10/03/2014 DATE IN	SUSPENSE	PRG ENGINEER	10/07/2014 LOGGED IN	SWD TYPE	pmam1427152070 APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

1523

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

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]

- SWD
- COG operating LLC
22 9137

[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 _____

RECEIVED OCD
2014 OCT -3 P 2:53

[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

well
- Macho nacho 7 State SWD #1
Pool
- SWD; Delaware
96100

[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		SENIOR OPERATIONS ENGINEER	30 Sep 2014
Print or Type Name	Signature	Title	Date

bcollins@concho.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

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: 30 Sep 2014

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: ____

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

C-108 Application for Authorization to Inject
MACHO NACHO 7 STATE SWD 1
2000' FNL, 2200' FWL
Unit F, Sec 7, T24S, R33E
Lea County, NM

COG Operating, LLC, proposes to drill the captioned well and make it into an open hole Delaware Sand SWD well from approximately 5300' to 7400'.

V. Map is attached.

VI. Wells within the ½ mile radius area of review penetrating the proposed injection zone. There are four wells that penetrate the top of the Delaware Sand, but not the proposed injection interval. Well bore schematics are attached.

VII. 1. Proposed average daily injection rate = 7000 BWPD
Proposed maximum daily injection rate = 15,000 BWPD

2. Closed system

3. Proposed maximum injection pressure = 1060 psi
(0.2 psi/ft. x 5300' ft.)

4. Source of injected water will be Delaware Sand and Bone Spring produced water. No compatibility problems are expected (we've seen no compatibility issues in the numerous Delaware Sand SWD wells we operate that take Delaware Sand and Bone Spring produced waters). Analyses of Delaware Sand and Bone Spring waters are attached. The Delaware Sand water analysis is representative of the water in the receiving zone.

VIII. The injection zone is the Delaware Sand from 5300' to 7400' which is composed of porous fine-grained sandstone. Any underground water sources will be shallower than 1200' based on surface casing setting depth (above the Rustler). Water wells outside the 1 mile area of review for fresh water appear to be shallower than 500'.

IX. The Delaware Sand injection interval might be acidized with approximately 15,000 gals of 15% HCl acid.

X. Well logs will be filed with the Division. The Delaware Sand section will be mud logged when drilled. The neutron density porosity log section for the proposed injection interval from the nearby Eata Fajita 8 State SWD 1 (Sec. 8-24s-33e) is attached.

XI. There are no fresh water wells within a mile of the proposed SWD well.

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

Side I

INJECTION WELL DATA SHEET

OPERATOR: COG Operating, LLC

WELL NAME & NUMBER: Macho Nacho 7 State SWD No. 1

WELL LOCATION:	2000' FNL, 2200' FWL	F	7	24s	33e
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

See Attached Schematic

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8" @ ± 1200'

Cemented with: – sx. *or* ± 1700 ft³

Top of Cement: Surface Method Determined: Design

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8" @ ± 5300'

Cemented with: – sx. *or* ± 3300 ft³

Top of Cement: Surface Method Determined: Design

Production Casing

Hole Size: 8 3/4" Casing Size: N/A

Cemented with: N/A sx. *or* N/A ft³

Top of Cement: N/A Method Determined: N/A

Total Depth: 7400'

Injection Interval

5300' feet to 7400'

(Perforated or (Open Hole); indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 4 1/2" Lining Material: Glassbore

Type of Packer: Nickel plated double grip retrievable

Packer Setting Depth: ± 5250'

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

Additional Data

1. Is this a new well drilled for injection? X Yes _____ No

   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Delaware Sand

3. Name of Field or Pool (if applicable): Triple X

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

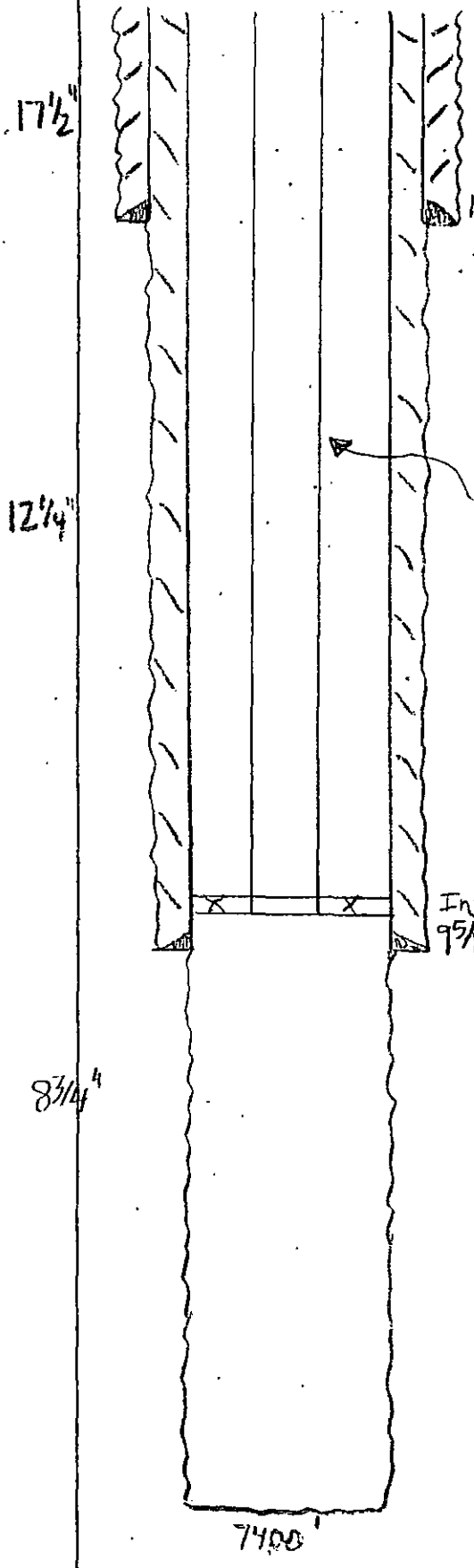
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Overlying: Delaware (Bell Cnyn) 4964-5063' Nearby wells plugged. One well is SWD well.

   Underlying: Bone Spring 10396-11050', Wolfcamp 12693-13708',
   Morrow 14922-14932'

