District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department **Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 June 24, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: X Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable or

Operator: Range Operating New Mexico, Inc OG	RID #: 3 27588
Address: 100 Throckmorton Street, Fort Worth, TX 76102	
Facility or well name: Grizzell B #6	
API Number:OCD Per	mit Number: PI-DD122
U/L or Qtr/Qtr 11 Section 8 Township228	Range <u>37E_</u> County: Lea
Center of Proposed Design: Latitude513776.814°N Loi	ngitude <u>856569.757°E</u> NAD: X 1927 [] 1983
Surface Owner: 🗍 Federal 🗔 State Private 🗖 Tribal Trust or Indian A	
<u>Pit:</u> Subsection F or G of 19.15.17.11 NMAC	X Closed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary [,] 🛛 Drilling 🔲 Workover	Drying Pad X Tanks X Haul-off Bins] Other
Permanent Emergency Cavitation X Steel Pit	Lined Unlined
	Liner type: ThicknessmilLLDPEHDPEPVC
Liner type: Thickness mil	Other
Other Differed	Seams: 🗌 Welded 🗌 Factory 🗌 Other
Seams [Welded [] Factory [] Other	Volume:yd ³
Volume: bbl Dimensions: x Wx x Dx	Dimensions. Lengthx Width
Below-grade tank: Subsection 1 of 19.15.17 11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volumebbl	Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
Visible sudewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other
Visible sidewalls and liner	Monthly inspections
[] Visible sidewalls only	Signs: Subsection C of 19 15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil 🗌 HDPE 🗌 PVC	emergency telephone numbers
Other	Signed in compliance with 19.15 3.103 NMAC
Alternative Method: Submittal of an exception request is required Exceptions must be	Administrative Approvals and Exceptions:
submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
of approval	Please check a box if one or more of the following is requested, if not leave
	Administrative approval(s) Requests must be submitted to the
	appropriate division district or the Santa Fe Environmental Bureau office for
	consideration of approval.
	Environmental Bureau office for consideration of approval
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 Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fè Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system. 	
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or helow-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS, Data obtained from nearby wells	Yes No
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	Yes No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	□ Yes □ No □ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site, Aerial photo; Satellite image	□ Yes □ No □ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗋 Yes 🗌 No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality, Written approval obtained from the municipality	Yes No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map, Topographic map; Visual inspection (certification) of the proposed site	Ycs No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources, USGS; NM Geological Society; Topographic map 	🗌 Yes 🗌 No
Within a 100-year floodplam. - FEMA map	🗌 Yes 🗌 No
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19 15 17 9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Stung Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number. 	
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15 17.9 NMAC	
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the de attached. Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.11 NMAC X Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC X Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC X Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC X Previously Approved Design (attach copy of design) API Number: <u>30-025-38826</u>	1915179
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Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC	
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the d attached.	ocuments are
 Ilydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19 15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment 	
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15 17.11 NMAC Lick Detection Design - based upon the company to C10 15 17 11 NMAC	
Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan	
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	***
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15 17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan	
Emergency Response Plan Oil Field Waste Stream Characterization	1
Monitoring and Inspection Plan Erosion Control Plan	
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
Proposed Closure: 19.15.17.13 NMAC Type: X Drilling Workover Emergency Cavitation Permanent Pit Below-grade Tank X Closed-loop System	A 14
Proposed Closure Method: Waste Excavation and Removal	Alternative
X Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems)	
In-place Burial On-site Trench Burial	
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for co Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC	nsideration)
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from	
the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10	
NMAC for guidance.	
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells	□ Yes □ No □ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No □ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - (WATERS database search, USGS, Data obtained from nearby wells	Yes No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application	
 Visual inspection (certification) of the proposed site; Aerial photo, Satellite image 	Yes No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of mitral application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended	🗌 Yes 🛄 No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	Ì
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map, Topographic map; Visual inspection (certification) of the proposed site 	Yes No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mmeral Division	Yes No
 Within an unstable area Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS, NM Geological Society; Topographic map 	Yes No
Within a 100-year floodplain. - FEMA map	Yes No

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.
Protocols and Procedures - based upon the appropriate requirements of 19,15,17,13 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15 17 13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 1915 1713 NMAC
 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC
Waste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings.
Disposal Facility Name: Sundance Disposal Disposal Facility Permit Number: NM-01-0003
On-Site Closure Plan Checklist: (19.15 17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.
Sting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19,15,17,10 NMAC
Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
Construction and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15 17.13 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
 Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
Son Cover Design - based upon the appropriate requirements of Subsection 11 of 19.15.17.13 NMAC
 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15 17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15 17 13 NMAC
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print):Linda L. Brown Title:Regulatory Analyst
SignatureDate:July 9, 2008
e-mail address: lbrown@rangeresources.com Telephone (817) 869-4145
OCD Approval: Permit Application (including closure plan) Closure Plan (only)
OCD Approval: Permit Application (including closure plan) [] Closure Plan (only) OCD Representative Signature:
OCD Representative Signature: Approval Date: Approval Date: //5/55
OCD Representative Signature: Approval Date:Approval Dat
OCD Representative Signature: Approval Date: //5/55 Title: OCD Permit Number: P - OO1222 Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Closure Method:
OCD Representative Signature:

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Design/Operating Plan: Closed Loop System

A closed loop system will be used to drill the Grizzell B #6. Below is a schematic of the rig footprint, which includes the closed loop system. During drilling operations, all fluid circulated out of the hole will first come across a primary shaker. The primary shaker will remove the bulk of the solids from the fluid. The solid waste will pass over the shaker screens into the roll off bin. The fluid will fall through the shaker screen into the first compartment of the steel pit. The fluid then is sucked out of the steel pit and circulated through a 16 cone mud cleaner system which consists of desanders and desilters. The desanders and desilters work to remove finer solids from the fluid. The solid waste will be dumped into the roll off bin while the fluids will be dumped into the second compartment of the steel pit. The fluid is then sucked from the steel pit and circulated through a centrifugal pump. This will remove all the remaining solids in the fluid. The solid waste will be dumped into the roll of bin while the fluid is dumped into the third compartment of the steel pit. The roll off bins will be changed out once they reach 80% capacity. This will be done to ensure that no waste is spilt on location when the bins are lifted onto the hauling trucks. In the event that the roll off bins become full too fast for removal, a frac tank will be available to flow fluids into.

During drilling operations, all liquids, fluids, and cuttings will be hauled offsite to Sundance disposal. (Permit #NM-01-0003) No closure will be necessary on the well site. CRI will be our back-up disposal site located in Hobbs, NM (Permit #R9166).

After drilling operations, a five point sample will be taken before and after operations are completed to verify that the ground was not contaminated.

