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**State of Utah**  
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 DIVISION OF OIL, GAS AND MINING

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**DIVISION OF OIL, GAS AND MINING  
 FACSIMILE COVER SHEET**

DATE: January 30, 2003  
 FAX #: 435-564-4002  
 ATTN: Tary Gray  
 COMPANY: West Ridge Resources, Inc.  
 DEPARTMENT: \_\_\_\_\_  
 NUMBER OF PAGES: (INCLUDING THIS ONE) 16 13  
 FROM: Annella



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January 30, 2003

VIA E-MAIL AND FAX

[ggray@andalex.com](mailto:ggray@andalex.com)

(435) 564-4002

Gary Gray, Engineer/Resident Agent  
West Ridge Resources Inc.  
P.O. Box 1077  
Price, Utah 84501

OK

Re: Abatement to N02-49-2-1, West Ridge Resources, Inc., West Ridge Mine, C/007/041-AM03A, Outgoing File

Dear Mr. Gray:

The amendment submitted as partial abatement for the above-referenced violation has been reviewed and there are deficiencies that must be adequately addressed prior to approval (see enclosed copy of the Technical Analysis). It should be noted that the permittee has researched other options than those listed in this amendment and these options should be considered in order to comply with the referenced abatement date. These options include filtering the mine water prior to discharge from the already authorized discharge point 002.

Additionally, the permittee proposed at the beginning of construction of the mine to construct a large underground sump capable of treating the mine water. To date, this underground sump has not been constructed. This sump was to be constructed to handle any large amount of mine water that may be intercepted and to act as a containment in the event of an underground emulsion spill from the longwall. Currently there are only a series of small satellite sumps used to bring the mine water to the surface. Retention time in these satellite sumps does not provide ample time to treat the mine water. The operator is highly encouraged to construct a large underground sump as soon as possible to bring a final resolution to the mine water problem.

Page 2  
Gary Gray  
January 30, 2003

This amendment was submitted to the Division as a partial abatement to Notice of Violation No. 02-49-2-1 which currently has an abatement date of February 3, 2003. The operator is advised to be cognizant of the abatement date of February 3, 2003 and that the burden to bring this Notice of Violation into compliance rests wholly upon the operator. As a reminder, pursuant to R645-400-324, the total time for abatement under a notice of violation, including all extensions, will not exceed 90 days from the date of issuance except upon a showing by the permittee that it is not feasible to abate the violation within 90 calendar days to one or more circumstances in R645-400-327. February 19, 2003 will be the 90<sup>th</sup> day.

If you have any questions, please call me at (801) 538-5268 or Karl R. Houskeeper at (435) 613-5330.

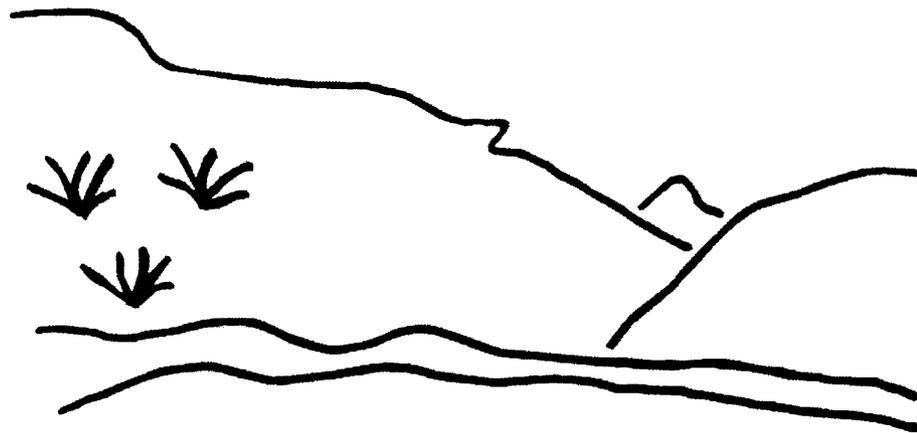
Sincerely,



Pamela Grubaugh-Littig  
Permit Supervisor

pgl/sd  
Enclosure  
cc: Price Field Office  
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# State of Utah



## Utah Oil Gas and Mining

### Coal Regulatory Program

West Ridge Mine  
Abatement to N02-49-2-1  
Modifications to Appendix 7-4  
C/007/041-AM03A  
Technical Analysis  
January 30, 2003

TECHNICAL ANALYSIS

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## TECHNICAL ANALYSIS

The Division ensures compliance with the Surface Mining Control and Reclamation Act of 1977 (SMCRA). When mines submit a Permit Application Package or an amendment to their Mining and Reclamation Plan, the Division reviews the proposal for conformance to the R645-Coal Mining Rules. This Technical Analysis is such a review. Regardless of these analyses, the permittee must comply with the minimum regulatory requirements as established by SMCRA.