30-025-

Macho Nacho 7 State SWD 1
2000' FNL, 2300' FWL
F-7-24S-33E
Lea, NM

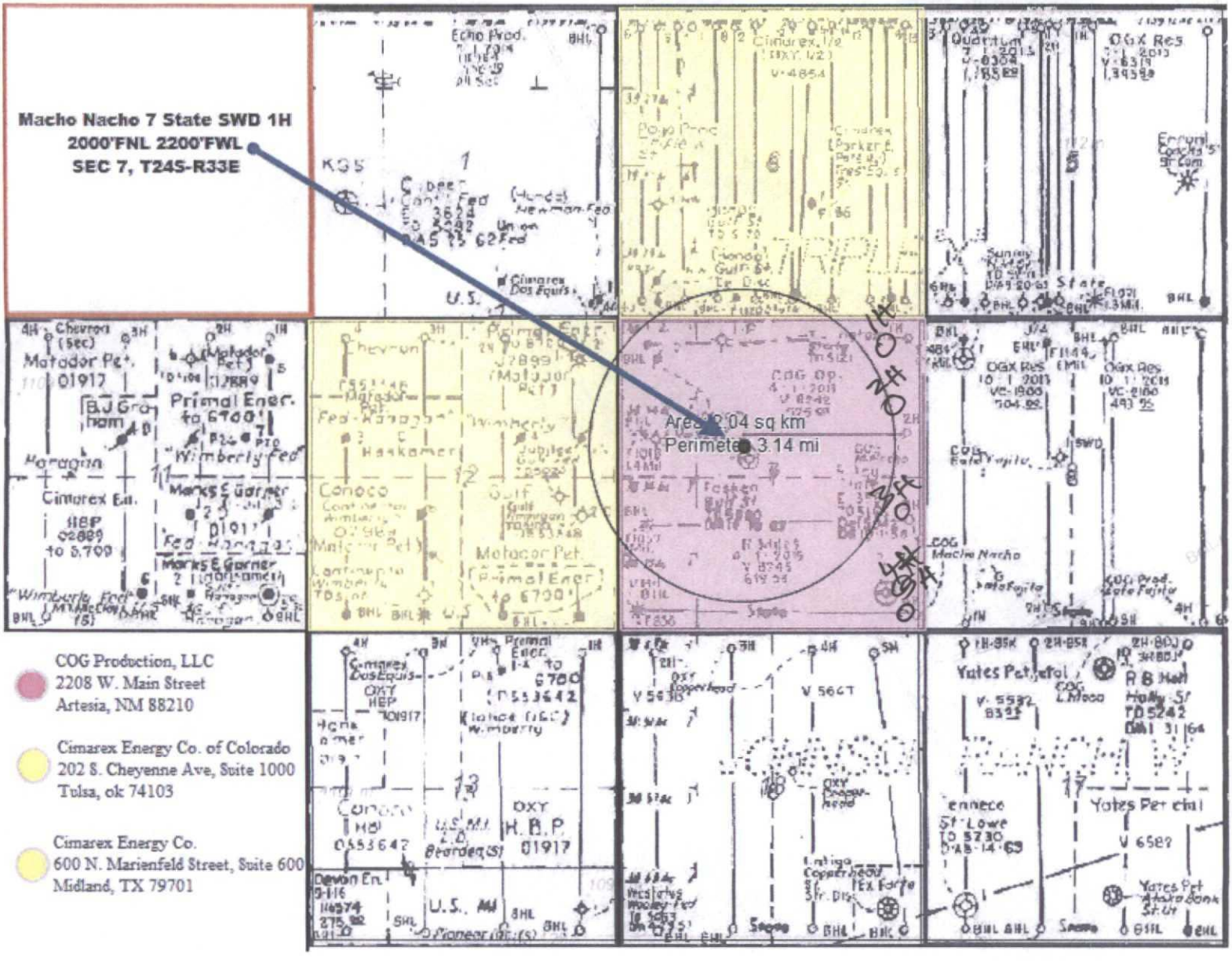


Proposed Well Configuration

Delaware Sand
OH 5300'-7400'

V.

MAP

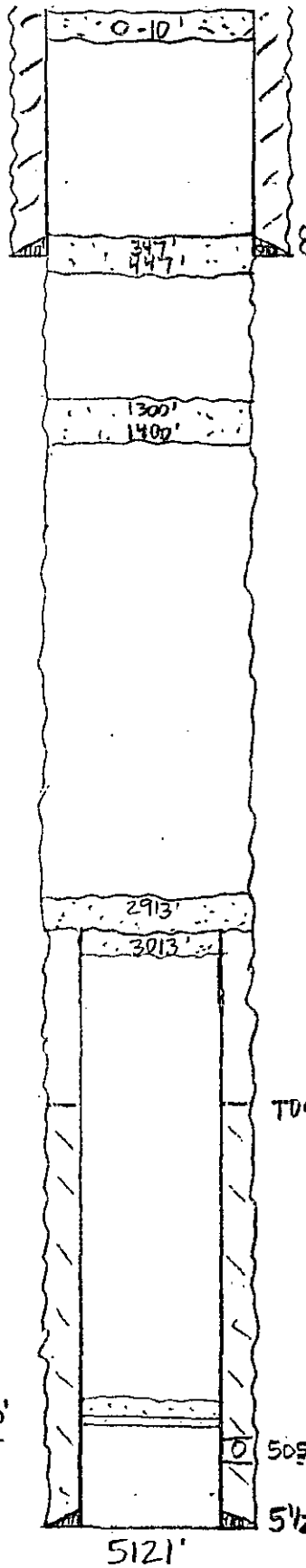

Macho Nacho 7 State SWD 1H
2000'FNL 2200'FWL
SEC 7, T24S-R33E
Area: 2.04 sq km
Perimeter: 3.14 mi
COG Production, LLC
2208 W. Main Street
Artesia, NM 88210
Cimarex Energy Co. of Colorado
202 S. Cheyenne Ave, Suite 1000
Tulsa, ok 74103
Cimarex Energy Co.
600 N. Marienfeld Street, Suite 600
Midland, TX 79701

VI.

Wells Penetrating Proposed Disposal Interval Within Half Mile Area of Review

30-025-24634

State P #1
330' FNL, 1750' FWL
C-7-24S-33E
Lea, NM

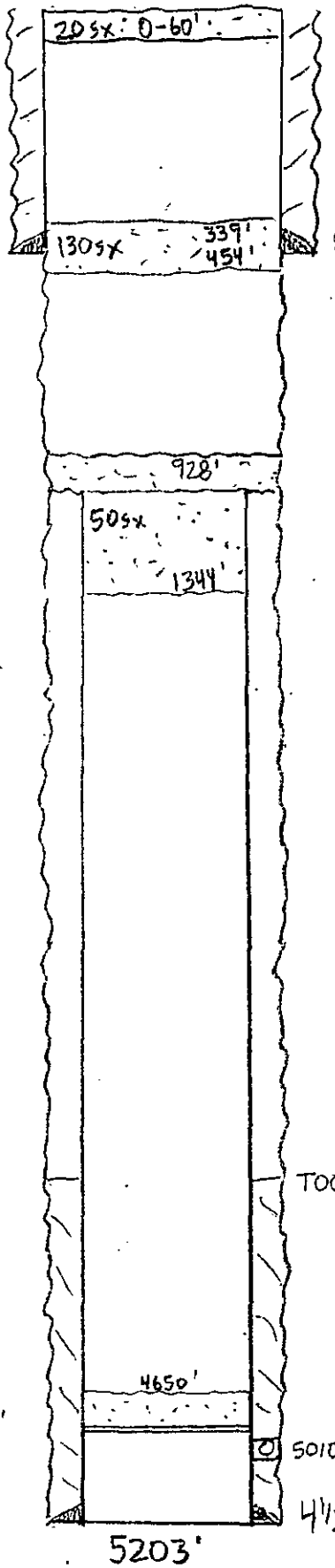


Cut & pull 2963' 5½"

Within ½ Mile Area of Review
Shallower Than Proposed Injection Interval

30-025-24347

State O #1
660' FNL, 660' FWL
D-7-24s-33e
Lea, NM



8 5/8"/29 @ 404' 200sx "C" (circ)

Cut & pull 970' 4½"

TOC 3467' Calc/Est.

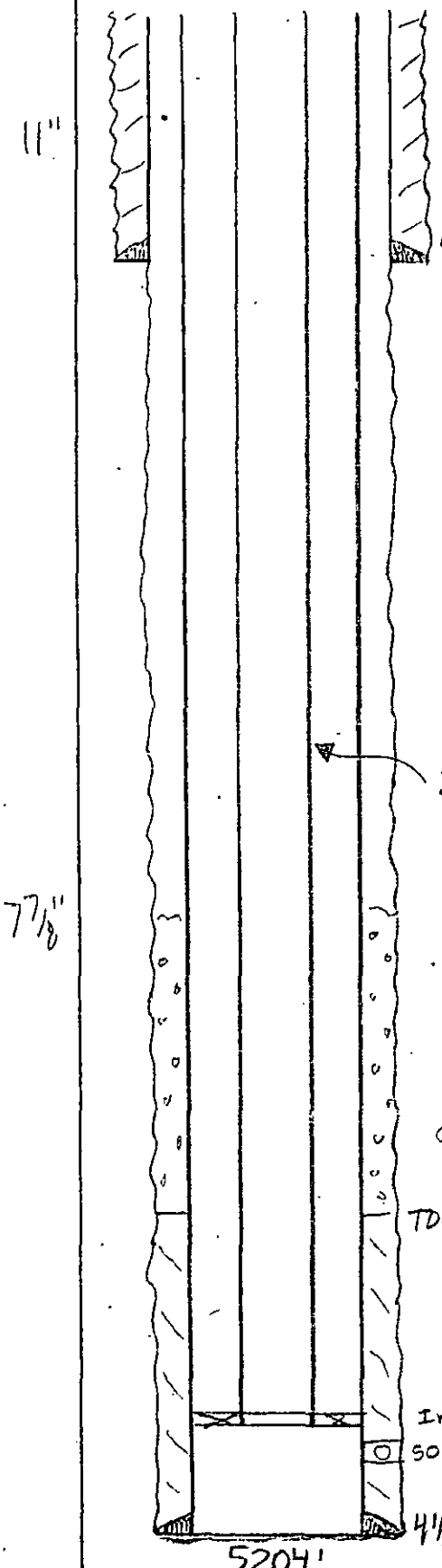
Delaware

4½"/11.6/J55 @ 5203' 300sx "C"

Within ½ Mile Area of Review
Shallower Than Proposed Injection Interval

30-025-24432

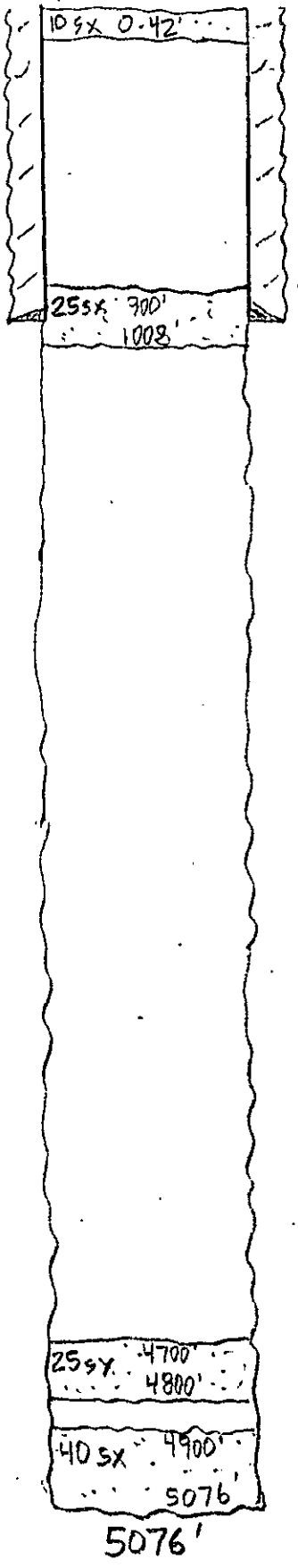
Ingram O St #2 SWD
1,980' FNL, 660' FWL
E-7-24s-33e
Lea, NM



Within 1/2 Mile Area of Review
Shallower Than Proposed Injection Interval

30-025-08368

Gulf State 7
2310' FNL, 2255' FWL
F-7-24s-33e
Lea, NM



@ 958' 300sx 50-50-6 Poz + 100sx neat (circ)

Within 1/2 Mile Area of Review
Shallower Than Proposed Injection Interval

VII.

Water Analysis Produced and Receiving Formation Water

Bone Spring Prodvced Water Sample

Analytical Laboratory Report for:

MARBOB ENERGY CORPORATION

BJ Chemical Services

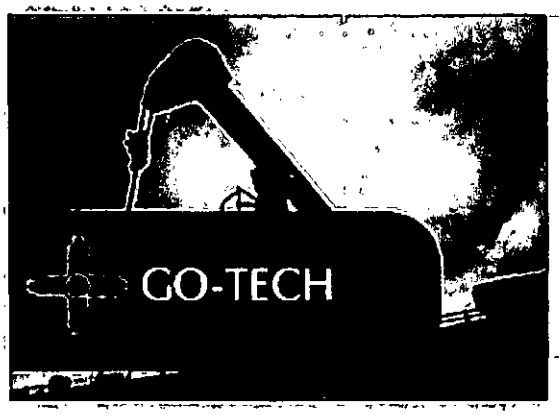
Account Representative:
Polk, Bill

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	11057	(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	126800	(Cl^{-})
Gases:		
Carbon Dioxide	170	(CO_2)
Hydrogen Sulfide	17	(H_2S)



- 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

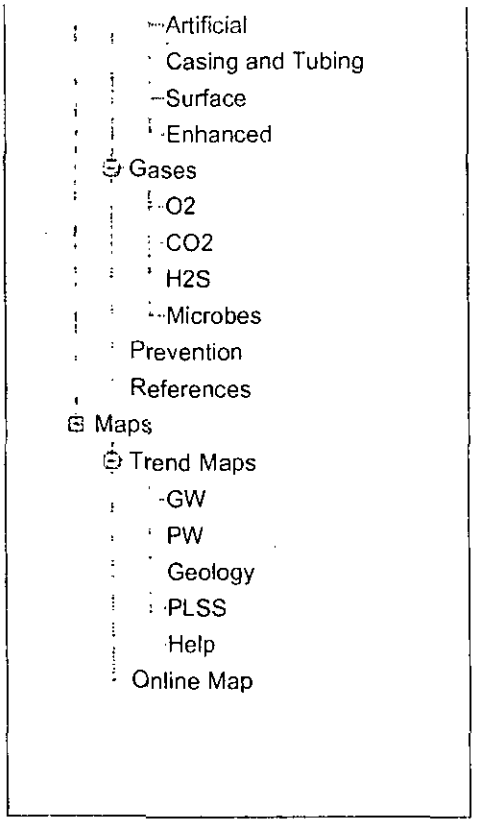
OCD well/log image files

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



Calcium (Ca)		Carbonate (CO_3)	
Magnesium (Mg)		Bicarbonate (HCO_3)	168
Barium (Ba)		Hydroxide (OH)	
Manganese (Mn)		Hydrogen Sulfide (H_2S)	
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

ORIGINAL

HALLIBURTON

SPECTRAL GAMMA RAY
DUAL SPACED NEUTRON
SPECTRAL DENSITY

COMPANY COG OPERATING LLC
WELL EATA FAJITA 8 STATE SWD #1
FIELD/BLOCK SWD; DELAWARE
COUNTY LEA
STATE NEW MEXICO

COMPANY **COG OPERATING LLC**

WELL **EATA FAJITA 8 STATE SWD #1**

FIELD/BLOCK **SWD; DELAWARE**

COUNTY **LEA** STATE **NEW MEXICO**

API No. 30-025-40845
Location 2310' FNL AND 2310' FWL

Other Services:
DLLT/MGRD

Sect. 8 Twp. 24S Rge. 33E

Permanent Datum	GL	Elev. 3611.0 ft	Elev.: K.B. 3628.0 ft
Log measured from	KB	17.0 ft above perm. Datum	D.F. 3627.0 ft
Drilling measured from	KB		G.L. 3611.0 ft

Date		20-May-13			@		@
Run No.		ONE					
Depth - Driller		7490.00 ft					
Depth - Logger		7476.0 ft					
Bottom - Logged Interval		7409.0 ft					
Top - Logged Interval		200.0 ft					
Casing - Driller		9.625 in	@ 5429.0 ft		@		@
Casing - Logger		5420.0 ft					
Bit Size		8.750 in			@		@
Type Fluid in Hole		BRINE					
Density	Viscosity	8.8 ppg	28.00 s/qt				
PH	Fluid Loss	10.00 pH					
Source of Sample		FLOWLINE					
Rm @ Meas. Temperature		0.140 ohmm	@ 75.00 degF		@		@
Rmf @ Meas. Temperature		0.10 ohmm	@ 75.00 degF		@		@
Rmc @ Meas. Temperature		0.159 ohmm	@ 75.00 degF		@		@
Source Rmf	Rmc	MEAS	MEAS				
Rm @ BHT		0.08 ohmm	@ 135.0 degF		@		@
Time Since Circulation		8.0 hr					
Time on Bottom		21-May-13 00:06					
Max. Rec. Temperature		135.0 degF	@ 7476.0 ft		@		@
Equipment	Location	10326831	HOBBS, NM				
Recorded By		YASIN ABULAIHA		ANDONI DIAMONDIS			
Witnessed By		DANIEL MARTINEZ					

Fold here

Service Ticket No.: 900452665 API Serial No.: 30-025-40845 PGM Version: WL INSITE R3.8.10 (Build 5)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

