

Office:

Energy, Minerals and Natural Resources

October 13, 2009

District I

1625 N. French Dr., Hobbs, NM 88240

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

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MAY 07 2010

OIL CONSERVATION DIVISION

HUBBSUCD1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

30-015-26536

5. Indicate Type of Lease

STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Candelario

8. Well Number 001

9. OGRID Number

227588

10. Pool name or Wildcat

Loving; Brush Canyon, East

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 ☐ Gas Well ☒ Other ☐

2. Name of Operator

Range Operating New Mexico, Inc.

3. Address of Operator

100 Throckmorton St., Ste. 1200, Fort Worth, TX 76102

4. Well Location

Unit Letter D : 660 feet from the North line and 660 feet from the West line
Section 24 Township 23S Range 28E NMPM County Eddy

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

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NMOCD ARTESIA

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 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Range Operating New Mexico (RONM) plans to temporarily convert the Candelario 24-1 from an SWD (as currently permitted) to a water supply well in order to increase available water at the nearby water injection facility servicing a waterflood unit. The attached water analyses show that the water flowing back from the SWD is compatible with the waters at the injection facility. ROMN plans to install a downhole pump in order to facilitate fluid movement from the wellbore.

PLEASE BE AWARE OF OCD RULES N.M.A.C. 19.15.26.12

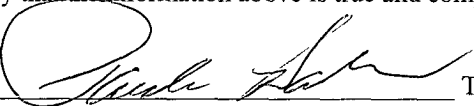
"... CONTINUOUS ONE YEAR PERIOD OF NON-INJECTION. THE AUTHORITY FOR INJECTION SHALL AUTOMATICALLY TERMINATE IPSO FACTO."

Spud Date: 11-7-1990

Rig Release Date: 12-14-1990

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

SIGNATURE



TITLE Sr. Reg. Sp.

DATE 5-06-2010

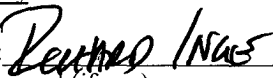
Type or print name Paula Hale

E-mail address: phale@rangeresources.com

PHONE: 817-869-4216

For State Use Only

APPROVED BY:



TITLE

COMPLIANCE OFFICER

DATE 5/14/10

Conditions of Approval (if any):



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MAY 0 / 2010
HOBBSDO

Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer: Range Resources Company Sample #: 1624
Area: Eunice Analysis ID #: 3838
Lease: Candelario
Location: 24-1 0
Sample Point: Wellhead

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	4/22/2010	Chloride:	168384.7	Sodium:	67500.0
Analysis Date:	4/30/2010	Bicarbonate:	0.0	Magnesium:	4252.0
Analyst:	Catalyst	Carbonate:		Calcium:	28230.0
TDS (mg/l or g/m3):	270886.8	Sulfate:	140.0	Potassium:	1388.0
Density (g/cm3):	1.189			Strontium:	979.8
				Barium:	1.2
Hydrogen Sulfide:	0			Iron:	3.3
Carbon Dioxide:	500			Manganese:	7.816
Comments:		pH at time of sampling:	6		
		pH at time of analysis:			
		pH used in Calculation:	6		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	223077
				Resistivity (ohm meter):	.0448

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Values calculated at the given conditions. Amounts of solids in wt-% dry											
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	-4.56	0.00	-0.60	0.00	-0.55	0.00	-0.51	0.00	-0.34	0.00	
100	-4.55	0.00	-0.68	0.00	-0.56	0.00	-0.53	0.00	-0.53	0.00	
120	-4.55	0.00	-0.74	0.00	-0.54	0.00	-0.54	0.00	-0.70	0.00	
140	-4.57	0.00	-0.79	0.00	-0.50	0.00	-0.53	0.00	-0.84	0.00	
160	-4.61	0.00	-0.83	0.00	-0.44	0.00	-0.51	0.00	-0.96	0.00	
180	-4.65	0.00	-0.87	0.00	-0.36	0.00	-0.49	0.00	-1.06	0.00	
200	-4.69	0.00	-0.89	0.00	-0.27	0.00	-0.46	0.00	-1.14	0.00	
220	-4.74	0.00	-0.92	0.00	-0.17	0.00	-0.43	0.00	-1.20	0.00	



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11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
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Water Analysis Report

Customer:	Range Resources Company	Sample #:	1625
Area:	Loving	Analysis ID #:	3839
Lease:	SCB		
Location:	Injection Facility		0
Sample Point:	IPD		

		mg/l		meq/l	mg/l		meq/l
Sampling Date:	4/23/2010	Anions			Cations		
Analysis Date:	4/30/2010	Chloride:	171224.4	4829.62	Sodium:	69160.0	3008.29
Analyst:	Catalyst	Bicarbonate:	0.0	0.	Magnesium:	4222.0	347.32
TDS (mg/l or g/m3):	275555.4	Carbonate:			Calcium:	28340.0	1414.17
Density (g/cm3):	1.192	Sulfate:	80.0	1.67	Potassium:	1482.0	37.9
					Strontium:	1037.0	23.67
Hydrogen Sulfide:	0				Barium:	1.2	0.02
Carbon Dioxide:	400				Iron:	1.3	0.05
					Manganese:	7.481	0.27
Comments:		pH at time of sampling:		5.5			
		pH at time of analysis:					
		pH used in Calculation:		5.5			
		Temperature @ lab conditions (F):		75	Conductivity (micro-ohms/cm):		222820
					Resistivity (ohm meter):		.0449

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Values calculated at the given conditions. Amounts of solids in wt.-%.											
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		
	°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80		-5.05	0.00	-0.84	0.00	-0.78	0.00	-0.74	0.00	-0.59	0.00
100		-5.00	0.00	-0.92	0.00	-0.80	0.00	-0.76	0.00	-0.78	0.00
120		-4.97	0.00	-0.98	0.00	-0.78	0.00	-0.76	0.00	-0.95	0.00
140		-4.96	0.00	-1.03	0.00	-0.74	0.00	-0.75	0.00	-1.09	0.00
160		-4.95	0.00	-1.08	0.00	-0.68	0.00	-0.74	0.00	-1.21	0.00
180		-4.94	0.00	-1.11	0.00	-0.61	0.00	-0.71	0.00	-1.31	0.00
200		-4.94	0.00	-1.14	0.00	-0.51	0.00	-0.69	0.00	-1.39	0.00
220		-4.95	0.00	-1.16	0.00	-0.41	0.00	-0.66	0.00	-1.45	0.00