Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No 1004-0137 Expires: March 31, 2007

DEFARIMENT OF THE INTERIOR	Expires: March 31, 2007
BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS	5. Lease Serial No. NMLC 032952A
Do not use this form for proposals to drill or to re-enter appending abandoned well. Use Form 3160 - 3 (APD) for such proposals.	6 If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE- Other instructions on reverse side.	7. If Unit or CA/Agreement, Name and/or No.
1. Type of Well ☐ ☐ Gas Well ☐ ☐ Other	8. Well Name and No.
2. Name of Operator Range Operating New Mexico, LLC	See Attached List 9. API Well No.
3a. Address 3b. Phone No. (include area code) 817-869-4216	See Attached List 10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	Loving; Brushy Canyon East
See Attached List	11. County or Parish, State
	Eddy
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, RE	PORT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
Acidize □ Deepen □ Production (Star ☐ Notice of Intent □ Alter Casing □ Fracture Treat □ Reclamation □ Casing Repair □ New Construction □ Recomplete	t/Resume)
Change Plans	ndon method for
Final Abandonment Notice Convert to Injection Plug Back Water Disposal	produced water.
13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Requirec following completion of the involved operations. If the operation results in a multiple completion or recompletion in testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamate determined that the site is ready for final inspection.) See attachments which include a well list and new disposal method information.	vertical depths of all pertinent markers and zones. I subsequent reports shall be filed within 30 days a new interval, a Form 3160-4 shall be filed once

14. Thereby certify that the foregoing is true and correct Name (<i>Printed/Typed</i>)							
Paula Hale	Title	Sr. Reg. Sp.					
Signature Hall Hall	Date		07/18/2011				
THIS SPACE FOR FEDERAL	OR	STATE O	FFICE USE				
Approved by	PE	Tholeum	EXCUSER	Date	JUL	27	2011
Conditions of approval, if any, are attached. Approval of this notice does not warrant certify that the applicant holds legal or equitable title to those rights in the subject less which would entitle the applicant to conduct operations thereon.		Office	K	t			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any States any false, fictitious or fraudulent statements or representations as to any matter	person withir	knowingly and its jurisdiction.	willfully to make to	any depa	rtment or age	ncy of the	e United

Lease No.:	API No. / Well Name & No.	Legal Description / Pool Names	Country
NMLC 032592A	30-025-37452 Trantula 3 Federal #001	Sec. 3-A-T25S-R37E Justis, Tubb-Drinkard	County
	30-025-37516 Trantula 3 Federal #002	The second of th	Lea
	30-025-38208 Trantula 3 Federal #003	Sec. 3-H-T25S-R37E Justis, Tubb-Drinkard	Lea
		Sec. e-I-T25S-R37E / Justis, Tubb-Drinkard	Lea
MIVILC 032592A	30-025-38401 Truntula 3 Federal #004	Sec. 3-P-T25S-R37E ✓ustis, Tubb-Drinkard/Blinebry Oil & Gas	Lea

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Range Operating New Mexico, LLC Tarantula 3 Lease Changes in Method of Produced Water Disposal

1. Name of formation(s) producing water on the lease:

Blinebry, Tubb and Drinkard

2. Amount of water produced from all formation in bbls/day:

The lease averages 280 bwpd.

- 3. Water Analysis included in Sundry packet.
- 4. How water is stored on lease:

3-500 bbl fiberglass tanks

5. How water is moved to the disposal facility:

3" poly flowline

6. Primary disposal facility:

Rice Operating Company (19174)
Justis SWD System, Well B-12, SWD
API #30-025-24761
Sec. 12, T25S, R37E
880' FNL & 2310' FEL
Lea County, New Mexico

7. Copy of Underground Injection Control Permit included in Sundry packet.



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 #:	5269
Area:	Loving		Analysis ID #:	7418
Lease:	Tarantula			
Location:	Battery	0		
Sample Point:				

Sampling Date:	6/17/2011	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	6/22/2011	Chloride:	70659.4	1993.04	Sodium:	42220.0	1836.47
Analyst:	Catalyst	Bicarbonate:	536.0	8.78	Magnesium:	1429.4	117.59
TDS (mg/l or g/m3):	116866 4	Carbonate:			Calcium:	624.8	31.18
	1 081	Sulfate:	400.0	8.33	Potassium:	851.6	21.78
Density (g/cm3):	1 001				Strontium:	145.2	3.31
					Barium:	0.0	0.
Hydrogen Sulfide.	68	•			Iron:	0.0	0.
Carbon Dioxide:	240				Manganese:	0.000	0.
		pH at time of sampling		7 5			
Comments:		pH at time of analys	is [.]				
		pH used in Calcula	tion:	7.5			
		Temperature @ lab conditions (F):		75	Conductivity (mid Resistivity (ohm	167200 .0598	

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl											
Calcite Temp CaCO ₃	, , ,	sum 04*2H ₂ 0		nydrite aSO ₄		estite 'SO ₄		rite aSO ₄			
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	0 70	23.76	-1 53	0.00	-1 54	0.00	-0.40	0.00	0 00	0 00	
100	0.67	27.82	-1.59	0.00	-1 54	0 00	-0 42	0.00	0.00	0.00	
120	0 66	32.82	-1 64	0.00	-1 51	0.00	-0.43	0.00	0.00	0.00	
140	0 66	38.14	-1 68	0.00	-1.46	0.00	-0.44	0.00	0 00	0.00	• :
160	0.67	44.39	-1.71	0.00	-1.38	0.00	-0.43	0.00	0 00	0.00	
180	0.69	51.58	-1 74	0.00	-1.30	0.00	-0 42	0.00	0.00	0.00	•
200	0.72	59.40	-1.76	0.00	-1.20	0.00	-0.41	0.00	0.00	, o oo	
220	0.77	67.52	-1.78	0.00	-1.09	0 00	-0.39	0 00	0.00	0 00	

Order No. SWD-179

-2-

set in a packer located at approximately 4200 feet.

IT IS FURTHER ORDERED:

That the operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

That the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

That water disposed of into this well will be by gravity flow, and in no event shall injection pressures exceed 850 pounds per square inch.

That the operator shall notify the supervisor of the Commission's Hobbs District Office before injection is commenced through said well.

That the operator shall immediately notify the supervisor of the Commission's Hobbs District Office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely or necessary to correct such failure or leakage.

PROVIDED FURTHER:

That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection

of correlative rights; upon failure of applicant to comply with any requirement of this order after notice and hearing, the Commission may terminate the authority hereby granted in the interest of conservation. That applicant shall submit monthly reports of the disposal operation in accordance with Rule

Schlumberger BlueView .

Order No. SWD-179

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