

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.
NMNM15906

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
SNODDY FEDERAL 21H ✓9. API Well No.
30-025-40838 ✓10. Field and Pool, or Exploratory
SALT LAKE11. County or Parish, and State
LEA COUNTY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ✓

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

CIMAREX ENERGY COMPANY ✓

Contact: CRISTEN BURDELL

E-Mail: cburdell@cimarex.com

3a. Address

202 S. CHEYENNE AVE STE 1000
TULSA, OK 74103

3b. Phone No. (include area code)

Ph: 918-560-7038

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 26 T20S R32E NENE 797FNL 596FEL
708 555 ✓

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

TYPE OF SUBMISSION

- ☐
- Notice of Intent
-
- ☒
- Subsequent Report
-
- ☐
- Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|---|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other |
| ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Convert to Injection | ☐ Plug Back | ☐ 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 recomple 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 recomple 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 #273821 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY, sent to the Hobbs
Committed to AFMSS for processing by LINDA JIMENEZ on 05/04/2015 ()**

Name (Printed/Typed) CRISTEN BURDELL

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 10/27/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

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

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

MAY 06 2016



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

H₂S ?

Snoddy Fed 21H

Report Date: 3/17/2014

Complete Water Analysis Report SSP v.8

Customer:	CIMAREX ENERGY CO	Sample Point Name:	# 21
District:	New Mexico	Sample ID:	201401002667
Sales Rep:	Shannon Lee	Sample Date:	2/28/2014
Lease:	Snoddy	Log Out Date:	3/14/2014
Site Type:		Analyst:	Stacey D Smith
Sample Point Description:			

CIMAREX ENERGY CO, Snoddy, # 21

Field Data			Analysis of Sample					
			Anions		Cations			
			mg/L	meq/L		mg/L	meq/L	
Initial Temperature (°F):	250		Chloride (Cl ⁻):	98453.0	2777.2	Sodium (Na ⁺):	47975.1	2087.7
Final Temperature (°F):	68		Sulfate (SO ₄ ²⁻):	1229.0	25.6	Potassium (K ⁺):	1104.0	28.2
Initial Pressure (psi):	100		Borate (H ₃ BO ₃):	128.9	2.1	Magnesium (Mg ²⁺):	1017.5	83.7
Final Pressure (psi):	15		Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	6621.4	330.4
			Bromide (Br ⁻):	ND		Strontium (Sr ²⁺):	245.2	5.6
			Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	0.9	0.0
pH:			Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	48.8	1.7
pH at time of sampling:	6.6		Phosphate (PO ₄ ³⁻):	ND		Manganese (Mn ²⁺):	2.1	0.1
			Silica (SiO ₂):	ND		Lead (Pb ²⁺):	ND	
						Zinc (Zn ²⁺):	3.2	0.1
Alkalinity by Titration:			mg/L	meq/L				
Bicarbonate (HCO ₃ ⁻):	134.0	2.2			Aluminum (Al ³⁺):	ND		
Carbonate (CO ₃ ²⁻):	ND				Chromium (Cr ³⁺):	ND		
Hydroxide (OH ⁻):	ND				Cobalt (Co ²⁺):	ND		
			Organic Acids:		Copper (Cu ²⁺):	ND		
			mg/L	meq/L	Molybdenum (Mo ²⁺):	ND		
aqueous CO ₂ (ppm):	110.0		Formate:	ND	Nickel (Ni ²⁺):	ND		
aqueous H ₂ S (ppm):	17.0		Acetate:	ND	Tin (Sn ²⁺):	ND		
aqueous O ₂ (ppb):	ND		Propionate:	ND	Titanium (Ti ²⁺):	ND		
			Butyrate:	ND	Vanadium (V ³⁺):	ND		
Calculated TDS (mg/L):	156963		Valerate:	ND	Zirconium (Zr ²⁺):	ND		
Density/Specific Gravity (g/cm ³):	1.0985				Total Hardness:	21026	N/A	
Measured Density/Specific Gravity	1.1070							
Conductivity (mmhos):	ND							
MCF/D:	No Data							
BOPD:	No Data							
BWPD:	No Data		Anion/Cation Ratio:		1.11	ND = Not Determined		

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
68°F	15 psi	0.63	0.390	0.74	20.122	-0.12	0.000	-0.33	0.000
88°F	24 psi	0.48	0.342	0.79	20.984	-0.10	0.000	-0.23	0.000
108°F	34 psi	0.35	0.281	0.85	21.950	-0.09	0.000	-0.13	0.000
129°F	43 psi	0.23	0.208	0.91	22.854	-0.09	0.000	-0.03	0.000
149°F	53 psi	0.12	0.123	0.97	23.684	-0.08	0.000	0.07	86.073
169°F	62 psi	0.02	0.027	1.04	24.459	-0.08	0.000	0.18	194.312
189°F	72 psi	-0.06	0.000	1.11	25.199	-0.07	0.000	0.29	283.291
210°F	81 psi	-0.14	0.000	1.18	25.988	-0.07	0.000	0.40	354.920
230°F	91 psi	-0.21	0.000	1.26	26.778	-0.07	0.000	0.51	411.469
250°F	100 psi	-0.27	0.000	1.34	27.552	-0.07	0.000	0.62	455.353

Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
68°F	15 psi	0.20	57.813	-1.05	0.000	2.95	23.365	0.20	5.227
88°F	24 psi	0.21	60.404	-1.06	0.000	2.83	23.208	0.31	7.776
108°F	34 psi	0.22	61.817	-1.07	0.000	2.76	23.227	0.42	10.184
129°F	43 psi	0.22	62.927	-1.08	0.000	2.71	23.314	0.52	12.182
149°F	53 psi	0.23	64.328	-1.09	0.000	2.68	23.430	0.61	13.772
169°F	62 psi	0.24	66.379	-1.10	0.000	2.67	23.557	0.68	15.010
189°F	72 psi	0.25	69.236	-1.10	0.000	2.67	23.689	0.74	15.955
210°F	81 psi	0.27	72.885	-1.11	0.000	2.68	23.854	0.79	16.753
230°F	91 psi	0.29	77.176	-1.11	0.000	2.70	24.026	0.83	17.363
250°F	100 psi	0.31	81.866	-1.11	0.000	2.73	24.191	0.86	17.783

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; %CO₂ is not included in the calculations.



ScaleSoft Pitzer™
SSP2010

Comments: