
Analyses**

Fresh Water Well HALLIBURTON

PERMAIN BASIN OPERATIONS LABORATORY WATER ANALYSIS REPORT HOBBS, NEW MEXICO

COMPANY: Cog
 LEASE: Angel Water Well
BRP BR

REPORT W13-008
 DATE February 17, 2013
 DISTRICT Hobbs

SUBMITTED BY

SW/4 SW/4 NE/4 SE/4 Sec 17-23s-33e



TANK SAMPLE	BRP BR	Angel			
Sample Temp.	<u>70</u> °F	<u>70</u> °F	°F	°F	°F
RESISTIVITY					
SPECIFIC GR.	<u>1.001</u>	<u>1.001</u>			
pH	<u>7.43</u>	<u>7.93</u>			
CALCIUM	<u>40</u> mpl	<u>35</u> mpl	mpl	mpl	mpl
MAGNESIUM	<u>30</u> mpl	<u>30</u> mpl	mpl	mpl	mpl
CHLORIDE	<u>510</u> mpl	<u>50</u> mpl	mpl	mpl	mpl
SULFATES	<u><400</u> mpl	<u><400</u> mpl	mpl	mpl	mpl
BICARBONATES	<u>200</u> mpl	<u>360</u> mpl	mpl	mpl	mpl
SOLUBLE IRON	<u>0</u> mpl	<u>0</u> mpl	mpl	mpl	mpl
KCL	<u>Neg</u>	<u>Neg</u>			
Sodium	mpl	mpl	mpl	mpl	mpl
TDS	mpl	mpl	mpl	mpl	mpl
OIL GRAVITY	@ 60 °F	@ 60 °F	@ 60 °F	@ 60 °F	@ 60 °F

REMARKS

MPL = Milligrams per liter
 Resistivity measured in: Ohm/m2/m

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ANALYST: T. Rasco



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)											
WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q
C 02277		COM		64.5	BRININSTOOL XL RANCH LLC	LE	C 02277			Shallow	2 3 4 20 23S 33E 632663 3572970*
C 03562	C	STK		3	ATKINS ENGINEERING ASSOC, INC.	LE	C 03562 POD1				3 2 4 17 23S 33E 632747 3574765

Greater than 1 mile away

Record Count: 2

PLSS Search:

Section(s): 8-10, 15-17, 20-22 **Township:** 23S **Range:** 33E

Sorted by: File Number

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C 03562 POD1	3	2	4	17	23S	33E	632747	3574765

Driller License:

Driller Name:

Drill Start Date:

Drill Finish Date:

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:

Well application approved July 20, 2012
appears to be a taking over of an existing
well called the "Graham Well" in
SW1/4 SW1/4 NE1/4 SE1/4 Sec. 17-23s-23e.
Well was drilled in 1972 TD 550', 8 5/8" casing,
water level 504.9'.

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/5/13 2:34 PM

Page 1 of 1

POD SUMMARY - C 03562 POD1



New Mexico Office of the State Engineer

Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 507817

Transaction Desc: C 03562

File Date: 06/22/2012

Primary Status: PMT Permit

Secondary Status: APR Approved

Person Assigned: *****

Agent: ATKINS ENGINEERING ASSOC, INC.

Contact: JESSICA ATKINS

Applicant: LIMESTONE LIVESTOCK, LLC

Contact: BILL ANGELL

Events

Date	Type	Description	Comment	Processed By
06/22/2012	APP	Application Received	*	*****
07/20/2012	FIN	Final Action on application		*****
07/20/2012	WAP	General Approval Letter		*****
12/07/2012	QAT	Quality Assurance Completed	IMAGES	*****
12/18/2012	ARV	Rec & Arch - file location	C 03562 Box: 1317	*****

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03562		3		STK 72-12-1 LIVESTOCK WATERING
**Point of Diversion				
C 03562 POD1		632747	3574765	

Remarks

EXISTING WELL

Conditions

- Total diversion from all wells under this permit number shall not exceed 3 acre-feet per annum.
- This permit authorizes the diversion of water for watering livestock. The total diversion of water under this permit shall not exceed 3 acre-feet per year.
- Any diversion of water made in excess of the authorized maximum diversion amount shall be repaid with twice the amount of the over-diversion during the following calendar year. Repayment shall be made by either: (a) reducing the diversion from the well that is the source of the over-diversion; or (b) acquiring or leasing a valid, existing consumptive use water right in an amount equal to the repayment amount and submitting to the State Engineer for his approval a plan for the proposed repayment.

Action of the State Engineer

Action of the State Engineer

Approval Code: A - Approved

Action Date: 07/20/2012

State Engineer: Scott A. Verhines, P.

2/5/13 2:38 PM

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

2/5/13 2:38 PM

Page 2 of 2

TRANSACTION SUMMARY - C 03562

Locator Tool Report

General Information:

Application ID: 29

Date: 07-16-2012

Time: 15:29:39

WR File Number: C

Purpose: POINT OF DIVERSION

Applicant First Name: LIMESTONE

Applicant Last Name: LIVESTOCK

GW Basin: CARLSBAD

County: LEA

Critical Management Area Name(s): NONE

Special Condition Area Name(s): NONE

Land Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

SW 1/4 of SW 1/4 of NE 1/4 of SE 1/4 of Section 17, Township 23S, Range 33E.

Coordinate System Details:

Geographic Coordinates:

Latitude: 32 Degrees 18 Minutes 6.6 Seconds N
Longitude: 103 Degrees 35 Minutes 24.1 Seconds W

Universal Transverse Mercator Zone: 13N

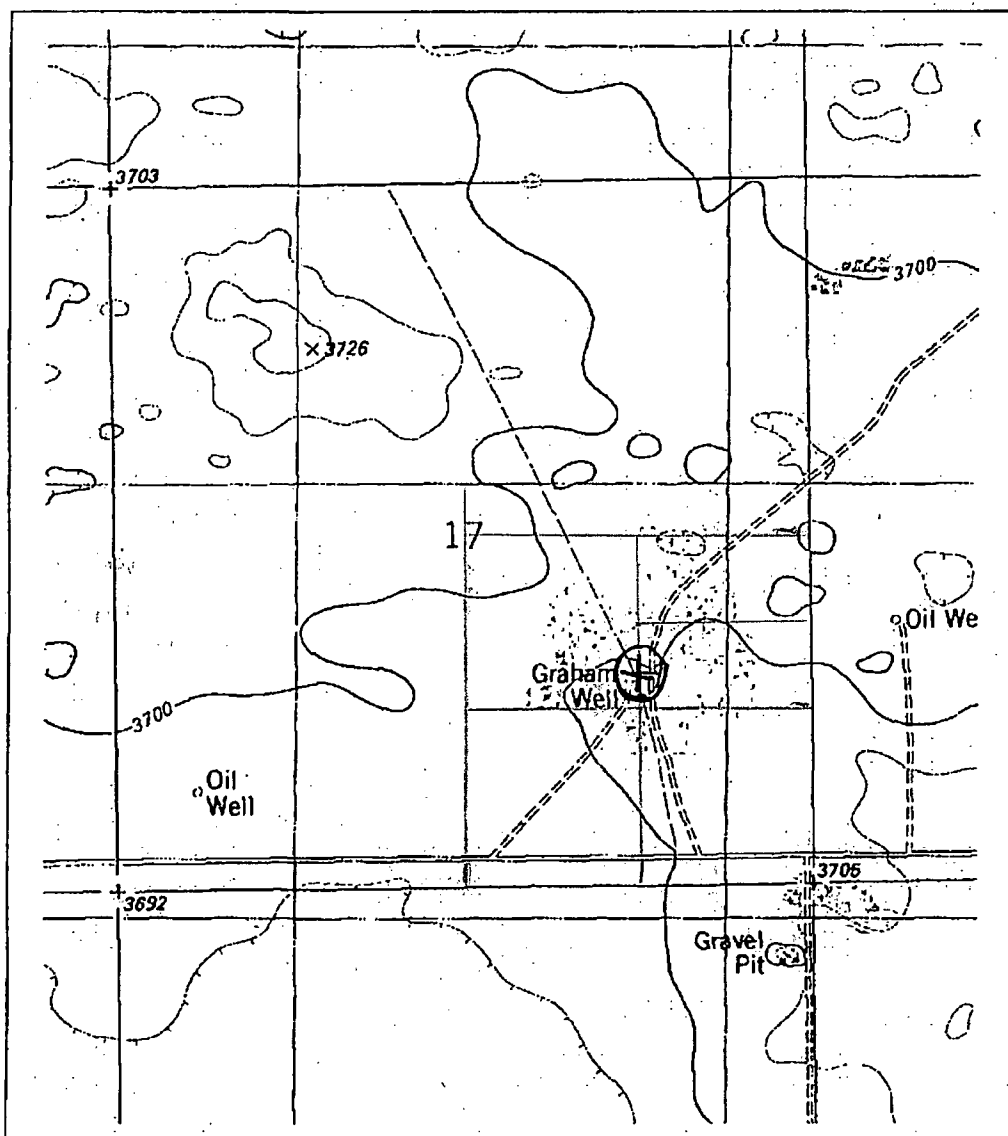
NAD 1983(92) (Meters)	N: 3,574,765	E: 632,747
NAD 1983(92) (Survey Feet)	N: 11,728,209	E: 2,075,938
NAD 1927 (Meters)	N: 3,574,564	E: 632,795
NAD 1927 (Survey Feet)	N: 11,727,547	E: 2,076,097

State Plane Coordinate System Zone: New Mexico East

NAD 1983(92) (Meters)	N: 144,578	E: 235,001
NAD 1983(92) (Survey Feet)	N: 474,336	E: 770,998
NAD 1927 (Meters)	N: 144,560	E: 222,448
NAD 1927 (Survey Feet)	N: 474,276	E: 729,815

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: C

Scale: 1:16,510

Northing/Easting: UTM83(92) (Meter): N: 3,574,765

E: 632,747

Northing/Easting: SPCS83(92) (Feet): N: 474,336

E: 770,998

GW Basin: Carlsbad

N
▲

W L meas after pump shut off _____ min. Pumping W L ()
Remarks _____

Remarks



February 12, 2013

Hobbs News-Sun
P.O. Box 850
Hobbs, NM 88240

Re: Legal Notice
Salt Water Disposal Well
Bebidas 16 State SWD #2

To Whom It May Concern:

Enclosed is a legal notice regarding New Mexico Oil Conservation Division C-108
Application for Authorization to Inject for a salt water disposal well.

Please run this notice and return the proof of notice to the undersigned at:

COG Operating LLC, 2208 W. Main St., Artesia, NM 88210

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins", written over a horizontal line.

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures

HOBBS NEWS SUN
LEGAL NOTICE

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Bebidas 16 State SWD No. 2 is located 1980' FNL & 1980' FEL, Section 16, Township 23 South, Range 33 East, Lea County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Delaware formation at a depth of 5050' to 7400' at a maximum surface pressure of 1010 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 26 miles west of Jal. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Hobbs News Sun, Hobbs, New Mexico
_____, 2013.

**Legal Notice
February 14, 2013**

COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210 has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Bebidas 16 State SWD No. 2 is located 1980' FNL & 1980' FEL, Section 16, Township 23 South, Range 33 East, Lea County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware and Bone Spring formations. The disposal water will be injected into the Delaware formation at a depth of 5050' to 7400' at a maximum surface pressure of 1010 psi and a maximum rate of 10,000 BWP/D. The proposed SWD well is located approximately 26 miles west of Jal. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.
#27916



March 15, 2013

New Mexico State Land Office
310 Old Santa Fe Trail,
Santa Fe, NM 87501

Re: Application to Inject
Bebidas 16 State SWD # 2
Township 23 South, Range 33 East, N.M.P.M.
Section 16: 1980' FNL & 1980' FEL
Lea County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to drill this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures



March 15, 2013

Oil Conservation Division
Attn: Paul Kautz
1625 North French Dr.
Hobbs, NM 88240

RE: Application For Authorization To Inject
Bebidas 16 State SWD # 2
Township 23 South, Range 33 East, N.M.P.M.
Section 16: 1980' FNL & 1980' FEL
Lea County, New Mexico

Dear Mr. Kautz:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures



March 15, 2013

Adventure Exploration
500 W. Texas Ave, #1000
Midland, TX 79701

RE: Application For Authorization To Inject
Bebidas 16 State SWD # 2
Township 23 South, Range 33 East, N.M.P.M.
Section 16: 1980' FNL & 1980' FEL
Lea County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to drill this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as the surface owner, an operator or a lessee within a half mile radius area of review. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures



March 15, 2013

Devon Energy Production Company, LP
333 W. Sheridan Avenue
Oklahoma City, OK 73102

RE: Application For Authorization To Inject
Bebidas 16 State SWD # 2
Township 23 South, Range 33 East, N.M.P.M.
Section 16: 1980' FNL & 1980' FEL
Lea County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to drill this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as the surface owner, an operator or a lessee within a half mile radius area of review. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures



RECEIVED OCD
2013 MAR 21 P 2:17

March 15, 2013

New Mexico Oil Conservation Division
Attn: William V. Jones
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Application For Authorization To Inject
Bebidas 16 State SWD # 2
Township 23 South, Range 33 East, N.M.P.M.
Section 16: 1980' FNL & 1980' FEL
Lea County, New Mexico

Dear Mr. Jones:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures