

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NMNM94622

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

8. Well Name and No.  
CHAPARRAL 33 FEDERAL COM 4 ✓

9. API Well No.  
30-025-40328-00-S1 ✓

10. Field and Pool, or Exploratory  
QUAIL RIDGE

11. County or Parish, and State  
LEA COUNTY, NM

1. Type of Well ✓  
 Oil Well  Gas Well  Other

2. Name of Operator  Contact: CRISTEN BURDELL  
CIMAREX ENERGY COMPANY OF CO Mail: cburdell@cimarex.com

3a. Address  
600 NORTH MARIENFELD STREET, SUITE 600  
MIDLAND, TX 79701

3b. Phone No. (include area code)  
Ph: 918-560-7038

**HOBBS OCD**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 33 T19S R34E NWNE 330FNL 2010FEL /

**APR 18 2016**

**RECEIVED**

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

H2S gas analysis for facility as requested.

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

**Electronic Submission #290142 verified by the BLM Well Information System  
For CIMAREX ENERGY COMPANY OF CO, sent to the Hobbs  
Committed to AFMSS for processing by LINDA JIMENEZ on 05/04/2015 (15LJ1086SE)**

Name (Printed/Typed) CRISTEN BURDELL

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 02/02/2015

*Accepted for Record*

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By *James G. Jones*

Title *SPCT*

Date *4-10-16*

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office *CPD*

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**MAY 06 2016**

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Chaparral 33 Feb 3



Permian Basin Area Laboratory  
2101 S Market St. / Building B  
Midland, TX. 79711

Report Date: 6/9/2014

Complete Water Analysis Report SSP v.8

Customer:	CIMAREX ENERGY CO	Sample Point Name	33 St #3
District:	New Mexico	Sample ID:	201401008878
Sales Rep:	Shannon Lee	Sample Date:	5/29/2014
Lease:	CHAPARELL	Log Out Date:	6/4/2014
Site Type:		Analyst:	Sandra Sanchez
Sample Point Description:			

CIMAREX ENERGY CO, CHAPARELL, 33 St #3

Field Data		Analysis of Sample					
		Anions:		Cations:			
		mg/L	meq/L	mg/L	meq/L		
Initial Temperature (°F):	250	Chloride (Cl <sup>-</sup> ):	97601.0	2753.2	Sodium (Na <sup>+</sup> ):	45100.0	1962.6
Final Temperature (°F):	87	Sulfate (SO <sub>4</sub> <sup>2-</sup> ):	1272.0	26.5	Potassium (K <sup>+</sup> ):	833.9	21.3
Initial Pressure (psi):	100	Borate (H <sub>3</sub> BO <sub>3</sub> ):	213.3	3.4	Magnesium (Mg <sup>2+</sup> ):	787.4	64.8
Final Pressure (psi):	15	Fluoride (F <sup>-</sup> ):	ND		Calcium (Ca <sup>2+</sup> ):	5168.6	257.9
		Bromide (Br <sup>-</sup> ):	ND		Strontium (Sr <sup>2+</sup> ):	424.4	9.7
pH:		Nitrite (NO <sub>2</sub> <sup>-</sup> ):	ND		Barium (Ba <sup>2+</sup> ):	1.3	0.0
pH at time of sampling:	6.2	Nitrate (NO <sub>3</sub> <sup>-</sup> ):	ND		Iron (Fe <sup>2+</sup> ):	164.3	5.9
		Phosphate (PO <sub>4</sub> <sup>3-</sup> ):	ND		Manganese (Mn <sup>2+</sup> ):	2.1	0.1
		Silica (SiO <sub>2</sub> ):	ND		Lead (Pb <sup>2+</sup> ):	ND	
					Zinc (Zn <sup>2+</sup> ):	0.0	0.0
					Aluminum (Al <sup>3+</sup> ):	ND	
					Chromium (Cr <sup>3+</sup> ):	ND	
					Cobalt (Co <sup>2+</sup> ):	ND	
					Copper (Cu <sup>2+</sup> ):	ND	
					Molybdenum (Mo <sup>2+</sup> ):	ND	
					Nickel (Ni <sup>2+</sup> ):	ND	
					Tin (Sn <sup>2+</sup> ):	ND	
					Titanium (Ti <sup>2+</sup> ):	ND	
					Vanadium (V <sup>2+</sup> ):	ND	
					Zirconium (Zr <sup>2+</sup> ):	ND	
					Total Hardness:	16650	N/A
Alkalinity by Titration:	mg/L meq/L	Organic Acids:		mg/L meq/L			
Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ):	170.0 2.8	Formate:	ND				
Carbonate (CO <sub>3</sub> <sup>2-</sup> ):	ND	Acetate:	ND				
Hydroxide (OH <sup>-</sup> ):	ND	Propionate:	ND				
aqueous CO <sub>2</sub> (ppm):	260.0	Butyrate:	ND				
aqueous H <sub>2</sub> S (ppm):	17.0	Valerate:	ND				
aqueous O <sub>2</sub> (ppb):	ND						
Calculated TDS (mg/L):	151738	Anion/Cation Ratio:	1.20				ND = Not Determined
Density/Specific Gravity (g/cm <sup>3</sup> ):	1.0936						
Measured Density/Specific Gravity	1.1030						
Conductivity (mmhos):	ND						
MCF/D:	No Data						
BOPD:	No Data						
BWPD:	No Data						

Conditions		Barite (BaSO <sub>4</sub> )		Calcite (CaCO <sub>3</sub> )		Gypsum (CaSO <sub>4</sub> ·2H <sub>2</sub> O)		Anhydrite (CaSO <sub>4</sub> )	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
87°F	15 psi	0.73	0.628	0.54	21.241	-0.15	0.000	-0.28	0.000
105°F	24 psi	0.60	0.581	0.57	22.088	-0.14	0.000	-0.20	0.000
123°F	34 psi	0.49	0.524	0.62	23.582	-0.14	0.000	-0.11	0.000
141°F	43 psi	0.39	0.458	0.68	25.166	-0.14	0.000	-0.03	0.000
159°F	53 psi	0.30	0.384	0.75	26.700	-0.13	0.000	0.07	84.090
178°F	62 psi	0.22	0.304	0.82	28.152	-0.13	0.000	0.16	185.524
196°F	72 psi	0.14	0.218	0.89	29.523	-0.13	0.000	0.26	271.084
214°F	81 psi	0.08	0.127	0.96	30.959	-0.12	0.000	0.36	341.930
232°F	91 psi	0.02	0.033	1.04	32.346	-0.12	0.000	0.46	399.607
250°F	100 psi	-0.04	0.000	1.13	33.653	-0.12	0.000	0.57	445.863

Conditions		Celestite (SrSO <sub>4</sub> )		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO <sub>3</sub> )	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
87°F	15 psi	0.51	187.847	-1.11	0.000	2.96	34.685	0.69	26.242
105°F	24 psi	0.51	188.387	-1.12	0.000	2.88	34.515	0.77	28.347
123°F	34 psi	0.51	188.745	-1.12	0.000	2.84	34.550	0.86	30.645
141°F	43 psi	0.52	189.354	-1.13	0.000	2.83	34.666	0.95	32.642
159°F	53 psi	0.52	190.506	-1.14	0.000	2.84	34.815	1.02	34.271
178°F	62 psi	0.53	192.365	-1.14	0.000	2.85	34.973	1.09	35.566
196°F	72 psi	0.54	194.978	-1.14	0.000	2.87	35.130	1.15	36.576
214°F	81 psi	0.55	198.294	-1.15	0.000	2.90	35.313	1.20	37.480
232°F	91 psi	0.57	202.180	-1.15	0.000	2.94	35.493	1.25	38.209
250°F	100 psi	0.59	206.451	-1.15	0.000	2.98	35.655	1.28	38.758

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered  
 Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales.  
 Note 3: Saturation Index predictions on this sheet use pH and alkalinity; %CO<sub>2</sub> is not included in the calculations.



ScaleSoftPitzer™  
SSP2010

Comments: \_\_\_\_\_