

Form 3160-5  
(August 2007)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
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.  
NMNM14846

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

7. If Unit of CA/Agreement, Name and/or No.  
COMM # 103157

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.  
LOCO HILLS 4 FED 4

2. Name of Operator  
RKI EXPLORATION AND PRODUCTION, LLC

9. API Well No.  
300153102400

3a. Address  
210 PARK AVE., SUITE 900  
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)  
405-949-2221

10. Field and Pool or Exploratory Area  
GRAYBURG; STRAWN

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

990 FNL/990 FEL (NE/4 NE/4) SEC.4-T18S-R29E

11. Country or Parish, State  
EDDY, NEW MEXICO

**12. CHECK THE 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 <u>SITE FACILITY</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>DIAGRAM</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input checked="" 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

RKI EXPLORATION AND PRODUCTION SUBMITS THE FOLLOWING INFORMATION AT THE REQUEST OF THE CARLSBAD, NEW MEXICO, BUREAU OF LAND MANAGEMENT, PER WRITTEN ORDER 13JC003WPA:

SEE THESE ATTACHED DOCUMENTS:  
WATER PRODUCTION AND DISPOSAL INFORMATION  
WATER ANALYSIS  
DISPOSAL WELL PERMIT  
SITE FACILITY DIAGRAM

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

NOV 04 2014

RECEIVED

APD 11/5/14  
Accepted for record  
NMDOC

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

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

Name (Printed/Typed)  
JODY NOERDLINGER

Title REGULATORY ANALYST

Signature

Date 10/14/2014

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

Approved by

Title

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

**APPROVED**

OCT 24 2014

JAMES A. AMOS  
SUPERVISOR-EPS

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.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13* - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

## NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

**PRINCIPAL PURPOSE:** The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

**ROUTINE USES:** Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

**EFFECT OF NOT PROVIDING THE INFORMATION:** Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## **WATER PRODUCTION & DISPOSAL INFORMATION**

In order to process your disposal request, the following information must be completed:

LEASE NAME: LOCO HILLS 4 FEDERAL

1. Name of formations producing water on the lease. STRAWN
2. Amount of water produced from all formations in barrels per day. AVERAGE  
.24 BPD.
3. Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. (One sample will suffice if water is commingled.) ATTACHED
4. How water is stored on lease. In 210 BBL TANK
5. How water is moved to the disposal facility TRUCKED.
6. Identify the Disposal Facility by:
  - A. Facility Operators name. TRINITY ENVIRONMENTAL SERVICES
  - B. Name of facility or well name and number. GREEN A FEDERAL 10
  - C. Type of facility or well (WDW) (WIW) etc. WDW
  - D. Location by ¼ ¼ NE/SE, Section 29 Township 17S Range 29E
7. Attach a copy of the State issued permit for the Disposal Facility.  
ATTACHED

Submit to this office, **620 EAST GREENE ST, CARLSBAD NM, 88220**, the above required information on a Sundry Notice 3160-5. Submit 1 original and 3 copies, within abatement period. (This form may be used as an attachment to the Sundry Notice.)

# MITCHELL ANALYTICAL LABORATORY

2638 Faudree  
Odessa, Texas 79765-8538  
561-5579

Company: **WadeCo Specialties, LLC**

Well Number: ~~Loco Hills 4 Fed #4 Inj. Well~~  
Lease: RKI  
Location: WC25961  
Date Run: 10/8/2014  
Lab Ref #: 14-oct-h16249  
*K=194.67 Mg/L*

Sample Temp: 82.6  
Date Sampled: 9/29/2014  
Sampled by: Wade Havens  
Employee #:   
Analyzed by: GR

### *Dissolved Gases*

		Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H <sub>2</sub> S)	20.00	16.00	1.25
Carbon Dioxide	(CO <sub>2</sub> )	69.00	22.00	3.14
Dissolved Oxygen	(O <sub>2</sub> )	<b>NOT ANALYZED</b>		

### Cations

Calcium	(Ca++)	10,910.28	20.10	542.80
Magnesium	(Mg++)	1,010.16	12.20	82.80
Sodium	(Na+)	23,971.52	23.00	1,042.24
Barium	(Ba++)	NOT ANALYZED		
Manganese	(Mn+)	2.87	27.50	.10
Strontium	(Sr++)	NOT ANALYZED		