Date	Sample No.	Type Log	Depth	RESISTIVITY SCALE CHANGES Scale Up Hole	Scale Down Hole
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				

RESISTIVITY EQUIPMENT DATA

Source of Sample	Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Rm @ Meas. Temp	@				
Rmf @ Meas. Temp	@				
Rmc @ Meas. Temp	@				
Source Rmf	Rmc				
Rm @ BHT	@				
Rmf @ BHT	@				
Rmc @ BHT	@				

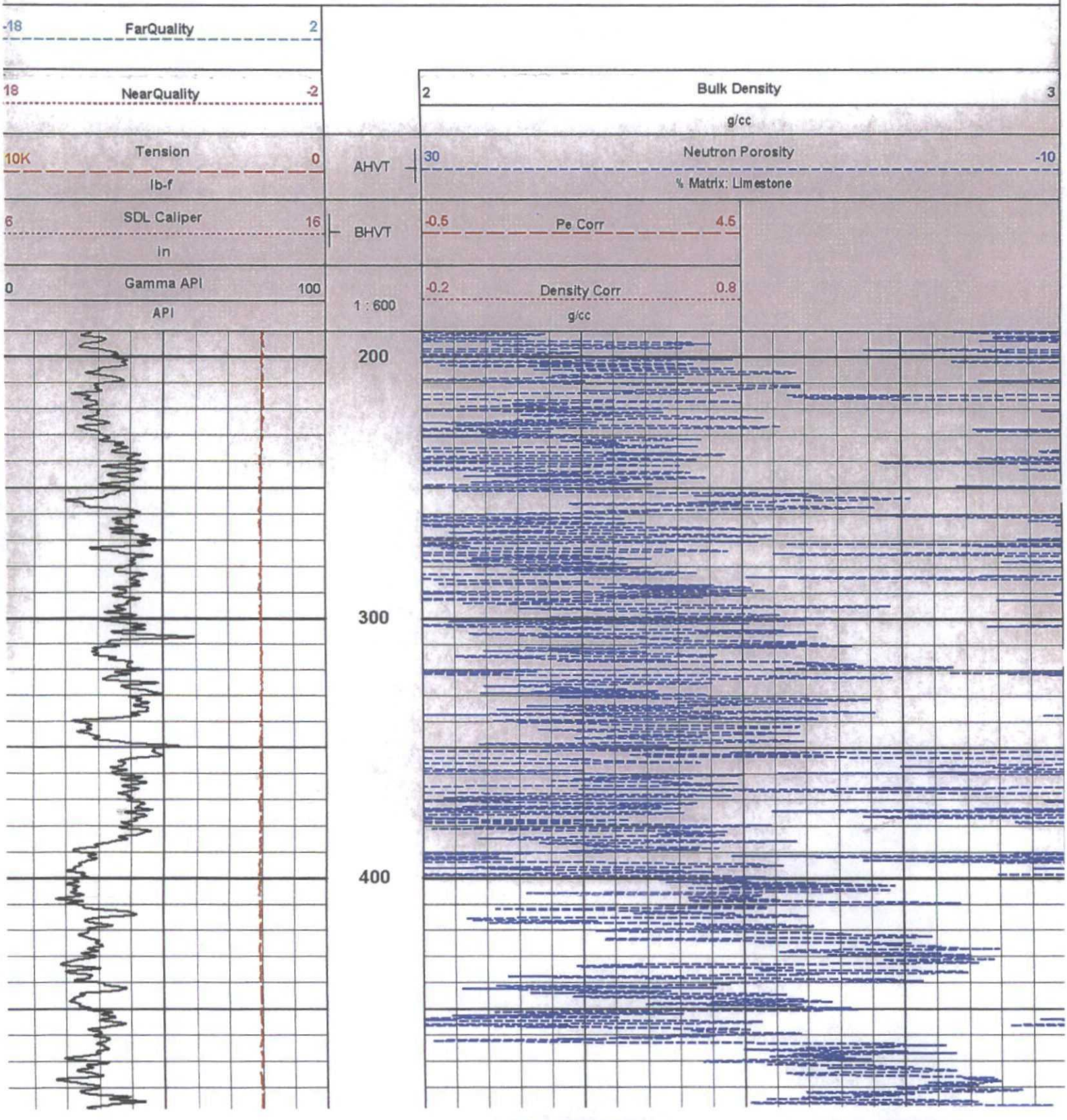
EQUIPMENT DATA

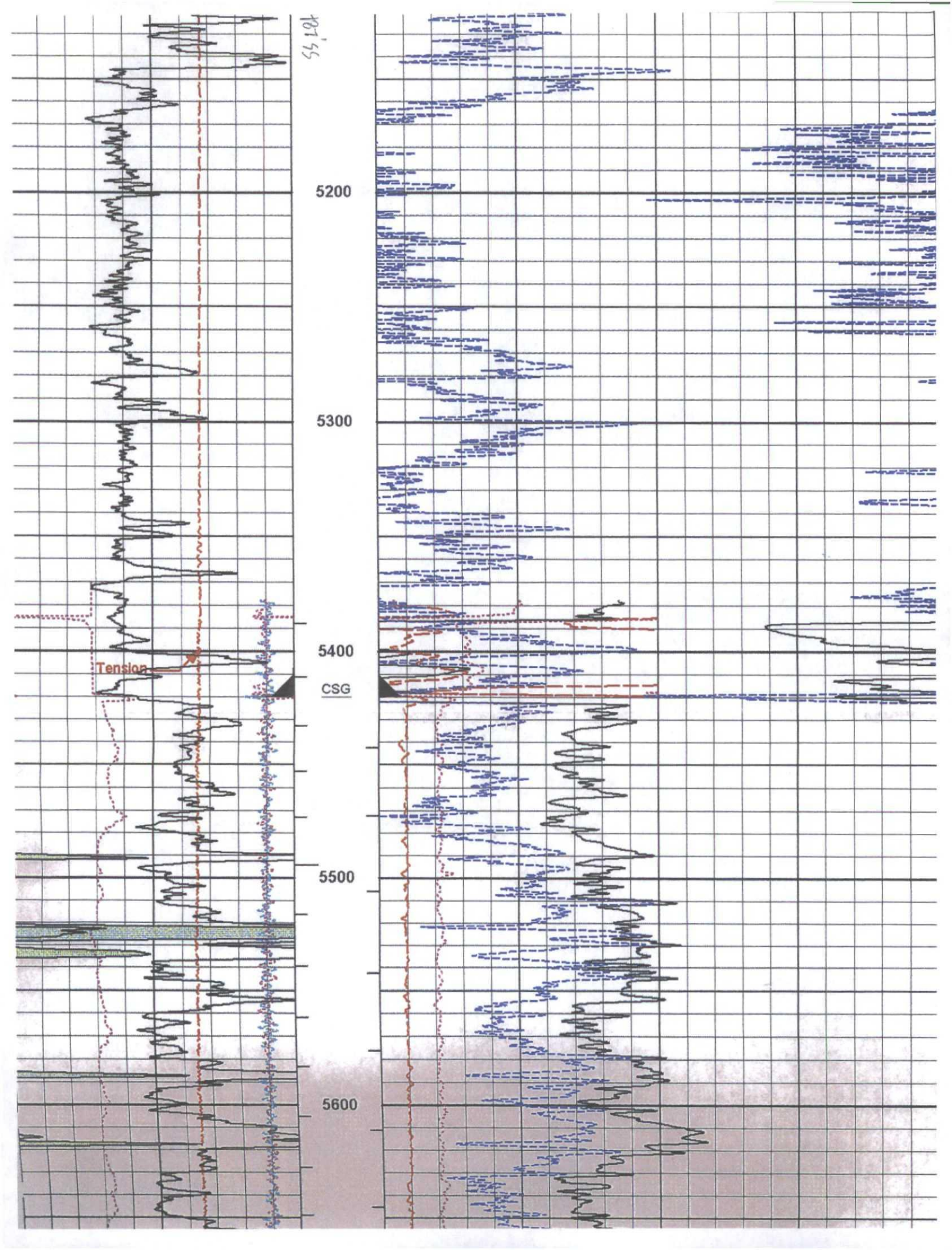
GAMMA ACOUSTIC				DENSITY				NEUTRON			
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE				
Serial No.	10846350YL	Serial No.		Serial No.	11899221PR	Serial No.	11899188_PR				
Model No.	CSNG	Model No.		Model No.	SDLT	Model No.	DSNT				
Diameter	3.625"	Diameter		Diameter	4.5"	Diameter	3.625"				
Detector Model No.	T-102A	Spacing		Log Type	GAM-GAM	Log Type	NEU-NEU				
Type	SCINT.			Source Type	Cs 137	Source Type	Am241Be				
Length	8"	LSA [Y/N]		Serial No.	5107 GW	Serial No.	DSN - 372				