Readers of this document must be aware that the regulatory requirements are included by reference. A complete and current copy of these regulations and a copy of the Technical Analysis and Findings Review Guide can be found at <http://ogm.utah.gov/coal>

This Technical Analysis (TA) is written as part of the permit review process. It documents the Findings that the Division has made to date regarding the application for a permit and is the basis for permitting decisions with regard to the application. The TA is broken down into logical section headings which comprise the necessary components of an application. Each section is analyzed and specific findings are then provided which indicate whether or not the application is in compliance with the requirements.

Often the first technical review of an application finds that the application contains some deficiencies. The deficiencies are discussed in the body of the TA and are identified by a regulatory reference which describes the minimum requirements. In this Technical Analysis we have summarized the deficiencies at the beginning of the document to aid in responding to them. Once all of the deficiencies have been adequately addressed, the TA will be considered final for the permitting action.

It may be that not every topic or regulatory requirement is discussed in this version of the TA. Generally only those sections are analyzed that pertain to a particular permitting action. TA's may have been completed previously and the revised information has not altered the original findings. Those sections that are not discussed in this document are generally considered to be in compliance.

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January 30, 2003

**TECHNICAL ANALYSIS**

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## INTRODUCTION

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## INTRODUCTION

The following technical memo is a review of information submitted by West Ridge Resources, Inc. (Operator) to the Division of Oil, Gas, and Mining (Division) on January 17, and January 28, 2003, to amend Appendix 7-4, the Sedimentation and Drainage Control Plan. The proposed modifications were submitted as a proposed abatement response to Notice of Violation (NOV) N02-49-2-1. NOV N02-49-2-1 was serviced November 19, 2002, by Inspector Karl R. Housekeeper in response to the Operator diverting mine-water through disturbed-area culverts and ditches, and storing mine-water in the Sedimentation pond. The current Utah Pollutant Discharge Elimination System (UPDES) permit indicates outfall number 001 is for discharge of the Sedimentation Pond that drains the disturbed area and associated facilities area. Outfall number 002 is for discharge of mine-water directly to the C Canyon drainage/Grassy Trail Creek. The review is solely from a hydrologic prospective and addresses only the hydrologic regulations pertinent to the amendment. Additional modifications need to be made to the chapter 7 and appendix 7-4 of the currently approved Mining and Reclamation Plan (MRP), prior to Division approval.

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January 30, 2003

**INTRODUCTION**

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**GENERAL CONTENTS**

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## **GENERAL CONTENTS**

### **PERMIT APPLICATION FORMAT AND CONTENTS**

Regulatory Reference: 30 CFR 777.11; R645-301-120.

#### **Analysis:**

The following spelling and pagination errors Appendix 7-4, which when corrected will help clarify the body of the text:

- Appendix 7-4, Table of Contents (TOC), Section 2.13 has been added and the listed pages are incorrect for the majority of the tables. Also in the TOC, Figure 6A is not listed, Figures 8 through 11 do not correspond with the Figures as they exist in the MRP
- Appendix 7-4, page 2, has no title to page
- Appendix 7-4, page 3 is blank without explanation
- Appendix 7-4, Page 38, the figures numbers do not correspond to existing figures.

#### **Findings:**

Information in the proposal is not adequate to meet the requirements of the General Contents section of the regulations. Prior to final approval, the applicant must supply the following information in accordance with:

**R645-301-121.200**, Provide the requisite information and modifications, as cited above.

### **REPORTING OF TECHNICAL DATA**

Regulatory Reference: 30 CFR 777.13; R645-301-130.

#### **Analysis:**

The amendment submitted to the Division on January 17, 2002, Appendix 7-4 Tables 1 through 11 and 20 through 23 have been modified when compared to the same tables in the currently approved MRP. The tables located in the approved MRP are dated 01/99, while the same tables provided in the current amendment are dated 12/02. There is no indication that the modifications noted in these tables were approved by the Division and incorporated into the MRP. The Operator needs to update the currently-approved MRP with Appendix 7-4 Tables 1

**GENERAL CONTENTS**

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through 11 and 20 through 23, and the tables should supply an accurate date of when the tables were modified and approved for incorporation into the MRP.

Also within Appendix 7-4, any tables that represent as-built information should indicate it is as-built information. As an example, Table 15 – Disturbed Culvert Design Summary, ‘Recommended’ Construction Diameter should indicate as-built information.

**Findings:**

Information in the proposal is not adequate to meet the requirements of the General Contents section of the regulations. Prior to final approval, the applicant must supply the following information in accordance with:

**R645-301-133.100**, Appendix 7-4 Tables 1 through 11 and 20 through 23 need to be incorporated into the currently-approved MRP and reflect an accurate amendment date.

**R645-301-133.100**, Modify Appendix 7-4 Tables to indicate as-built information where appropriate.

## ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

### CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

#### **Analysis:**

During the mine permit midterm review, conducted during the fall season 2001, the Operator committed to installing a precipitation gauge that would monitor precipitation events and would be submitted on an annual basis. A precipitation gauge was installed on November 14, 2001. At the time of this analysis, the precipitation data for 2001 and 2002 has not been submitted however, it is anticipated this information will be included in the 2002 annual report.

Depending on how accurate the precipitation information has been documented, the Division reserves the request to require the submittal of more information. This becomes more important with the current proposed amendment because UDPES Discharge Point 001 will now be conveying mine-water discharge, in addition to the disturbed area runoff, as was originally designed. The additional information may include the use of 'Best Technology Currently Available' (BTCA) and request a total-weather station be installed to record data continuously (models are available in the \$300 - \$700 range).

#### **Findings:**

Information in the proposal adequately meets the minimum requirements of the Environmental Resource Information – Climatological Resource Information section of the regulations.

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January 30, 2003

**ENVIRONMENTAL RESOURCE INFORMATION**

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**OPERATION PLAN**

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## **OPERATION PLAN**

### **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

#### **Analysis:**

##### **Acid- and Toxic-Forming Materials and Underground Development Waste**

In Section R645-301-731.300 of the MRP (pg7-28) the Operator makes the commitment that 'any emulsion fluid spill underground would go to an underground sump where water is stored and reused underground'. The Operator needs to address this statement and correctly identify how this situation is going to be handled with the current amendment.

##### **Water-Quality Standards And Effluent Limitations**

The submittal of the currently proposed amendment affects the routing/process of the two UPDES Discharge Points within the currently approved permit. The current UPDES permit (expires April 2003) maintains the same water quality standards / effluent limits at both discharge points, and the Operator commits to maintaining those standards within this amendment.

##### **Sediment Control Measures**

As an added Sediment Control Measure the current amendment has been proposed. Current testing of the mine-water discharge indicates the water would not meet effluent limitations. The current amendment proposes routing mine-water discharge through the Sedimentation Pond. This routing is outlined in Section 1e) of the Sedimentation and Drainage Control Plan - Appendix 7-4. Section 1e) and Section 2 require the following text modifications:

1. The statement of 'water is pumped from the mine at approximately 230 gpm' needs to be clarified to indicate that 230 gpm is the maximum flow that the ditches can handle and still provide enough capacity for a 10-year/24-hour storm event and ½-foot freeboard.
2. Describe how water is conveyed from the mine portal to ditch DD-5
3. Describe how water will be routed into culverts DC-8AR. As an example, if DC-8A is completely blocked to divert water to ditch DD-12 and Pond B, ditch DD-12 needs to be equal in size to ditch DD-11. This is in the event that the designed-storm occurs, and ditch DD-12 is required to convey all the necessary flow to the sedimentation pond.

4. A statement indicating the discharge of mine-water, in excess of 230 gpm, will not occur. This statement is to ensure a 10 year – 24 hour designed storm event capacity will be maintained in the ditches at all times.
5. Culvert DC-8AR is sized to carry mine-water discharge only (according to Table 15), this is in direct conflict with statements made on page 10 of Appendix 7-4 ('adequately sized to carry required runoff in addition to mine-water')
6. The sentence added to page 11a of Appendix 7-4 describing ditch-sizing needs to be modified to indicate ditches carrying mine water are adequately sized to carry mine water, in addition to maintaining adequate storage to contain the required runoff from a 10 year-24 hour precipitation event and 0.5-foot freeboard at all times.

#### **Siltation Structures: Sedimentation Ponds**

In Section R645-301-742 – Sediment Control Measures of the MRP (page 40), the Operator commits to monitoring sediment levels with a marker in the pond and removing sediment at the 60 % volume level. The Operator needs to include a statement that commits to monitor the water level with a marker and removing water at the 100% sediment volume level.

#### **Discharge Structures**

Appendix 7-4 Table 15 – Disturbed Culvert Design Summary, indicates culvert DC-12 is a 1.5-foot culvert with a flow capacity of 21.59 cfs. In the event that all the flow is diverted away from ditch DD-8A, culvert DC-8AR needs to maintain the equivalent peak flow capacity of culvert DC-11, which is 24.56 cfs (according to Table 15).

Appendix 7-4 Section 3.1g) (pg. 40) indicates mine-water will utilize only the “dead” or sediment storage volume (100 % marker) of the Sediment Pond cells, at which point it will be discharged into the C Canyon drainage according to the UPDES Discharge Permit. A similar statement addressing the pumping of mine-water needs to be provided in Appendix 7-4 Section 1e). A statement describing the changes in storage and function (knowledge of the process) of the Sediment Pond must also be included in Section R645-301-733 – Impoundments of the approved MRP.

Section R645-301-733.130 – Impoundments (pg 7-34) indicates Cell B of the Sedimentation Pond will be supplied with a steel-constructed walkway to access the UPDES Discharge Point 001 (Principle Spillway – 36” C.M.P. culvert riser and oil skimmer). With the increased likelihood that both Cell A and Cell B of the Sedimentation Pond will be retaining water in the future, it is prudent to construct the walkway prior to water saturating the Cell B embankment.

**OPERATION PLAN**

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**MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

**Analysis:**

**Mining Facilities Maps**

Map 7-2, Mine Site Drainage map, submitted January 28, 2003, is missing a few important items. UPDES discharge point 002, Mine discharge directly into the C Canyon drainage, is not located on the map. Also, text indicates that mine water is being conveyed from the mine to the sedimentation pond beginning at ditch DD-5. Neither the text nor the map indicates how mine water is conveyed from the mine portal to ditch DD-5.

Also on Map 7-2, an area outlined with a copper-colored line, and extending up from the property gate is not identified. It is not clear whether it is included in area ASCA-W. This area needs to clearly identify any water treatment (if any) that exists.

**Findings:**

Information in the proposal is not adequate to meet the requirements of the Operation Plan – Maps, Plans, and Cross Sections of Mining Operations section of the regulations. Prior to final approval, the applicant must supply the following information in accordance with:

**R645-301-521.124**, Map 7-2 needs to illustrate the location of UPDES discharge point 002, and illustrate how water is being conveyed from the mine portal to ditch DD-5.

**R645-301-731.121**, On Map 7-2 identify the type of treatment (if any) that is outlined as extending from the property gate to ASCA-W and ASCA-Z.

**R645-301-731.300**, In the absence of an underground sump, address on page 7-28 how emulsion fluid spills will be handled underground.

**R645-301-742.100**, Make the requisite text changes/modifications to Sections 1 – Introduction and Section 2 – Design of Drainage Control Structures of Appendix 7-4 as outlined in the **Sediment Control Measures** section (items 1-6) of this technical analysis.

**R645-301-742.100**, Include a statement that commits to monitor the water level with a marker and removing water at the 100% sediment volume level.

**OPERATION PLAN**

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**R645-301-742.100**, In the event that all the flow is diverted from ditch DD-8A, culvert DC-8AR needs to maintain the equivalent peak flow capacity of culvert DC-11, which is 24.56 cfs (according to Table 15).

**R645-301-742.100**, Appendix 7-4 Section 1e) and MRP Section R645-301-733 need to include statements indicating the use of 'dead storage' and the changes in storage and function of the Sedimentation Pond.

**R645-301-733**, Construct the walkway to access UPDES Discharge Point 001 as outlined in Section R645-301-733.130 of the currently approved MRP.