

DATE IN 5-17-10	SUSPENSE	ENGINEER WJ.	LOGGED IN 5-17-10	TYPE SWD	APP NO. 1013755291
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



E06-Resources  
 7377  
 RECD OGD  
 LOMAS #6  
 2010 MAY 17 P 1:04

**ADMINISTRATIVE APPLICATION CHECKLIST** 30-025-39705

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

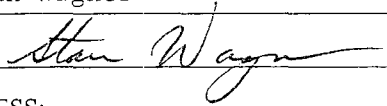
[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[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.

Stan Wagner		Regulatory Analyst	5/13/10
Print or Type Name	Signature	Title	Date
		stan_wagner@eogresources.com	
		e-mail Address	

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ Disposal X Storage  
Application qualifies for administrative approval? X Yes \_\_\_\_\_ No
- II. OPERATOR: EOG Resources, Inc.  
ADDRESS: P.O. Box 2267 Midland, TX 79702  
CONTACT PARTY: Stan Wagner PHONE: 432-686-3689
- 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: Stan Wagner TITLE: Regulatory Analyst  
SIGNATURE:  DATE: 5/13/10  
E-MAIL ADDRESS: \_\_\_\_\_
- \* 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: \_\_\_\_\_

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

## INJECTION WELL DATA SHEET

OPERATOR: EOG Resources, Inc.

WELL NAME &amp; NUMBER: Lomas Rojas 26 State Com 6

WELL LOCATION: 2620' FNL &amp; 1810' FEL

26-25S-33E

G

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELL CONSTRUCTION DATA	
Surface Casing	
Hole Size: 14-3/4"	Casing Size: 11-3/4"
Cemented with: 475 sx C	or ft <sup>3</sup>
Top of Cement: surface	Method Determined: circulation
Intermediate Casing	
Hole Size: 11	Casing Size: 8-5/8"
Cemented with: 1400 sx C	or ft <sup>3</sup>
Top of Cement: surface	Method Determined: circulation
Production Casing	
Hole Size:	Casing Size:
Cemented with:	or ft <sup>3</sup>
Top of Cement:	Method Determined:
Total Depth:	
Injection Interval	
feet to	

16" Conductor @ 80'  
 Surface Casing @ -650'  
 11-3/4" 42# H-40 STC  
 Injection tubing @ -5080'  
 4 1/2" 11 6# J55 LTC IPC - 5,080  
 4 1/2" 11 6# J55 LTC IPC (all pipe 5080 - 5,120)  
 8 5/8" 32# X 4 1/2" coated injection packer @ - 5080'  
 5085  
 Intermediate Casing @ -5100'  
 8 5/8" 32# J-55 LTC IPC to -4,000  
 8 5/8" 32# HCK-55 LTC to -5,100'  
 PBTD, TOC plug in OH @ -7000'  
 5 1/2" 17# casing stub @ -7500'  
 Planned TOC on 5 1/2" 17# casing @ -8000'  
 5 1/2" 17# CIBP @ -8500'  
 Production Casing @ -11,000' MD  
 5 1/2" 17# L-80/L80 BTC 0' - 2000'  
 5 1/2" 17# L-80/N80 LTC 2000' - 11,000'  
 TO @ -11,000'

Rustler - 1020'  
 Base Salt - 4850'  
 Delaware - 5100'  
 Cherry Canyon - 6150'  
 B. Bustly Canyon - 9000'  
 1st Bone Spring Sand - 10,230'  
 2nd Bone Spring Sand - 10,820'  
 3rd Bone Spring - 11,350'  
 PTD - 11,000'

(Perforated or Open Hole; indicate which)  
 6159  
 6928

**INJECTION WELL DATA SHEET**

Tubing Size: 4-1/2" Lining Material: Plastic Coated

Type of Packer: Halliburton PLS

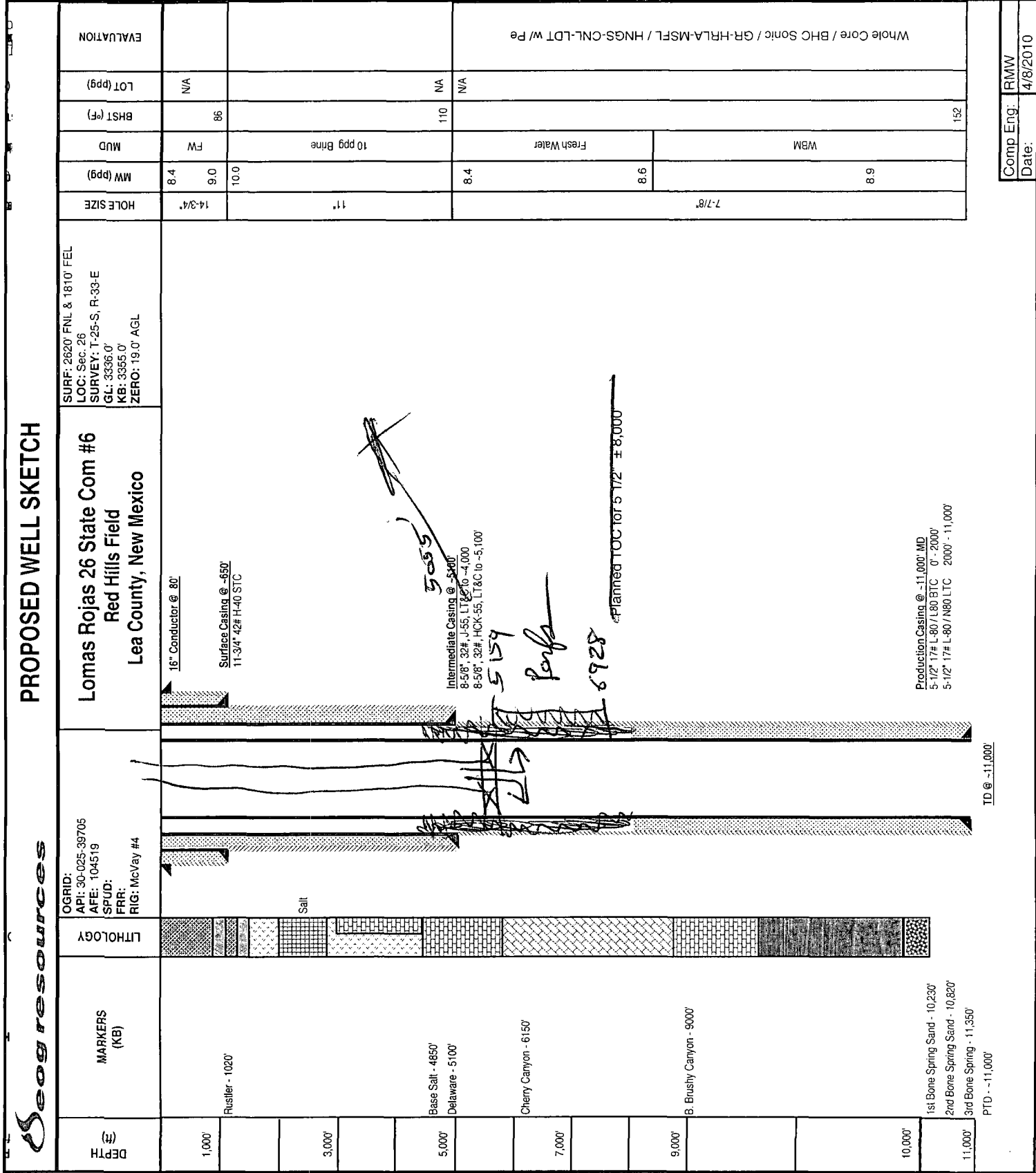
Packer Setting Depth: ±5080

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

**Additional Data**

1. Is this a new well drilled for injection? Yes X No  
 If no, for what purpose was the well originally drilled? Pinnacle Monitor Well
2. Name of the Injection Formation: Delaware Sand
3. Name of Field or Pool (if applicable): Red Hills; Bone Spring
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:
 

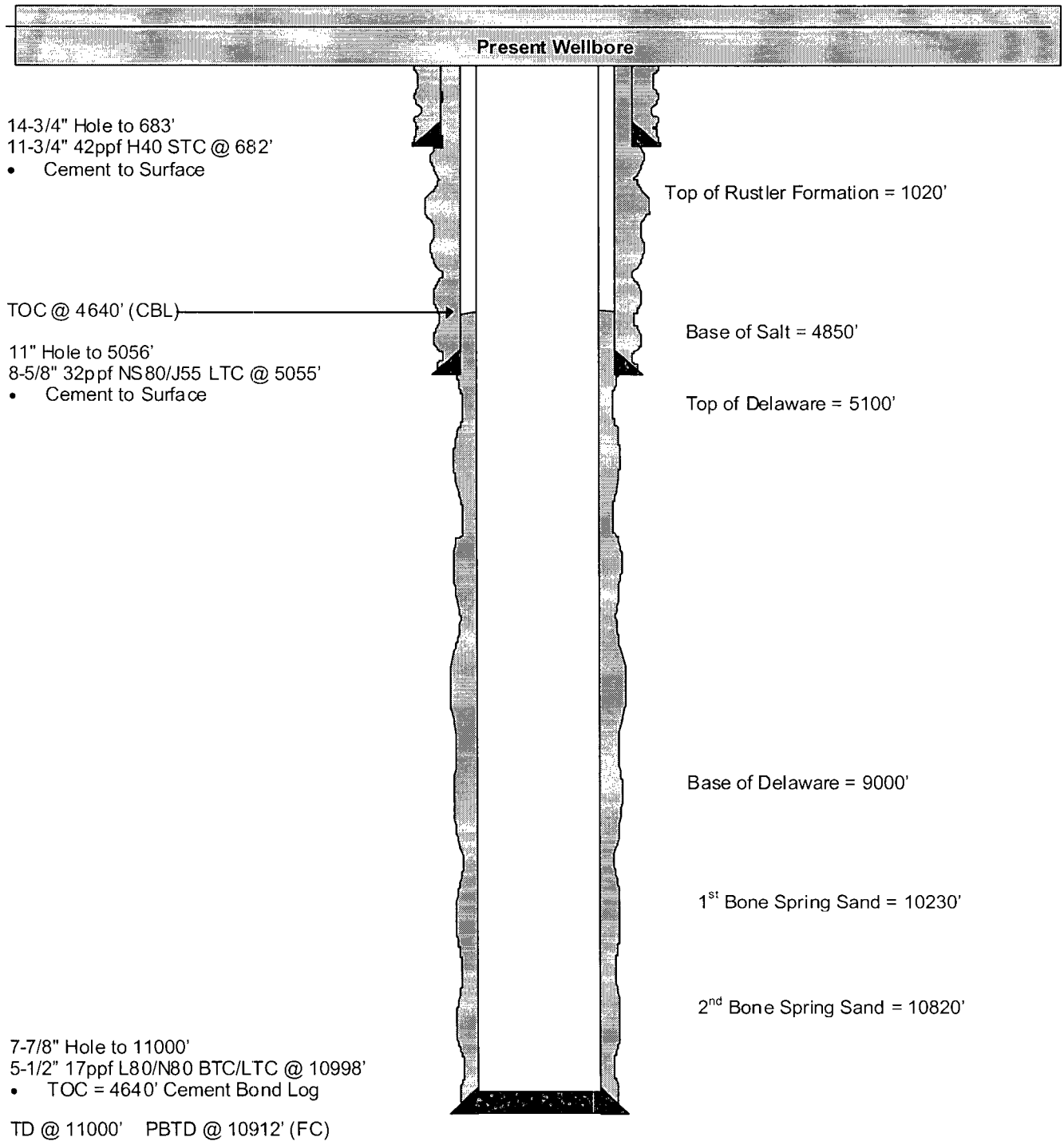
1st Bone Spring Sand	±10230
2nd Bone Spring Sand	±10820
3rd Bone Spring Sand	±11350



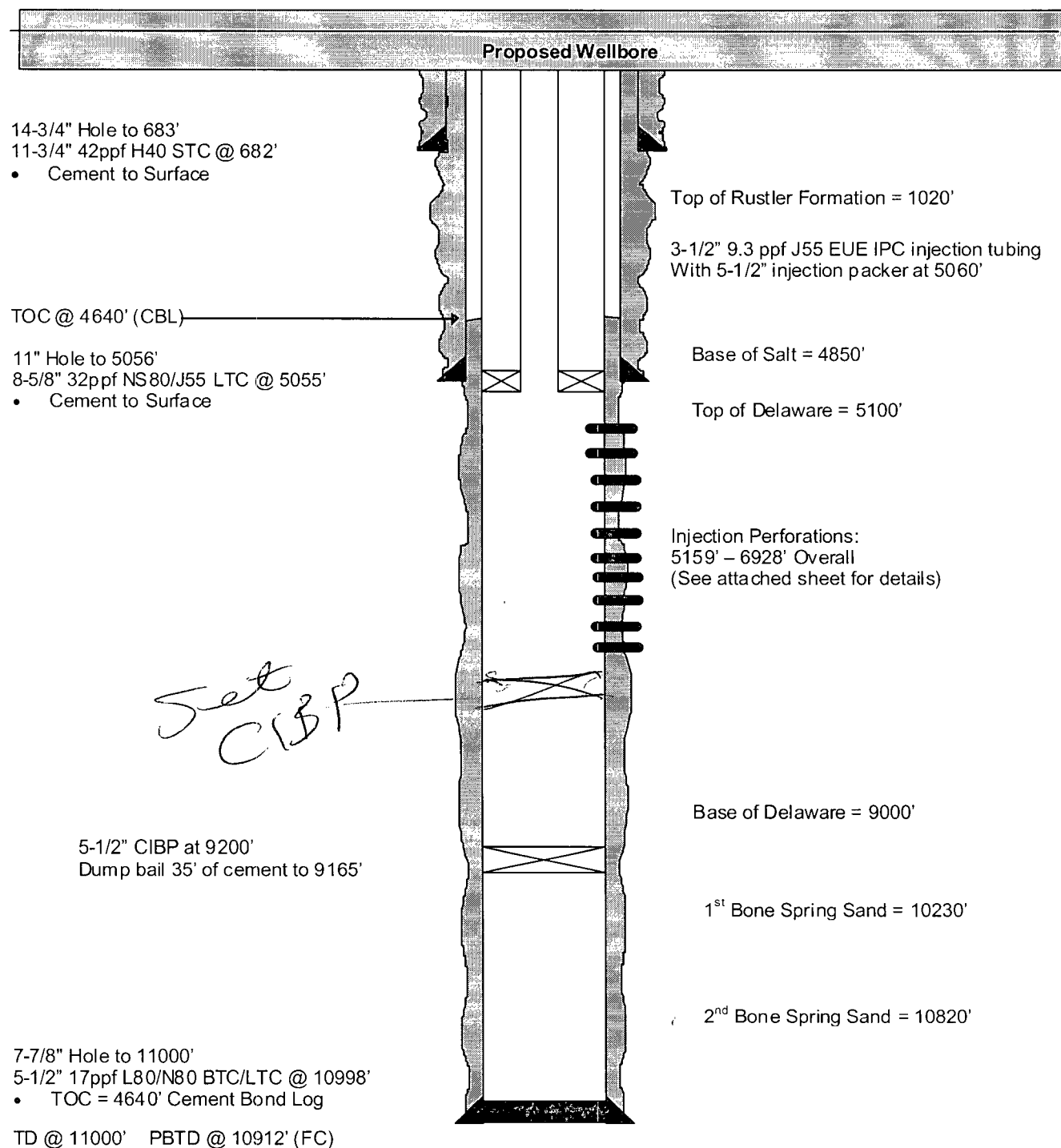
EOG RESOURCES, INC.  
2620' FNL & 1810' FEL  
Section 26, T25S, R33E

Lomas Rojas 26 State No. 6  
Lea County, New Mexico  
API No: 30-025-39705

### WELLBORE SCHEMATIC



WELLBORE SCHEMATIC





## **Lomas Rojas 26 State No. 6**

### **Proposed Injection Perforations:**

5159' – 5176' (17')  
5206' – 5266' (60')  
5276' – 5290' (14')  
5298' – 5326' (28')  
5365' – 5385' (20')  
5529' – 5562' (33')  
5617' – 5631' (14')  
5686' – 5695' (9')  
5743' – 5760' (17')  
5768' – 5786' (18')  
5833' – 5878' (45')  
5900' – 5912' (12')  
6032' – 6041' (9')  
6154' – 6177' (23')  
6218' – 6270' (52')  
6280' – 6313' (33')  
6370' – 6416' (46')  
6444' – 6499' (55')  
6571' – 6636' (65')  
6744' – 6768' (24')  
6820' – 6848' (28')  
6919' – 6928' (9')

All perforations will be shot at 2 shots per foot.

SCANNED

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 87240  
District II  
1301 W. Grand Ave., Artesia, NM 88201  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
June 19, 2008

RECEIVED

APR 15 2010

HOBBS

CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-025-39705
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Lomas Rojas 26 State Com
8. Well Number 6
9. OGRID Number 7377
10. Pool name or Wildcat Red Hills; Bone Spring

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>	7. Lease Name or Unit Agreement Name: Lomas Rojas 26 State Com
2. Name of Operator EOG Resources, Inc.	8. Well Number 6
3. Address of Operator P.O. Box 2267 Midland, TX 79702	9. OGRID Number 7377
4. Well Location Unit Letter <u>G</u> : <u>2620</u> feet from the <u>North</u> line and <u>1810</u> feet from the <u>East</u> line Section <u>26</u> Township <u>25S</u> Range <u>33E</u> NMPM County <u>Lea</u>	10. Pool name or Wildcat Red Hills; Bone Spring
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3336' GR	

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

## SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☒

OTHER: ☐OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

4/11/10 Spud 14-3/4" hole.

4/12/10 RH w/ 16 jts 11-3/4", 42#, H40 STc casing set at 682'.

Cemented w/ 475 sx Class C, 14.8 ppg, 1.35 yield.

Circulated 112 sx to surface. WOC 18 hrs.

Tested casing to 1500 psi for 30 minutes. Test good.

Resumed drilling 11" hole.

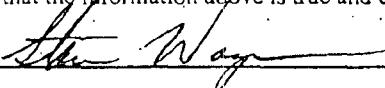
Spud Date:

4/11/10

Rig Release Date:

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

SIGNATURE



TITLE

Regulatory Analyst

DATE

4/13/10

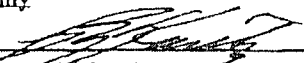
Type or print name Stan Warner

E-mail address:

PHONE 432-686-3689

For State Use Only

APPROVED BY



TITLE

PETROLEUM ENGINEER

DATE

APR 16 2010

Conditions of Approval (if any):

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 87240  
District II  
1301 W. Grand Ave., Artesia, NM 88240  
District III  
1000 Rio Brazos Rd., Aztec, NM 87401  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

SCANNED

Form C-103  
June 19, 2008

RECEIVED CONSERVATION DIVISION

APR 21 2010

HOBBSD

WELL API NO. 30-025-39705
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Lomas Rojas 26 State Com
8. Well Number 6
9. OGRID Number 7377
10. Pool name or Wildcat Red Hills; Bone Spring

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>	
2. Name of Operator EOG Resources, Inc.	
3. Address of Operator P.O. Box 2267 Midland, TX 79702	
4. Well Location Unit Letter <u>G</u> : <u>2620</u> feet from the <u>North</u> line and <u>1810</u> feet from the <u>East</u> line Section <u>26</u> Township <u>25S</u> Range <u>33E</u> NMPM County <u>Lea</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3336' GR	

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

4/18/10 RTH w/ 27 jts 8-5/8", 32#, HCK-55 & 93 jts 8-5/8", 32#, J-55 casing set at 4968'.  
Cemented w/ 1200 sx Class C, 12.7 ppg, 2.00 yield; 200 sx Class C, 14.8 ppg, 1.33 yield.  
Circulated 399 sx cement to surface. WOC 18 hrs.  
4/19/10 Tested casing to 1800 psi for 30 minutes. Test good.  
Resumed drilling 7-7/8" hole.

Spud Date:

4/11/10

Rig Release Date:

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

SIGNATURE Stan Wagner TITLE Regulatory Analyst DATE 4/20/2010

Type or print name Stan Wagner E-mail address: \_\_\_\_\_ PHONE 432-686-3689

For State Use Only

APPROVED BY [Signature] TITLE PETROLEUM ENGINEER DATE APR 22 2010

Conditions of Approval (if any): \_\_\_\_\_

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 87249  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

SCANNED

Form C-103  
June 19, 2008

RECEIVED  
CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
MAY 10 2010  
HOBBS

WELL API NO. 30-025-39705
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Lomas Rojas 26 State Com
8. Well Number 6
9. OGRID Number 7377
10. Pool name or Wildcat Red Hills; Bone Spring

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>	2. Name of Operator EOG Resources, Inc.
3. Address of Operator P.O. Box 2267 Midland, TX 79702	4. Well Location Unit Letter <u>G</u> : <u>2620</u> feet from the <u>North</u> line and <u>1810</u> feet from the <u>East</u> line Section <u>26</u> Township <u>25S</u> Range <u>33E</u> NMPM County <u>Lea</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3336' GR	

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

4/26/10 TD at 11000'.  
5/02/10 RIH w/ 264 jts 5-1/2", 17#, N80 LTC & L80 BTC casing set at 10998'.  
Cemented w/ 150 sx 60:40 Class C, 10.8 ppg, 3.673 yield; 500 sx 50:50:10 Class H, 11.8 ppg, 2.38 yield; tail w/ 335 sx 50:50:2 Class H, 14.2 ppg, 1.2777 yield.  
5/03/10 Released rig.

Spud Date:

4/11/10

Rig Release Date:

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

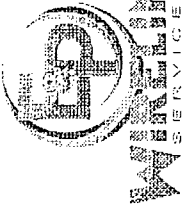
SIGNATURE Stan Wagner TITLE Regulatory Analyst DATE 4/20/2010

Type or print name Stan Wagner E-mail address: \_\_\_\_\_ PHONE 432-686-3689

For State Use Only

APPROVED BY [Signature] TITLE PETROLEUM ENGINEER DATE MAY 10 2010

Conditions of Approval (if any): \_\_\_\_\_



Cement Bond  
Variable Density Log  
W/Gamma Ray/CCL

Company EOG Resources Inc.

Well Lomas Rojas 26 State Com #6

Field Red Hills; Bone Spring

County Lea State New Mexico

Location: API # : 30-025-36705

2620FNL & 1810' FEL

Other Services  
GYRO

SEC 26 TWP 25S RGE 33E

Permanent Datum Ground Level Elevation 3336'

Log Measured From Kelly Bushing 19'APD

Drilling Measured From Kelly Bushing

Date June 1-10

Run Number 11000

Depth Driller 10866'

Depth Logger 10863'

Bottom Logged Interval 4130'

Top Log Interval 3625'

Open Hole Size Water

Type Fluid

Density / Viscosity

Max. Recorded Temp. 4634'

Estimated Cement Top ROA

Time Well Ready 1400

Time Logger on Bottom 8810

Equipment Number Hobbs NM

Location D Martinez

Recorded By Waymon Pitchford

Witnessed By

Borehole Record

Run Number Bit From To Size Weight From To

Casing Record

Surface String

Prot. String

Production String

Liner

Comments

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

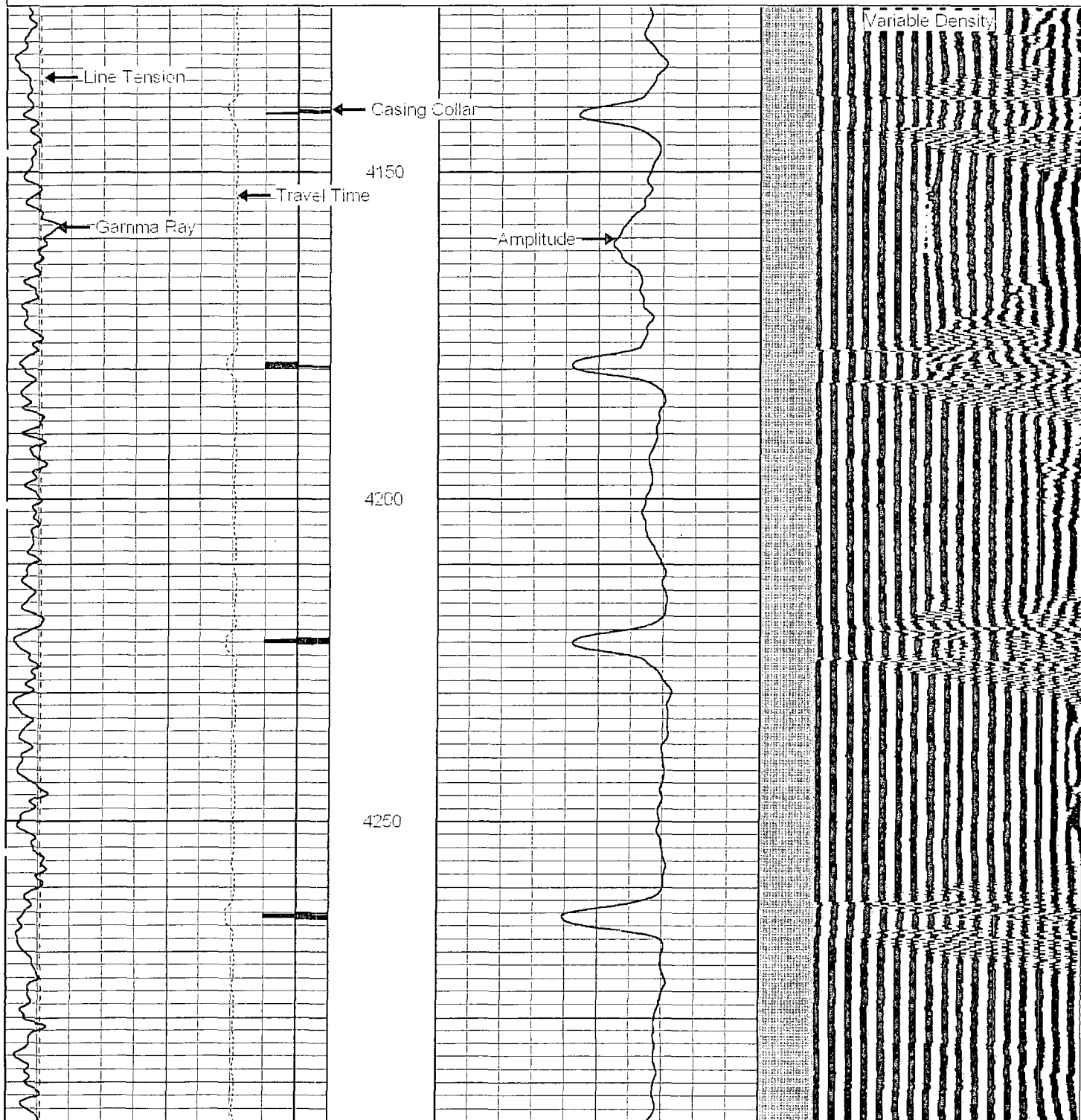
-35' Correction To  
Halliburtons Spectral Gamma Ray  
Dual Spaced Neutron  
Spectral Density Log Dated 27-Apr-10  
Thank You For Using E&P!!!

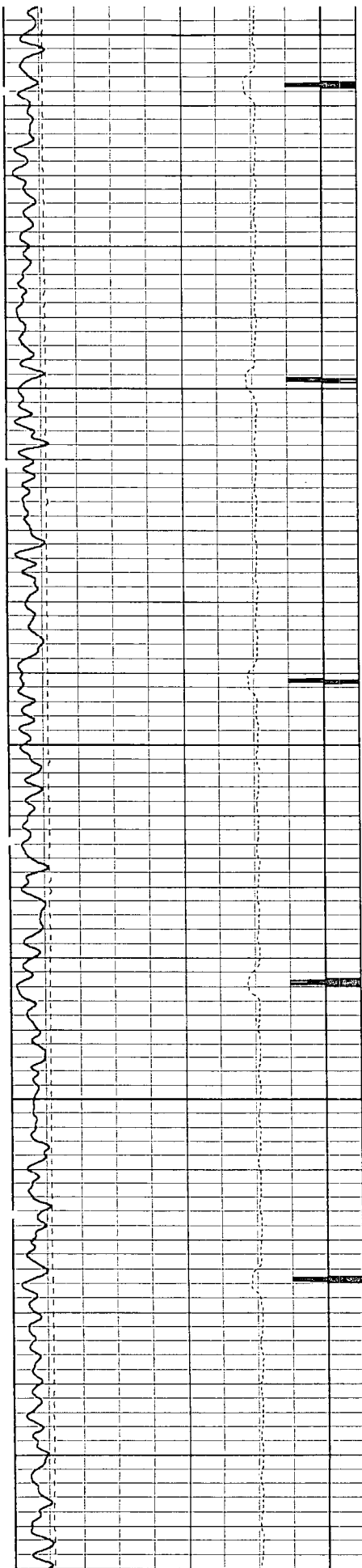
Main Pass 0 PSI



Database File: eog\_lomasrojas\_26\_6.db  
 Dataset Pathname: pass10  
 Presentation Format: cblidig  
 Dataset Creation: Tue Jun 01 14:29:03 2010 by Log Std Casedhole 08121  
 Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Casing Collar	-1	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	100						
0	Line Tension (lb)	5000						





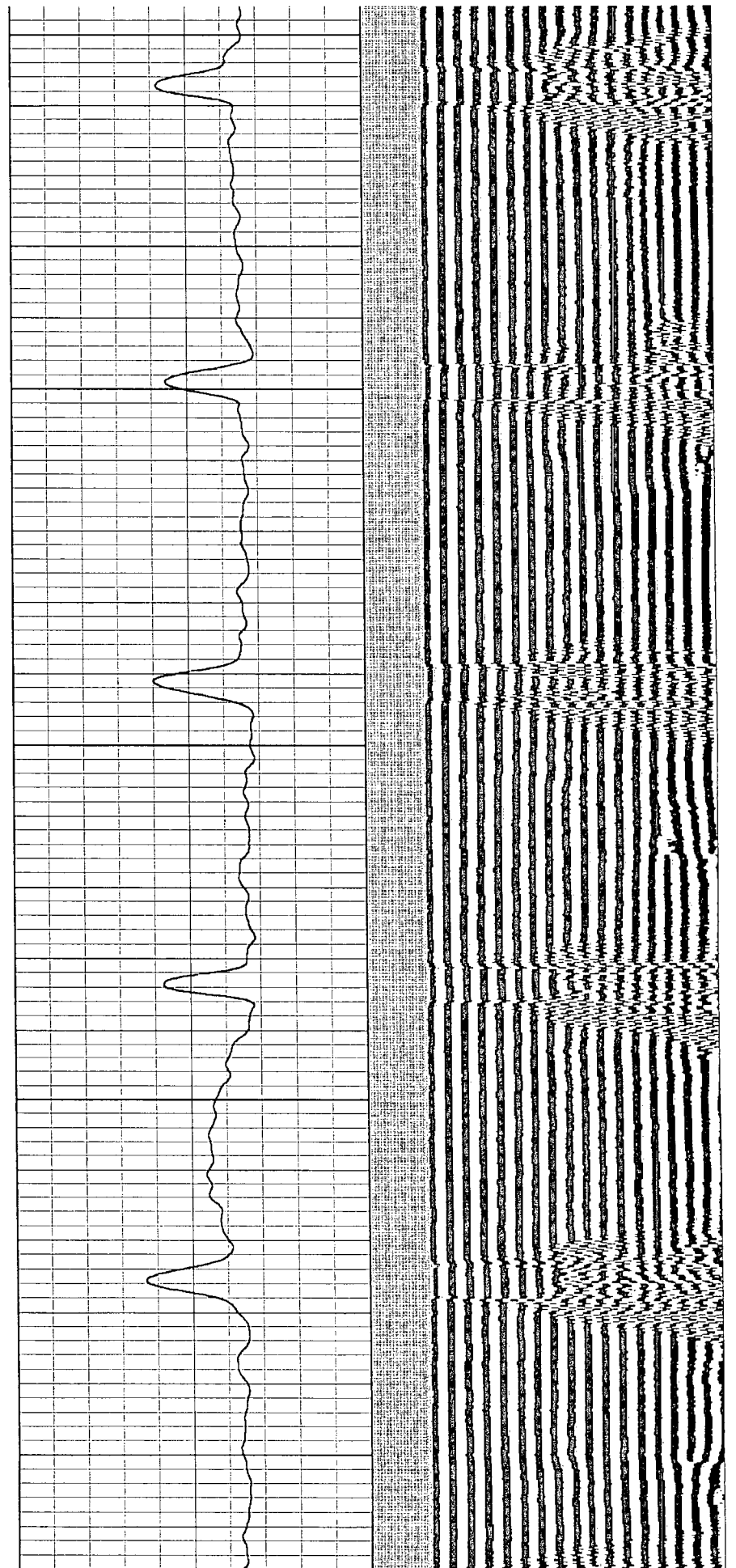
4300

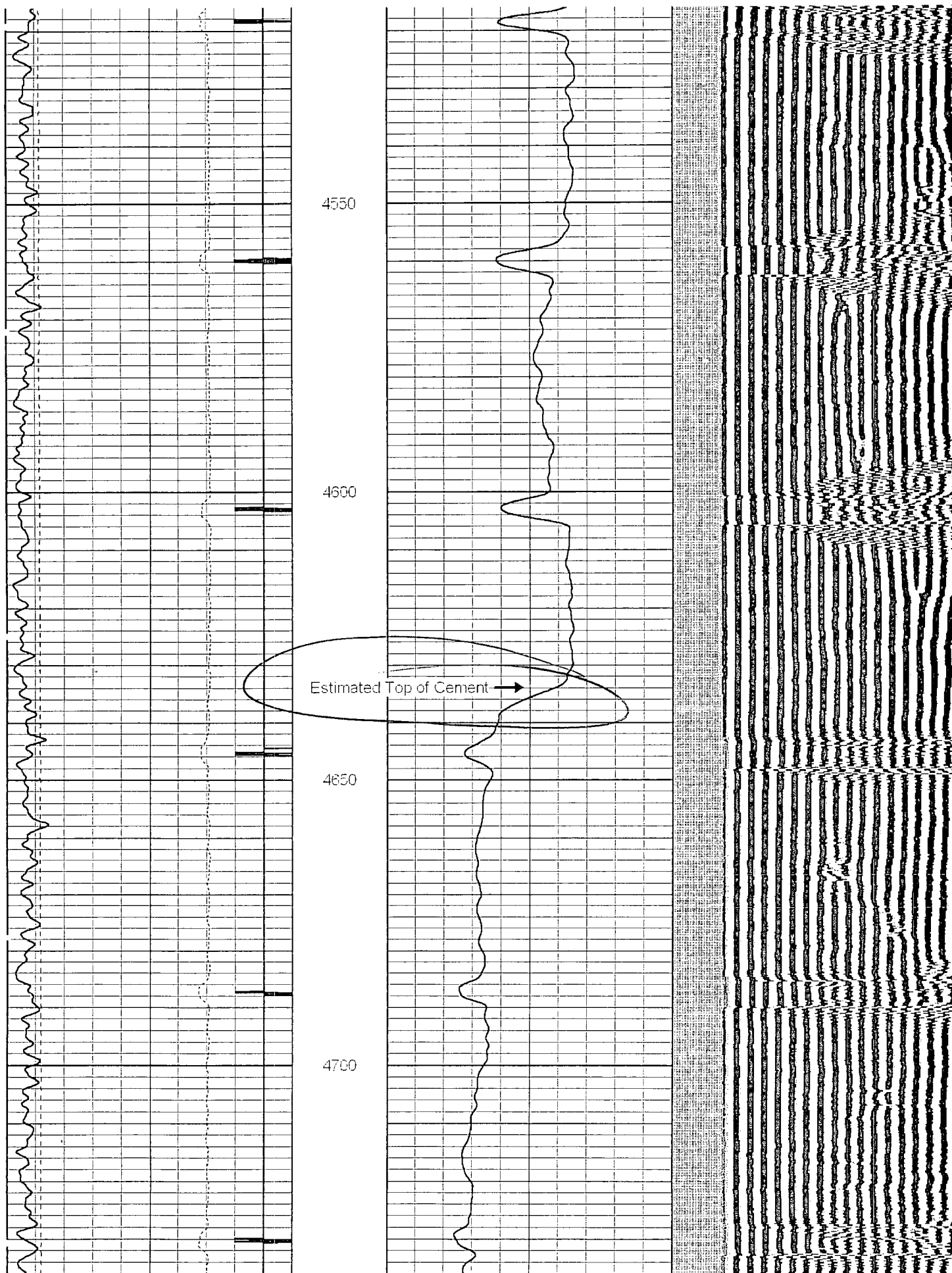
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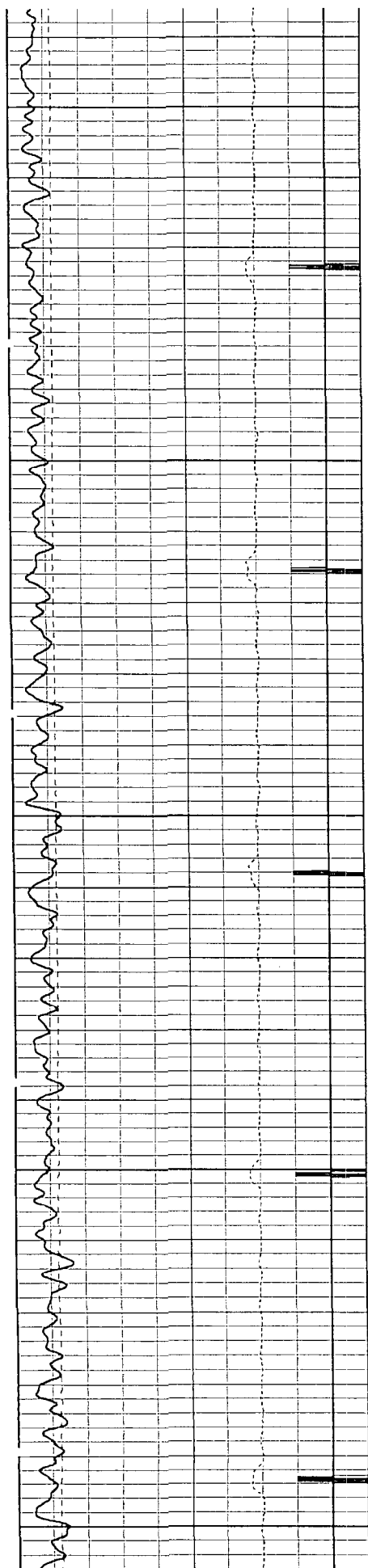
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4500