HALLIBURTON

Plot Time: 21-May-13 02:44:52
Plot Range: 190 ft to 7480 ft
Data: 0520_COG\Well Based\DAQ-0001-004\
Plot File: \\CSNG_DSNT_SDLT\DSNT-SDLT 2in

MAIN PASS 2" = 100' (LIMESTONE MATRIX)

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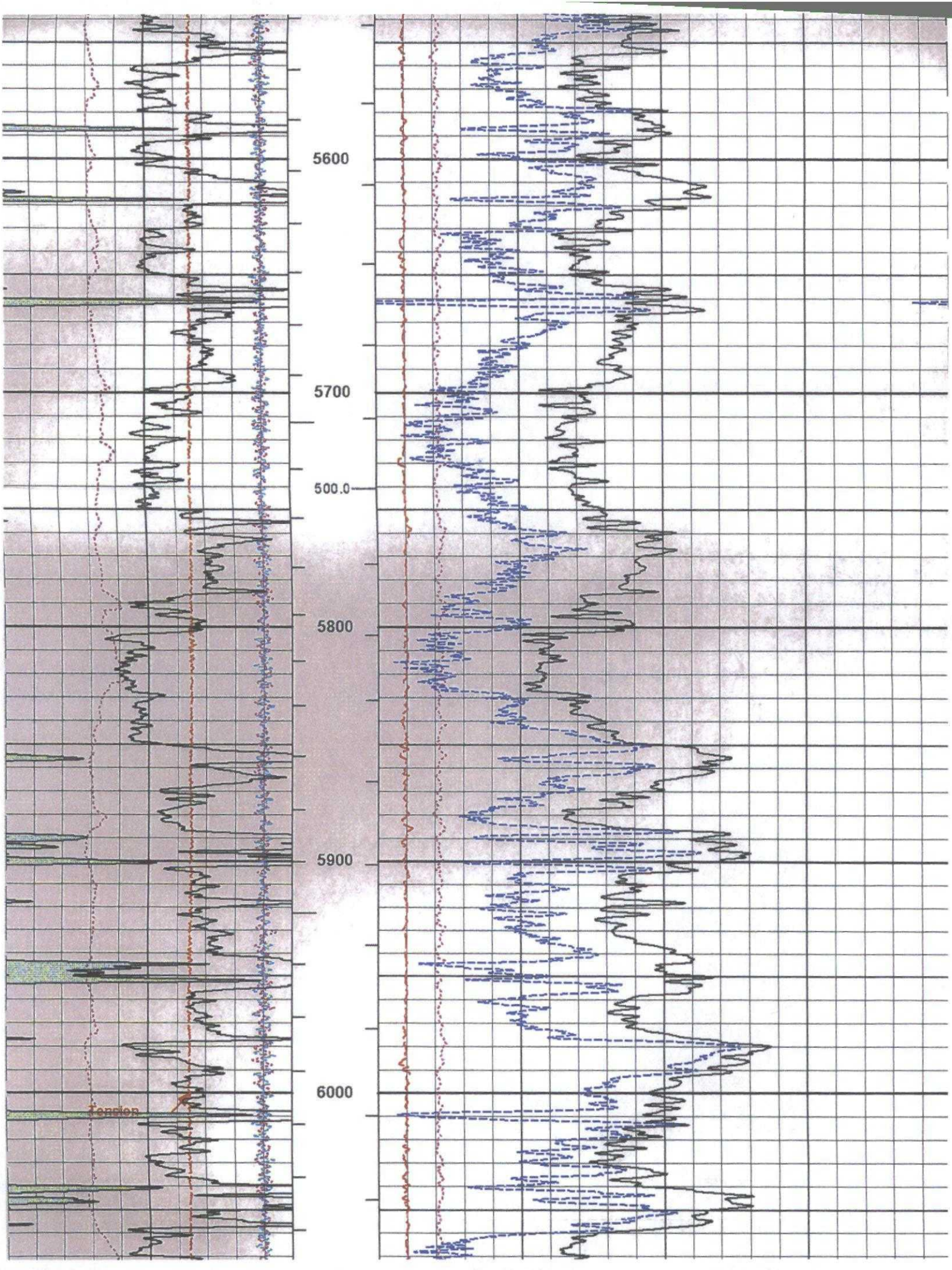
5300
5400
5500
5600
Tension
CSG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5700
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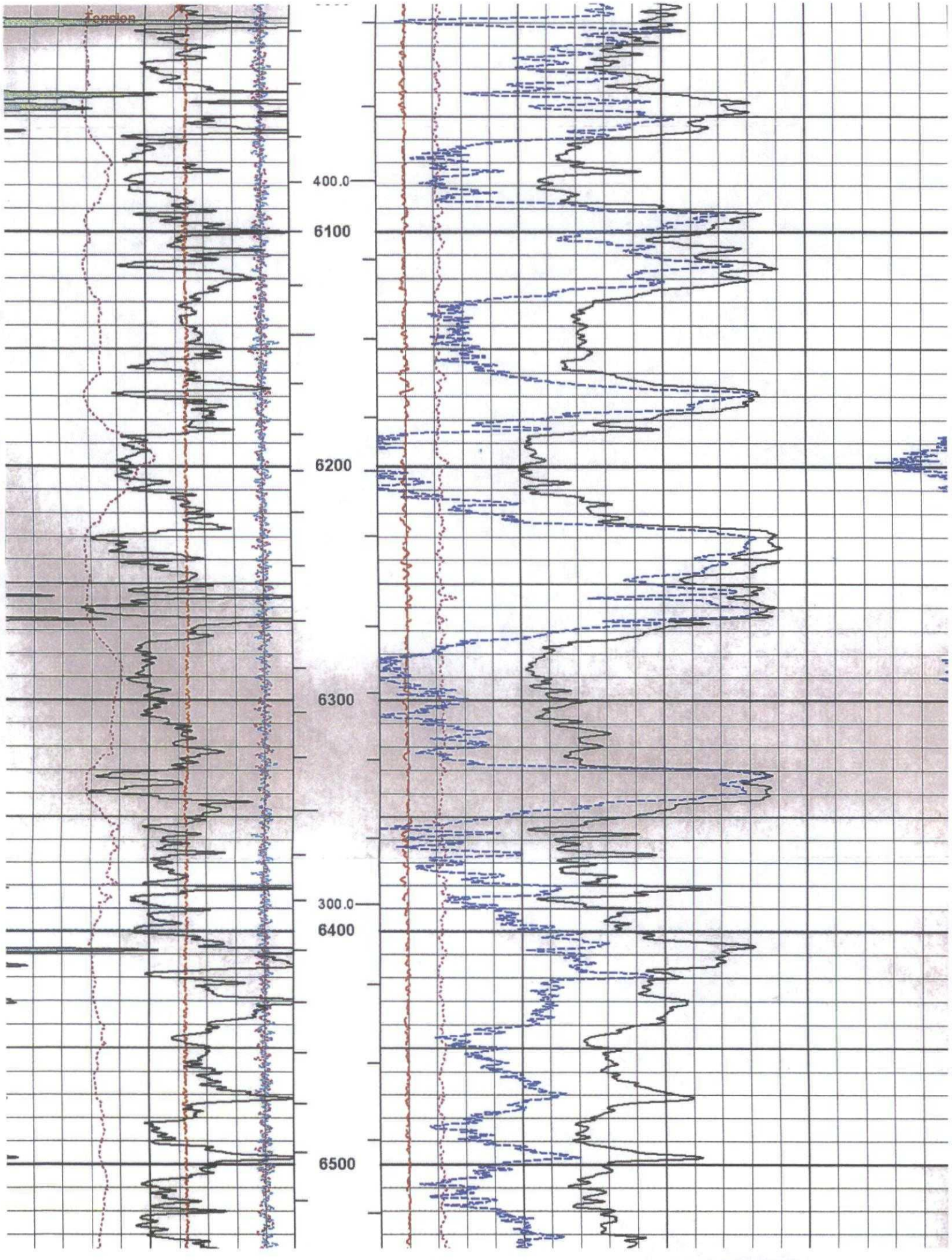
5800
5900
6000
Tension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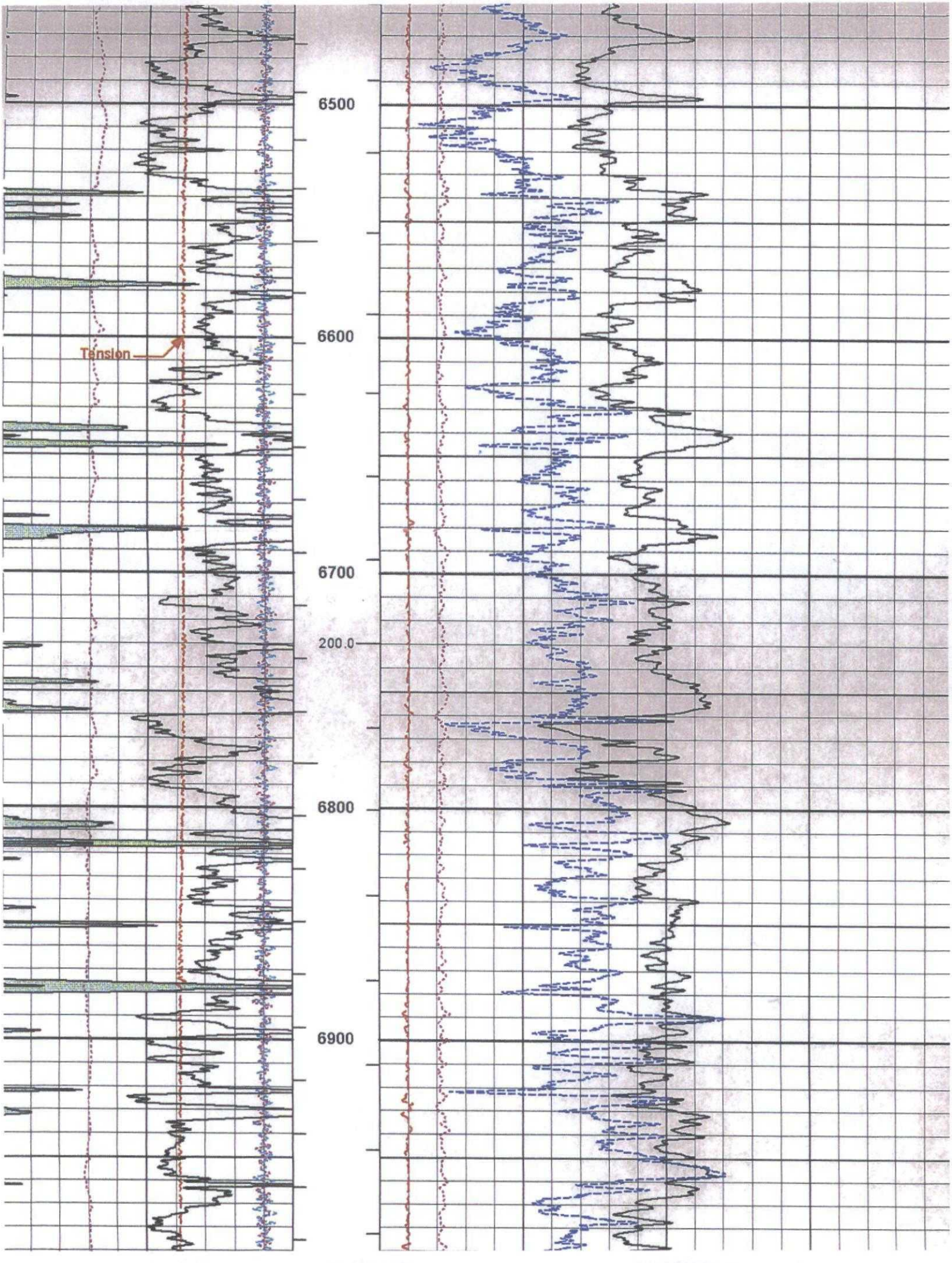
300.0
6400
6500


6500
6600
6700
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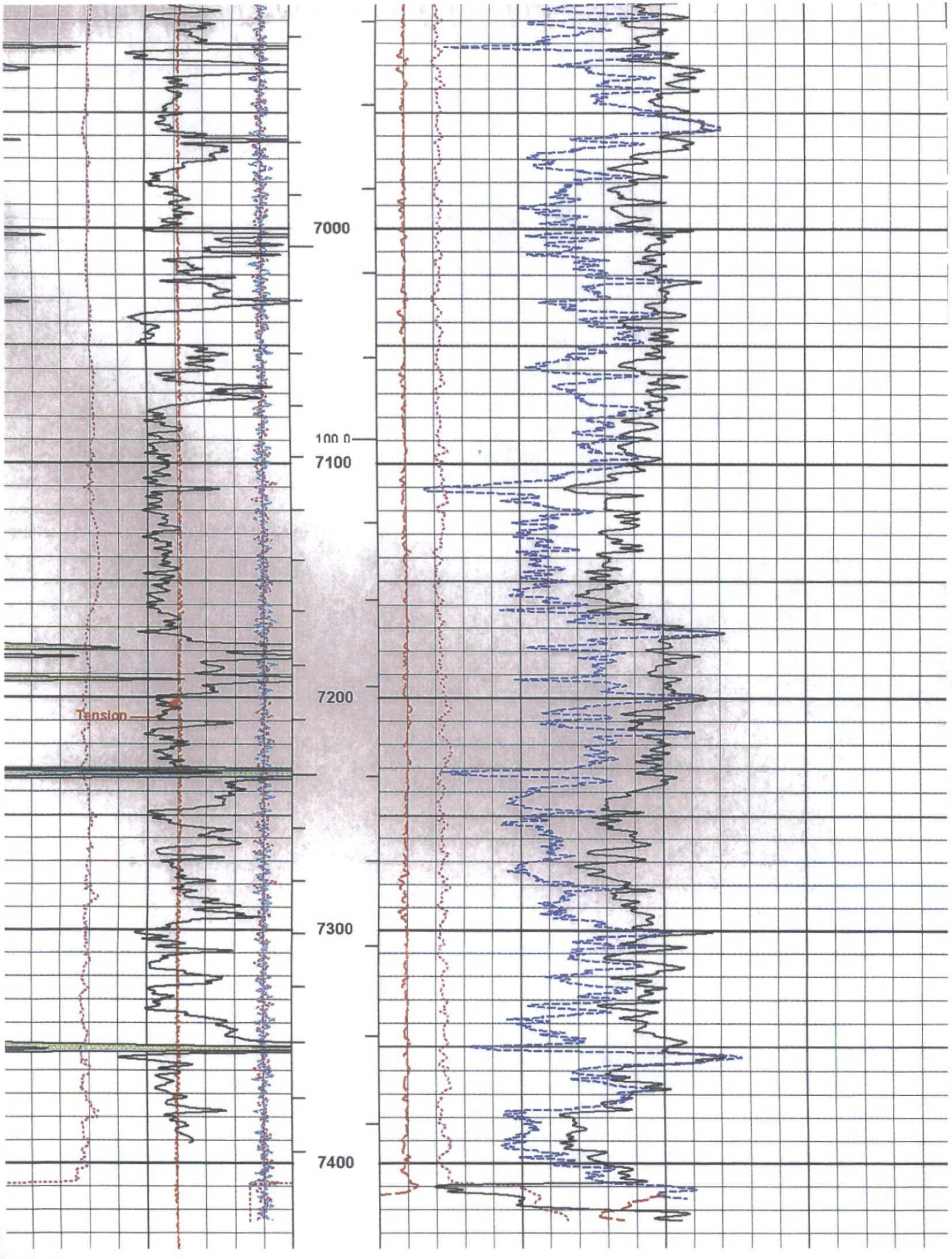
6800
6900
Tension


7000
100 0
7100
7200
Tension
7300
7400

XI.

Fresh Water Sample Analyses

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, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(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 6416 4	Sec	Tws	Rng	X	Y
C 02431		COM	15	MARK T. AND ANNETTE E. MCCLOY	LE	C 02431		>1 mile away	Shallow	4 4 4	17	24S	33E	633175	3564728*
C 02432		COM	128	MARK T. AND ANNETTE E. MCCLOY	LE	C 02432		> 1 mile away	Shallow	4 4 4	17	24S	33E	633175	3564728*
C 03565		EXP	0	INTERNATIONAL POTASH CORP USA	LE	C 03565 POD1		Boreholes for mineral exploration - no water appropriation		1 4	06	24S	33E	630870	3568316
					LE	C 03565 POD2				3 4	07	24S	33E	631155	3566515
					LE	C 03565 POD3				3 4	08	24S	33E	632763	3566546
					LE	C 03565 POD7				2 2	06	24S	33E	631361	3569250
C 03591	C	EXP	0	INTERCONTINENTAL POTASH CORP	LE	C 03591 POD1			Artesian	2 1 4	05	24S	33E	632731	3568518

Record Count: 7

PLSS Search:

Section(s): 5, 6, 7, 8, 17, 18 **Township:** 24S **Range:** 33E

Sorted by: File Number

*UTM location was derived from PLSS - see Help

Transaction Summary

EXPL Permit To Explore

Transaction Number: 509298 **Transaction Desc:** C 03565 **File Date:** 06/14/2012

Primary Status: PMT Permit
Secondary Status: APR Approved
Person Assigned: *******
Applicant: INTERCONTINENTAL POTASH CORP.
Contact: TOM COPE

Events

	Date	Type	Description	Comment	Processed By
get images	06/14/2012	APP	Application Received	*	*******
	08/07/2012	FTN	Finalize non-published Trans.		*******
get images	12/11/2012	LOG	Well Log Received	*	*******
	12/18/2012	QAT	Quality Assurance Completed	IMAGES	*******
	12/18/2012	DRY	Dry well log received		*******
get images	04/02/2013	LOG	Well Log Received	*POD8	*******
	04/02/2013	DRY	Dry well log received	POD8	*******
get images	04/02/2013	LOG	Well Log Received	*POD9	*******
	04/02/2013	DRY	Dry well log received	POD9	*******
	05/07/2013	QAT	Quality Assurance Completed	IMAGES WELL RECORDS PODS 8-9	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03565	0	0		EXP EXPLORATION
**Point of Diversion				
C 03565 POD2		631156	3566515	
C 03565 POD3		632763	3566546	
C 03565 POD4		633672	3567057	
C 03565 POD1		630871	3568316	
C 03565 POD5		634135	3566496	
C 03565 POD9		636430	3565005	
C 03565 POD6		635022	3566373	
C 03565 POD7		631361	3569250	
C 03565 POD8		635485	3565610	

Conditions

Conditions

2 The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented

4 No water shall be appropriated and beneficially used under this permit.

C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 08/07/2012

Log Due Date: 08/31/2013

State Engineer: Scott A. Verhines, P.

Transaction Summary

EXPL Permit To Explore

Transaction Number: 517368 **Transaction Desc:** C-3591 BOREHOLES **File Date:** 11/20/2012

Primary Status: PMT Permit
Secondary Status: LOG Well Log Received
Person Assigned: *******
Applicant: INTERCONTINENTAL POTASH CORP
Contact: TOM COPE

Events

	Date	Type	Description	Comment	Processed By
get images	11/20/2012	APP	Application Received	*	*******
	11/21/2012	FTN	Finalize non-published Trans.		*******
get images	01/25/2013	LOG	Well Log Received	*POD1	*******
	02/19/2013	QAT	Quality Assurance Completed	IMAGES	*******
	04/03/2013	QAT	Quality Assurance Completed	IMAGES WELL RECORD	*******

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 03591	0	0		EXP EXPLORATION
**Point of Diversion				
C 03591 POD1		632732	3568518	

Remarks

"BOREHOLE FOR MINERAL EXPLORATION"

Conditions

2 The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented

4 No water shall be appropriated and beneficially used under this permit.

C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between geologic zones.

C2 No water shall be diverted from this well except for testing purposes which shall not exceed twenty (20) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.

Action of the State Engineer

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, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(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 64 16 4	Sec	Twsp	Rng	X	Y
C 01896	C	STK	0	US DEPT OF INTERIOR BURREAU OF LAND MANAGEMENT	LE	C 01896	Permit expired.			3 4 3	12	24S	32E	628946	3566287*
C 01932	C	STK	3	MARK MCCLOY	ED	C 01932	> 1 mile away		Shallow	3 1	12	24S	32E	628633	3567188*

Record Count: 2

PLSS Search:

Section(s): 1, 12, 13 **Township:** 24S **Range:** 32E

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 465298 **Transaction Desc:** C 01896 **File Date:** 03/06/1980

Primary Status: EXP Expired Permit
Secondary Status: EXP Expired
Person Assigned: *******
Applicant: US DEPT OF INTERIOR BURREAU OF LAND MANAGEMENT
Contact: DAVID BOEHLER

Events

	Date	Type	Description	Comment	Processed By
get images	03/06/1980	APP	Application Received	*	*******
	03/07/1980	FIN	Final Action on application		*******
	03/07/1980	WAP	General Approval Letter		*******
	12/02/1980	EXP	Expired Permit (well log late)		*******
	05/19/2011	ARV	Rec & Arch - file location	C 01896 Box: 1868	*******

Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 01896		3		STK 72-12-1 LIVESTOCK WATERING

****Point of Diversion**

C 01896	628946	3566287*	

*An (*) after northing value indicates UTM location was derived from PLSS - see Help

Remarks

"RE-ENTRY OF ABANDONED OIL WELL (DRY HOLE) TO CONVERT TO WATER WELL - PROPOSE TO DRILL OUT SURFACE PLUG (O-35') AND PERFORATE 8-5/8 CASING IN REPORTED AQUIFER BETWEEN 240' AND 440'." CONTINETAL OIL COMPANY.

ABSTRACTORS NOTE: NO WELL RECORD IS ON FILE WITH THE OFFICE OF THE STATE ENGINEER. HAND WRITTEN NOTE ON APPLICATIONS "NOT DRILLED 12/02/80 P.C"

Conditions

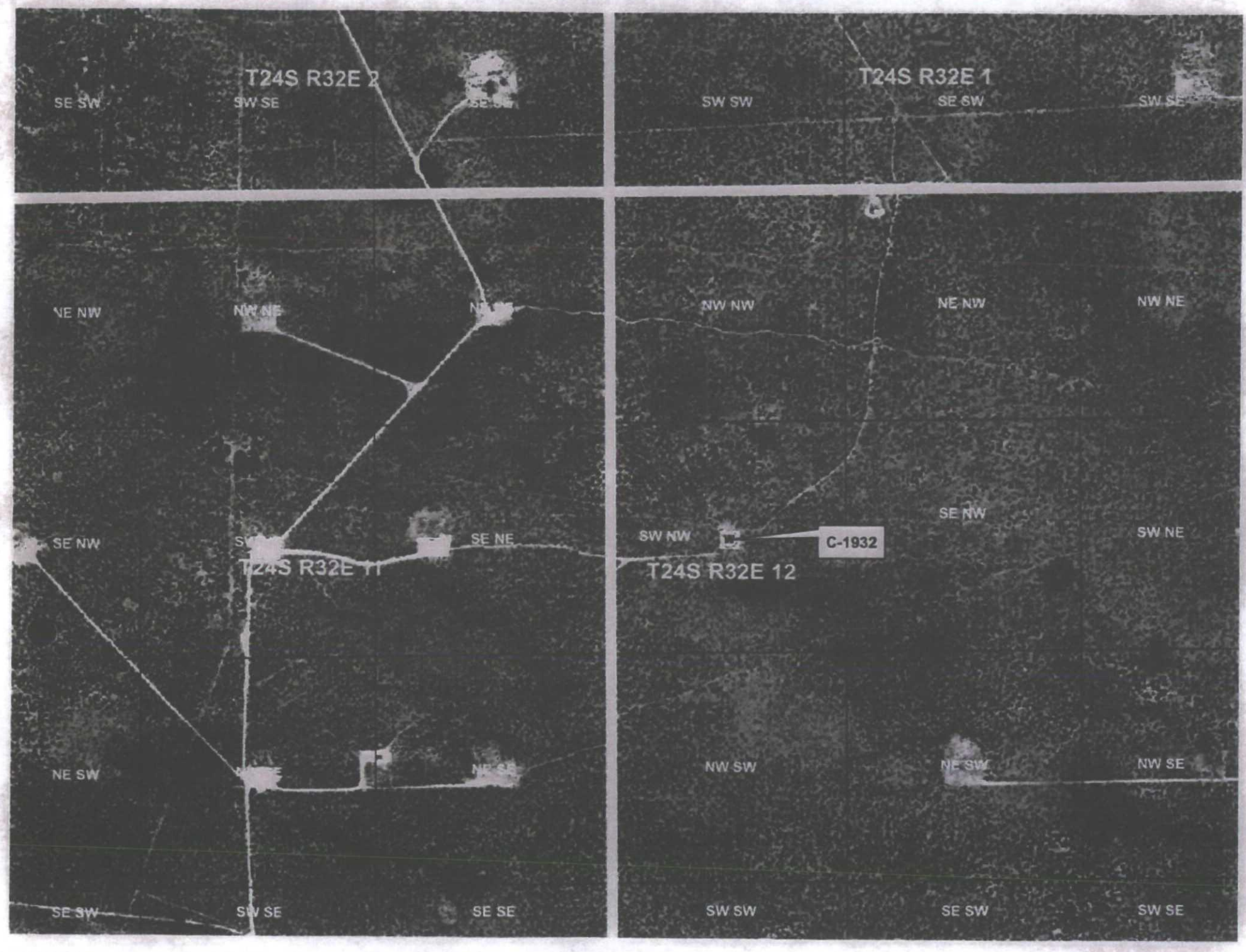
4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

1A Depth of the well shall not exceed the thickness of the valley fill.

Action of the State Engineer

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved
Action Date: 03/07/1980
Log Due Date: 03/31/1981
State Engineer:


T24S R32E 2
SE SW
SW SE
T24S R32E 1
SW SW
SE SW
SW SE
NE NW
NW NE
NW NW
NE NW
NW NE
SE NW
SE NE
SW NW
C-1932
SW NE
T24S R32E 11
T24S R32E 12
SE NW
NE SW
NW SW
NE SW
NW SE
SE SW
SW SE
SE SE
SW SW
SE SW
SW SE

CONCHO

September 29, 2014

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

Re: Legal Notice
Salt Water Disposal Well
Macho Nacho 7 State SWD #1

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,

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

HOBBS NEWS SUN
LEGAL NOTICES

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 Macho Nacho 7 State SWD No. 1 is located 2000' FNL & 2200' FWL, Section 7, Township 24 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 Sand formation at a depth of 5300' to 7400' at a maximum surface pressure of 1060 psi and a maximum rate of 15,000 BWPD. The proposed SWD well is located approximately 27 miles west-northwest 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
_____, 2014.

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
October 04, 2014
and ending with the issue dated
October 04, 2014.

Daniel Russell
Publisher

Sworn and subscribed to before me this
4th day of October 2014.

Yezenia Calderon
Circulation Coordinator

My commission expires
February 28, 2016

(Seal)

OFFICIAL SEAL
YEZENIA CALDERON
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 2-28-16

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE
October 4, 2014

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 Macho Nacho 7 State SWD No. 1 is located 2000' FNL & 2200' FWL, Section 7, Township 24 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 Sand formation at a depth of 5300' to 7400' at a maximum surface pressure of 1060 psi and a maximum rate of 15,000 BWPD. The proposed SWD well is located approximately 27 miles west-northwest 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. #29451

67112034 00145149

BRIAN COLLINS
COG OPERATING LLC
2208 W. MAIN ST.
ARTESIA, NM 88210

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

New Mexico Oil Conservation Division
Attn: Phillip Goetze
1220 South St. Francis Drive
Santa Fe, NM 87505
Macho Nacho 7 State SWD #1

COMPLETE THIS SECTION ON DELIVERY

A. Signature: Agent / Addres

B. Received by (Printed Name): Stephanie

C. Date of Deliv

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Certified Mail® / Priority Mail Express™
Registered / Return Receipt for Merchand
Insured Mail / Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) 7013 3020 0000 8749 5131

PS Form 3811, July 2013 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Oil Conservation Division
Attn: Paul Kautz
1626 North French Dr.
Hobbs, NM 88240
Macho Nacho 7 State SWD #1

COMPLETE THIS SECTION ON DELIVERY

A. Signature: Agent / Addres

B. Received by (Printed Name): Dlathman

C. Date of Deli 10-2-1

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Certified Mail® / Priority Mail Express™
Registered / Return Receipt for Merchan
Insured Mail / Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) 7013 3020 0000 8749 5148

PS Form 3811, July 2013 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Cimarex Energy Co
600 N. Marienfeld Street, Suite 600
Midland, TX 79701
Macho Nacho 7 State SWD #1

COMPLETE THIS SECTION ON DELIVERY

A. Signature: Agent / Addres

B. Received by (Printed Name): Sadie Garcia

C. Date of Deli 10-3-1

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Certified Mail® / Priority Mail Express™
Registered / Return Receipt for Merchan
Insured Mail / Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) 7013 3020 0000 8749 5179

PS Form 3811, July 2013 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

New Mexico State Land Office
310 Old Santa Fe Trail,
Santa Fe, NM 87501
Macho Nacho 7 State SWD #1

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Deliver

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail® ☐ Priority Mail Express™
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ Collect on Delivery

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7013 3020 0000 8749 5155

PS Form 3811, July 2013 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Cimarex Energy Co. of Colorado
202 S. Cheyenne Ave, Suite 1000
Tulsa, OK 74103
Macho Nacho 7 State SWD #1

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) JUSTIN WALLACE C. Date of Deliver

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail® ☐ Priority Mail Express™
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ Collect on Delivery

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7013 3020 0000 8749 5162

PS Form 3811, July 2013 Domestic Return Receipt

Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Monday, January 26, 2015 10:52 AM
To: 'Brian Collins'; Goetze, Phillip, EMNRD
Subject: COG Operating LLC: Macho Nacho 7 State SWD Well No. 1:

Brian and Phillip: Have either of you received any protests to this application or any other paperwork?
I don't expect there are any – Cimarex and the SLO are the only affected parties, but wanted to ask.
And the Eata Fajita is nearby disposing in the same interval.

Brian:
... Or has anything changed since you applied for this SWD permit?

I don't see where the well has been permitted for drilling – are you waiting on this permit?

Brian – Would you ask your log person or regulatory person to send the OCD logs for the horizontal wells in this Section? I don't see them online and the wells have produced for a while.
Those wells are out of the AOR but were there any issues with cement on those wells over the Delaware?
Were there any drilling issues through the Delaware that could be a result of disposal into the Delaware?

Did the Eata Fajita see any hydrocarbon potential over the 5400 to 7500 feet interval in the mudlog or elogs?

Take Care,

Will Jones
William V. Jones PE
EMNRD/OCD District IV Supervisor
505.476.3477 Work (505.476.3462 Fax)
505.419.1995 Cell

(Alt. Leonard Lowe 505.476.3492W 505.930.6717Cell)
WilliamV.Jones@state.nm.us http://www.emnrd.state.nm.us/OCD/about.html