### Anions

Hydroxyl	(OH-)	.00	17.00	.00
Carbonate	(CO3=)	.00	30.00	.00
BiCarbonate	(HCO3-)	232.18	61.10	3.80
Sulfate	(SO4=)	.00	48.80	.00
Chloride	(Cl-)	59,165.01	35.50	1,666.62
Total Iron	(Fe)	104.38	18.60	5.61
Total Dissolved Solids		95,485.40		
Total Hardness as CaCO3		31,417.36		
Conductivity MICROMHOS/CM		137,100		

pH	2.650	Specific Gravity 60/60 F.	1.066
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CaSO<sub>4</sub> Solubility @ 80 F.      19.67MEq/L,      CaSO<sub>4</sub> scale is unlikely

*CaCO<sub>3</sub> Scale Index*

70.0	-3.634	100.0	-3.334	130.0	-2.744
80.0	-3.544	110.0	-3.064	140.0	-2.744
90.0	-3.334	120.0	-3.064	150.0	-2.404

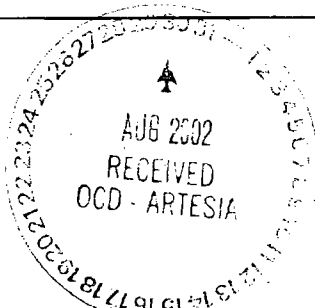
*WadeCo Specialties, LLC*



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
BETTY RIVERA  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division



ADMINISTRATIVE ORDER SWD-843

## **APPLICATION OF SOUTHWEST ROYALTIES, INC. FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.**

### ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Southwest Royalties, Inc. made application to the New Mexico Oil Conservation Division on July 18, 2002, for permission to re-enter and re-complete for produced water disposal its Green Federal "A" Well No. 10 (API No. 30-015-21748) located 1980 feet from the West line and 1980 feet from the South line (Unit F) of Section 29, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico.

#### THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

#### IT IS THEREFORE ORDERED THAT:

Southwest Royalties, Inc. is hereby authorized to re-enter and re-complete its Green Federal "A" Well No. 10 (API No. 30-015-21748) located 1980 feet from the West line and 1980 feet from the South line (Unit F) of Section 29, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico, in such a manner as to permit the injection of produced water for commercial disposal purposes into the Strawn formation from a depth of 9220 feet to 9600 feet through 2 7/8 inch plastic-lined tubing set in a packer located at approximately 9150 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.

**As preparation for injection, existing San Andres perforations shall be squeezed, the well bore drilled out, and new, inspected 5 ½" casing run to approximately 9800 feet and cement circulated to surface. This casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.**

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.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1844 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia District Office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia District Office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

*Administrative Order SWD-843*

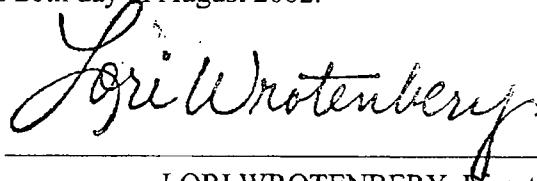
*Southwest Royalties, Inc.*

*August 20, 2002*

*Page 3*

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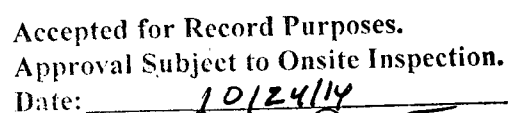
Approved at Santa Fe, New Mexico, on this 20th day of August 2002.

A handwritten signature in cursive script, reading "Lori Wrotenbery". The signature is written in dark ink and is positioned above a horizontal line.

LORI WROTENBERY, Director

LW/wvj

cc: Oil Conservation Division – Artesia  
Bureau of Land Management – Carlsbad





BUREAU OF LAND MANAGEMENT  
Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972

Disposal of Produced Water From Federal Wells  
Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency shall be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
6. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
7. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
8. Disposal at any other site will require prior approval.
9. Subject to like approval by NMOCD.

7/10/14