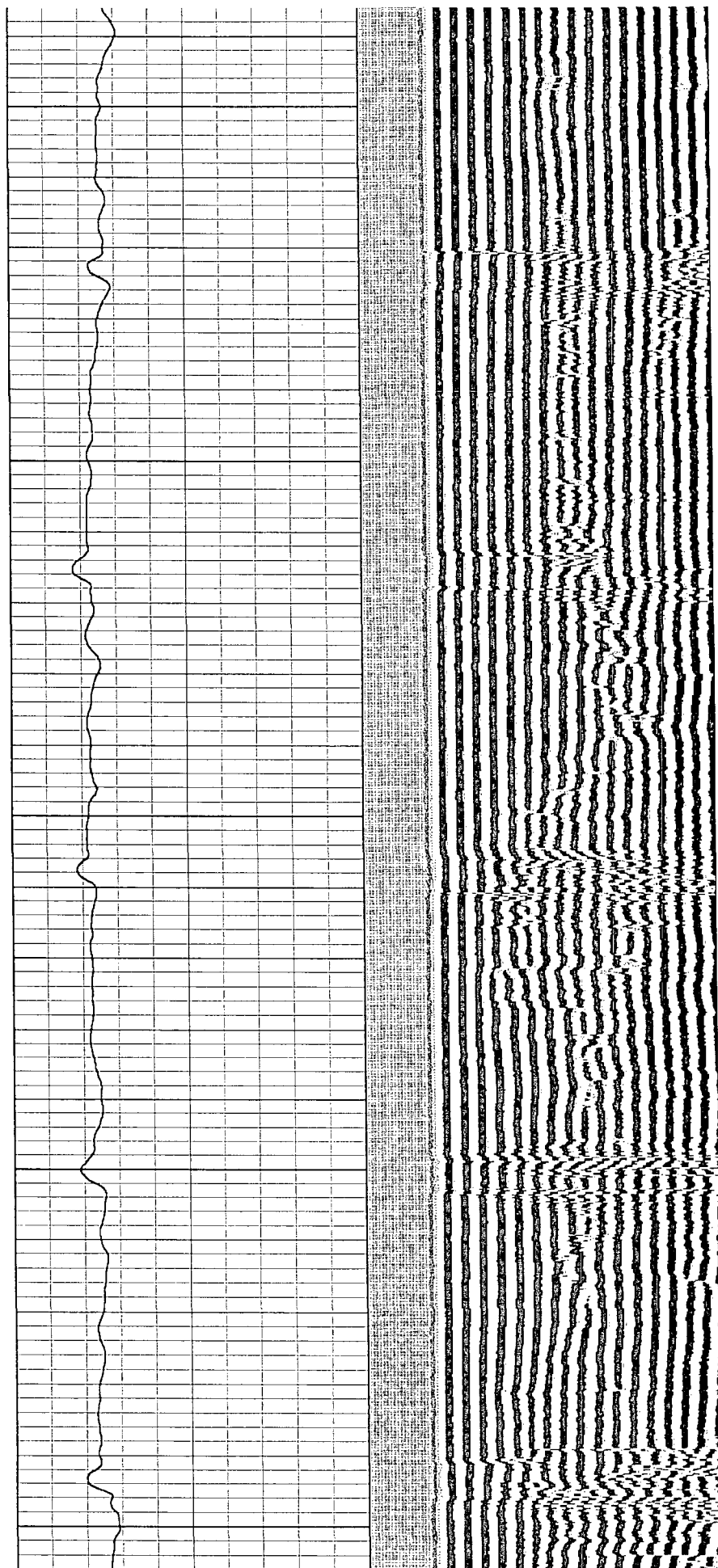
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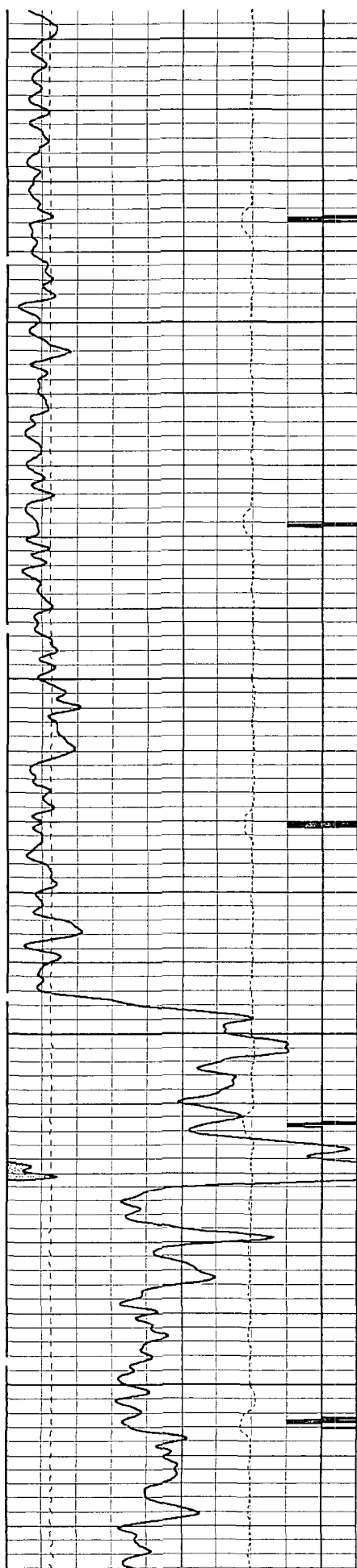
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4850

4900

4950



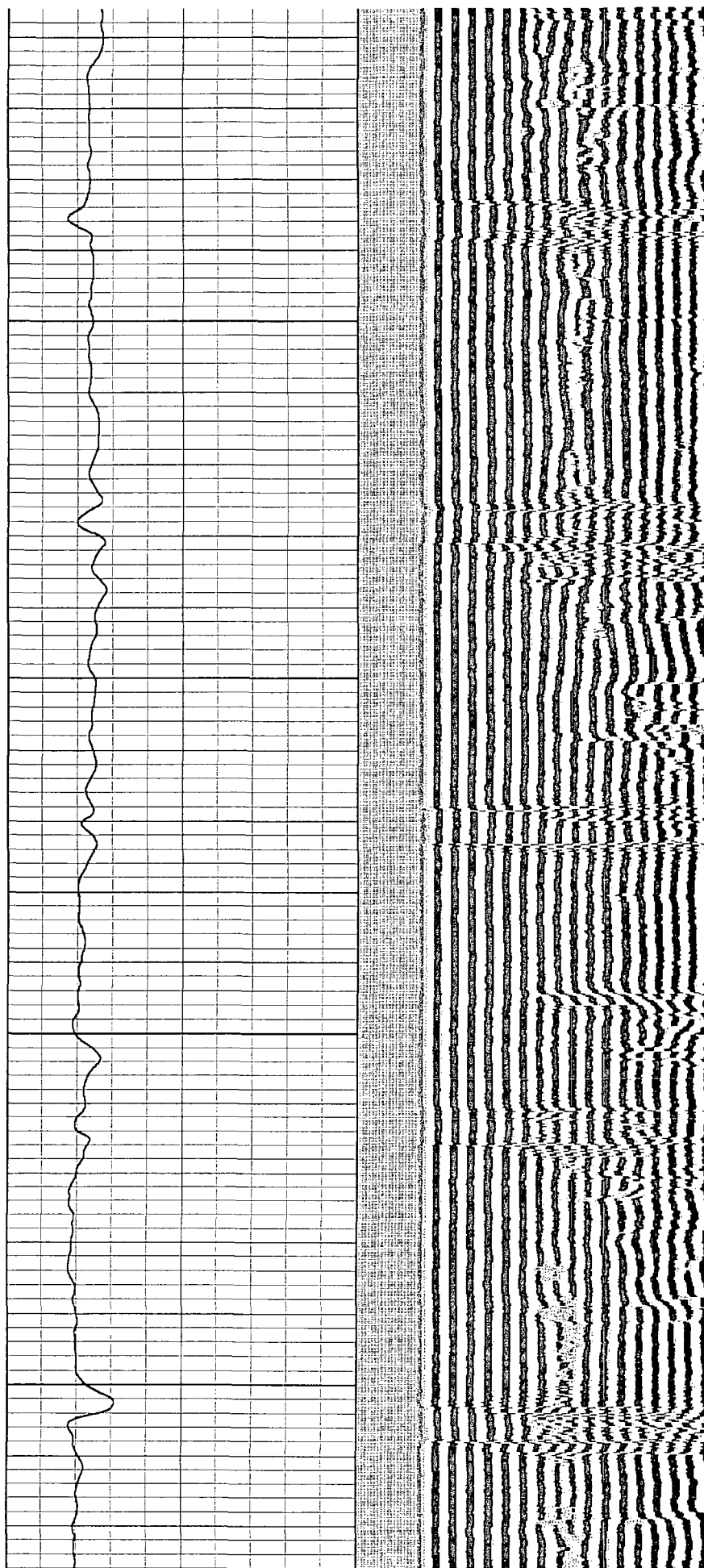


5000

5050

5100

5150



APPLICATION FOR AUTHORIZATION TO INJECT  
LOMAS ROJAS 26 STATE COM NO. 6

VII. PROPOSED OPERATION

- (1) Proposed Average Daily Rate and Volume : 5000 BPD  
Proposed Maximum Daily Rate and Volume: 10000 BPD
- (2) Open or Closed System: Closed
- (3) Proposed Average Injection Surface Pressure: 1100 psi  
Proposed Maximum Injection Surface Pressure: 2000 psi  
Note: Original Bone Spring formation BHP 9500 psi.
- (4) Produced Bone Spring Formation Water: 250-300 BPD from  
Red Hills Field (Bone Spring) (see attached analysis)
- (5) N/A

VIII. GEOLOGIC DATA ON INJECTION ZONE

Injection Zone: Bell Canyon Formation  
Lithologic Detail: Fine grain sandstone  
Geological Name: Delaware Mtn. Group  
Thickness: Delaware Mtn. Group – 4015'  
Bell Canyon Fm. – 1080'  
Depth: Bell Canyon Formation 5020 – 6100'  
Injection Zone 5100 – 7000'

Underground Sources of Drinking Water:  
Geological Name: Triassic  
Base: 600'

IX. PROPOSED STIMULATION

None at this time

X. LOGGING AND TESTING DATA ON INJECTION WELL

Logs will be submitted.

XI. CHEMICAL ANALYSIS OF WATER FROM FRESH WATER WELLS  
WITHIN ONE MILE OF THE INJECTION WELL

A review of the State Engineers records shows a fresh water well with an approved permit number of C-02313 located in the NE/4, SW/4, SW/4 of Sec 26, T25S, R33E in Lea County, New Mexico for the purpose of watering livestock. This well was drilled to a total depth of 150' with the fresh water zone being encountered at a depth of 110'. Please see the attached fresh water analysis.

- XII. Available geologic and engineering data has been examined and no evidence has been found of open faults or any other hydrologic connection between the injection zone and any underground source of drinking water.
- XIII. See attached "Proof of Notice".

Surface Owner:

State of New Mexico  
310 Old Santa Fe Trail  
Santa Fe, NM 87504

Offset Operators:

EOG is the only active operator within a ½ mile radius of the disposal well.

Additional notice is being provided to:

Newkumet Exploration Inc.  
P.O. Box 11330  
Midland, TX 79702



**EOG Resources, Inc.**  
4000 North Big Spring, Suite 500  
Midland, TX 79705  
(915) 686-3600

April 26, 2010

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

State of New Mexico  
310 Old Santa Fe Trail  
Santa Fe, NM 87504

Re: Application of EOG Resources, Inc. for administrative approval of  
Lomas Rojas 26 State Com No. 6 – Lea County, New Mexico.  
Application for a Water Disposal Injection well

Ladies and Gentlemen:

Enclosed please find a copy of the application of EOG Resources, Inc. (Oil Conservation Division Form C-108) in the above-referenced matter for approval of a Water Disposal Injection Well: the Lomas Rojas 26 State Com No. 6 located 2620 feet from the North line and 1810 feet from the East line of Section 26, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico. EOG proposes to re-inject water produced from the Bone Spring formation into the Delaware Sand formation at a measured depth of 5100 feet to 7000 feet. This injection will occur with a maximum injection pressure of 2000 psi and a maximum injection rate of 10000 barrels of water per day as fully described in the application. ?

This application is provided to you as owner of the surface of the land upon which the subject well is located. If you object to this application your objection must be filed in writing with the Santa Fe Office of the Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days of the date of this letter. If there is no objection, the Division Director may approve this application.

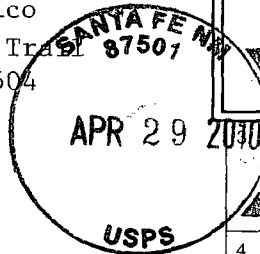
Sincerely,

EOG RESOURCES, INC.

A handwritten signature in black ink, appearing to read "Stan Wagner", with a long horizontal flourish extending to the right.

Stan Wagner  
Regulatory Analyst

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p> <input type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  <input type="checkbox"/> Print your name and address on the reverse so that we can return the card to you.  <input type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits. </p>		<p>A. Received by (Please Print Clearly) B. Date of Delivery</p> <p><i>Susan McLaughlin</i></p>	
<p>1. Article Addressed to:</p> <p>State of New Mexico 310 Old Santa Fe Trail Santa Fe, NM 87504</p>		<p>C. Signature</p> <p>X <i>Susan McLaughlin</i> <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p>	
<p>2. Article Number (Copy from service label)</p> <p>7002 1000 0004 6532 4929</p>		<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, enter delivery address below:</p>	
<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>		<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>	





**EOG Resources, Inc.**  
4000 North Big Spring, Suite 500  
Midland, TX 79705  
(915) 686-3600

April 26, 2010

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Newkumet Exploration Inc.  
P.O. Box 11330  
Midland, TX 79702

Re: Application of EOG Resources, Inc. for administrative approval of  
Lomas Rojas 26 State Com No. 6 – Lea County, New Mexico.  
Application for a Water Disposal Injection well

Ladies and Gentlemen:

Enclosed please find a copy of the application of EOG Resources, Inc. (Oil Conservation Division Form C-108) in the above-referenced matter for approval of a Water Disposal Injection Well: the Lomas Rojas 26 State Com No. 6 located 2620 feet from the North line and 1810 feet from the East line of Section 26, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico. EOG proposes to re-inject water produced from the Bone Spring formation into the Delaware Sand formation at a measured depth of 5100 feet to 7000 feet. This injection will occur with a maximum injection pressure of 2000 psi and a maximum injection rate of 10000 barrels of water per day as fully described in the application.

NOT  
in  
Publication

This application is provided to you as the lessee of record for offset lands within a ½ mile radius of the subject well. If you object to this application your objection must be filed in writing with the Santa Fe Office of the Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days of the date of this letter. If there is no objection, the Division Director may approve this application.

Sincerely,

EOG RESOURCES, INC.

A handwritten signature in black ink, appearing to read "Stan Wagner", with a long horizontal flourish extending to the right.

Stan Wagner  
Regulatory Analyst

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>		A. Received by (Please Print Clearly) <b>KAREN ADAMS</b> B. Date of Delivery <b>5/11/10</b>	
1. Article Addressed to:  Newkumet Exploration Inc. 550 W. Texas Midland, TX 79701		C. Signature <b>X</b> <i>Karen Adams</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
2. Article Number (Copy from service label) <b>7002 1000 0004 6532 4882</b>			
PS Form 3811, July 1999		Domestic Return Receipt 102595-00-M-0952	



# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, JUDY HANNA  
PUBLISHER

of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do 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).

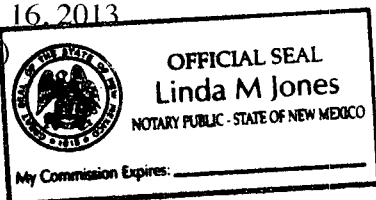
Beginning with the issue dated  
April 14, 2010  
and ending with the issue dated  
April 14, 2010

  
PUBLISHER

Sworn and subscribed to before me  
this 20th day of  
April, 2010

  
Notary Public

My commission expires  
June 16, 2013  
(Seal)



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  
publication has been made.

## LEGAL NOTICE APRIL 14, 2010

EOG Resources, Inc., P.O. Box 2267, Midland, TX 79702, will file for C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a water injection well.

The Lomas Rojas 26 State Com 6 is located 2620' FNL & 1980' FEL, Section 26, Township 25 South, Range 33 East, Lea County, New Mexico. Injection water will be sourced from area wells producing from the Bone Spring formation. The injection water will be injected into the Delaware Sand Formation at a depth of 5100'-7000', a maximum surface pressure of 1500 psi, and a maximum rate of 10000 BWPD.

All interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 within 15 days. Additional information may be obtained by contacting Stan Wagner at P.O. Box 2267, Midland, TX 79702, or 432-686-3600.

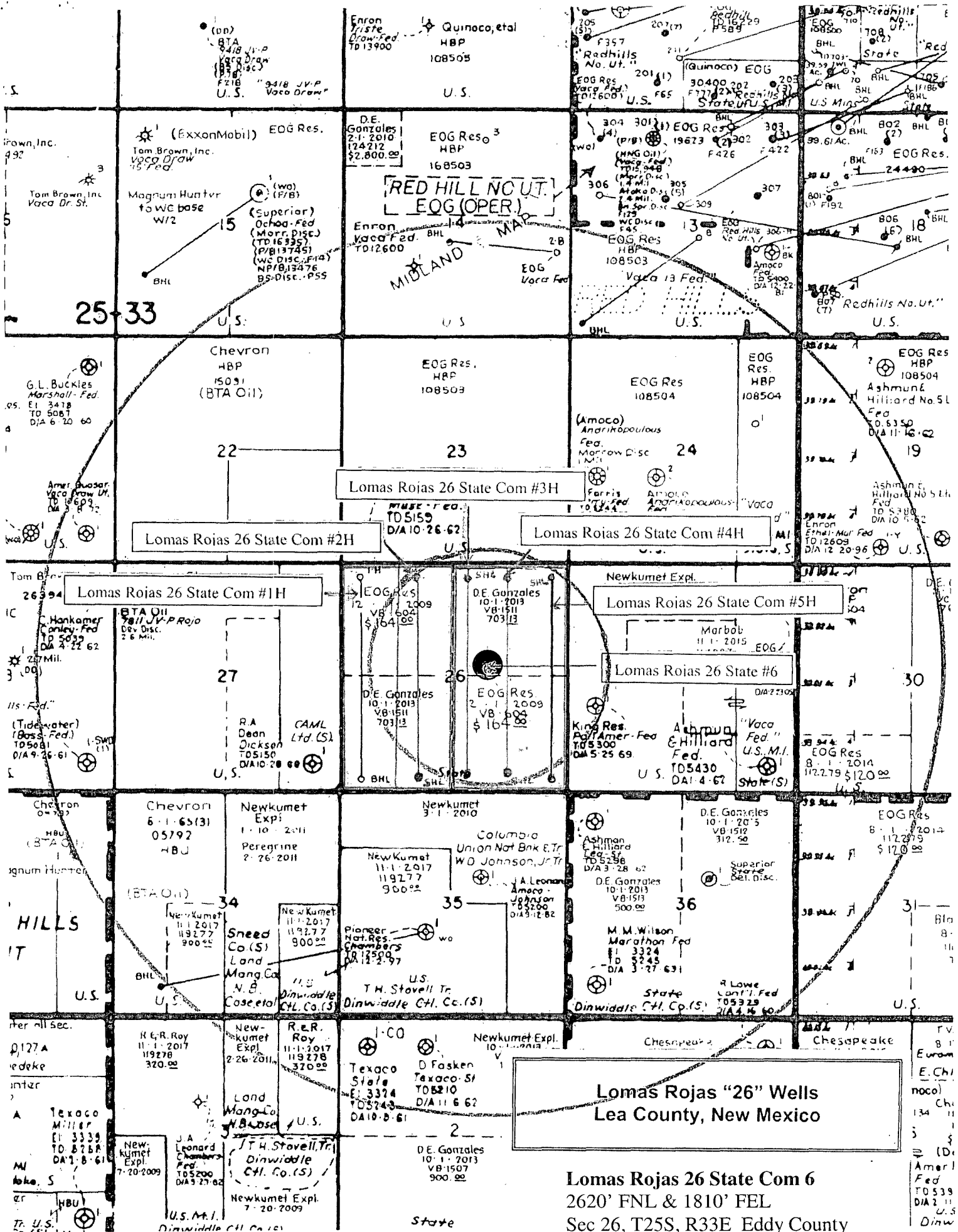
#25784

5100-7000'  
1500 psi

01105308

00050182

STAN WAGNER  
EOG RESOURCES, INC.  
P.O. BOX 2267  
MIDLAND, TX 79702



U.S.  
EOG Res.  
HBP  
108503

23

Hill & Meeker  
Muse - Fed.  
TD 5159  
D/A 10-26-62

U.S.

EOG Res  
HBP  
108504

(Amoco)  
Andrikopoulos  
Fed.  
Morrow Disc  
1 Mil.

24

R. Farris  
Perry - Fed.  
TD 4244  
D/A 8-1-60

Amoco  
Andrikopoulos -  
Fed.  
TD 5300  
D/A 6-2-61

EOG  
Res  
HBP  
108504

Vaca  
24 Fed.  
J.S. MI  
State S

Newkumet Expl.  
2-1-2019  
121958  
\$ 750.00

Marbob  
11-1-2015  
114987  
\$ 700.00

EOG/  
Vaca  
Fed.  
TD 12600  
TD 280  
D/A 2-23-09

26

D.E. Gonzales  
10-1-2013  
VB 1511  
703.13

EOG Res.  
12-1-2009  
VB 604  
\$ 164.00

King Res.  
R. Amer - Fed.  
TD 5300  
D/A 5-25-69

Ashman  
& Hilliard  
Fed.  
TD 5430  
D/A 4-6-62

Vaca  
Fed.  
U.S. MI  
State (S)

Newkumet  
3-1-2010

Columbia  
Union Nat Bnk & Tr  
W.D. Johnson, Jr. Tr

New Kumet  
11-1-2017  
119277  
900.00

A. Leonan  
Amoco -  
Johnson  
TD 5200  
D/A 9-12-82

Ashman  
& Hilliard  
Fed - St  
TD 5298  
D/A 3-28-62

D.E. Gonzales  
10-1-2013  
VB 1513  
500.00

D.E. Gonzales  
10-1-2013  
VB 1512  
312.50

Superior  
State  
Bel. Disc.

35

Pioneer  
Nat. Res.  
Chambers  
TD 12500  
D/A 12-2-97

36

M.M. Wilson  
Marathon - Fed.  
TD 3324  
TD 5245  
D/A 3-27-63

R Lowe  
Cont'l. Fed.  
TD 5329  
D/A 4-16-60

Lomas Rojas 26 State Com 6  
2620' FNL & 1810' FEL  
Sec 26, T25S, R33E Eddy County  
1/2 mile radius area of review

State  
Dinwiddie Ctl. Co. (S)

EOG Resources, Inc  
1/2 Mile Area of Review  
Application for Authorization to Inject Lomas Rojas 26 State Com 6

Operator	Lease/Well	Status	Location	Spud Date	TMD	Surface Casing		Production Casing		Producing Perforations
						Depth	Size	Depth	Size	
EOG Resources	Lomas Rojas 26 Satte Com 2H	Drilling	Sec 26, T25S, R33E	4/12/2010		685'	13-3/8"	Not yet completed	675 sx Prem Plus	Not yet completed - see enclosed diagram
EOG Resources	Lomas Rojas 26 Satte Com 3H	Proposed	Sec 26, T25S, R33E							
EOG Resources	Lomas Rojas 26 Satte Com 4H	Drilling	Sec 26, T25S, R33E	4/6/2010		682'	13-3/8"	Not yet completed	675 sx Class C	Not yet completed - see enclosed diagram
EOG Resources	Lomas Rojas 26 Satte Com 5H	Proposed	Sec 26, T25S, R33E							
	Pan American Federal No. 1	P&A	Sec 25, T25S, R33E	1969	5300'	506'	8-5/8"			Dry Hole

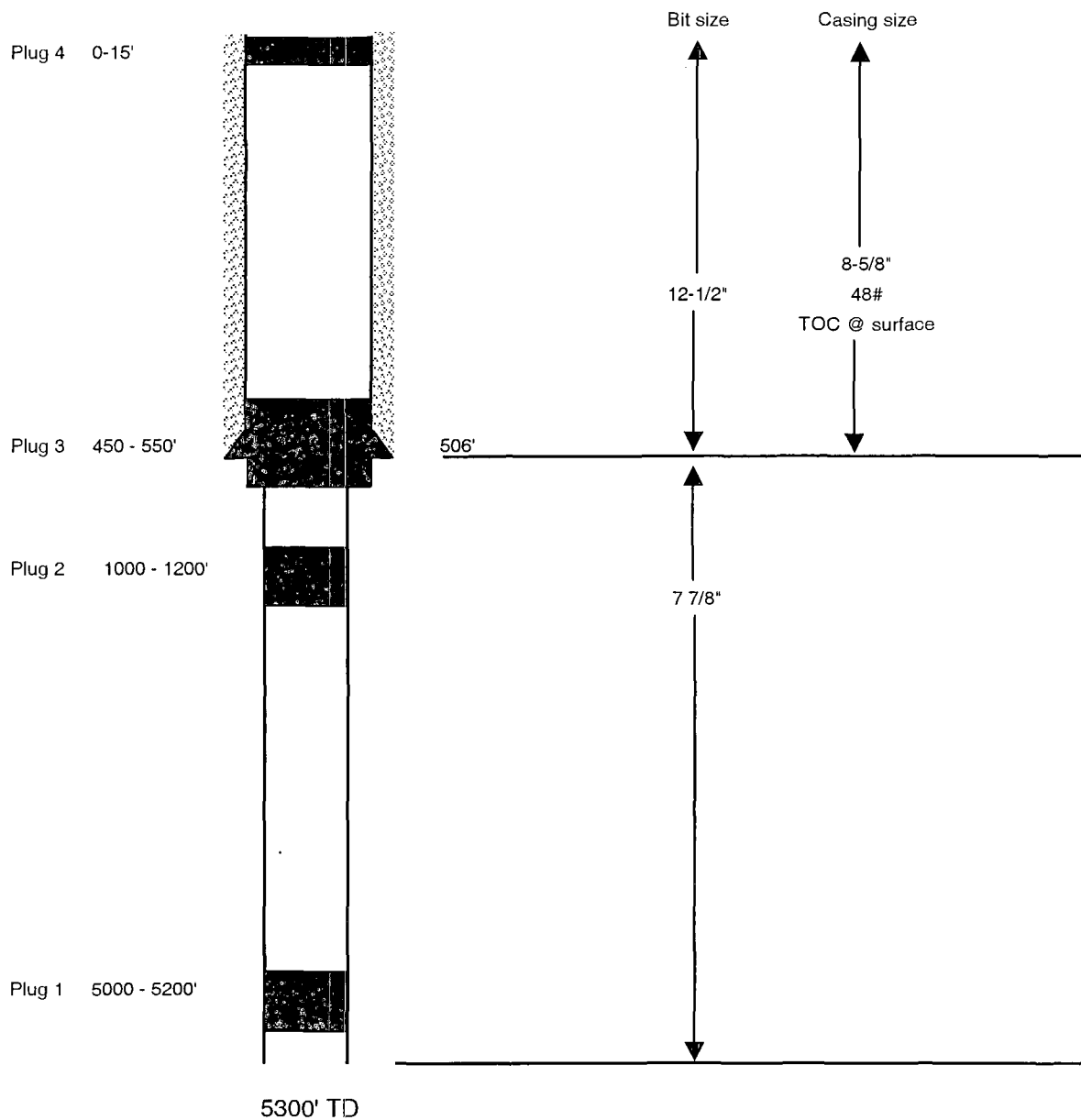
**Pan American Federal No. 1**

1980' FSL & 660' FWL

Sec. 25-25S-33E

Lea County, New Mexico

30-025-23155



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPPLICATE  
(Other instructions on re-  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 0370907

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Pan American Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

25, 25-S, 33-E

12. COUNTY OR PARISH

Lea

13. STATE

New Mex.

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> PLUG AND ABANDON
2. NAME OF OPERATOR KING RESOURCES COMPANY
3. ADDRESS OF OPERATOR 300 Wall Towers West, Midland, TX 79701
4. LOCATION OF WELL (Report location clearly and in detail. See also space 17 below.) At surface 1980' FSL, 660' FWL, Section 25, T. 25-S, R. 33-E.
14. PERMIT NO.
15. ELEVATION (whether DF, RT, GR, etc.) SURF GR.

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

## NOTICE OF INTENTION

TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER Casing	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	MULTIPLE COMPLETION	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	ABANDON*	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ABANDONMENT*	<input checked="" type="checkbox"/>
(Other)	<input type="checkbox"/>		

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give surface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Plug &amp; Abandon well as follows:

5/26/69

Set Plug #1 - 5000-5200' - (Ex.)  
#2 - 1000-1200' - (Ex.)  
#3 - 450-550' - (Ex.)  
#4 - 0-15' - (Ex.)

Set 4" plug &amp; abandon marker at surface.

Verbal approval received from R. R. Brown, USGS, 5/24/69.

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

SIGNED [Signature]

TITLE District Engineer

DATE 5/29/69

(This space for Federal or State office use)

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

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

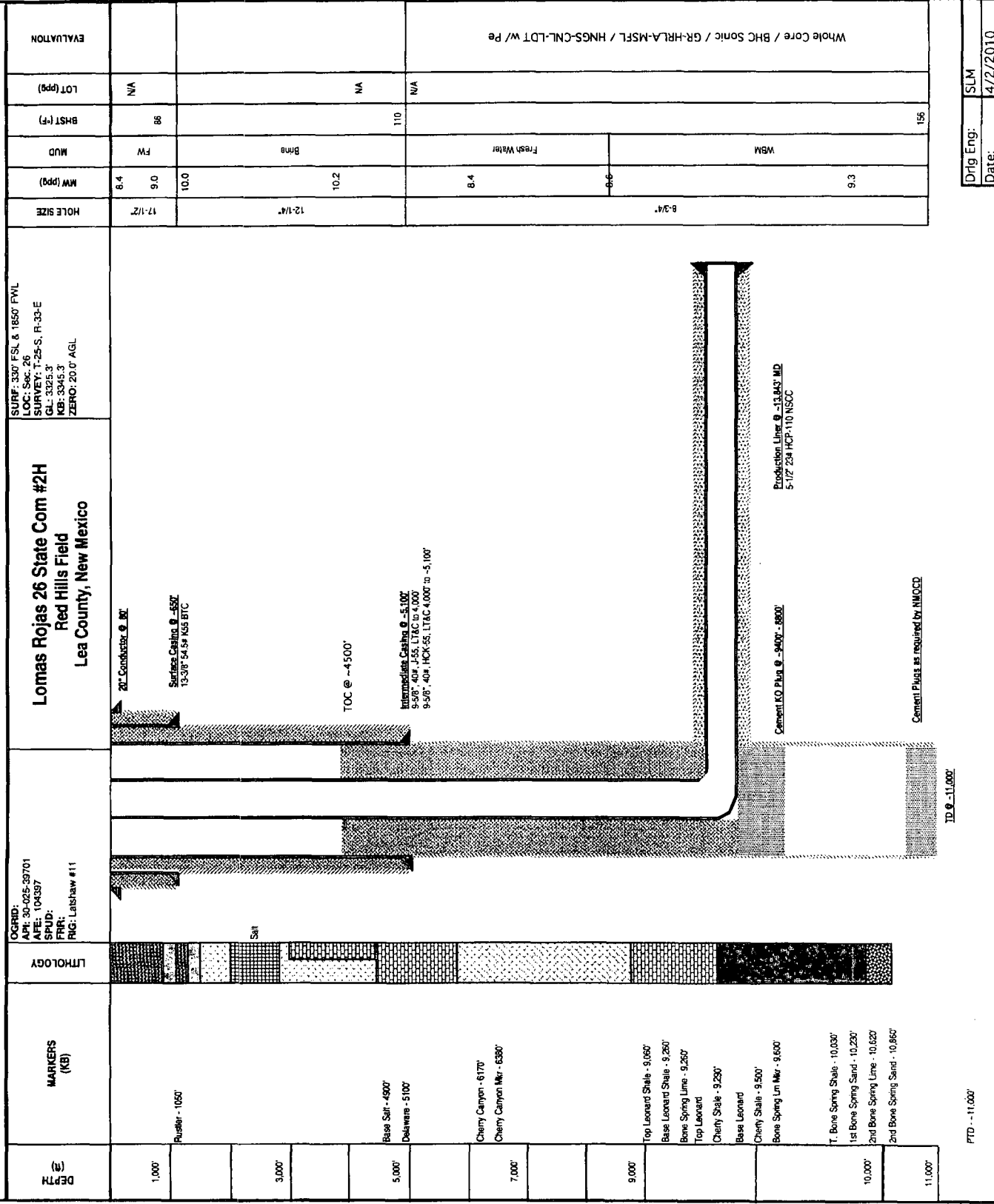
APPROVED

JUN 18 1970

30-025-23/55

\*See Instructions on Reverse Side  
L. GORDON  
ACTING DISTRICT ENGINEER

**PROPOSED WELL SKETCH**



Drig Eng: **SJM**  
Date: **4/2/2010**

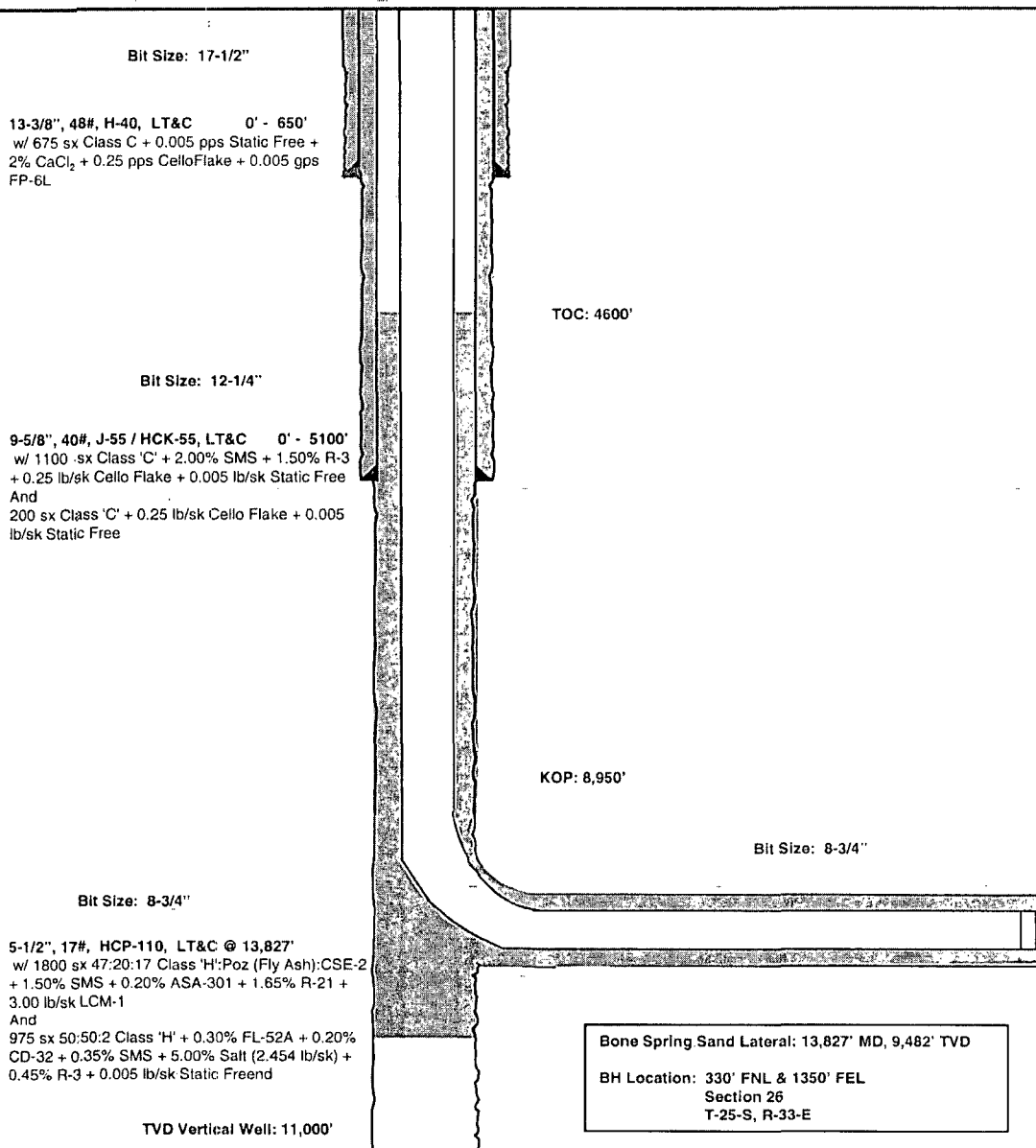
Lomas Rojas State Com #4H  
Red Hills  
Lea County, New Mexico

330' FSL  
1350' FEL  
Section 26  
T-25-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,358.9'  
GL: 3,328.9'





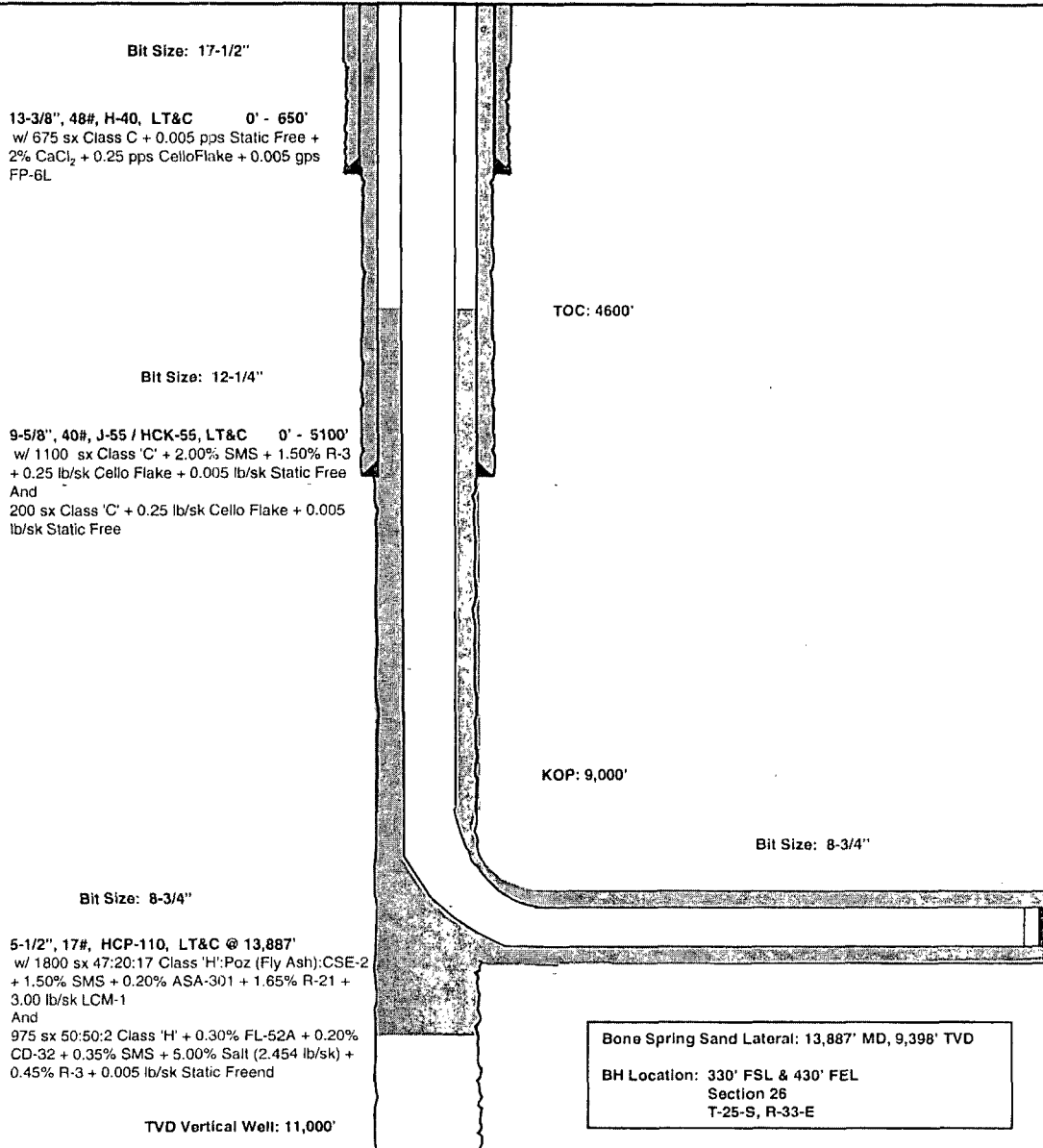
Lomas Rojas State Com #5H  
Red Hills  
Lea County, New Mexico

330' FNL  
430' FEL  
Section 26  
T-25-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,368.1'  
GL: 3,338.1'





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q 64 16 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02313	STK	LE		2 3 3	26	25S	33E	636971	3552098*	0 150	110	110	40
Average Depth to Water:											110 feet		
Minimum Depth:											110 feet		
Maximum Depth:											110 feet		

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 636971

Northing (Y): 3552098

Radius: 10

\*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

## Wells Without Well Log Information

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

(quarters are smallest to largest) (NAD83 UTM in meters)

POD Number	Sub basin	Use	County	Source	q 64	q 16	q 4	Sec	Tws	Rng	X	Y
C 02313	STK	LE			2	3	3	26	25S	33E	636971	3552098*

Record Count: 1

Basin/County Search:

County: Lea

PLSS Search:

Section(s): 26

Township: 25S

Range: 33E

\*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.

709 W. INDIANA  
MIDLAND, TEXAS 79701  
FAX (432) 682-8819

### RESULT OF WATER ANALYSES

LABORATORY NO.	410-157
SAMPLE RECEIVED	4-15-10
RESULTS REPORTED	4-19-10

COMPANY EOG Resources LEASE Lomas Rojas Sec 26

FIELD OR POOL \_\_\_\_\_  
SECTION \_\_\_\_\_ BLOCK \_\_\_\_\_ SURVEY \_\_\_\_\_ COUNTY Lea STATE NM

**SOURCE OF SAMPLE AND DATE TAKEN:**

Submitted water sample - taken 4-14-10 and labeled "fresh water".

NO. 1 Submitted water sample - taken 4-14-10 and labeled fresh water.

NO. 2

**NO. 3**

NO 4

## REMARKS:

[illegible]

Amounts Reported As Milligrams Per Liter

Additional Determinations And Remarks  
of his knowledge and belief.

The undersigned certifies the above to be true and correct to the best

**Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Wednesday, June 23, 2010 12:27 PM  
**To:** 'Stan\_Wagner@eogresources.com'  
**Cc:** Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD  
**Subject:** Disposal application from EOG Resources, Inc.: Lomas Rojas 26 State Com #6  
30-015-39705 Delaware interval

*Canal*

*2*

Hello Stan:

Reviewed this application and have a few questions: The well file we have ends with EOG running the 5-1/2 inch casing – is there anything else?

- a. The depths on the log you sent show casing at 5049 and the well file shows 4968. Your application shows 5100 feet. Please update with the correct data on your wellbore diagrams and resend a “Before Conversion” diagram and an “After Conversion” diagram. The post conversion diagram should have the tubing in it.
- b. Please send a copy of a mudlog over this disposal interval or a quick log analysis or at least an analysis from a geologist as to how this interval was evaluated for productivity.
- c. Please send a quick writeup from a geologist talking about the interval above 5000 feet – is this anhydrite or salt? A good barrier?

William V Jones, P.E.  
Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



**Jones, William V., EMNRD**

---

**From:** Stan\_Wagner@eogresources.com  
**Sent:** Wednesday, July 07, 2010 10:30 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Fw: Lomas Rojas 26 State No. 6  
**Attachments:** Present Wellbore Diagram.doc; Proposed Wellbore Diagram.doc; Lomas Proposed Perforations.docx

Will, attached please find the information you requested regarding the subject wells injection application. if you need anything else, please let me know.

Thanks,  
Stan Wagner  
EOG Resources  
432-686-3689

----- Forwarded by Stan Wagner/EOGResources on 07/07/2010 11:27 AM -----

**From:** Charlie Aupied/EOGResources  
**To:** Stan Wagner/EOGResources@EOGResources  
**Cc:** Glenn Carter/EOGResources@EOGRESOURCES, Ron Willett/EOGResources@EOGResources  
**Date:** 07/07/2010 11:22 AM  
**Subject:** Lomas Rojas 26 State No. 6

Stan, attached are the Present Wellbore Diagram, Proposed Wellbore Diagram, and Proposed Injection Perforations for the subject well:

(See attached file: Present Wellbore Diagram.doc)(See attached file: Proposed Wellbore Diagram.doc)(See attached file: Lomas Proposed Perforations.docx)

Please let me know if you have any questions or need any additional information.

Thanks!!!!  
Charlie Aupied  
Office: 432-686-3671  
Cell: 432-413-4951

Review of the Lomas Rojas 26 State No.1 e-logs indicates the Bell Canyon Formation (Delaware) to be the the most prospective interval for water disposal in the proposed Lomas Rojas 26 State No.6 SWD well. Prospective Bell Canyon sands for water disposal are expected between 5100-700' (600').

Approximately 325' of net porous sand (with porosity in 22-25% range) is anticipated to be perforated and acidized if the decision is made to complete thru 5 1/2" casing. These sands are correlatable with the disposal zones in the Vaca Ridge 30 SWD No.1 well (5424-662 - 162' of net porous sand perforated / acidized) which is located 6 mi n-ne of the proposed No.6 well.

Joe Villalobos  
EOG - GFE

## Jones, William V., EMNRD

---

**From:** Stan\_Wagner@eogresources.com  
**Sent:** Wednesday, July 07, 2010 2:28 PM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Lomas Rojas 26 State No. 6

Yes. I believe you are correct in both instances. Yes, draw and make it a condition of approval. I have forwarded to Joe, so we should have something back soon.

Thanks.

**From:** "Jones, William V., EMNRD" <William.V.Jones@state.nm.us>  
**To:** <Stan\_Wagner@eogresources.com>  
**Date:** 07/07/2010 03:19 PM  
**Subject:** RE: Lomas Rojas 26 State No. 6

Stan:  
Thanks for the reply. (I think I remember a Joe Villalobos from Denver and a Glenn Carter from the Hobbs area, but could be totally different people.)

The wellbore diagram needs a CIBP/cement set within 200 feet below the disposal interval - I can draw that in to your diagram and put it as a requirement in the permit.

As far as the disposal interval, thanks for the synopsis. Please let me know (ask Joe) what water saturation the logs calculate for this interval.

I didn't see any mention of item 3... Please ask Joe about the formation below the Salado and above the Delaware, what is the lithology and formation name and is it a good barrier to injected fluids?

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Thursday, August 05, 2010 4:07 PM  
**To:** 'Stan\_Wagner@eogresources.com'  
**Cc:** Kautz, Paul, EMNRD; Hill, Larry, EMNRD; Ezeanyim, Richard, EMNRD; Warnell, Terry G, EMNRD  
**Subject:** RE: Lomas Rojas 26 State No. 6

Stan:

Just got your messages and looked over this application, questions, and responses.

The wellbore diagrams in the application differ significantly from the ones sent recently after my questions. Should I assume the ones sent with the application are not valid? Are all the sundrys in the OCD imaged well file showing installing/cementing this casing? I thought I looked and the casing details were not in our well file. If not, please send the sundry information to Hobbs.

Please send a copy of the CBL overnight or let me know if it is now available on the OCD web site.

Joe Villalobos gave an opinion and some details on injection interval but did not say what the Water Saturation in this interval is or whether there was available a mudlog over this entire proposed Delaware injection interval. Also he did not mention anything about the interval from 5700 to 7000 feet. What is the hydrocarbon potential of that lower interval and water saturation? If you don't have that information, we could put in a requirement to perf and swab test prior to disposal, but the huge interval would negate benefits of this. Please ask your petrophysicist to give this a quick look over the entire proposed disposal interval.

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

-----Original Message-----

**From:** Stan\_Wagner@eogresources.com [mailto:Stan\_Wagner@eogresources.com]  
**Sent:** Wednesday, July 07, 2010 2:28 PM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Lomas Rojas 26 State No. 6

Yes. I believe you are correct in both instances. Yes, draw and make it a condition of approval. I have forwarded to Joe, so we should have something back soon.

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**From:** "Jones, William V., EMNRD" <William.V.Jones@state.nm.us>  
**To:** <Stan\_Wagner@eogresources.com>  
**Date:** 07/07/2010 03:19 PM



## Jones, William V., EMNRD

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**From:** Stan\_Wagner@eogresources.com  
**Sent:** Friday, August 06, 2010 8:14 AM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Lomas Rojas 26 State No. 6

Hi Will,

Yes the original wellbore is no longer valid. The original permit was sent based on the plan at that time. The recent info is the actual. I will forward the cementing sundrys to you, and I have forwarded this to Joe for his additional input. I will also try to get a copy of the CBL and get that to you also.

Thanks,  
Stan

**From:** "Jones, William V., EMNRD" <William.V.Jones@state.nm.us>  
**To:** <Stan\_Wagner@eogresources.com>  
**Cc:** "Kautz, Paul, EMNRD" <paul.kautz@state.nm.us>, "Hill, Larry, EMNRD" <larry.hill@state.nm.us>, "Ezeanyim, Richard, EMNRD" <richard.ezeanyim@state.nm.us>, "Warnell, Terry G, EMNRD" <TerryG.Warnell@state.nm.us>  
**Date:** 08/05/2010 05:08 PM  
**Subject:** RE: Lomas Rojas 26 State No. 6

Stan:  
Just got your messages and looked over this application, questions, and responses.

The wellbore diagrams in the application differ significantly from the ones sent recently after my questions. Should I assume the ones sent with the application are not valid? Are all the sundrys in the OCD imaged well file showing installing/cementing this casing? I thought I looked and the casing details were not in our well file. If not, please send the sundry information to Hobbs.

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Joe Villalobos gave an opinion and some details on injection interval but did not say what the Water Saturation in this interval is or whether there was available a mudlog over this entire proposed Delaware injection interval. Also he did not mention anything about the interval from 5700 to 7000 feet. What is the hydrocarbon potential of that lower interval and water saturation? If you don't have that information, we could put in a requirement to

Jones, William V., EMNRD

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From: Stan\_Wagner@eogresources.com  
Sent: Friday, August 06, 2010 9:24 AM  
To: Jones, William V., EMNRD  
Subject: Lomas Rojas 26 State 6  
Attachments: Scan001.PDF

Will,

Attached are the casing and cementing sundries that I filed for the Lomas Rojas 26-6.

Thanks,

Stan Wagner  
EOG Resources, Inc.  
432-686-3689

(See attached file: Scan001.PDF)

## Jones, William V., EMNRD

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From: Stan\_Wagner@eogresources.com  
Sent: Monday, August 09, 2010 9:24 AM  
To: Jones, William V., EMNRD  
Subject: RE: Lomas Rojas 26 State 6

Will,

Estimated TOC from the CBL is 4634'. I am placing a copy of the log in the mail to you today. I'll check on the Stage Tool and get back to you.

Stan

From: "Jones, William V., EMNRD" <William.V.Jones@state.nm.us>  
To: <Stan\_Wagner@eogresources.com>  
Date: 08/09/2010 10:19 AM  
Subject: RE: Lomas Rojas 26 State 6

Thanks Stan:

On the 5-1/2 inch... Did you run a Stage Tool? If so, where is it?  
And do you know the cement top? Is this estimated or measured?

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

-----Original Message-----

From: Stan\_Wagner@eogresources.com [mailto:Stan\_Wagner@eogresources.com]

Sent: Friday, August 06, 2010 9:24 AM  
To: Jones, William V., EMNRD  
Subject: Lomas Rojas 26 State 6

Will,

Attached are the casing and cementing sundries that I filed for the Lomas Rojas 26-6.

Thanks,

Stan Wagner  
EOG Resources, Inc.

Jones, William V., EMNRD

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From: Stan\_Wagner@eogresources.com  
Sent: Monday, August 09, 2010 9:36 AM  
To: Jones, William V., EMNRD  
Subject: RE: Lomas Rojas 26 State 6

No stage tool on the 5-1/2".

From: "Jones, William V., EMNRD" <William.V.Jones@state.nm.us>  
To: <Stan\_Wagner@eogresources.com>  
Date: 08/09/2010 10:19 AM  
Subject: RE: Lomas Rojas 26 State 6

Thanks Stan:

On the 5-1/2 inch... Did you run a Stage Tool? If so, where is it?  
And do you know the cement top? Is this estimated or measured?

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

-----Original Message-----

From: Stan\_Wagner@eogresources.com [mailto:Stan\_Wagner@eogresources.com]

Sent: Friday, August 06, 2010 9:24 AM  
To: Jones, William V., EMNRD  
Subject: Lomas Rojas 26 State 6

Will,

Attached are the casing and cementing sundries that I filed for the Lomas Rojas 26-6.

Thanks,

Stan Wagner  
EOG Resources, Inc.  
432-686-3689

(See attached file: Scan001.PDF)

**Jones, William V., EMNRD**

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**From:** Glenn\_Carter@eogresources.com  
**Sent:** Monday, August 09, 2010 1:37 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Stan\_Wagner@eogresources.com; Charlie\_Aupied@eogresources.com  
**Subject:** Follow up on SWD application for the EOG Resources Lomas Rojas 26-6

Hi Will,

This is Glenn Carter with EOG in Midland. Stan and I were just talking. Yes, we both worked for Texaco in Hobbs in the late 80's. Good to hear you are doing well in Santa Fe.

Joe Villallobos is out of town on business. I was wanting to try to answer your questions that you asked last month.

1. The interval between the Salado and the Delaware is anhydrite and limestone. It is very tight. Yes, it is a very good seal and barrier to injected fluids, when injecting into the Delaware.
2. We are overnight mailing you a copy of the CBL and the mudlog.
3. On the mudlog, there are no shows of oil or gas in proposed SWD intervals.
4. I have reviewed the open hole logs and the mud logs from 5000' to 7000' (proposed SWD perfs 5159' - 6928'). From my evaluation, my opinion is that there is no potential for oil and gas production from these zones. I believe they will produce 100% water. Log calculations show all of these intervals to be very wet. Water saturations are very high, as Joe Villallobos stated in his email. When you look at the resistivity log, the deep resistivity is commonly 1-2 ohms, which based upon my experience, is 100% water. I calculated water saturations on many of the zones between 5700-7000', and they were all in the range of 55%-65%.

If you need any thing else, please let me know.

Maybe I'll catch you in your office the next time I call. When Stan told me that you were with the NMOCD, it was really nice to know where you were at these days. The old Hobbs group is all over the country now.

Thanks for your help in this matter.

Glenn Carter

Completions Manager  
Midland Division  
EOG Resources

w 432-686-3641

Injection Permit Checklist (06/22/2010)

Case R- (SWD 1237) WFX PMX IPI Permit Date 8/24/10 UIC Qtr (A/S/O)

# Wells 1 Well Name: LOMAS ROJAS 26 STATE COR #6

API Num: (30-) 025-39705 Spud Date: 4/11/10 New/Old: N (UIC primacy March 7, 1982)

Footages 2620 FNL/1810 FEL Unit 9 Sec 26 Tsp 255 Rge 33E County Lea

Operator: EOG RESOURCES, INC Contact: STON (Wagner)

Operator Address: PO-Box 2267, MIDLAND, TX, 79702

OGRID: 7317 RULE 5.9 Compliance (Wells) 4/561 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed 1 Current Status: Run 5 1/2" Recently Treated B.S. / water

General Location: TRINITE of Red Bluff

Diagrams: Before Conversion After Conversion Logs in Imaging File: none

Planned Work to Well:

	Sizes Hole.....Pipe	Setting Depths	Cement Sx or Cf	Cement Top and Determination Method
Existing ✓ Surface	14 3/4 11 3/4	652	475	CIRC.
Existing ✓ Intern	11 8 3/8	(4968)	1400	CIRC
New Existing LongSt	7 7/8 5 1/2	1998	(LOTS)	4640 CBL

DV Tool: MIVE Liner Open Hole: 5159-6928 Total Depth: 7000 Deviated Hole? NO

Intervals:	Depths, Ft.	Formation	Producing?
Formation Above			
Formation Above			
Injection TOP:		BERC.	Max. Perf 1032 Open Hole 2000 Perfs? ✓
Injection BOTTOM:		Chang	Tubing Size 4 1/2 Packer Depth 5060
Formation Below	9000	Brady	
Formation Below	10230	B.S.	

Sensitive Areas: Capitan Reef Cliff House Salt Depths 1250-4550

Polash Area (R-111-P) Potash Lessee Notified?

Fresh Water: Depths: 0-600' Formation TRINITE Wells? ✓ Analysis? ✓ Affirmative Statement ✓

Disposal Fluid Sources: B.S. Analysis?

Disposal Interval Production Potential/Testing: See MURDOCK Analysis

Notice: Newspaper (Y/N) ✓ Surface Owner: SLO. Mineral Owner(s): SLO.

RULE 26.7(A) Affected Parties: Newkumet TX, Inc.

Area of Review: Adequate Map (Y/N) ✓ and Well List (Y/N) ✓

Active Wells 4 Num Repairs 0 Producing in Injection Interval in AOR 150

P&A Wells 1 Num Repairs 0 All Wellbore Diagrams Included? ✓

Questions/Required Work: Run log

Send me before / after sketch w/ LUBING

Send to us

OK BEM about

Request Sent Reply: