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DEPARTMENT OF NATURAL RESOURCES
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June 23, 2016

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SUBJECT: Utah Division of Oil, Gas and Mining's Response to Ten Day Notices #X16-140-545-005 and #X16-140-562-001

Dear Mr. Boehms,

On June 9, the Utah Division of Oil, Gas and Mining (the Division) received a Ten Day Notice (TDN) issued by the Office of Surface Mining, Reclamation and Enforcement (OSMRE). The TDN was issued for Skyline Mine as a result of an independent partial inspection and oversight topic-specific evaluation. The Skyline TDN is attached as Exhibit 1. In the TDN, OSMRE alleged that Skyline had failed to conduct its coal mining and reclamation operations as described in its Mine Reclamation Plan (MRP). The Division requested additional time to respond to the Skyline TDN, and OSMRE extended the deadline to June 23, 2016.

On June 13, 2016, the Division received a second TDN. This TDN was issued for the West Ridge Mine as a result of an independent partial inspection and oversight topic-specific evaluation at that Mine. The West Ridge TDN is attached as Exhibit 2. In this TDN,

OSMRE alleged that the operator has failed to comply with the Vegetation Information Guidelines (the Guidelines). The OSMRE Partial Oversight Inspection Reports for both the Skyline and the West Ridge inspections are understood to identify the issues that OSMRE requires the Division to address in response to the TDNs.

Under 30 C.F.R. § 842.11, the Division is required to provide a response to the TDNs which either indicates that the Division will take appropriate action to cause the possible violations to be corrected, or provides good cause for failing to take that action. Appropriate action includes enforcement or other actions under the State program to cause the violations to be corrected. 30 C.F.R. § 842.11(b)(1)(ii)(B)(3). Good cause includes showing that the violations do not exist under the approved state program. *Id.* § 842.11(b)(1)(ii)(B)(4)(i). This letter serves as the Division's response under 30 C.F.R. § 842.11. This response will show that the alleged violations of the Utah Coal Mining and Reclamation Act, Utah Code §§ 40-10-1 to -30, and Utah Administrative Code Rules R645-100 to -403 (the Rules) (collectively, the Utah Coal Program) do not exist, and the Division therefore has good cause for not taking "appropriate action."

Because both TDNs involve a disagreement over enforcement of the Division's Guidelines, and arose as part of the same Oversight Topic-Specific Evaluation, the Division will address both TDNs in one response. The Division will summarize each TDN, discuss general principals of state primacy, provide a summary of the Utah law applicable to both TDNs, and address the individual TDNs and alleged violations. The response will also address alternative efforts the Division intends to pursue to increase monitoring of reference areas to ensure their ability measure and assure full reclamation.

I. Summary of Inspections and TDNs

A. Skyline TDN

The Skyline Mine partial inspection and oversight visit occurred on May 17, 2016. During the visit, OSMRE and Division inspectors visited the Waste Rock Site to observe the adjacent 'sagebrush-grass' reference area and the 'aspen' reference area. The team also visited the South Fork Breakout Portal. Before and after visiting these sites, the team met and discussed proper establishment, maintenance, and use of vegetative reference areas. There was some disagreement concerning the monitoring of reference areas and the application of the Guidelines under the Utah Coal Program. Both the OSMRE inspector and the Division Biologist have prepared written inspection reports that provide their separate descriptions of the visit to the Skyline Mine, and their views regarding portions of these discussions. The OSMRE inspector's Partial Oversight Inspection Report for Skyline is attached as Exhibit 3. The Division's Inspection Report is attached as Exhibit 4.

On the following day, prior to visiting the Rilda Canyon Mine, there was a discussion by the oversight group at the Division's Price Field Office regarding the Skyline Mine visit. The OSMRE inspector stated that he believed the Skyline Mine was in violation of the MRP because it had failed to have the reference areas monitored by the Soil Conservation Service (SCS) as required by the Mine's approved MRP. There was a discussion regarding whether the Rules require an operator to monitor reference areas in the manner that the OSMRE inspectors insisted was required by the Guidelines and the MRP. The Division's biologist, Lisa Reinhart, indicated that she was reluctant to issue a Notice of Violation (NOV) because, when she had inquired of Skyline Mine personnel about the SCS inspections prior to the oversight visit, they had explained that they did not understand the MRP to require monitoring the reference areas prior to

reclamation. They also explained that they had never been asked about such monitoring prior to her call. Ms. Reinhart stated that she had agreed that the MRP was not clear regarding when the reference areas were to be inspected by the SCS, and noted that the Rules do not require SCS inspections. She also indicated that Skyline and the Division had begun the process of revising the MRP to clarify when the obligation to monitor reference areas began. That amendment had not yet been approved when the OSMRE Oversight Inspection took place. After the disagreement arose during the inspection, the OSMRE inspector urged the Division to issue an NOV for Skyline's failure to have its reference areas monitored by the SCS. However, since neither the Division nor Skyline had previously discussed or required an inspection by the SCS or its replacement agency, the Natural Resources Conservation Service (NRCS), the Division felt an NOV was not appropriate. The OSMRE inspector reiterated that he believed that the Division should issue an NOV, and stated that if it did not, OSMRE would issue a TDN.

The Division did not issue an NOV, and on June 3, 2016 Thomas Medlin, OSMRE inspector, signed the TDN for Skyline's alleged failure to conduct "all coal mining and reclamation operations only as described in the approved application" as required by Rule 645-300-142. The TDN explains, "The Skyline Mine's approved permit states . . . 'The reference areas will be surveyed by the S.C.S. at five year intervals to determine their condition class.' As a result of a federal inspection . . . it is evident the Skyline Mine has not been surveying its vegetation reference areas for condition class at five year intervals as required by its approved permit."

The Division believes that the OSMRE inspector did not fully understand the ambiguities in the MRP, failed to consider the actions of the Division to clarify the obligation to monitor

reference areas, and ignored the actions of Skyline to monitor reference areas for various locations including the South Fork Breakout Portal, which the team visited during the oversight inspection.

B. West Ridge TDN

On May 19, 2016, OSMRE conducted an independent partial inspection and oversight topic-specific evaluation at the West Ridge Mine. During that inspection and evaluation, the OSMRE inspector had concerns with West Ridge's management of its reference areas. The OSMRE inspector issued the TDN, alleging that West Ridge had failed to comply with the Division's Guidelines. The Guidelines are attached as Exhibit 5. Specifically, the OSMRE inspector indicated that "neither the permittee or the Division are ensuring the implementation of [the Guidelines], with respect to reference areas."

Though the TDN itself did not elaborate, the OSMRE Partial Oversight Inspection Report for West Ridge, which is attached as Exhibit 6, illustrated the OSMRE inspector's more specific concerns. For instance, the OSMRE inspector indicated that a discussion about vegetation reference areas made it evident that the Division and OSMRE disagree as to the interpretation of the rules and regulations that pertain to reference areas. *See* Inspection Report at 2. In addition, there appeared to be a difference in opinion as to whether West Ridge is required to monitor its reference areas. The OSMRE inspector also alleged that the Division could not locate the approved reference areas on the ground. To support his claim that these particular issues constituted a violation, the OSMRE inspector relied on the Division's Guidelines. In all, he found that "the West Ridge Mine is in violation of the Utah program's rules and guidelines and

the commitments within its approved MRP as they relate to vegetation reference area management." Inspection Report at 4.

II. The Division's Response

The violations alleged in the TDNs are not justified based on the requirements of the Utah Coal Program, and enforcement action against Skyline or West Ridge is not warranted. The discussion that follows will reiterate that the Utah Coal Program governs coal mining operations in Utah, and that under the Rules approved as part of the Utah Coal Program, only certain Guidelines have the force of law. It will also show that the Division has discretion in administering the Coal Program, which includes modifying MRPs to conform to the Rules and determining if NOVs are appropriate. Because no violation exists under the Utah Program, these TDNs are unwarranted and the Division need not take further action. However, the Division will implement a policy that ensures that reference areas are periodically monitored by qualified inspectors after they are established, as well as after revegetation begins.

A. Under the approved and delegated Utah Coal Program there was no legal basis for OSMRE to issue TDNs based on alleged failures to comply with the Guidelines.

1. The approved Utah Coal Program is the operative law for regulating coal mining operations in Utah.

OSMRE, by issuing the TDNs, fails to acknowledge the State of Utah's proper role under the Surface Mining Control and Reclamation Act (SMCRA), 30 U.S.C. §§ 1201-1238 (2009). SMCRA provides that if a state enacts a regulatory program that is at least as stringent as the federal requirements, the state can "assume exclusive jurisdiction over the regulation of surface coal mining and reclamation operations[.]" 30 U.S.C. § 1253(a). When that occurs, the state obtains primacy and responsibility for regulating coal mining (subject to limited OSMRE

oversight) and the state statutes and regulations become the direct authority for regulating coal mining. *Id.*; *Bragg v. West Virginia Coal Ass'n*, 248 F.3d 275 (4th Cir. 2001).

Congress has not mandated enforcement of federal regulations in states with primacy. Instead, Congress allows those states to enact and enforce their own regulations. True, in order to be granted primacy, a state's "rules and regulations [must be] consistent with regulations issued by the Secretary pursuant to" SMCRA. 30 U.S.C. § 1253(a)(7). But "consistency" does not require that a state adopt the federal rules verbatim or adhere to federal interpretations of those rules. Instead, the federal regulation provides:

> Consistent with . . . mean[s]:
>
> (a) With regard to the Act, the State laws and regulations are *no less stringent* than, meet the minimum requirements of and include all applicable provisions of the Act.
>
> (b) With regard to the Secretary's regulations, the State laws and regulations are *no less effective* than the Secretary's regulations in meeting the requirements of the Act.

30 C.F.R. § 730.5 (2009) (emphasis added). Once a State obtains primacy, "the federal law and regulations, while continuing to provide the 'blueprint' against which to evaluate the State's program, 'drop out' as operative provisions." *Bragg*, 248 F.3d at 289.

Since 1981, Utah has been qualified for primary enforcement authority by OSMRE, and the Utah Coal Program has been the operative program regulating coal mining in the state. 30 C.F.R. § 944.10 (2009); 46 Fed. Reg. 5,899 (Jan. 21, 1981) (granting primacy); 60 Fed. Reg. 37,002 (July 19, 1995). The Supreme Court of Utah has held that, once primacy is obtained, "[s]tate statutes and regulations . . . become the direct authority for regulating coal mining." *Castle Valley Special Serv. Dist. v. Utah Bd. of Oil, Gas and Min.*, 938 P.2d 248, 251 (Utah 1996).

Thus, the question of whether the Guidelines are binding depends on Utah law as applied by the Division and as interpreted by Courts and the Board of Oil, Gas and Mining. OSMRE has found the Utah Rules as revised to be "consistent" with, i.e., no less effective than, the federal regulations in meeting the requirements of the Act. OSMRE cannot now look beyond Utah law when determining if the Guidelines are binding and, if so, whether they are being properly applied by the Division.

2. The Guidelines are only binding to the extent that they have been incorporated into the regulatory program by Rule.

In both TDNs, OSMRE suggests that all of the Guidelines have the force of law and that a permittee's decision not to comply with any portion of them constitutes a violation. However, the Rules only require permittees to comply with certain parts of the Guidelines. The portions of the Guidelines that have not been incorporated into the Rules are merely guidance; they are not mandatory and cannot be the basis for a violation. This section will demonstrate that OSMRE cannot require compliance with the portions of the Guidelines that are not mandated by Rule.

In 1991 and 1992, OSMRE approved amendments to the Division's Rules, which incorporated some parts of the Guidelines; however, OSMRE's approval was limited to the Rules under consideration and, by extension, limited to portions of the Guidelines incorporated in those Rules. There is no Utah Rule that requires the Division or a permittee to comply with all aspects of the Guidelines.

On July 3, 1990, Utah submitted proposed amendments to its coal program to OSMRE. *See* 56 Fed. Reg. 41,795 (Aug. 23, 1991). Some of those proposals included amending Rule 614-

301-356[1] to incorporate portions of the Guidelines. *Id.* Those Guidelines—and only those Guidelines—became part of the provisions of the approved Utah Coal Program that are binding on permittees and the Division.

In its submittal, Utah proposed amending Rule 645-301-356.231 to require that the Division specify minimum stocking and planting arrangements for trees and shrubs after consulting with other State agencies. *Id.* at 41,798. However, OSMRE expressed concern that, in the proposed rule and relevant Guidelines, Utah had failed to specify two things: (1) minimum stocking and planting arrangements for woody plants, and (2) whether the Division would consult with other agencies on a program-wide or permit-specific basis. *Id.* Ultimately, OSMRE required the State to amend the proposed rule, "or otherwise amend its program" to remedy those deficiencies. *Id.*

When the State submitted these required amendments to Rule 645-301-356.231, it added language that echoed federal regulations relating to minimum stocking and planting arrangements, and indicated that the Division would conduct its consultation on a permit-specific basis and in accordance with the Guidelines. 57 Fed. Reg. 41,692, 41,693 (Sept. 11, 1992). OSMRE approved the Rule and corresponding Guideline, which have been incorporated into the State program. Importantly, the Guideline specifically mentions the Rule, which assists permittees in determining exactly which Guideline must be followed under Rule 645-301-356.231. *See* Guidelines at 3. Ultimately, OSMRE approved the changes, noting that "Utah's proposed revisions of Rule 645-301-356.231, as supplemented by the February 1992 revised

[1] As noted in a subsequent Federal Register entry, "on January 1, 1992, Utah recodified the prefix of its Coal Mining Rules from R614 to R645." 57 Fed. Reg. 41,692 (Sept. 11, 1992).

Vegetation Information Guidelines, are no less effective than the Federal regulations." 57 Fed. Reg. at 41,693.

In its 1990 submittal, Utah also proposed amending Rule 645-301-356.110. *See* 56 Fed. Reg. at 41,798. In an earlier regulation, the Director of OSMRE required the State to amend its program to "include standards for revegetation success and statistically valid sampling techniques for measuring vegetation ground cover, production, and stocking." *Id.* To satisfy that requirement, the State included a reference to Appendix A of the Guidelines in Rule 645-301-356.110, and submitted those Guidelines along with its proposed amendment. *Id.* While OSMRE approved the proposed amendment, it also required the State to amend Appendix A in various ways. *Id.* at 41,804. The State complied with this requirement and proposed revisions to Appendix A in 1991. *See* 57 Fed. Reg. at 41,693. OSMRE found that "[t]hese proposed revisions of the Vegetation Information Guidelines are consistent with the Federal regulations" and approved the proposed amendments. *Id.* at 41,693-94.

In all, upon reviewing the State's proposed amendments to Rules 645-301-356.231 and -356.110, OSMRE found that the changes to both Rules were consistent with federal regulations. *Id.* The Director of OSMRE approved the Rules and corresponding Guidelines "with the provision that Utah fully promulgate them in identical form to those submitted to and reviewed by [OSMRE] and the public." *Id.* at 41,695.

Utah promulgated the Rules and corresponding Guidelines in Rules 645-301-356.110 and -356.231 as directed by OSMRE. The Division recognizes that the Rules mention the Guidelines in three other instances—specifically, in Rules 645-301-357.331, -357.340, and -357.365—but those portions of the Guidelines simply list suggested publications that could assist permittees in

complying with the Rules. In all, the Guidelines are only enforceable to the extent that they that have been approved by OSMRE and incorporated into Rules 645-301-356.110 and -356.231. The remaining Guidelines do not create binding obligations for the Division or permittees, but merely provide suggestions. These suggestions are useful, and some permittees choose to include them in their MRPs or simply to follow them as they proceed with reclamation, but unless adopted into the Utah Coal Program, they are without force of law. The OSMRE inspector's suggestion that a TDN is warranted because the Division has failed to ensure compliance with the Guidelines in their entirety is incorrect.

3. The Division has substantial discretion to rely on its judgment and expertise when administering the Utah Coal Program.

The Utah Coal Program does not always set out an explicit method or standard for the Division to follow in order to make a required finding. The Utah Coal Act and its OSMRE-approved Rules often expressly or implicitly require the Division and the Board to exercise professional judgment, technical expertise, and discretion when interpreting and applying the Rules to the facts of a particular situation.

Utah courts have held that when an agency is charged by statute with the application of the law to the facts, particularly when the applicability of the legal rule depends on reviewing a combination of facts, there is an implicit grant of discretion to the agency. *See Morton Int'l, Inc. v. Auditing Div. of Utah State Tax Comm'n*, 814 P.2d 581, 586 (Utah 1991) (overruled on other grounds); *WWC Holding Co., Inc. v. Public Service Comm'n of Utah*, 44 P.3d 714, 719 (Utah 2002); *Martinez v. Media-Paymaster Plus/Church of Jesus Christ of Latter-Day Saints*, 164 P.3d 384, 392 (Utah 2007); *Wood v. Labor Comm'n*, 128 P.3d 41, 43 (Utah App. 2005); *King v. Indus. Comm'n*, 850 P.2d 1281, 1286 (Utah App. 1993) (abrogated on other grounds). This rule

is particularly applicable "where the agency possesses expertise concerning the operative provisions at issue, or where the agency is otherwise in a better position than the courts to assess the law due to its experience with the relevant subject matter." *Associated Gen. Contractors v. Bd. of Oil, Gas and Min.*, 38 P.3d 291, 297-98 (Utah 2001). *See also Williams v. Pub. Service Comm'n of Utah*, 754 P.2d 41, 50 (Utah 1988); *Morton*, 814 P.2d at 586. The exercise of the agency's discretion will be set aside as "an abuse of discretion only if 'the [agency's] action, viewed in the context of the language and purpose of the governing statute . . . is unreasonable.'" *WWC Holding*, 44 P.3d at 719 (quoting *Morton*, 814 P.2d at 587 (internal citation omitted)).

As recently noted by the Utah Supreme Court in *Utah Chapter of the Sierra Club v. Board of Oil, Gas and Mining*, the degree of discretion afforded the Division and the Board by the Act is substantial: "the language of the Mining Act explicitly grants the Board [and the Division] considerable discretion to enact, interpret, and apply its provisions . . . [as well as] broad discretion in promulgating rules, establishing standards and permitting procedures, employing technical and legal staff and 'do[ing] all . . . things and tak[ing] such other actions . . . as may be necessary to enforce the [Act's] provisions.'" 289 P.3d 558, 563 (2012) (citing Utah Code §§ 40-10-2(1) and 40-10-6(9)). Given the discretion afforded the Division in carrying out the provisions of the Utah Coal Program, OSMRE should defer to the Division's decisions not to issue NOVs to Skyline or West Ridge Mine. As shown below, no violation exists under the Utah Program, and the Division need not take "appropriate action."

B. Neither the Skyline Mine, the West Ridge Mine, nor the Division has violated the Utah Coal Program or the binding Guidelines as they relate to reference areas.

1. Skyline Mine

a. No legal basis exists for OSMRE to allege that a violation exists at the Skyline Mine.

The TDN for the Skyline Mine was based on an alleged violation of the terms of the MRP, specifically a failure to comply with a requirement that "reference areas will be surveyed by the S.C.S. at five year intervals to determine their condition class." This language is found on page 47 of chapter 4 of Skyline's MRP. Although the OSMRE inspector believes otherwise, Skyline did not agree that this language was intended to apply during the life of the permit, but rather argued that it applies only during reclamation and revegetation. The Division believes that the MRP is ambiguous at best, and the history of not requiring the Mine to conduct these inspections in the past justifies a decision not to issue an NOV.

A review of the relevant section of the MRP, which was provided to OSMRE prior to the inspection, supports this interpretation. The relevant portions of the Skyline MRP are attached as Exhibit 7. The section in which the language is located is titled "Revegetation Plan." It begins by explaining when planting and revegetation will occur, and describes the preferred methods of seeding and revegetation goals for specific disturbed areas of the Mine (e.g., the Portal, Train Loadout, and Conveyor Bench Areas). The section containing the provision the OSMRE inspector alleges has been violated—section 4.7.5—is titled "Monitoring Procedures, Portal, Train Loadout, Waste Rock Disposal Site, South Fork Breakout Areas and Other Small Areas." The first paragraph in this section discusses monitoring and revegetation standards to be applied during the first three years after planting. *See* MRP at 4-46. The second paragraph begins, "[f]or bond release, data will be collected and submitted . . . from those communities disturbed and for

established reference areas which will be used for comparison[.]" *Id.* It then describes the vegetative parameters to be measured, and states that "[s]ampling of the approved reference area and revegetated area will occur for the last two years of the liability period[.]" *Id.*

The next paragraph lists the minimum data that the permittee will gather to provide statistical analyses that show the similarities between disturbed areas and reference areas. *See id.* at 4-46 to 4-47. Given the juxtaposition of this statement, it is reasonable to conclude that the data and analyses are required for the Division to determine whether to release the bond after revegetation has been completed. The paragraphs that follow continue by listing things the permittee must do during reclamation. Importantly, these paragraphs only mandate that the permittee do these things during reclamation and revegetation, not before ("The Permittee has inspected all seeded areas . . . to determine the success of the seeding program for . . . at least five years (reclamation years 1-5);" "Any area not achieving 90 percent original cover in the first five years are investigated . . ." *Id.* at 4-47). The next paragraph contains the language cited by the OSMRE inspector. Given the context of this paragraph, a reader can reasonably assume that it too relates only to reclamation and revegetation rather than to the entire lifetime of a mining operation.

The specific paragraph the OSMRE inspector cited begins, "[t]he Permittee has monitored the vegetative reference area to determine if the reference areas have been [damaged] . . .[and] if damage is such that the reference area is no longer viable, an additional reference area proposal will be submitted[.]" *Id.* The language cited by the OSMRE inspector as having been violated follows. The reasonable inference that can be drawn from the placement of this particular monitoring requirement among the other paragraphs dealing with post mining

reclamation activities is that, during reclamation and revegetation, the permittee will have complied with these requirements. The permittee will use preferred methods of seeding, attain certain standards within the first three years of revegetation, perform analyses comparing the reference areas and revegetated areas, and inspect seeded areas during the first five years of reclamation. The permittee will also have the reference areas surveyed throughout revegetation to ensure that they have not been significantly damaged.

In all, it is not unreasonable for the permittee to conclude that the requirement to have the SCS survey the reference areas did not commence until revegetation began. The context of the surrounding paragraphs and the title of the section support such a conclusion. At the same time, the exact language of the paragraph does not refer to a specific time period. It simply states that the permittee will monitor the reference areas and have a survey conducted by the SCS every five years. Thus, the MRP is ambiguous as to exactly when this monitoring is required. Had the OSMRE inspector read the MRP more carefully, and read the cited provision in context, he would have noticed this ambiguity.

The language of the MRP justified the Division's decision not to issue an NOV for Skyline's decision not to have the SCS or the NRCS conduct surveys every five years before reclamation and revegetation began. The ambiguities in the MRP have led to differences in opinion as to when this monitoring is required. The OSMRE inspector's failure to recognize and consider this ambiguity led to his insistence on an NOV and the issuance of this TDN. However, as shown above, both interpretations are reasonable, and whether Skyline has violated its MRP is therefore unclear. The OSMRE inspector ignored the ambiguity and refused to recognize the Division's attempts to remove it by amending the MRP when he issued this TDN. Because a

violation has not been shown to have occurred, the Division need not initiate enforcement action against Skyline.

Although the OSMRE inspector only justified the TDN on a violation of the MRP, the Division takes this opportunity to address any claim that Skyline is in violation of other Rules or the Guidelines that relate to reference areas. The OSMRE inspector may have insisted on the issuance of an NOV based on his belief that the Guidelines are binding and require SCS monitoring. The Division recognizes that Appendix A of the Guidelines, which is incorporated into Rule R645-301-356.110 to provide sampling methods for determining revegetation success, contains a section that states, "[f]or establishing reference areas, it is preferred that the Soil Conservation Service be contacted to estimate productivity and evaluate range condition." Appx. A at 5. However, Appendix A, though incorporated into the Rules, simply contains a list of approved sampling methods. Thus, to comply with the Rule and the Guidelines, a permittee must use one of the options provided in Appendix A. For instance, Appendix A lists four approved methods for estimating vegetative cover, three methods for estimating density of shrubs and/or trees, and four methods for measuring productivity. One way to measure productivity is to use an SCS estimation, but that is not the only way of doing so. Thus, even though Appendix A refers to the SCS surveys of reference areas, a permittee's decision not to have the SCS estimate productivity does not constitute a violation of the Rule or the binding Guidelines.

The OSMRE inspector also may have believed that, even without the MRP provision, the other Guideline that refers to reassessing reference areas every five years is binding on Skyline. *See* Guidelines at 4. This may have been the reason for his insistence on the issuance of an NOV. However, as more fully discussed in the response to the West Ridge TDN below, this particular

provision of the Guidelines has not been incorporated into the Rules and therefore has no force of law. A permittee's decision to forgo these reassessments does not constitute a violation of the Rules. Further, even if the Guidelines had been incorporated into the Rules in their entirety, the language of the Guidelines is discretionary. The provision in question simply suggests that "range condition *should* be re-assessed every 5 years[.]" *Id.* (emphasis added). Thus, as a matter of law there was no basis for a violation. As a matter of professional judgment, there was a difference of opinion regarding the usefulness of such inspections, but that disagreement is not a basis for an NOV or a TDN.

b. The Division has discretion to determine how to apply its regulations and how to interpret MRP requirements.

The Division's Biologist, with years of experience in revegetation of mining and oil and gas operations, recognized that there was a problem with the MRP and proposed a reasonable solution—amending the ambiguous language. She, along with the permittee and Division managers, determined that a reasonable option was to revise the MRP to more carefully establish how the reference areas are to be monitored. Ms. Reinhart observed correctly, as she advised the OSMRE inspector, that the Rules do not require the MRP to include an inspection by SCS to certify range condition. As a person with experience working for the NRCS classifying range condition, she recognized that such monitoring requirements were not as important as the need to quantify the vegetative characteristics of the reference areas prior to beginning revegetation.

The Skyline TDN inspection report refers to other conditions that the OSMRE inspector thought were out of compliance with the Guidelines. The TDN does not cite any of these as reasons for the TDN or as violations of the MRP or Utah Coal Program. In response to the TDN, the Division observes that the specific complaints regarding the Guidelines are not violations

under the Rules, as explained more fully in the response to the West Ridge TDN, and were not noted as being required by the MRP. More importantly, the alleged deficiencies were in fact not substantiated or were insubstantial differences between the Guidelines and the conditions at the Mine. The most obvious example is the complaint that the reference areas are not fenced or marked on the ground by posts. The consultant's reports that establish the reference areas for the Waste Rock Site and for the South Fork Breakout Portal both provide the GPS coordinates for the reference areas, and describe in detail the transects used to establish the areas and quantify the reference area vegetation. Those reports are included in the 'Skyline Google Drive' link provided in the Exhibit List. This information was included in the information submitted to OSMRE prior to the oversight visit. The studies note that older posts or markers may have been lost or destroyed over time.

Insistence on an out of date and inferior method of locating reference areas represents an inappropriate focus on the 'letter of the Guidelines' rather than their purpose, as well as a lack of appreciation for new technology and new methods of monitoring and achieving successful revegetation of disturbed areas. The Handbook of Western Reclamation Techniques, second edition 2006, notes in its introduction that "since the inception of SMCRA in 1978 comprehensive reclamation has evolved rapidly." The Introduction is attached as Exhibit 8. It states that "early mine reclamation was so associated with agriculture that reclamation and revegetation were considered virtually synonymous." It then observes that "today technology has expanded to embrace soils, hydrology, wildlife and land use" and describes numerous areas of study that have transformed revegetation practices.

The insistence on an NOV and subsequent TDN for not requiring a range condition survey by an agency that no longer exists—while ignoring the ambiguities of the rather dated MRP, the rather recent scientific study establishing the reference area with a GPS locatable transect, and the fact that the reference area was located and observed to be in undisturbed and undamaged conditions—puts these 'not mandated' Guidelines ahead of true compliance with the intent of the Act. Insisting on a violation rather than agreeing on and aiding in a modification of the MRP misuses the Oversight Inspection process and interferes with the Division's proper and legal administration of the program as delegated.

2. West Ridge Mine

In the Partial Oversight Inspection Report for the West Ridge Mine, the OSMRE inspector complains generally about the Division's lack of preparation for the oversight inspections and cites to specific parts of the Division's Guidelines while making a broad conclusion that the Division has failed to ensure the implementation of the Guidelines with respect to reference areas at the West Ridge Mine. However, there is no Rule that incorporates the Guidelines in their entirety, and the OSMRE inspector ultimately bases the TDN on a violation of Rule 645-301-356.110.

This section will demonstrate that the OSMRE inspector's reliance on an alleged violation of Rule 645-301-356.110 is illogical. It will also show that the West Ridge MRP ensures that the Mine will comply with the Guidelines that have been adopted by Rule and that therefore have the force of law. Neither West Ridge nor the Division has committed a violation of the Rules, and the Division therefore has good cause for refusing to take "appropriate action" as defined by 30 C.F.R. § 842.11.

a. The Division has ensured compliance with the Guidelines that have been incorporated into the Utah Coal Program by Rule.

To the extent that the Guidelines are binding on permittees, West Ridge is in compliance with them. Further, the Division has ensured, and will continue to ensure, that the Mine complies with those binding Guidelines. Therefore, there has been no violation, and the Division need not initiate enforcement action against West Ridge. As discussed in Section II above, there are only two Rules that mandate compliance with the Guidelines: Rules 645-301-356.110 and -356.231.

(i) Rule 645-301-356.110. Rule 645-301-356.110 incorporates Appendix A of the Guidelines. That Rule must be read in conjunction with Rule 645-301-356.100, which states that "[s]uccess of revegetation will be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the extent of cover of the reference area or other approved success standard, and the general requirements of R645-301-353." Under Rule 645-301-356.110, the approved standards of success are found in Appendix A of the Guidelines.

In the West Ridge TDN, Rule 645-301-356.110 is the only Rule the OSMRE inspector cites as having been violated. However, nothing in the Partial Inspection Report or the Mine's MRP indicates that the Division has failed to ensure compliance with this Rule and Appendix A of the Guidelines. The OSMRE inspector merely describes his disagreement with the Division regarding the monitoring of reference areas, and then cites Rule 645-301-356.110, which has nothing to do with monitoring reference areas. The OSMRE inspector was apparently frustrated or confused with respect to which Guidelines are binding and what they require. He seemingly cites to the Rule to support an argument that the Guidelines are enforceable in their entirety. After doing so, the OSMRE inspector complains about a lack of preparation by the Division for the oversight inspection, claims the Division and operator were unable to locate the reference

areas, and cites to other portions of the Guidelines that have not been incorporated into the Rules. Again, the remaining discussion in the Partial Inspection Report never mentions a failure on the part of West Ridge to use the standards of success in Appendix A of the Guidelines, which would be the only way for the Mine to have violated Rule 645-301-356.110.

Even if the OSMRE inspector argued that West Ridge had in fact violated Rule 645-301-356.110, the MRP and conditions on the ground indicate that West Ridge has complied with the Rule and its corresponding Guidelines, and will continue to do so. The MRP echoes the Rule: "Revegetation success will be judged on the effectiveness of the vegetation for the approved postmining land use. The sampling techniques for measuring success and methods identified in DOGM's 'Vegetation Information and Monitoring Guidelines, Appendix A' will be referenced during the post revegetation evaluation. A revegetation timetable is provided in Table 3-1 at the end of this text. Annual monitoring will be included as part of the annual report submitted to DOGM." MRP at 3-15. The relevant pages of the West Ridge MRP are attached as Exhibit 9. In addition, the MRP describes the methods from Appendix A that West Ridge will implement to determine the success of final reclamation. *See* MRP at 3-32 to 3-33 ("Statistical adequacy of all statistical sampling will be determined using" the formula found in Section I of Appendix A; "Ground cover will be estimated by using one of the methods listed in 'Vegetation Information Guidelines' in Appendix A"; Production measurements will be made in accordance with DOGM's 'Vegetation Information Guidelines' in Appendix A"; "The Division's 'Vegetation Information Guidelines', Appendix A will be utilized for the evaluation of the success of revegetation.").

These statements in the MRP indicate that, once revegetation begins, West Ridge will use standards for success and sampling techniques laid out in Appendix A of the Guidelines. They do not suggest that West Ridge or the Division has violated the Rule. Further, nothing indicates that West Ridge or the Division will violate the Rule when it actually has a meaningful effect (i.e., when revegetation begins). Using the standards in Appendix A to measure the success of revegetation can only be done once revegetation begins, but West Ridge has not yet begun revegetation. As such, it defies reason to argue that West Ridge has already violated Rule 645-301-356.110 and that the Division has failed to ensure compliance with it. Rule 645-301-346.110 has not been violated, and therefore, this TDN should not have been issued.

(ii) Rule 645-301-356.231. The second portion of the Guidelines that has been approved by OSMRE and is therefore enforceable is found in Rule 645-301-356.231. That Rule requires that "[m]inimum stocking and planting arrangements will be specified by the Division on the basis of local and regional conditions and after consultation with and approval by Utah agencies responsible for the administration of forestry and wildlife programs." Utah Admin. Code R. 645-301-356.231. It also requires that the Division perform this consultation on a permit-specific basis, and in accordance with the Guidelines. *Id.* The applicable Guideline states: "As per R[645]-301-356.231, if fish and/or wildlife habitat, recreation, shelterbelts or forest products are to be a primary or secondary use, the Division will provide, in technical memoranda, evidence of consultation and acceptance of proposed woody plant stocking densities with the Utah Division of Wildlife Resources and other appropriate land and wildlife management agencies." Guidelines at 3.

The OSMRE inspector did not explicitly find that the Division or West Ridge has violated Rule 645-301-356.231. However, because he found generally that the Mine was in violation of the Guidelines, the Division takes this opportunity to demonstrate that the Mine has complied with this Rule and its corresponding Guideline. According to the MRP, "[b]ecause of the rugged topography in the region, the present land uses are limited to wildlife habitat, rangeland, and recreation." MRP at 3-1. The secondary use, or postmining land use, "will be for wildlife habitat and grazing." *Id.* at 3-30. Thus, under this Rule, the Division must consult with other agencies and specify minimum stocking arrangements for woody plants in technical memoranda.

The Division conducted the required consultation and drafted this technical memorandum on July 22, 1998. The relevant portions of this memorandum are attached as Exhibit 10. In that memorandum, the Division's Reclamation Biologist notes that "[f]or areas with a postmining land use of wildlife habitat, the Division is required to consult with State wildlife agencies and gain approval for tree and shrub establishment success standards. The Division has consulted with the Division of Wildlife Resources and developed standards. These are based primarily on existing conditions and take into account the species that contribute to the woody plant densities in the various areas." Division Memorandum at 22. He subsequently lists the standards for woody plants, which have been incorporated into West Ridge's MRP. *See id.*; MRP at 3-17 ("The Division has developed woody plant density success standards for this site which have also been reviewed and approved by DWR."). As with the standards for success in Appendix A of the Guidelines, West Ridge will not need to implement the woody plant density success standards until it begins the reclamation and revegetation process. For now, where the Division

has consulted with other State agencies in developing minimum stocking arrangements for woody plants as required by the Rules and the corresponding Guideline, Rule 645-301-356.231 has not been violated.

In conclusion, OSMRE has not pointed to any action taken by West Ridge or the Division that violates the Rules or the enforceable Guidelines. The Mine's MRP indicates that it will use sampling methods detailed in Appendix A of the Guidelines, and the Division has consulted with other agencies to establish standards for woody plant stocking densities. The Division cannot fail to enforce these Rules or Guidelines until West Ridge begins revegetation work that must be compared with revegetation standards. Therefore, issuing a TDN for violating Rule 645-301-356.110 and the corresponding Guidelines was improper, as no violation exists.

b. West Ridge's decision not to follow Guidelines that have not been incorporated into the Coal Program does not constitute a violation.

As stated above, OSMRE relies on a Rule that makes *some* of the Guidelines binding to support a claim that *all* of the Guidelines are binding and have the force of law. But, as discussed above, only the Guidelines that have been incorporated into Rules 645-301-356.110 and -356.231 have the force of law. The remaining Guidelines "are intended to provide a *suggested* format for the submittal of vegetation information" to be included in MRPs. Guidelines at 1 (emphasis added). Any action taken by the Division or a permittee that does not follow these non-binding Guidelines does not constitute a violation.

As described in his Partial Inspection Report, the OSMRE Inspector felt concern that West Ridge has not conducted monitoring of reference areas, and cited to the Guidelines as requiring that "the range condition of the reference site must be re-assessed every 5 years during the field season prior to permit renewal." Inspection Report at 3. This statement is flawed for two

reasons. First, it does not quote the Division's Guidelines. The actual language in the Guidelines states that "range condition *should* be re-assessed every 5 years, during the field season prior to permit renewal." Guidelines at 4 (emphasis added). Second, this suggestion has not been incorporated into the Division's Rules, so the Division has no obligation to strictly enforce it. West Ridge's decision not to monitor its reference areas is therefore not a violation of the Utah Coal Program, and cannot be the basis for a TDN.

Although West Ridge is not required by Rule to re-assess its reference areas every five years, the Division does recognize that a reference area should be monitored. Indeed, a reference area is "a land unit maintained under appropriate management for the purpose of measuring vegetation ground cover, productivity, and plant species diversity that are produced naturally or by crop production methods approved by the Division." Utah Admin. Code R. 645-100-200. Where a reference area is meant to serve as a standard against which to measure naturally growing vegetation, this management can be as simple as going to each reference site to verify that no undesired effects (e.g., subsidence, fire, etc.) have occurred. This would allow the Division to ensure that a reference area can still serve its purpose once the permittee begins revegetation.

The Division has determined that it should improve its efforts to document the instances when reference areas are monitored. Studies conducted over the lifetime of the West Ridge Mine indicate that the viability of the reference areas was analyzed in 1998, 2008, and 2015. However, whether the Division or the Mine visited the reference areas on other instances is unclear. Thus, the Division will implement a policy to have its inspectors and/or biologists visit reference areas during the mid-term permit review process. This will alleviate the OSMRE inspector's concern

that reference areas are not periodically checked, and ensure that each reference area can still serve as a standard of success for future revegetation of disturbed areas.

The second concern described by the OSMRE inspector related to the Division Inspectors' supposed inability to locate the reference areas at the West Ridge Mine. This concern does not rise to the level of a violation warranting a TDN for two reasons. First, Division Inspectors were in fact able to locate the general location of each reference area. The Division used an electronic tablet with a GPS device to travel to the reference areas as depicted in maps found in the West Ridge MRP. The Division's Inspection Report, attached as Exhibit 11, indicates as much, but simply notes that the team could not find any stakes in the ground marking the boundary of the reference areas. Second, the OSMRE inspector again relies on the Guidelines that have no force of law to support his argument that a violation exists. Specifically, the OSMRE inspector cites to Guidelines that suggest that a permittee "[m]ark off the proposed reference areas in the field with permanent, readily visible markers (i.e. t-posts) so that they can be easily located."[2] Guidelines at 5. This Guideline has not been incorporated into the Rules, and a permittee's decision not to place these markers in the field does not constitute a violation.

The Division recognizes that West Ridge's MRP states that the reference areas had been marked using steel range posts. MRP at 3-6. Since 1999, when the application was submitted, the steel range posts have fallen over. However, because it is now possible to use GPS to locate reference areas, posts are no longer necessary. This, coupled with the fact that the Guideline suggesting the use of markers does not have the force of law, shows that West Ridge's lack of markers does not constitute a violation that warrants a TDN. Overall, with the help of the GPS

[2] The OSMRE Inspector again cited language that differs from the Guidelines. *See* Inspection Report at 3. However, the differences are minor—both discuss marking off boundaries of proposed reference areas with permanent markers. Here, the Division has cited to its own Guidelines simply to avoid redundancy.

device, the team was able to observe the general conditions of the reference areas, and the Mine's lack of permanent markers does not constitute a violation.

c. *The OSMRE inspector's claim that West Ridge has violated the Rules as they relate to reference areas is unsubstantiated.*

The OSMRE Inspection Report alleges that West Ridge is in violation of the Rules as they relate to reference areas; however, nothing in the Inspection Report substantiates that claim. Further, West Ridge has complied with these Rules. For instance, the Rules require permittees to provide maps or aerial photographs that show "[t]he location and boundary of any proposed reference area for determining success of revegetation." Utah Admin. Code R. 645-301-323.100. West Ridge complied with this Rule by including maps of the reference areas in its MRP. The Division Biologist used these maps, coupled with a GPS system on an electronic device, to locate the reference areas during the May 2016 partial oversight inspection.

Other than the Rule requiring maps of proposed reference areas, the other Rules relate to standards of revegetation. One such Rule requires that "[s]uccess of revegetation will be judged on . . . the extent of cover compared to the extent of cover of the reference area or other approved success standard." Utah Admin. Code R. 645-301-356.100. The other two Rules relate to standards for different postmining land uses. *See id.* R. 645-301-356.210 and -356.220 (requiring that production of the "revegetated area will be at least equal to that of a reference area[.]"). The West Ridge MRP echoes the language from these three Rules in the Section entitled "Revegetation: Standards for Success." *See* MRP at 3-32 ("The success of final reclamation will be judged on . . . the extent of cover compared to the extent of cover for the reference area."); MRP at 3-33 ("For a postmining land use of grazing and wildlife habitat, the ground cover and production will be equal to or greater that [sic] a reference area.").

Because these requirements are included in West Ridge's MRP, nothing suggests that the Mine will violate these Rules when it conducts reclamation and revegetation. Further, because West Ridge has not yet begun reclamation and revegetation work, it cannot yet be in violation of Rules that require a certain standard of revegetation. In all, West Ridge is in compliance with the binding Guidelines, its MRP, and the Rules that relate to reference areas. No violation exists, and the Division has good cause for not taking enforcement action against West Ridge.

C. OSMRE's inspectors failed to abide by the purposes and spirit of the Oversight Program.

These TDNs are inappropriate and unfortunate. They are inappropriate because they are based on provisions of the Vegetation Information Guidelines that are only binding to the extent that they have been incorporated into the Utah Coal Program by Rule, or were incorporated into an approved MRP. For the Skyline TDN, the language of the MRP is at best ambiguous as to whether SCS surveys are required prior to revegetation. Skyline Mine is not otherwise required by Rule to have the SCS monitor its reference areas. The West Ridge TDN was based entirely on a mistaken belief that the Guidelines are binding in their entirety regardless of the language of the Utah Rules or the West Ridge MRP. This TDN was based on a total disregard for the facts and a mistake as to the law. West Ridge has complied with the Guidelines that are enforceable, and cannot be faulted for not following the Guidelines that have not been incorporated into the Rules.

The TDNs were unfortunate because it is difficult to square the issuance of the TDNs with the purposes of an oversight inspection. Oversight inspections are intended "to ensure that states and tribes are effectively administering, implementing, maintaining, and enforcing their approved regulatory programs." OSMRE Directive 967 at 4. As part of that process, OSMRE is

directed to "[a]ssist states and tribes with resolving identified problems by providing technical or other assistance as necessary and available[.]" *Id.* at 6. The OSMRE inspectors did not actively work to assist the Division in understanding the importance of monitoring reference areas from OSMRE's standpoint; rather, they insisted that their view was correct and chose to issue the TDNs. The OSMRE inspector insisted on a writing a violation over the objections of the Division, despite the ambiguity in the MRP, the lack of any real harm to the environment or future reclamation success, and the lack of prior notice to the operator that there could be enforcement action for a previously unenforced provision. This over-reaching by OSMRE is contrary to the delegation of authority to the Division. The Skyline TDN unnecessarily elevated a questionably required 'once every five year' inspection by the SCS of a reference area, to a level of importance that took precedence over the State's authority to determine how to respond to an unclear MRP. No Rules would have required the inspections, and the alleged violation resulted in no off-site impacts or other harm and was easily remedied without jeopardizing Skyline's ability to complete revegetation. In taking this approach, OSMRE essentially failed to encourage the Division to "proactively seek OSM assistance in preventing problems and issues." *Id.* If these particular oversight inspections are any indication of what will occur when OSMRE's inspectors discover an alleged violation that can be attributed to a difference in interpretation, the Division will avoid seeking assistance from OSMRE in the future. Not only did the OSMRE inspectors fail to follow an OSMRE Directive, they also made false allegations and ignored the facts on the ground.

Contrary to the suggestion in the Partial Oversight Inspection Reports, the Division carefully and thoroughly prepared for the oversight inspections. The Division's Biologist

reviewed the MRPs and other relevant information for each mine, and then extracted particularly relevant portions, including the scientific studies used to establish the reference areas, pictures of the reference areas, maps showing the locations of the reference areas, and vegetative descriptions and revegetation commitments in the approved MRPs. She sent this information to the OSMRE inspectors and asked if they needed more information. The Work Plan for the oversight was reviewed and the items on it reconsidered. There was no mention in the Work Plan of the Guidelines, and only one reference to the need to monitor reference areas. The Division's Biologist also contacted the Mine operators in preparation for the oversight visit. During that process, she inquired about whether Skyline Mine had required the SCS to survey the reference areas on five year intervals and discovered a difference of opinion regarding the requirements in the MRP. She reviewed the MRP again and determined that a revision was needed in the MRP to remove the ambiguity and clarify how monitoring would occur. Upon the heels of this preparation, the OSMRE inspectors did not consider the differences of opinion as an opportunity to teach and learn, did not revisit the MRP carefully, and did not consider the optional action taken to assure reference areas are monitored. Instead, they demanded an NOV and issued not one, but two TDNs for essentially the same difference of opinion. If the OSMRE inspectors desired to improve the Division's use of the Guidelines and reference areas to increase revegetation success, they did not use the oversight inspection in a manner that was conducive to that result. The OSMRE inspectors also did not follow the Charter of the State of Utah/Office of Surface Mining Team for Evaluation of Utah's Coal Regulatory Program (Charter). This 2004 document was drafted to guide the oversight inspections in a manner that would promote using team work and resolving disagreements in a non-judgmental manner. The Charter encourages the

teams to evaluate all solutions, and acknowledges the State's role as the delegated regulatory authority.

III. Conclusion

This response has shown that the violations alleged by OSMRE's inspectors do not exist under the Utah Coal Program, and that the Division is therefore justified in not taking enforcement action against the operator of either the Skyline Mine or the West Ridge Mine. The Skyline Mine's MRP is at best ambiguous as to whether surveys of reference areas are required prior to revegetation, and the best way of dealing with that issue is to remove the ambiguity in the MRP, not to issue an NOV. For West Ridge, because the rule allegedly violated pertains to reclamation success, and reclamation and revegetation have not yet begun, the alleged violation cannot possibly exist. In addition, West Ridge has included references to all binding Guidelines in its MRP, which indicates that it will comply with those Guidelines once the Mine begins reclamation and revegetation.

Because the State has been granted primacy to regulate coal mining operations, the Division is granted substantial discretion in carrying out the Utah Coal Program. OSMRE should take note of that discretion and find that the Division did not err when it refused to issue NOVs for the violations as alleged by the OSMRE inspectors. The Division recognizes that the OSMRE inspectors may view the requirements of the MRPs and the Guidelines differently. However, OSMRE has been directed to "accept a [regulatory authority's] response to a TDN as constituting . . . good cause . . . unless the [regulatory authority] has acted in a manner that is arbitrary, capricious, or an abuse of discretion under the approved regulatory program." OSMRE Directive 968 at 1. Under that standard, when OSMRE reviews a State's response, it "will not

substitute its judgment for that of the [regulatory authority.]" *Id.* at 4. Further, if the regulatory authority provides a rational basis for its decision, OSMRE "will make a finding of appropriate action or good cause . . . even if [OSMRE] might have decided differently had it been the [regulatory authority]." *Id.*

Because the Utah Coal Program is the operative law governing coal mining in Utah, and because the Division is granted discretion in interpreting and carrying out that program which it has exercised in a rational and reasonable manner, OSMRE should accept this response as providing good cause under 30 C.F.R. § 842.11. The Division appreciates the importance OSMRE places on reference areas—and will instruct its inspectors accordingly—but the violations alleged in the TDNs do not justify enforcement action on the part of the Division or OSMRE. The Division will welcome additional comments or inquiry from OSMRE, and stands ready to provide additional information if requested to do so.

Sincerely,

John R. Baza, Director
Division of Oil, Gas and Mining

Exhibit List

Exhibit 1	–	Skyline TDN
Exhibit 2	–	West Ridge TDN
Exhibit 3	–	OSMRE Partial Oversight Inspection Report for Skyline Inspection
Exhibit 4	–	Division Inspection Report for Skyline Inspection
Exhibit 5	–	Vegetation Information Guidelines
Exhibit 6	–	OSMRE Partial Oversight Inspection Report for West Ridge Inspection
Exhibit 7	–	Skyline MRP*
Exhibit 8	–	Handbook of Western Reclamation Techniques - Introduction
Exhibit 9	–	West Ridge MRP*
Exhibit 10	–	Division technical memorandum documenting consultation with Division of Wildlife Resources regarding woody plant densities*
Exhibit 11	–	Division Inspection Report for West Ridge Inspection

Skyline Google Drive

* Only the pages cited to in the State's Response have been included in this Exhibit. Should OSMRE request a copy of the entire document, the Division is more than happy to provide it electronically.

Exhibit 1

UNITED STATES DEPARTMENT OF THE INTERIOR
Office of Surface Mining
Reclamation and Enforcement

TEN-DAY NOTICE

Number X16-140-562-001 TV 1

Originating Office: Denver Regional Office
US DOI, Office of Surface Mining
1999 Broadway, Suite 3320
Denver, CO 80202

Telephone Number: (303) 293-5000

Ten-Day Notice to the State of **Utah**

You are notified that, as a result of Federal Inspection (e.g. a federal inspection, citizen information, etc.) the Secretary has reason to believe that the person described below is in violation of the Act or a permit condition required by the Act. If the State Regulatory Authority fails within ten days after receipt of this notice to take appropriate action to cause the violation(s) described herein to be corrected, or to show cause for such failure and transmit notice of your actino to the Secretary through the originating office designated above, then a Federal inspection of the surface coal mining operation at which the alleged violation(s) is occurring will be conducted and appropriate enforcement action as required by Section 521(a)(1) of the Act will be taken.

Permittee: **CANYON FUEL COMPANY, LLC** County: **CARBON**
(Or Operator if ~~No Permit~~)

Mailing Address: **6100 DUTCHMAN'S LANE, 9TH FLOOR, , LOUISVILLE, KY 40205**

Permit Number: **C007005** Mine Name: **SKYLINE MINE**

☐ Surface
☑ Underground
☐ Other

01 NATURE OF VIOLATION AND LOCATION:

The permittee will conduct all coal mining and reclamation operations only as described in the approved application, except to the extent that the Division otherwise directs in the permit.

Section of State Law, Regulation or Permit **R645-300-142**
Condition believed to have been violated:

NATURE OF VIOLATION AND LOCATION:

Section of State Law, Regulation or Permit
Condition believed to have been violated:

NATURE OF VIOLATION AND LOCATION:

Section of State Law, Regulation or Permit
Condition believed to have been violated:

Remarks or Recommendations:

Rule R645-300-142 states "The permittee will conduct all coal mining and reclamation operations only as described in the approved application, except to the extent that the Division otherwise directs in the permit." The Skyline Mine's approved permit states at chapter 4, page 47 "The reference areas will be surveyed by the S.C.S. at five year intervals to determine their condition class." As a result of a federal inspection and vegetation reference area oversight topic-specific evaluation conducted May 17, 2016, it is evident the Skyline Mine has not been surveying its vegetation reference areas for condition class at five year intervals as required by its approved permit. Therefore, the mine is in violation of R645-300-142.

Date of Notice: **06/06/2016** Signature of Authorized Rep.:

Print Name and ID: **Thomas Medlin ID# 562**

Revised October 1, 1998

Exhibit 2

UNITED STATES DEPARTMENT OF THE INTERIOR
Office of Surface Mining
Reclamation and Enforcement

TEN-DAY NOTICE

Number X16-140-545-005 TV 1

Originating Office: Denver Regional Office
US DOI, Office of Surface Mining
1999 Broadway, Suite 3320
Denver, CO 80202

Telephone Number: (303) 293-5000

Ten-Day Notice to the State of **Utah**

You are notified that, as a result of Other (e.g. a federal inspection, citizen information, etc.) the Secretary has reason to believe that the person described below is in violation of the Act or a permit condition required by the Act. If the State Regulatory Authority fails within ten days after receipt of this notice to take appropriate action to cause the violation(s) described herein to be corrected, or to show cause for such failure and transmit notice of your actino to the Secretary through the originating office designated above, then a Federal inspection of the surface coal mining operation at which the alleged violation(s) is occurring will be conducted and appropriate enforcement action as required by Section 521(a)(1) of the Act will be taken.

Permittee: **WEST RIDGE RESOURCES, INC.** County: **CARBON**
(Or Operator if ~~No Permit~~)

Mailing Address: **PO BOX 1077, , PRICE, UT 84501**

Permit Number: **UT-007-041** Mine Name: **WEST RIDGE MINE**

- ☐ Surface
- ☑ Underground
- ☐ Other

01 NATURE OF VIOLATION AND LOCATION:

Permittee has failed to comply with the measures selected by the regulatory authority of which have been approved to be used for determining revegetation success (Vegetation Information Guidelines).

Section of State Law, Regulation or Permit Condition believed to have been violated: **R645-301.356.110**

NATURE OF VIOLATION AND LOCATION:

Section of State Law, Regulation or Permit Condition believed to have been violated:

NATURE OF VIOLATION AND LOCATION:

Section of State Law, Regulation or Permit Condition believed to have been violated:

Remarks or Recommendations:

Utah Division of Oil, Gas and Mining have developed "Vegetative Information and Monitoring Guidelines" that was approved by OSMRE and incorporated into the State's approved regulatory program via amendment processes (56 FR 41795, Section II, 56 FR Section III, 41795, and 56 FR 41795). Notwithstanding, rule R645-301-356.110 and section 301-341-Revegetation of the approved permit application package provide reference to the use of the aforementioned guidelines. Conversely, neither the permittee or the Division are ensuring the implementation of these guidelines, with respect to reference areas.

Date of Notice: **06/06/2016** Signature of Authorized Rep.: John Spencer Shumate

Print Name and ID: **John Shumate ID# 545**

Exhibit 3

Skyline Mine Partial Oversight Inspection Report
Utah Division of Oil, Gas and Mining (DOGM) Permit ID # C/007/005

Date
Tuesday, May 17, 2016

Participants
Jeremiah Armstrong, Operator Representative
Priscilla Burton, DOGM Inspector
Gregg Galecki, Operator Representative
Joe Helfrich, DOGM Inspector
Tom Medlin, Office of Surface Mining Reclamation and Enforcement (#0562)
Lisa Reinhart, DOGM Inspector
Spencer Shumate, Office of Surface Mining Reclamation and Enforcement (#0545)

Conditions
Overcast and cool with occasional rain showers. Damp ground with scattered snow cover.

Background
The Skyline Mine is an active underground coal mine located in Carbon County, Utah. The mine is operated on a leasehold interest owned by Canyon Fuel Company, LLC. With the exception of one small tract in Carbon County, mining activities take place within the Manti-La Sal National Forest four miles southwest of Scofield, Utah in Eccles Canyon. The area permitted for underground coal mining and reclamation activities is 10,733.38 acres; the surface area approved for disturbance is 125.31 acres. Postmining land uses include wildlife habitat and livestock grazing.

This was an OSMRE independent partial inspection of the Skyline Mine, as well as an oversight topic-specific evaluation of the mine's vegetation reference areas. More in-depth findings regarding the vegetation reference area topic-specific evaluation will appear in a separate report. Administrative review of pertinent records was conducted prior to and following this field inspection. The DOGM Price Field Office inspector assigned to this mine did not accompany the Team on this evaluation, nor did the DOGM inspectors in attendance consider this to be a regular State inspection.

The Team convened at the Scofield Snack & Pack at approximately 9:15 am to review the maps, permit stipulations, rules, guidelines, and work plan objectives pertinent to this evaluation. Though the permitted disturbance area includes four distinct vegetative communities, (sagebrush/grass, riparian, conifer-timber, and aspen) the Team agreed to focus on the two which were accessible and should comport with existing reclamation work: sagebrush/grass / Waste Rock Site (WRS) contemporaneous reclamation and aspen / South Fork Breakout Portal Area 2001 reclamation. During this meeting, the Team emphasized the importance of proactive reference area management. That is, keeping a "finger on the pulse" of vegetation reference areas throughout the life of the mine. This enables the permittee to identify areas where the ecological site conditions may have departed from the desired or anticipated range conditions (in the case of Skyline, those that support wildlife habitat and livestock grazing post mine land uses) that were

inventoried prior to Division approval, thus avoiding the pitfalls of the "neglect and scramble" approach prior to reclamation and applying for bond release. No objections were noted.

Findings

Revegetation

The Team's first stop was at the contemporaneously reclaimed WRS (Figure 1). The Team hiked past the WRS to the apparent sagebrush/grass reference area which was selected by consultant Dr. Patrick Collins of Mt. Nebo Scientific and approved by DOGM. Approximate grade of the southwest facing slope was measured at 33%. The permitted disturbance boundary was marked with T-posts and barbed wire, but the reference area itself was indistinguishable, lacking any corner markers or fencing. Size of the reference area was therefore impossible to ground-truth. The reference area was located outside of the permitted disturbance area but within the underground workings "shadow area." Livestock grazing was evident. In addition to sagebrush, hounds tongue, thistle, dandelion, broom snakeweed, serviceberry, and snowberry were observed (Figure 2).

The Team's second stop was at the apparent aspen reference area, further upslope from the sagebrush/grass reference area (Figure 3). Approximate grade of the southwest facing slope was measured at 23%. Mature aspen were present, with an understory of grasses and shrubs. Additional vegetation present included Douglas fir, yarrow, geranium, and columbine. Evidence of livestock grazing was also noted. This reference area was likewise situated outside of the permitted disturbance area but within the underground workings "shadow area." No corner markers or fencing were present. DOGM's Vegetation Information Guidelines state at page 5, paragraph f "Mark off the proposed reference areas in the field with permanent, readily visible markers (i.e. [sic] t-posts) so that they can be easily located." Due to the absence of field markers, the Team was unable to verify with any accuracy or confidence actual boundaries or size of the reference area.

The Team then proceeded to the reclaimed South Fork Breakout Portal Area (Figure 4). Approximate grade was measured at 56%. The disturbed area perimeter was marked with blue painted T-posts. Vegetation present was sufficient to control erosion. However, musk thistle was abundant here; the operator representatives mentioned mechanically treating for this noxious weed in the summer months. Overall, woody species density was poor.

The inspection concluded with a closeout discussion at the Skyline Mine administration building where we were joined by Environmental Manager Craig Brown. During this meeting, concerns were raised regarding the apparent lack of vegetation reference area management, monitoring, and marking. One DOGM inspector reiterated the need to keep a "finger on the pulse" of vegetation reference areas, as agreed to by all that morning and stipulated in Skyline's approved Mining and Reclamation Permit (MRP) at chapter 4, page 47 "The reference areas will be surveyed by the S.C.S [Soil Conservation Service, now Natural Resources Conservation Service (NRCS)] at five year intervals to determine their condition class." At this point, however, the operator representatives (and one DOGM inspector) responded that a proposed permit amendment (DOGM Task IDs 5178 and 5186) submitted by Skyline in the week prior to this inspection, eliminating the five year monitoring commitment, effectively renders this provision null.

OSMRE disagrees.

OSMRE's oversight inspections and topic-specific evaluations are designed to provide a snapshot in time of an operator's on-the-ground compliance with their approved permit's stipulations and the regulatory authority's administration and enforcement of its approved program. There is no guarantee DOGM will approve Skyline's proposed amendment which, it should be noted, conflicts with the Division's own Vegetation Information Guidelines (Revised February, 1992 and approved by OSMRE at 57 FR 41693) which state at page 4, METHODS:, 1. Reference Areas: "…range condition should be re-assessed every 5 years, during the field season prior to permit renewal." Even if the amendment is approved, the fact remains that on-the-ground conditions as witnessed by the Team on May 17, 2016 were not in accordance with Skyline's approved MRP. That the State has not enforced in their entirety the conditions set forth in Skyline's approved MRP does not absolve Canyon Fuel Company from these responsibilities.

Conclusions

OSMRE concludes the Skyline Mine is in violation of the commitments within its approved MRP and therefore rule R645-300-142 which states "The permittee will conduct all coal mining and reclamation operations only as described in the approved application, except to the extent that the Division otherwise directs in the permit."

Moreover, OSMRE has determined that DOGM is not properly enforcing the terms of the Skyline Mine permit as they relate to vegetation reference area management.

Enforcement Actions

Following the inspection closeout meeting, OSMRE and the DOGM inspectors in attendance discussed the apparent violation of the mine's approved MRP as it relates to vegetation reference area range condition assessment. The DOGM inspectors indicated they were unwilling to issue a Notice of Violation based on this fact. As a result, the Office of Surface Mining Reclamation and Enforcement, Denver Field Division issued Ten Day Notice X16-140-562-001 to the Utah Division of Oil, Gas and Mining on June 6, 2016.

Photographs

Figure 1. Waste Rock Site.

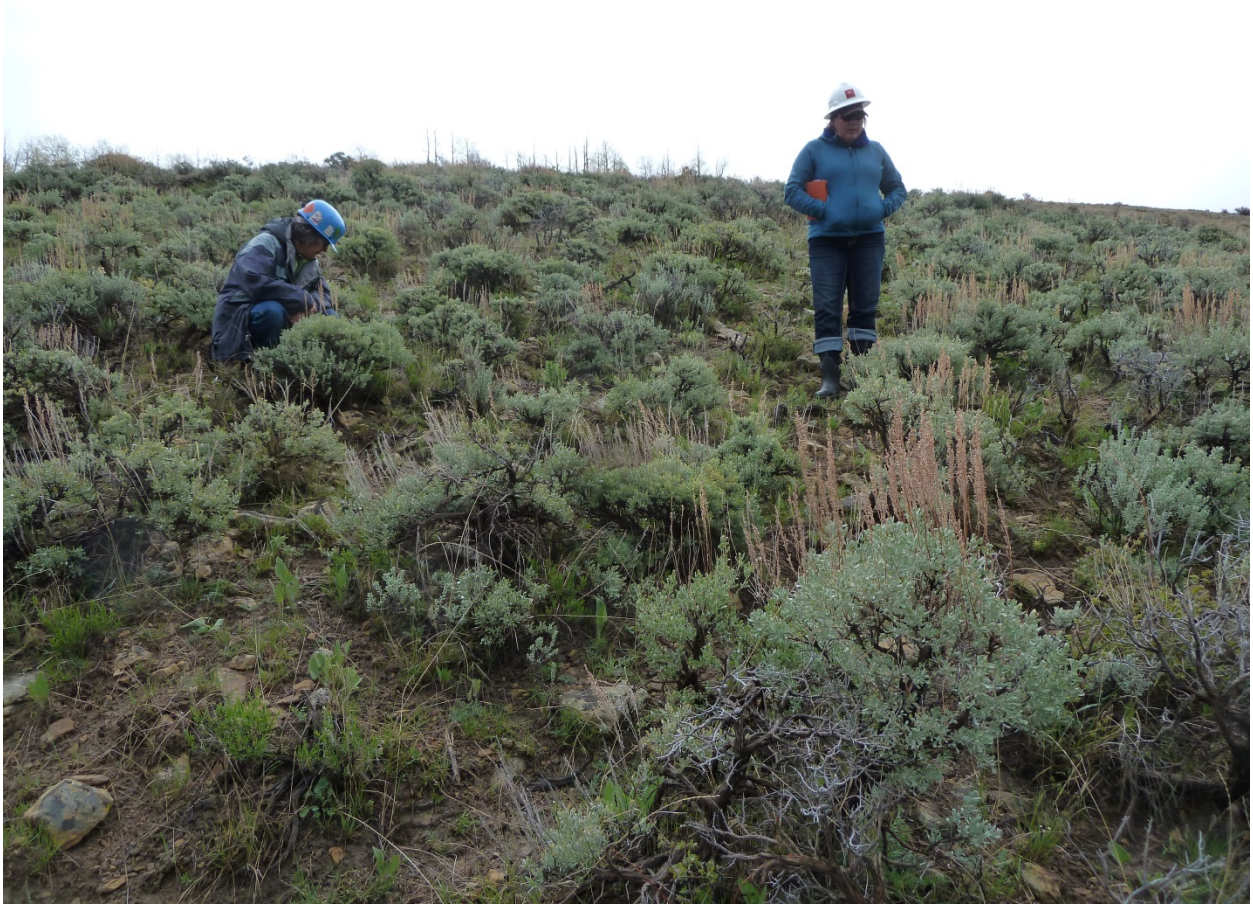

Figure 2. Vegetation at sagebrush/grass reference area.

Figure 3. Aspen reference area.

Figure 4. Reclaimed South Fork Breakout Portal Area.

Exhibit 4

GARY R. HERBERT
Governor
GREG BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Inspection Report

Permit Number:	C0070005
Inspection Type:	PARTIAL OVERSITE
Inspection Date:	Tuesday, May 17, 2016
Start Date/Time:	5/17/2016 9:00:00 AM
End Date/Time:	5/17/2016 3:00:00 PM
Last Inspection:	

Inspector: Lisa Reinhart,
Weather: Cool, cloudy, rainy, snowy
InspectionID Report Number: 5530
Accepted by: JHELFRIC
6/15/2016

Representatives Present During the Inspection:	
OGM	Lisa Reinhart
OGM	Priscilla Burton
OGM	Joe Helfrich
OSM	Spencer Shumate
OSM	Tom Medlin
Company	Jeremiah Armstrong
Company	Gregg Galecki

Permitee: **CANYON FUEL COMPANY**
Operator: **CANYON FUEL COMPANY**
Site: **SKYLINE MINE**
Address: **HC 35 BOX 380, HELPER UT 84526**
County: **CARBON**
Permit Type: **PERMANENT COAL PROGRAM**
Permit Status: **ACTIVE**

Current Acreages

10,611.41	**Total Permitted**
125.31	**Total Disturbed**
	Phase I
	Phase II
	Phase III

Mineral Ownership

- [x] **Federal**
- [x] **State**
- [ ] **County**
- [x] **Fee**
- [ ] **Other**

Types of Operations

- [x] **Underground**
- [ ] **Surface**
- [ ] **Loadout**
- [ ] **Processing**
- [ ] **Reprocessing**

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

OSM Oversite Topic and Partial Inspection reviewing the permit and vegetation reference sites. Inspection included a review of the MRP and site inspection of the Waste Rock Site and South Canyon breakout pad facility.

Lisa Reinhart

Digitally signed by Lisa Reinhart
DN: cn=Lisa Reinhart, o=DOGM Coal, ou=2410, email=lreinhart@utah.gov, c=US
Date: 2016.06.16 15:12:26 -06'00'

Inspector's Signature:

Date Monday, May 23, 2016

Lisa Reinhart,
Inspector ID Number: 69

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining.

UTAH DNR OIL, GAS & MINING

REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENTS

1. *Substantiate the elements on this inspection by checking the appropriate performance standard.*
   a. *For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.*
   b. *For PARTIAL inspections check only the elements evaluated.*
2. *Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.*
3. *Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.*
4. *Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.*

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	☐	☐	☐	☐
2. Signs and Markers	☐	☐	☐	☐
3. Topsoil	☐	☐	☐	☐
4.a Hydrologic Balance: Diversions	☐	☐	☐	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☐	☐	☐	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☐	☐	☐	☐
4.d Hydrologic Balance: Water Monitoring	☐	☐	☐	☐
4.e Hydrologic Balance: Effluent Limitations	☐	☐	☐	☐
5. Explosives	☐	☐	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☐	☐	☐	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☐	☐	☐	☐
8. Noncoal Waste	☐	☐	☐	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☐	☐	☐	☐
10. Slides and Other Damage	☐	☐	☐	☐
11. Contemporaneous Reclamation	☐	☐	☐	☐
12. Backfilling And Grading	☐	☐	☐	☐
13. Revegetation	☑	☐	☑	☐
14. Subsidence Control	☐	☐	☐	☐
15. Cessation of Operations	☐	☐	☐	☐
16.a Roads: Construction, Maintenance, Surfacing	☐	☐	☐	☐
16.b Roads: Drainage Controls	☐	☐	☐	☐
17. Other Transportation Facilities	☐	☐	☐	☐
18. Support Facilities, Utility Installations	☐	☐	☐	☐
19. AVS Check	☐	☐	☐	☐
20. Air Quality Permit	☐	☐	☐	☐
21. Bonding and Insurance	☐	☐	☐	☐
22. Other	☑	☐	☑	☐

13. Revegetation

The Mining and Reclamation Plan was reviewed with specific analysis on reference areas selected to measure revegetation success at the time of bond release. (Sections 2.7 and 4.7) During this review, I discovered the MRP included commitments for the Soil Conservation Service (SCS) to conduct monitoring of the reference locations on a 5 year basis. When I requested these records from the Permittee, they responded that SCS had not done this over the past 30 years and that the Permittees interpretation of the commitment was that monitoring of reference areas would start at final reclamation (which has not yet been initiated). The Division determined that because of the ambiguity of the language of the MRP, the fact that State regulations do not specifically require regular monitoring of reference sites, and that no harm to the environment or people had occurred, an NOV in accordance with R645-300-142 was not reasonable or warranted for this cause. However, because of the ambiguity of the language in the MRP, the Division requested the Permittee remedy the situation by monitoring each reference site in 2016 to ascertain that each site is in good to fair condition and is still appropriate as a reference site.

The review of the MRP also reveled that Plate 2.7.1-2 did not identify each reference location. Since the original MRP was approved, several amendments have been approved adding new disturbance and reference areas. Although the site specific reports contain maps and photographs of reference areas, plate 2.7.1-2 was not updated to include the new locations as they were added over the years. The Division requested this map be updated to show each reference site associated with the mine plan.

The Permittee submitted an amendment (see task 5186) in which they commit to verify the existing reference sites are still adequate for reference standards using qualitative ocular methods (which are approved in Appendix A of the Veg Guidelines). They also propose to reduced the commitment to monitor the condition of reference sites to years 9 and 10 of the liability period (final reclamation) in accordance with R645-301-357-200. If at years 9 and 10, the reference sites have been disturbed in a way that they no longer meet the requirements of R645-301-353, new locations would need to be agreed upon for success standards. The amendment also updates the vegetation reference area map (2.7.1-2) to account for all reference sites associated with the mine.

Prior to the field inspection, there was very little coordination or organization of the oversite field visit. Several email correspondence had occurred but a clear vision of the agenda was not established. On the date of inspection, I met Joe Helfich, Priscilla Burton, Spencer Shumate, Tom Madsen, Gregg Gelecki, and Jeremiah Armstrong at the Scofield Store at 9:00 am. We briefly reviewed the mine plan, reference sites, and discussed the agenda. Spencer expressed an interest in visiting sites that had received final reclamation. The only site Skyline has conducted final reclamation on is the South Fork Breakout Portal. Overall, Skyline has 12 reference sites that have been approved in the MRP. I had digitized each of the reference sites identified from maps in the MRP and digitized in them into GIS mapping software (Collector application). As such, I was able to use my ipad as a navigation tool to verify our location and the location of the reference site. At each site location, I took photographs that are GPS referenced.

Because it was closest in proximity to our location, and some interim reclamation has occurred, at 9:30 we drove to the Waste Rock Site. The group parked at the waste rock area and walked up to the Sagebrush/Grass site. There was substantial discussion on reference area site selection, monitoring methods, maintenance, and management. There was disagreement between myself and OSMRE on incorporation of the Division's Vegetation Information Guidelines into our regulations. It was my opinion that although the Guidelines recommend permanent staking of the reference site, periodic monitoring of vegetation, and site specific management, those requirements were not incorporated into regulation and therefore is not enforceable. Furthermore, it was my opinion that those specifics requirements were not reasonable or valuable to reclamation efforts. There was conflict on this topic which was not resolved and continued throughout the inspection. The group then went further up the hill to inspect the Aspen site. Vegetation and wildlife habitat was further discussed and the group continued to evaluate the Aspen reference area for about 30 minutes.

Based on the request of OSMRE to visit sites with final reclamation, the group drove to the South Fork Breakout Portal next. We parked on the highway and hiked the ~1 mile to the reclaimed pad location. Along the trail, we observed a Golden Eagle dining on a deer carcass in the trail. We verified the South Fork Breakout Portal pad and access road have been regraded and revegetated for final reclamation as required in the MRP. Desirable vegetation (grasses and forbs) is dominating the site with adequate cover to control erosion and provide forage and browse for wildlife. A survey conducted by Mt. Nebo Scientific (the consultant) from several years ago was referenced back to actual site conditions. The reclaimed site has continued in an upward trend of desirable vegetative and ground cover since that time. Due to the time of year during the visit, some of the grasses and forbs were difficult to identify but it appeared as though the vegetative community consisted primarily of wild rose (shrub) and a grass forb mix with little to no aspen present. The Permittee is aware of low shrub density and musk thistle invasion and has been hand watering shrubs and treating weeds as a result. Phase II bond release has not been proposed but is likely warranted. At the time of phase III bond release, the Permittee will be required to meet shrub stocking rates agreed upon with USFS, DWR, and the Division pursuant to R645301-356.230. Due to the difficulty in establishing shrubs, two large watering containers are located on site to facilitate husbandry practices and promote shrub establishment pursuant to R645-301-357.300. After spending about 20 minutes inspecting this site, we returned back to our vehicles. Due to weather conditions (rain/snow mix), we did not pursue hiking to additional reference areas and concluded the inspection with a closeout meeting in the office.

We returned to the mine office at approximately 2:00 and at that time Craig Brown joined us. We discussed our day and again there was disagreement in regards to expectations of monitoring and maintenance of the reference sites. I made it clear that I do not believe the management suggestions in the Vegetation Information Guidelines are enforceable by rule but OSMRE disagreed. The meeting adjourned around 3:00 and everyone departed separately.

22. Other

A Golden Eagle was observed on the South Fork reclaimed road feeding on a winter kill deer carcas.

ATTACHMENT A – Photos, Skyline Reference Site Inspection, May 17, 2016

PHOTO 1
James Canyon Road (USFS)

PHOTO 2
James Canyon Road

PHOTO 3
James Canyon Breakout Facility, Aspen

PHOTO 4
James Canyon Breakout Facility

ATTACHMENT A – Photos, Skyline Reference Site Inspection, May 17, 2016

PHOTO 5
Aspen Reference Site

PHOTO 6
WRS Sagebrush/Grass Reference Site

PHOTO 7
WRS Aspen Reference Site

PHOTO 8
WRS Aspen/Sagebrush/Grass Transition Zone

Exhibit 5

VEGETATION INFORMATION GUIDELINES

UTAH DIVISION OF OIL, GAS AND MINING
3 Triad Center, Suite 350
Salt Lake City, Utah 84180
(801) 538-5340

Revised, February, 1992
(As approved by 57FR, 41693 on 9/11/92)

INTRODUCTION:

Please read these guidelines carefully and completely before initiating any vegetation studies.

These guidelines are intended to provide a suggested format for the submittal of vegetation information to be included in the mining and reclamation plans for coal mining operations. The purpose of submitting such information is as follows:

1. To approximate and describe the vegetative resources prior to mining;

2. To identify and describe important wildlife habitat areas;

3. To identify and provide protection for any listed or proposed threatened and/or endangered plant species;

4. To aid in the prediction of revegetation potential for the site; and

5. To identify the standards or methodology by which the success of revegetation will be measured for the purpose of bond release.

Should problems or questions arise concerning these guidelines, contact the Division of Oil, Gas and Mining.

DEFINITIONS:

Adjacent Areas: Areas outside the permit area that are within 1/2 mile of areas that will be affected by mining operations.

Baseline Data: Data collected to describe the "original" (pre-disturbed) condition of a vegetation type or range site.

Cover by Species: The percent of ground covered by a species or life form (cover by species may and often does add up to more than 100% and is used to establish plant diversity).

Density: The number of plants per unit of area.

Ground Cover: The percent of ground covered by vegetation, regardless of species. Ground cover cannot exceed 100% when added to the percent of aerial projection of rock, litter, and bare ground.

Normal Precipitation Year: A year where the effective precipitation is 90% of the 10-year average and within 90% of the 10-year monthly average for the month prior to sampling. Effective precipitation is that which falls from October 1 of the previous year to the end of the month prior to sampling.

Productivity (Production): The average yield of food, fiber, forage and/or wood products per unit of area per year.

Random Sample: A sample taken such that any point in the sample area has an equal chance of being sampled at any time during the sampling sequence.

Range Site: The concept of a site as an ecological entity based on climax plant communities; a distinctive kind of rangeland that has a certain potential for producing range plants.

Reference Area: An area that is similar to the community to be disturbed with respect to vegetation (cover, density, composition), soils, aspect, climate, and elevation that will be maintained and used as the standard for comparisons with the reclaimed "disturbed" area.

Species Composition: The species found within a given area.

Vegetation Type: A plant community that is distinguished by its visually dominant species and should be described by two or more dominant species.

Woody Plants: Those plants which are classified as sub-shrubs, shrubs, half-trees or trees.

SUGGESTED STEPS IN PREPARING PREMINING VEGETATION INFORMATION:

1. Map the existing vegetation types (or range sites) found within the permit area and adjacent areas {scale of 1:6,000 (1"=500') or larger}. Show the locations and boundaries of current disturbed areas as well as any areas proposed to be disturbed, the locations of any listed or proposed threatened or endangered plant species, the locations of sample points and the locations and boundaries of any proposed vegetation reference areas. Vegetation type boundaries should overlay the disturbance areas. Map all potentially disturbed areas on contour maps of a scale approved by the Division {1:2,400 (1"=200') scale or larger}. Mark these maps so that referral may be made back to the permit area map. Aerial photographs of sufficient scale would be acceptable for mapping requirements. Map requirements may be altered on a case by case basis by contacting the Division in advance.

2. Determine and list the acreage of each vegetation type (or range site) to be disturbed or that has been disturbed. Note the total acreage of surface disturbance (existing and proposed) within the permit area.

3. In a narrative, describe each vegetation type (or range site) by visually dominant species, and describe the condition and relative stage of maturity of the vegetation type. Note any past perturbations in the area such as fire, chaining, reseeding, previous mining, cultivation, etc. Discuss any present use by wildlife or livestock and correlate each vegetation type with wildlife habitat types or wildlife use areas. Provide a statement of productivity (a letter of assessment from the U.S. Soil Conservation Service would suffice). For forest types, provide an estimate of wood volume.

4. Sample each vegetation type (or range site) which exists within the proposed disturbed areas or was assumed to have existed within existing disturbed areas according to the methodology selected for determining revegetation success (reference area method, range site method or baseline data method). Approved sampling techniques must be used (see Appendix A). Sampling should be done during the height of the growing season (usually late June to late August). It is highly recommended that a site visit be arranged between the Division and the persons responsible for data collection prior to vegetation sampling.

5. List the species present within each vegetation type (or range site) or any proposed reference area by common and botanical name. List the species by plant groupings, i.e., trees, shrubs, forbs, grasses, etc.

6. Identify any listed or proposed threatened or endangered plant species that occur on the permit or adjacent areas. Make a negative declaration if these are not found. A current list of listed or proposed threatened or endangered species can be obtained from the U.S Fish and Wildlife Service.

7. Correlate vegetation reference areas, range sites or vegetation types with revegetation plans and the proposed postmining land use for all affected areas.

8. As per R614-301-356.231, if fish and/or wildlife habitat, recreation, shelterbelts or forest products are to be a primary or secondary use, the Division will provide, in technical memoranda, evidence of consultation and acceptance of proposed woody plant stocking densities with the Utah Division of Wildlife Resources and other appropriate land and wildlife management agencies.

9. All technical data submitted in the application shall be accompanied by:

   a. The names of persons or organizations which collected and analyzed such data;

   b. The dates of data collection and analysis;

   c. Descriptions of methodology used to collect and analyze data (including means, standard deviations, formulae used, etc.); and

   d. The name, address and position of officials of each private or academic agency consulted by the applicant in preparation of the information.

METHODS:

1. Reference Areas:

The use of vegetation reference areas for establishing revegetation success standards are applicable to all mining situations. For mines with new disturbance (either new mines or existing mines with proposed new disturbance), reference areas are selected and compared with the vegetation existing on the area to be disturbed. For areas of existing disturbance, the reference areas are selected on the basis of the vegetation that most likely existed prior to disturbance. Generally, a reference area is needed for each major vegetation type that has been or will be disturbed. All reference areas must be approved by the Division prior to using them for revegetation success standards (this may be done prior to permit approval). Reference areas do not need to be established for types where less than 1 acre will be disturbed or where the community type will be greatly altered by an approved postmining land use. However, a revegetation success standard must still be established for these areas. Reference areas should be at least 1 acre in size unless otherwise approved by the Division in advance.

For each vegetation type that will be disturbed and the corresponding proposed reference area (or any proposed reference areas for existing disturbed areas):

a. Randomly sample for ground cover, cover by species, woody plant density and productivity. Productivity measurements need not include noxious weeds (a list of noxious weeds may be obtained from the County Weed Supervisor, U.S.U. Extension Service or the District Agriculture Inspector).

b. Assess the current range condition of the affected areas as well as all proposed reference areas (range condition should be re-assessed every 5 years, during the field season prior to permit renewal). Reference areas must be in fair or better range condition at the time of bond release sampling. For reference areas not meeting this criteria, describe management practices (i.e., fencing) that will be employed to improve range condition. Range condition should be determined according to Soil Conservation Service guidelines.

c. Demonstrate sample adequacy for ground cover, density (woody plants) and productivity (see Appendix A).

d. Demonstrate by table (see attached summary table example), or other simplified format, the similarity between proposed disturbed sites and the corresponding proposed reference area according to the following parameters:

   1. Species composition (by a similarity index, see Appendix B), similarity should be 70% unless otherwise approved by the Division.

   2. Ground cover and woody plant density (by a t-test).

   3. Productivity, soils, slope, aspect and land use.

e. One reference area may represent more than one disturbance site if the reference area meets the requirements for each site.

f. Mark off the proposed reference areas in the field with permanent, readily visible markers (i.e, t-posts) so that they can be easily located.

g. Upon request, submit to the Division copies of the data sheets from sampling of areas to be disturbed and potential reference areas.

2. **Range Sites:**

In order to use range sites as an alternative to vegetation reference areas for revegetation success standards, the following criteria **must** be met:

a. Range sites must be described in accordance with the Soil Conservation Service, 1976, National Range Handbook, U.S. Department of Agriculture, as amended.

b. Range sites to be sampled must be in fair or better condition and representative of areas to be disturbed.

c. Sampling must be done during a normal precipitation year.

d. The range site area to be sampled must be at least one acre in size.

For each range site that will be or has been disturbed:

a. Randomly sample for ground cover, cover by species, woody plant density and productivity. Productivity measurements need not include noxious weeds.

b. Assess the current range condition (if the condition is not fair or better, the range site method cannot be used). Range condition is determined according to Soil Conservation Service guidelines.

c. Demonstrate sample adequacy for ground cover, density (woody plants) and productivity (see Appendix A).

Since the results of this sampling will be considered the values for the success standard for revegetation success, a legible copy of all data sheets must be submitted to the Division.

3. The baseline data method can only be used for areas of proposed new disturbance. In order to use baseline data as an alternative to vegetation reference areas for revegetation success standards, the following criteria **must** be met:

   a. The data must be collected from the proposed disturbed area(s).

   b. Vegetation types to be sampled must be in fair or better range condition.

   c. Sampling must be done during a normal precipitation year.

   For each vegetation type that will be or has been disturbed:

   a. Randomly sample for ground cover, cover by species, woody plant density and productivity. Productivity measurements need not include noxious weeds.

   b. Assess the current range condition (if the condition is not fair or better, the baseline data method cannot be used). Range condition should be determined according to Soil Conservation Service guidelines.

   c. Demonstrate sample adequacy for ground cover, density (woody plants) and productivity (see Appendix A).

   Since the results of this sampling will be considered the values for the success standard for revegetation success, a legible copy of all data sheets must be submitted to the Division.

SUMMARY OF MAP GUIDELINES:

A vegetation map of the entire permit area and adjacent areas on a scale of 1:6,000 (1"=500') or larger should be submitted if not otherwise exempted by the Division. A contour map {scale of 1:2,400 (1"=200') or larger} should be submitted for all areas of present or potential disturbance.

The permit area map should show the boundaries and/or locations of:

1. The permit area and give the legal description {i.e. township, range, and section(s)};

2. Any surface areas which are disturbed by mining or any areas proposed to be disturbed;

3. Any proposed vegetation reference areas;

4. Existing vegetation types or range sites;

5. Any listed or proposed threatened or endangered plant species; and

6. Sampling sites.

The disturbed area map(s) should:

1. Provide reference points back to the permit area map, including legal description;

2. Show the vegetation types or range sites which currently exist in areas of proposed disturbance or which are assumed to have existed in current disturbed areas; and

3. Show the locations of sampling sites.

VEGETATION DATA SUMMARY

(- Company -)
(- Mine Name -)
(- Permit Number -)

VEGETATION TYPE:_____ Date Data Collected:_____

% Similarity between Reference and Affected Areas:_____ Index Used:_____

	REFERENCE AREA				CORRESPONDING AREA TO BE AFFECTED				
	$\bar{X}$	S	N	N_{min}	$\bar{X}$	S	N	N_{min}	't'
Ground Cover									
Density									
Productivity									
Soil Type									
% Slope									
Aspect									
Land Use									

$\bar{X}$ = Sample Mean
S = Standard Deviation
N = Sample Size

N_{min} = Minimum Sample Size (for statistical adequacy)
't' = Calculated t - value from t - test

VEGETATION INFORMATION GUIDELINES

APPENDIX A

(February, 1992)

ACCEPTABLE SAMPLING METHODS FOR VEGETATION STUDIES

Pursuant to R614-301-356.110, the following sampling methods, as described below, have been selected and approved by the Utah Division of Oil, Gas and Mining for conducting vegetation studies for permitting purposes and for determining revegetation success of reclaimed areas. One should select the most appropriate sampling method for the community to be sampled. Sampling methods other than those described herein must be submitted through the Division to OSM for review as a state program amendment. Any sampling method used, whether identified in this guideline or approved as an alternative method, must be described in detail and approved as part of the permit application package or as an amendment thereto.

For sampling methods that require the use of quadrats, please note that quadrat size and shape are not fixed. However, common use is made of rectangular or square plots of m^2, $\frac{1}{4}m^2$ or 20 X 50cm in size or a $\frac{1}{4}m^2$ - m^2 circular plot.

I. SAMPLE ADEQUACY

Regardless of sample size requirements determined from the formula below, the minimum sample size listed for each method must be achieved. All other sampling must meet the statistically adequate sample size as determined by the formula:

$$N_{min} = \frac{t^2 s^2}{(dx)^2}$$

where: t = the value from appropriate t-table*, (2-tail test for premine studies, 1-tail test for revegetation success studies),
s = the sample standard deviation,
d = the desired change in the mean,
x = the sample mean of the parameter in question.

* All parameters should be tested at the 90% confidence level with a 10% change in the mean (d=.1)

Reference: Cochran, W.G., 1977. Sampling techniques, 3rd ed. John Wiley and Sons, New York, N.Y. 428pp.

II. COVER

1. Ocular Estimation:

Estimate the percent of ground covered by vegetation (by species, total vegetation, litter, rock, etc.) to the nearest percent. Values should be reported by species (and could potentially exceed 100% due to overlap) and by total vegetation cover. Total vegetation cover, when added to vertical projection of exposed rock, litter and bare ground will equal 100%. Each quadrat is considered one

sampling unit. Since ocular estimation is more subjective than exact measurement methodologies, ideally, sampling would be done by the same individual to promote consistency between monitoring years.

Quadrats should be randomly placed within the study area.

Minimum sample size = 10

Reference: Daubenmire, R., 1959. A Canopy–Cover Method of Vegetational Analysis. Northwest Science 33:43-63.

2. Cover Classes:

Cover classes may be used, provided they are at least as small (in range) as those listed below. Utilizing quadrats as discussed above, estimate the percent of ground covered by vegetation to the nearest class. Values should be reported by species and total vegetation cover. Each quadrat is considered one sampling unit. When analyzing the data, the mid-point of each class is used to calculate the mean and standard deviation.

Cover Class	Range	Mid-Point	Cover Class	Range	Mid-Point
1 =	0-1.0%	.5%	8 =	35.1-45.0%	40.0%
2 =	1.1-3.0%	2.0%	9 =	45.1-55.0%	50.0%
3 =	3.1-5.0%	4.0%	10 =	55.1-65.0%	60.0%
4 =	5.1-10.0%	7.5%	11 =	65.1-75.0%	70.0%
5 =	10.1-15.0%	12.5%	12 =	75.1-85.0%	80.0%
6 =	15.1-25.0%	20.0%	13 =	85.1-95.0%	90.0%
7 =	25.1-35.0%	30.0%	14 =	95.1-100%	97.5%

Minimum Sample Size = 20

Reference: Daubenmire, R., 1959. A Canopy–Cover Method of Vegetational Analysis. Northwest Science 33:43-63.

3. Point Methods:

Vegetation cover is identified at a pre-determined 'point' and recorded as vegetation, litter, rock or bare ground. Points may be located systematically or randomly along a tape, using a pin frame or an ocular devise with cross hairs. Total vegetation cover is determined by the first interception or hit (i.e., vegetation, rock, litter, etc.) Cover by species is determined by subsequent hits of vegetation as the point (pin) is lowered through the vegetation. Transects of 50 point minimum are counted as one sample unit. The location and orientation of the transect within the study site should be randomly placed.

Minimum sample size = 15

Reference: Goodall, D.W., 1943. Point Quadrat Methods for the Analysis of Vegetation. The Treatment of Data for Tussock Grasses. Aust. J. Bot. 1:457-461.

4. Line Interception:

Using the line intercept method, percent cover is obtained by summing the distances of the transect that are covered by vegetation, litter, rock, bare ground. Transects are commonly 10-100m long. Each transect is counted as one sampling unit. Transects should be randomly placed within the study area. (This method is best used in sparse, low vegetation.)

Minimum sample size = 15

Reference: Canfield, R.H., 1941. Application of the Line Interception Method in Sampling Range Vegetation. J. For. 39:388-394.

III. DENSITY (SHRUBS AND/OR TREES)

1. Point-Quarter Method:

Randomly located sample points within the study area. At each point, two lines are made to divide the area into four quarters, with the point being the center. The distance from the point to the base of the nearest plant in each quarter is then measured and recorded. To determine the density, sum the 4 distances measured at each point and divide by 4. This mean distance is then squared to give the mean area per plant (this is done for each sampling point). Sum the mean area per plant of each point and divide by the number of points sampled. Divide 43,560 by this number to obtain plants per acre (formulas summarized below). This is the preferred method for semi-dense to dense stands.

Points may be randomly located in the stand or along randomly located transects.

Minimum sample size = 10

Density Formula

For each point:

$$A_j = \left(\frac{\sum Y_i}{4}\right)^2 \quad ; \qquad D = 43{,}560 \div \frac{\sum A_j}{n}$$

Where: Y_i = Distance from point to nearest plant in the i^{th} quarter.
A_j = mean area/plant at the j^{th} point.
n = sample size (number of points sampled).
D = plants/acre.

Reference: Cottam, G., and J.T. Curtis, 1956. The Use of Distance Measures in Phytosociological Sampling. Ecology 37(3):451-460.

2. Belt Transects or Plots:

Belt transects or plots are randomly placed in the study area and the number of plants that are rooted in each plot are counted, even if all of the plant canopy is not within the plot. Likewise, plants that overlap the plot but are not rooted within the plot are not counted. The size of the plot is not fixed; however, those sizes commonly used are: M^2, 5ft-10ft x 100ft, .1 acre, or 1-5m x 50m. Each plot is counted as one

sample unit. Select the plot size that is best suited to the community being sampled. This method is better adapted for low to semi-dense stands.

To obtain the number of plants/acre, multiply the number of plants counted in the plot by 43,560 and divide the product by the size of the plot (in square feet).

Minimum sample size = 15

Reference: Chambers, Jeanne C., Ray W. Brown, Methods for Vegetation Sampling and Analysis on Revegetated Mined Lands. Gen. Tech. Rep. INT-151. Ogden, Utah: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Exp. Station; 1983, 57p.

3. Exact Count

For Extremely Small Stands (usually less than 1 acre) or Very Low Density Areas, an exact count may be preferred since the use of an exact count is not subject to statistical tests of sample adequacy.

IV. PRODUCTIVITY MEASUREMENTS

1. Exclosures:

The use of exclosures for productivity measurements is optional where domestic livestock will not be in the study area prior to sampling. If livestock are to be in the study area prior to sampling, then exclosures should be used.

When used, exclosures should be large enough to prevent animals from reaching through and grazing on the plot to be sampled. Exclosures should be randomly placed and anchored to the ground, before the growing season begins. The number of exclosures established should be based on previously collected production data and field experience. To reduce variability and sample sizes, community types should be separated as much as possible. Exclosures should be numbered in the order of the random numbers generated for their placement. Sampling should follow the number sequence until sample adequacy is met or all exclosures have been sampled.

2. Clipping:

Select the quadrat size that is best suited to the community being sampled. Randomly locate the quadrat and clip plants by life form (e.g., herbaceous or woody). For grasses and forbs, clip all standing biomass; for shrubs, clip only current year's growth. Oven dry samples and weigh to the nearest .1 gram. For sample adequacy, use the combined weight of each life form at each plot. Report productivity as pounds/acre or kilograms/hectare.

Minimum sample size = 10 quadrats

Reference: Boyer, William D. 1059. Harvesting and Weighing Vegetation. Pages 11 through 16. In: Techniques and Methods of Measuring Understory Vegetation. USDA Forest Service Southern Forest Exp. Station and Southeastern Forest Exp. Station.

3. Double Sampling:

Select the quadrat size that is best suited to the community being sampled. 2-4 quadrats are clustered systematically around a central, randomly located quadrat. The amount of biomass in the clustered quadrats is estimated as a percent of the biomass of the center quadrat. The center quadrat is then clipped, dried and weighed. A weight is then calculated for the clustered plots based on the percent recorded. For testing purposes, the mean weight for the cluster is used with each cluster being counted as one sample unit. Report productivity as pounds/acre or kilograms/hectare.

Minimum sample size = 10

Reference: Boyer, William D., 1059. Harvesting and Weighing Vegetation. Pages 11 through 16. In: Techniques and Methods of Measuring Understory Vegetation. USDA Forest Service Southern Forest Exp. Station and Southeastern Forest Exp. Station.

4. Soil Conservation Service Estimation:

For establishing reference areas, it is preferred that the Soil Conservation Service be contacted to estimate productivity and evaluate range condition. Their signed statement will be sufficient for the pre-mining inventory for production on the affected area and reference area.

VEGETATION INFORMATION GUIDELINES

APPENDIX B

(February, 1992)

ACCEPTABLE SIMILARITY / DIVERSITY INDICIES

1. Jaccard's Community Coefficient:

$$SI = \frac{common\ species}{total\ species} \times 100 \qquad \text{or} \qquad SI = \frac{c}{a + b - c} \times 100$$

Where: SI = Similarity index;
a = Total number of species in community a;
b = Total number of species in community b; and
c = Number of species common to both communities.

REFERENCE: Jaccard, P., 1912. The Distribution of the Flora of the Alpine Zone. New Phytologist 11:37-50.

2. Ruzicka's Index of Quantitative Similarity:
{Quantitative data is required for this index (i.e., cover or productivity by species).}

$$SI = \frac{\Sigma min}{\Sigma max} \times 100$$

Where: SI = Similarity index;
Σmin = Sum of minimum values for any species in the two communities (zero is possible); and
Σmax = Sum of maximum values for any species in the two communities.

REFERENCE: Ruzicka, M., 1958. Anuendung Mathematisch - Statisticher Methoden in Der Geobotanik (Synthetische Bearbeitung von Aufnahmen). Biologia, Bratisl. 13:647-661.

3. Sorensen's Similarity Index:

$$SI = \frac{2C}{A + B} \times 100$$

Where: SI = Similarity index;
A = Total number of species in community A;
B = Total number of species in community B; and
C = Number of species common to both communities.

REFERENCE: Sorensen, T., 1948. A Method of Establishing Groups of Equal Amplitude in Plant Sociology Based on Similarity of Species Content. Det Kong. Danske Vidensk. Selsk. Biol. Skr. (Copenhagen) 5:1-34.

Exhibit 6

West Ridge Mine- Partial Oversight Inspection Report
Utah Division of Oil, Gas and Mining (DOGM) Permit ID # **C**/007/0041

Date:
Thursday, May 19, 2016

Participants:
Karin Madsen, West Ridge Resources
Joe Helfrich, Division of Oil, Gas, and Mining (DOGM)
Lisa Reinhart, Division of Oil, Gas, and Mining (DOGM)
Tom Medlin, Office of Surface Mining Reclamation and Enforcement (OSMRE) Badge #562
Spencer Shumate, Office of Surface Mining Reclamation and Enforcement (OSMRE) Badge #541

Weather:
At the time of inspection, the weather conditions were clear and sunny.

Background:
The West Ridge Mine is an active underground coal mine located in Carbon County, Utah. The mine is permitted by West Ridge Resources, Inc., and owned by Andalex Resources, Inc. (a subsidiary of Utah American Energy, Inc., which in turn is a wholly owned subsidiary of Murray Energy Corporation) and Intermountain Power Agency (50/50). Mining began in 1999.

The permit area is 8,080.58 acres and the disturbed area is 31.24 acres. Approximately 1.62 of those acres consist of pre-Surface Mining Control and Reclamation Act (SMCRA) disturbance which West Ridge Resources will reclaim upon cessation of operations as part of their approved Mining and Reclamation Plan (MRP). Postmining land uses include wildlife habitat, grazing, and limited recreational activities.

Administrative (Documents Reviewed):
- Chapter 3 Biology Permit Application Package
- Permit Map 3-1 and 3-2
- Rule R645-301-100
- Rule R645-301-323
- Rule R645-301-353
- Rule R645-301-356
- "Vegetation Information and Monitoring Guidelines
- The NRCS Handbook- Interpreting Indicators for Rangeland Health, Version 4 - Technical Reference 1734-6
- 56 FR 41795, Section II
- 56 FR 41795, Section III
- 56 FR 41795

DOGM/OSMRE Meeting
A two-hour discussion on the requirements and responsibilities regarding vegetation reference areas took place prior to the inspection at the DOGM Price, UT field office. As a result, it

became evident there was dissent between DOGM's lead inspector and OSMRE as to the interpretation of the rules and regulations mentioned above.

Pre-Inspection Meeting:
The inspection began at the mine site office where we met with Karen Odendahl-Madsen, operator representative for West Ridge Resources. Karen was very professional and provided copies of maps that depict reference area locations. It was understood that West Ridge has three approved reference areas that are to be used as a method for demonstrating revegetation success of reclaimed areas throughout the mine site. Those areas are identified as:

1. Douglas-fir/Rocky Mountain juniper (Reference Area 1)
2. Douglas-fir/Maple (Reference Area 2)
3. Pinyon juniper (Reference Area 3)

OSMRE was also informed that WRR has not conducted monitoring at any of the reference areas. The DOGM inspector's dissention on this topic was noted again

Field Inspection:
The field inspection began at approximately 10:20 am and concluded with a closeout discussion at approximately 12:15 pm.

Reference Area #1, 2, and 3
DOGM and OSMRE jointly selected the vegetation reference area topic to be a focus for this partial inspection on June 14, 2015. Therefore, DOGM has had over a year to prepare for this inspection. Unfortunately, DOGM was unsuccessful in locating any of the approved reference areas. Notwithstanding, it is perplexing to learn that the operator representative could not locate them either. Therefore, OSMRE is inconclusive and cannot provide a finding on whether or not the approved reference areas accurately represent those areas that have been disturbed by mining and reclamation activities.

Findings
OSMRE finds technical fault with DOGM's lead inspector's professional opinion that there is no requirement to monitor and maintain appropriate management of the vegetation reference areas following Division approval. It is apparent that there is confusion on the part of DOGM with regard to the interpretation of their rules and the overall importance associated with reference area management. Nevertheless, DOGM's rule R645-301-356.110 states, "Standards for success, statistically valid sampling techniques for measuring success, and approved methods are identified in the Division's "Vegetation Information Guidelines, Appendix A." Moreover, the Vegetation Information Guidelines are further referenced in Utah's rules at R645-301-356.231, R645-301-357.331; R645-301-357.340; and R645-301-357.365.

OSMRE believes that the confusion of this responsibility comes after DOGM approves the proposed reference areas. For example, the vegetation guidelines state:

> In order for the division to approve a proposed reference area, the applicant must provide the following for each vegetation type that will be disturbed and the

corresponding proposed reference area:

a) Randomly sample for ground cover, cover by species, woody plant density, diversity and productivity (or obtain a letter from the NRCS estimating productivity);
b) assess the current range condition (similarity index) of the area proposed to be disturbed as well as any proposed reference areas
c) demonstrate sample adequacy for ground cover, and if needed for density and productivity (see Appendix A);
d) Demonstrate by table , or other simplified format, the similarity between proposed disturbed sites and the corresponding proposed reference areas;
e) mark off the boundaries of the proposed reference areas in the field with permanent, readily visible markers (i.e. t-post) so that they can be easily located

It appears that once the permitte receives approval of the reference area, the responsibility to maintain and monitor these areas has ceased. By contrast, the vegetation guidelines go on to state:

> After receiving approval from the Division for the reference site, the range condition of the reference site must be re-assessed every 5 years during the field season prior to permit renewal. The range condition must be categorized as moderate to slight or slight to none regarding its departure from expected range conditions according to the NRCS guidelines.

The importance of monitoring the reference sites enables the land manager/permittee to "keep a pulse" on any potential shifts in ecological site conditions. This process is not only required but is an imperative management tool to ensure the site is appropriately managed for the approved PMLU objective it was originally chosen for. In this instance, the reference areas are not being monitored or maintained under appropriate management throughout the performance liability period, as required. Therefore there is absolutely no way to know if there has been a departure in site conditions. OSMRE references the term "reference area" as defined in DOGM's Vegetation Guidelines and the term "monitor", as defined by the NRCS Handbook:

> Reference Area-means a land unit **maintained under appropriate management** for the purpose of measuring vegetation ground cover, productivity, and plant species diversity that are produced naturally or by crop production methods approved by the Division. Reference areas must be representative of geology, soil, slope, and vegetation in the permit area.
>
> Monitor-The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives. **The process must be conducted over time in order to determine whether or not management objectives are being met (SRM 1999).**

Conclusion

OSMRE concludes the West Ridge Mine is in violation of the Utah program's rules and guidelines and the commitments within its approved MRP as they relate to vegetation reference area management.

Enforcement Actions

As a result of this oversight inspection, the Office of Surface Mining Reclamation and Enforcement, Denver Field Division issued Ten Day Notice X16-140-545-005 to the Utah Division of Oil, Gas and Mining on 06/06/2016.

Exhibit 7

4.7 REVEGETATION PLAN

Planting and revegetation of all disturbed areas will take place following grading and/or topsoil redistribution procedures and will include, as necessary, the addition of remedial soil treatments. Fall seeding is preferred. A suitable, permanent, diverse vegetative cover will be established on all reclaimed areas and be capable of self-regeneration and plant succession. At the Scofield disposal site, reclamation activities will be conducted on areas that are filled to design capacity. All vegetation species will meet the requirements of applicable Utah and Federal seed, poisonous and noxious plant; and introduced species laws or regulations. All revegetation will meet the requirement of R614-301-356.232 and R614-301-356.233. The proposed reclamation schedule is presented in Section 4.2 - RECLAMATION TIMETABLE. The following subsections describe the major aspects of the proposed revegetation plan.

4.7.1 Species and Amount per Acre, Portal, Train Loadout and Conveyor Bench Areas

A suitable permanent, effective, and diverse vegetation cover of species native to the area, or suitable substitutes, will be established on all affected areas.

After the initial construction disturbance, the species selected for use and the numbers or amounts per acre depended on the steepness and exposure of the slopes to be revegetated. South facing slopes 1h:3v (or lower) and flat areas were treated with seeding efforts at the rate as shown in Table 4.7-1. South facing slopes at angles of 2h:1v to 1h:2v were treated with hand-set plantings of sagebrush (Artemisia tridentata), rabbitbrush (Chrysothamnus nauseosus), and snowberry or red elderberry at not less than 1 meter (3.25 feet) intervals, with interspacings being seeded by the species shown in Table 4.7-1. The woody species stocking density for south facing slopes were established at approximately 1 meter intervals with minor adjustments for terrain.

North facing slopes, which are shaded, were planted with hand-set seedlings of Englemann spruce and/or subalpine fir at intervals of 2.5 meters in all directions. Table 4.7-2 lists the seed mixtures spread on the inter-spacing on the north-facing slopes.

Riparian zones were revegetated with handset seedlings of yellow willow, blue spruce, Woods rose and American red raspberry at intervals at 1/2-1 meter. Table 4.7-3 lists the seed mixture spread on the inter-spaces. Steep slopes which have been rip-rapped were not revegetated.

4.7.2 Final Reclamation Seeding and Tillage, Portal and Train Loadout Areas and Other Small Areas

Seed mixture for final reclamation are shown on Tables 4.7-4, 4.7-5, 4.7-6 and 4.7-6A.

Seeding of the south-facing slopes (1h:3v) or lower flat areas will be conducted using a cyclone spreader. For slopes less than 2h:1v, seeding will be accomplished using a hydro-seeder. Plantings of shrubs and trees will be hand-set to ensure a plant cover of a permanent nature.

Tillage practices on level ground and on slopes flatter than 10h:1v will include leveling, tilling and mulching.

Planting on slopes less than 10h:1v will be accomplished by drilling seed with a mechanical drill. Slopes between 10h:1v and

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1.5h:1v will be seeded by hand broadcast and manually buried by raking. Mulch will be applied over the hand broadcast seed. The Permittee elects to revegetate areas with slopes greater than 1.5h:1v without topsoil; such areas will be treated to handset plantings in basins filled with topsoil and with hydro seeding, and then mulched as outlined in Section 4.6.4. Where the substrate consists of outcroppings of stone, no attempt will be made to revegetate.

Revegetation on slopes steeper than 3h:1v will be undertaken as soon as possible following topsoil placement, mainly during spring and early fall, with fall seeding preferred. Where too steep for topsoil placement, planting will be followed immediately after the area becomes available during construction activities. Revegetation on slopes less steep than 3h:1v will follow topsoil placement. All tree and shrub transplants will only be planted in the spring.

The Permittee will create a natural appearance during post mining reclamation by extending tree and shrub planting past the toes of slopes. However, linkages will be left short or extended slightly as necessary to provide an irregular appearance. Grasses and forbs will be reestablished from seed. Trees will be planted as seedlings. The Permittee will additionally place rocks, originally designated as wind barriers, at the bottom of large rock cuts in an informal way so as to provide a more natural appearance. All south-facing slopes will be seeded with the south-slope mixture, and all north-facing slopes will be seeded with the north-slope mixture.

All riparian areas will be revegetated with handset seedlings as shown on Table 4.7-6. Tables 4.7-4 and 4.7-5 list the seed mixtures to be used on the inter-spaces. Rip-rapped banks will be included in the revegetation process where physically possible.

Noxious plants invading the disturbed areas will be controlled by hand grubbing and/or approved herbicides. Surveillance will be

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maintained annually during the period of liability. Acreage by type for each disturbed area is shown in Table 4.7-7.

4.7.3 Revegetation, Stabilization and Reclamation of the Conveyor Bench

Revegetation, stabilization and reclamation of the conveyor belt slopes have been evaluated during the middle of each growing season, during the first five years after construction when cover and composition studies were most feasible. Erosion pins were placed on slopes at the time of reseeding operations; a table of random numbers was used to determine location. Statistically acceptable techniques have been used in determining percent cover and composition of disturbed area. Revegetation analyses were conducted annually from 1980 to 1985, and reported to the regulatory authority. The steep slopes (60%+) have continued to slough, which has precluded total revegetation on these slopes. The Permittee has developed a special revegetation plan for the conveyor bench slopes that have not been successfully revegetated. This complete revegetation plan, as developed by the S.C.S., is included in Volume A-2 and is directed at final reclamation. This special revegetation plan covers four treatment areas, three areas along the conveyor bench and once area at the RRLO. The plan outlines six practices for the four treatment areas:

(1) apply 40-60 lbs/AC of N_2 in late fall or early spring;
(2) provide drip irrigation to existing shrubs;
(3) plant new shrubs each year (area 4 to also be planted with douglas fir, in addition to the shrubs);
(4) provide irrigation for new plants on area 1-3;
(5) use in-line fertilization; and

(6) broadcast a light application of grass/forb seed each year.

In addition to the six practices, three experimental trials are outlined:

(1) different rates of fertilizer application;
(2) cut aspen to see if resprouting can be encouraged; and
(3) establish a plant materials trial to determine plant adaption.

Along with mine personnel, this plan is visually evaluated each year by SCS. Results of the annual evaluation will be included in the annual report to the division. To date (through 1991), practices 1, 2, 3, and 6 have been utilized. Practice 4 is inherent into practice 2, as the mine uses miniature sprays instead of a drip system. Practice 5 has not been used, since slow release fertilizer pellets were used when planting the shrubs. All experimental trials have been conducted, with the following evaluations:

Exp. 1 (conducted in 1989) - drought conditions precluded any significant results. Further trials deferred until a better climatical pattern occurs;

Exp. 2 (conducted in fall of 1988) - no results have been observed. Re-evaluate in next three to five years; and

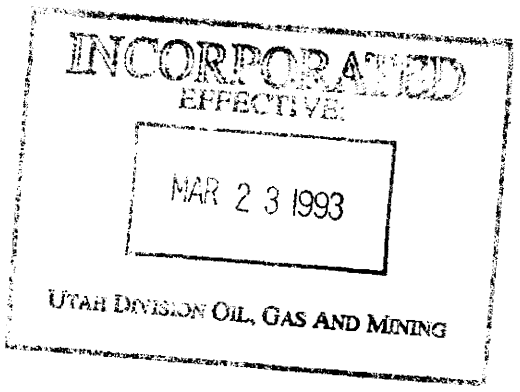
Exp. 3 defer using in-line fertilization until slow release pellets are used up (1994).

The final reclamation is to leave the conveyor bench intact. The current condition of the conveyor bench is an area that is well drained with drainage being treated with silt fences and/or straw bales. The bench itself is becoming well vegetated and is functioning as a safety bench to prevent rolling material from

rolling onto SR264. The revegetation plan is planned to establish the necessary vegetation for final reclamation. During final reclamation, the conveyor will be removed along with the supporting structures. The only areas requiring treatment will be the disturbed areas where the supporting structures were located. These small areas will be revegetated as outlined in Section 4.7.1 and 4.7.2.

4.7.4 Irrigation, Portal & Train Loadout Areas

Since the species used for reclamation were known for their survival characteristics, it was felt that application of



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additional water will not be needed. If irrigation is needed, an irrigation plan will be developed at that time and submitted to the Division of Oil, Gas and Mining for approval. The special revegetation plan (see Section 4.7.3) for the conveyor route does include some drip irrigation for establishment.

4.7.5 Monitoring Procedures, Portal, Train Loadout, Waste Rock Disposal Site, South Fork Breakout Areas and Other Small Areas

All areas of final revegetation will be qualitatively evaluated on an annual basis. In addition, shrub survival will be quantified using permanent transects for the first three years after planting. Woody plant density and total living cover will be estimated during the third year (and fifth year on areas with 10 year liability). **Woody plant success standards will meet the requirement of R645-301-356.232. Shrub density will be a minimum of 1500 wooody plants per acre at ~~hand~~ bond release.**

For bond release, data will be collected and submitted using a monitoring method designed to give empirical values sufficient to detect a 10 percent change in vegetative cover at a 90 percent statistical confidence interval. These data will be from those communities disturbed and for established reference areas which will be used for comparison (aspen & sagebrush, reference area for south slopes; spruce-fir, reference area for north slopes; riparian, reference areas for the riparian zone and the Reference Area for the waste rock disposal site). Vegetative parameters to be measured are: cover, density, productivity and species composition. Sampling of the approved reference area and revegetated area will occur for the last two years of the liability period and will meet sample adequacy tests for 90 percent confidence level with a 10 percent change in the mean.

A minimum of the following data will be provided: 1) canopy cover by species and total canopy cover excluding trees, 2) productivity by life form, and 3) density of woody species by life form (trees and shrubs). The Permittee will provide results

of statistical analyses showing similarity between disturbance areas and reference areas.

The Permittee has inspected all seeded areas at the end of each growing season to determine the success of the seeding program for a period of at least five years (reclamation years 1-5).

Any area not achieving 90 percent original cover in the first five years are investigated to determine the possible failure cause(s) so steps can be taken to establish the desired permanent vegetation.

The Permittee has monitored the vegetative reference area to determine if the reference areas have been subjected to heavy animal use or have been significantly altered by subsidence or other man-induced degradation. If the reference areas are subsided or subject to subsidence the Permittee will quantitatively monitor the reference areas. If damage is such that the reference area is no longer viable, an additional reference area proposal will be submitted to the regulatory authority for approval. The reference areas will be surveyed by the S.C.S. at five year intervals to determine their condition class.

The Permittee understands that the extended period of liability is ten years, unless site-specific data can be submitted which justifies a five-year period, beginning after the last period of augmented seeding, fertilizing or other mechanical practice and that the revegetated areas will be monitored the last years of liability and comparisons made with reference areas. On-site climatological data will be evaluated at the beginning of final reclamation to determine the liability period. The length of the liability period will be established based on the conditions outlined in R614-301-820.310.

Exhibit 8

INTRODUCTION TO THE SECOND EDITION

Reclamation is the practice of returning lands that have been disturbed to a use equal to or better than that which existed prior to disturbance. Reclamation is required for surface mines in the United States and is practiced world-wide by the mining industry. Since its inception in 1978, comprehensive reclamation has evolved rapidly. The primary impetus for this evolution was the Federal Surface Mine Control and Reclamation Act (SMCRA) of 1977 and State statutes such as the Wyoming Environmental Quality Act (WEQA) of 1973. Successful reclamation is integral with successful mining, not only for release of the large bonds required by State and Federal law alike, but also as a necessary adjunct to continued mining. The principles employed for the reclamation of surface mines are applicable to other types of disturbance that may occur in the landscape.

The roots of reclamation science lie in the conservation practices developed during the dustbowl and depression years of the 1930's. Many of the practices developed, and much of the work done during that time, were funded by Federal and State governments. For this reason, many of the names associated with early reclamation of mined lands -- McKell; Bjugstad; Power, Sandoval, and Ries; Aldon; Plummer; Richardson and Farmer; and Hodder -- are also names from the Soil Conservation Service, the Agricultural Research Stations, and land grant universities. Early mine reclamation was so associated with agriculture that reclamation and revegetation were considered virtually synonymous.

While some agricultural emphasis continues today, the technology has expanded greatly to embrace soils, hydrology, wildlife, and land use. Reclamation science has responded to legal requirements, reconstruction of endangered habitats, revitalization of damaged environmental systems, and establishment of wetlands. Reclamation methods are used to minimize the impact of human development in housing subdivisions, on ski slopes, and in highway reconstruction.

Early reclamation investigations in the arid and semi-arid Western United States were based on research trials for replacing materials suitable for plant growth and re-establishing vegetation. Cook et al. (1974), Power et al. (1976), the SEAM program (1979), and DePuit and Coenenberg (1981) are good examples of earlier efforts that continue today in work by Schuman et al. (1993). Plant materials centers and agricultural research stations continue to provide tools for reclamation efforts (e.g. Ries et al. 1976, Aldon 1981, Bjugstad 1984, and Majerus et al. 1985).

Researchers such as Shroeder (1985), Toy (1983), and Toy and Parsons (1987) produced research on geomorphic processes such as erosion, infiltration, and sediment yield, while Beauchamp (1973), Dollhopf (1978), Berg (1983), and Halvorson and Doll (1985) investigated spoil and soil in the reclaimed environment. A great deal of applied research has been conducted by mining companies interested in seeking new solutions to reclamation problems. Much of this work is reported in the annual reports required by State agencies for each active mine.

Postovit (1981), Hingtgen and Clark (1984a and 1984b), Yoakum (1984), Clark and Medcraft (1986), and Medcraft and Clark (1986) studied the effects of mining on wildlife populations. Olendorf et al. (1981) and Nelson et al. (1978) described techniques for wildlife habitat restoration. Methods and classification for reconstruction of stream channels are being developed by Wesche et al. (1993) and Rathburn et al. (1993).

There are many works that suggest technologies of various kinds, report on field trials, and recommend plant species for use in reclamation. However, almost thirty years after the earliest trial efforts, a considerable body of practical knowledge has been developed by the specialists responsible for compliance with State and Federal statutes and regulations governing reclamation of mined lands. For the most part, this knowledge is not formalized elsewhere than in this handbook.

This Second Edition of The Handbook of Western Reclamation Techniques represents significant cooperative effort between the mining industry, industry professionals, the academic community, and regulatory agencies. It documents field-proven reclamation methods and demonstrates the diversity with which similar objectives can be accomplished. Some of the methods were developed through trial and error; some were developed from scientific studies and have matured over time. Many of the authors began as reclamation specialists and have moved onward to other positions; some have now retired. The legacy these professionals leave behind is a tribute to the ability of humankind to manage its environment for the better. Their efforts will always be appreciated.

Many people contributed to the second edition of this handbook, particularly Phil Dinsmoor and Robin Carlson. In addition, the support and determination of Wanda Burget and Laurel Vicklund were instrumental in its production. Bj Kristiansen, as always, is to be commended for his fine efforts on the web production. Any errors that have crept into the second edition as a result of editorial tinkering are the sole responsibility of the editor. The fine works otherwise presented remain the products of the authors identified in each subsection

D.G. Mickey Steward, coordinating editor
Gillette, Wyoming
December 2006

Exhibit 9

CHAPTER 3
R645-301-300 BIOLOGY

R645-301-320 ENVIRONMENTAL DESCRIPTION

The West Ridge Mine is located on the western escarpment of the Book Cliffs about 25 miles east of Price and 5 miles northwest of the town of East Carbon. The Book Cliffs consist of steep canyons and high mountains east of the mine site. Topographic elevations within the permit area range from 6,500 to over 8,800 feet. The highest point located above West Ridge is approximately 8,866 feet. Because of the rugged topography in the region, the present land uses are limited to wildlife habitat, rangeland and recreation. A large portion of the surface area is public land managed by the Bureau of Land Management (BLM).

The permit area lies within the cool, semiarid climatic zone characterized by warm, moist springs and summers and by cold, dry winters. The mean annual precipitation is about 12 inches in the vicinity of the mine site, with most of the annual precipitation occurring during the summer months. Temperatures range from summer highs in the 90's to below zero during the winter months. The average frost free period is 141 days per year.

Habitat types in the canyons range from mixed mountain conifer on north and east-facing slopes and pinyon-juniper woodland on south and west-facing slopes to rock outcrops which form multi-layered barren cliffs. Where barren rock outcrop is present, little or no vegetation exists. On the ridges above the canyons, mixed mountain brush and sage/grass plateau dominate with some extensive aspen woodland below West Ridge to the northeast of the permit area. Pinyon-juniper woodland occurs at the mouths of the canyons with interspersed patches of sagebrush shrubland, such as the area around the proposed borrow site. An area of Pinyon-Juniper adjacent to the mouth of B and C Canyons was chained in the late 1960's, however, the trees have now regrown at this site.

Vegetation types for the permit and surrounding area were mapped on color aerial photos at a scale of 1" = 2,000', with six primary vegetation types being identified. The information was then field checked for accuracy of mapping. The regional vegetation map is included as Map 3-1 General Vegetation Communities

NOTE: The following discussion for the remainder of R645-301-320 applies specifically to the Gob Gas Vent Hole (GVH) installation proposed in Bear Canyon. In order to facilitate the review it is presented here in its entirety rather than interspersed throughout the chapter. A more detailed and complete discussion of the Bear Canyon GVH proposal can be found in Appendix 5-14. Unless specifically noted in this following discussion, nothing related to the Bear Canyon GVH proposal affects the contents of the existing approved MRP as described hereinafter.

A Mexican spotted owl was reported in Desolation Canyon, approximately 25 miles east of the permit area. On Oct. 9, 2002 officials from Utah Division of Wildlife Resources surveyed the permit area and determined that the area was not suitable habitat for the spotted owl. A letter from DWR verifying this conclusion is included in Appendix 3-9.

On April 16, 2004 DWR and EIS conducted an additional spotted owl survey over the project area, including the expanded areas of the state leases and the fee lease. Based on this survey they re-confirmed their earlier conclusions that there is insufficient potential habitat in the permit area. (Refer to Appendix 3-9A)

322.220 No streams, wetlands, riparian areas, or special migration areas are located within the permit area southwest of West Ridge. Grassy Trail Creek is an intermittent stream located in the permit area (including the Penta Creek fee lease) in Whitmore Canyon located northeast of West Ridge. Riparian areas exist along Grassy Trail Creek in this area, as depicted on Map 3-1. The riparian habitat along Grassy Trail Creek is described in detail in Appendix 3-12. Wildlife wintering areas are depicted on Maps 3-4B, 3-4C and 3-4D.

R645-301-323 MAPS AND AERIAL PHOTOGRAPHS

323.100 The location of the reference areas for determining the success of revegetation is depicted on Map 3-2. The areas have been marked in the field using steel range posts.

323.200 Fixed monitoring stations were not used to gather information for fish and wildlife.

323.300 No permanent facilities are being proposed for the enhancement of fish, wildlife and related environmental values. The sediment treatment facilities, although temporary in nature, may provide a source of water until final reclamation. Reclamation will focus on providing wildlife forage and habitat.

323.400 Vegetation types and plant community, as well as sampling locations are shown on Map 3-2. Sampling transects utilized during the vegetation survey are shown on the map. The vegetation sampling transects were also utilized by the Natural Resources Conservation Service when they conducted the range condition evaluation at the proposed mine site.

completed (ie, cutslopes regrading, backfill removal, highwall reclamation, topsoil replacement, and soil treatment on the regraded and re-contoured slopes). Once these pre-requisite reclamation stages have been completed, removal of the culvert (and reclamation if the channel) can begin.

Rills and gullies of an excessive nature, which form on regraded and re-topsoiled areas and disrupt the approved postmining land use or cause or contribute to a violation of water quality standards for receiving streams, will be filled, regraded or stabilized. The area will then be reseeded.

Pest damage will also be evaluated during the quarterly inspection. Should a problem persist and endanger the viability of the entire revegetated area, a response appropriate for the situation will be initiated.

Supplemental irrigation is not planned for the site. However, mulching is planned and should decrease evaporation and optimize use of soil moisture and natural precipitation. Other measures will be used, in conjunction with mulching, to conserve available soil moisture. Depending on the slope and areal extent of application, other methods that could be used would include disking along the contour where slopes allow and land imprinting, pitting or gouging. A small backhoe or comparable piece of equipment would be used to create gouged depressions approximately 24" x 36" x 18" deep. WEST RIDGE Resources will continue to investigate alternative means of increasing water availability.

Pesticides and herbicides will be used only if a problem is identified and spraying is deemed necessary to control damage to reclamation. Using certified noxious weed-free straw will reduce the potential for noxious weeds to become a problem. Pest control measures to be utilized would depend on what type of problem exists.

Revegetation success will be judged on the effectiveness of the vegetation for the approved postmining land use. The sampling techniques for measuring success and methods identified in DOGM's "Vegetation Information and Monitoring Guidelines, Appendix A" will be referenced during the post revegetation evaluation. A revegetation timetable is provided in Table 3-1 at the end of this text. Annual monitoring will be included as part of the annual report submitted to DOGM.

Based on the information available from the vegetation survey on-site, it appears that reclamation at this site is feasible. Native species have re-established themselves successfully on previous disturbances without seed or mulch application or surface preparation. Also, reclamation has been done on the Horse Canyon minesite, about 10 miles south of C Canyon, with considerable success. The Horse Canyon minesite has a similar orientation and aspect. Precipitation is also similar between the sites.

341.240 Supplemental irrigation is not planned for the site. However, mulching is planned and should decrease evaporation and optimize use of soil moisture and natural precipitation. Other measures will be used, in conjunction with mulching, to conserve available soil moisture. Depending on the slope and areal extend of application, other methods to be used would include disking along the contour where slopes allow and land imprinting, pitting, pocking and gouging. For gouging, a backhoe or comparable piece of equipment would be used to create irregularly shaped depressions approximately 24" x 36" x 18" deep. WEST RIDGE Resources, Inc. will continue to investigate alternative means of increasing water availability.

Pesticides and herbicides will be used only if a problem is identified and spraying is deemed necessary to control damage to reclamation. Using certified noxious weed-free straw will reduce the potential for noxious weeds to become a problem. Pest control measures to be utilized would depend on what type of problem exists.

341.250 Revegetation success will be judged on the effectiveness of the vegetation for the approved postmining land use. The sampling techniques for measuring success and methods identified in DOGM's "Vegetation Information and Monitoring Guidelines, Appendix A" will be referenced during the post revegetation evaluation.

The reference area method will be used to demonstrate adequate cover and production in revegetated areas. Reference area locations are shown on Maps 3-1 and 3-2, and Appendices 3-1 and 3-1A.

Regarding erosion control monitoring, WEST RIDGE Resources, Inc. proposes to utilize "Erosion Condition Classification System" (Humphreys, 1990), the erosion classification system developed by the BLM and modified by Mark Humphreys of OSM. In utilizing this system, SSF values would be kept at less than or equal to the surrounding undisturbed areas.

The Division has developed woody plant density success standards for this site which have also been reviewed and approved by DWR. The standards are as follows:

Pinyon/Juniper	800 per acre
Douglas Fir/Maple	2,000 per acre
Douglas Fir/Rocky Mountain Juniper	2,500 per acre
Sagebrush/Grass	2,500 per acre

Quantitative vegetative information for the Douglas Fir/Maple reference area is provided

R645-301-342 FISH AND WILDLIFE PLAN

342.100 Reclamation of the disturbed area following mining activities will seek to promote the reestablishment of wildlife habitat for small mammals and reptiles, and forage for grazing. At the present time, approximately 1.62 acres of the proposed disturbed area was been previously disturbed by mining and exploration activities. As this work was performed prior to the enactment of SMCRA, very little reclamation work was performed on-site. The vegetation now existing on the site has re-established itself without the assistance of broadcasted seed, irrigation or mulch. The plan WEST RIDGE Resources, Inc. is proposing is based on regulatory requirements and guidelines for reclamation and revegetation. However, the proposed reclamation plan adds elements which currently do not exist on-site and would provide a greater variety of vegetative types and cover than presently exists at the site.

Wildlife habitat replacement in the postmining phase will include revegetation with a seed mixture that has nutritional value to wildlife. West Ridge Resources, Inc. will place rocks and rock piles on the surface of the regraded area at the time of final reclamation to provide habitat for small mammals. Surface gouging will allow water to collect in the depressions to provide a minor amount of water for the wildlife on-site.

The drainage channel will be restored during the reclamation activities with a natural channel with a capacity capable of carrying the peak flow from the 100-year, 6-hour precipitation event and a capacity at least equal to the unmodified stream channel immediately upstream and downstream from the proposed disturbance.

As the natural channel is ephemeral and in a natural state of change, no riparian zone exists adjacent to the channel. The final reclamation seed mix will be applied to the channel slopes by hydro or broadcast seeding. A straw mulch and tackifier will be applied following application of the seed.

342.200 As the postmining land use will be for wildlife habitat and grazing, plant species were selected that have forage nutrition and cover value as well as being a competitive species in this environment.

WEST RIDGE Resources, Inc. has received comment from the Division of Wildlife Resources regarding additional wildlife enhancement measures. Their comments are contained in Appendix 3-6. WEST RIDGE Resources, Inc. has incorporated several of their suggestions in the permit application package. WEST RIDGE Resources, Inc. will continue to work with DOGM and DWR with regard to wildlife enhancement measures.

R645-301-354 REVEGETATION: TIMING

Areas to be revegetated will be seeded following regrading and retopsoiling activities but prior to late October. This will allow time to get the seed on the ground before winter snowfall makes the site inaccessible.

R645-301-355 REVEGETATION: MULCHING AND OTHER SOIL STABILIZING PRACTICES

Suitable mulch and other soil stabilizing practices will be used on regraded, retopsoiled areas as delineated for each site. A certified noxious weed-free straw will be utilized for mulch during final reclamation. Typically, the straw will be applied over seeded areas at a rate of 2,000 pounds per acre and tacked to the surface using mulch and tackifier.

Revegetated areas will be visually monitored on a quarterly basis, or following heavy storm events, for damage and erosion problems. Water will be diverted away from active rills and gullies. Erosion will be repaired if the gully is unstable and repair can be done without jeopardizing healthy vegetation.

Pest damage will also be evaluated during the quarterly inspection. Should a problem persist and endanger the viability of the entire revegetated area, a response appropriate for the situation will be initiated.

R645-301-356 REVEGETATION: STANDARDS FOR SUCCESS

Standards for reclamation success will be evaluated accordance with DOGM's "Vegetation Information and Monitoring Guidelines", Appendix A. The success of final reclamation will be judged on the effectiveness of the vegetation for the postmining land use and the extent of cover compared to the extent of cover for the reference area. Ground cover, production or stocking will be considered equal to the approved success standard when it reaches 90% of the success standard. Statistical adequacy of all statistical sampling will be determined using the following formula:

$$N_{min} - \frac{t^2 S^2}{(dx)^2}$$

where: t = the value from appropriate t-table*, (2-tail test for pre-mine studies, 1-tail test for success studies)
s = the sample standard deviation,

d = the desired change in the mean,
x = the sample mean of the parameter in question

* = All parameters are to be tested at the 90% confidence level with a 10% change in the mean (d = .1).

Ground cover will be estimated by using one of the methods listed in "Vegetation Information Guidelines" Appendix A.

Production measurements will be made in accordance with DOGM's "Vegetation Information Guidelines" Appendix A. Estimates may be made by the methodology which the vegetation consultant feels is the most suitable method to used for the work being performed.

An evaluation of species composition will be made, including species present, form and diversity.

For a postmining land use of grazing and wildlife habitat, the ground cover and production will be equal to or greater that a reference area. The Division's "Vegetation Information Guidelines", Appendix A will be utilized for the evaluation of the success of revegetation. Appendix B will be references for calculating diversity.

For areas previously disturbed by mining activities that were not reclaimed to the requirements of the regulations, and will be reclaimed after proposed mining operations have ceased, the vegetative ground cover will not be less than the ground cover existing before redisturbance and will be adequate to control erosion.

Siltation structures will be maintained until the disturbed area is revegetated and stabilized. They will remain in place at least two years after the last augmented seeding. Siltation structures may include sediment traps, straw bales, silt fences or filter baskets. Removal will be contingent upon revegetation and stabilization of the area as well as DOGM concurrence. Following removal, the area of the sediment control structure will be revegetated in accordance with the reclamation plan.

Exhibit 10

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

July 22, 1998

TO: File

THRU: Daron Haddock, Permit Supervisor

FROM: Paul Baker, Reclamation Biologist

RE: Permit Application Package, West Ridge Resources, Inc., West Ridge Mine, PRO/007/041, Folder #2, Carbon County, Utah

SUMMARY:

West Ridge Resources, Inc., has submitted a permit application package to mine in the area southwest of West Ridge and north of East Carbon. Surface facilities would be mostly in C Canyon, but The applicant is also proposing a potential topsoil borrow site about one mile from the surface facilities.

The application includes an experimental practice proposal to bury, rather than salvage, topsoil in part of the proposed disturbed area. Other important issues include the presence of relatively large amounts of canyon sweetvetch, a sensitive species, and the proximity to three golden eagle nests.

TECHNICAL ANALYSIS:

ADMINISTRATIVE INFORMATION

IDENTIFICATION OF INTERESTS

Regulatory Reference: R645-301-112

Analysis:

West Ridge Resources, Inc., has applied for a permit to mine in an area north of East Carbon in Carbon County. The applicant is a corporation existing under the laws of Delaware and qualified to do business in Utah. The application shows the applicant's address, telephone number, employer identification number, and resident agent. The applicant will pay the abandoned mine reclamation fee.

the postmining land use.

For areas with a postmining land use of wildlife habitat, the Division is required to consult with State wildlife agencies and gain approval for tree and shrub establishment success standards. The Division has consulted with the Division of Wildlife Resources and developed standards. These are based primarily on existing conditions and take into account the species that contribute to the woody plant densities in the various areas. In the sagebrush/grass area, the numbers of woody plants in both the proposed disturbed and reference areas are considered excessive. The established standards in numbers of woody plants per acre are:

Pinyon/Juniper	800
Douglas Fir/Maple	2000
Douglas Fir/Rocky Mountain Juniper	2500
Sagebrush/Grass	2500

These standards need to be included in the application.

Table 3-4 of the application is a revegetation monitoring schedule. Qualitative observations would be done every year after seeding, but quantitative observations would be done only in the years specified. Productivity measurements in final reclamation areas would be done in the eighth and ninth years, but the applicant needs to include productivity measurements in the tenth year.

All other final reclamation monitoring is adequate, but it is probably more than actually needed. Second year quantitative monitoring could probably be deleted. The applicant might want to do interim quantitative monitoring as needed to determine whether remediation is necessary rather than committing to a specific schedule.

The test plots would also be monitored according to the schedule in Table 3-4. This intensive monitoring is appropriate for test plots.

In Sections 341.300 and 342.100, the application indicates native species have become reestablished in disturbed areas without seed or mulch application or surface preparation. While the Division does not know precisely what reclamation efforts have been undertaken in this area, there are stands of introduced grasses that have the appearance of having been seeded.

Field Trials

Information about test plots is in Section 231.300. In an area near the topsoil pile in the right fork, an area will be covered with geotextile and fill, in this case topsoil, in a manner similar to the rest of the experimental practice area. It will be left in place for about five years after which the soil will be exposed. The fill--topsoil--will be moved to a part of the topsoil stockpile where it can be subjected to the same treatments as the soil left in place and covered with the

Exhibit 11

GARY R. HERBERT
Governor
GREG BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Inspection Report

Permit Number:	**C0070041**
Inspection Type:	COMPLETE
Inspection Date:	Tuesday, May 24, 2016
Start Date/Time:	5/24/2016 8:00:00 AM
End Date/Time:	5/24/2016 1:00:00 PM
Last Inspection:	Monday, April 25, 2016

Inspector: Karl Houskeeper,

Weather: Partly Cloudy, Temp. 55 Deg. F.

InspectionID Report Number: 5532

Accepted by: JHELFRIC
6/6/2016

Permitee: **WEST RIDGE RESOURCES**
Operator: **WEST RIDGE RESOURCES**
Site: **WEST RIDGE MINE**
Address: **PO BOX 910, EAST CARBON UT 84520-0910**
County: **CARBON**
Permit Type: **PERMANENT COAL PROGRAM**
Permit Status: **ACTIVE**

Current Acreages

8,080.58	**Total Permitted**
31.24	**Total Disturbed**
	Phase I
	Phase II
	Phase III

Mineral Ownership

- [x] **Federal**
- [x] **State**
- [ ] **County**
- [ ] **Fee**
- [ ] **Other**

Types of Operations

- [x] **Underground**
- [ ] **Surface**
- [ ] **Loadout**
- [ ] **Processing**
- [ ] **Reprocessing**

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

Checked in at the office located at the West Ridge mine. Karin Madsen was on a conference call. Done the paperwork and field inspection unattended.

This report also contains information from a separate OSM visit relative to an oversite topic on vegetation. See item13. The visit occurred on March 19, 2016.

Karl R. Houskeeper

Inspector's Signature:

Date Tuesday, May 24, 2016

Karl Houskeeper,
Inspector ID Number: 49

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining.

REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENTS

1. *Substantiate the elements on this inspection by checking the appropriate performance standard.*
   a. *For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.*
   b. *For PARTIAL inspections check only the elements evaluated.*
2. *Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.*
3. *Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.*
4. *Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.*

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	☑	☐	☑	☐
2. Signs and Markers	☑	☐	☑	☐
3. Topsoil	☑	☐	☐	☐
4.a Hydrologic Balance: Diversions	☑	☐	☐	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☑	☐	☑	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☑	☐	☑	☐
4.d Hydrologic Balance: Water Monitoring	☑	☐	☐	☐
4.e Hydrologic Balance: Effluent Limitations	☑	☐	☑	☐
5. Explosives	☐	☐	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☑	☑	☐	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☑	☑	☐	☐
8. Noncoal Waste	☑	☐	☐	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☑	☐	☐	☐
10. Slides and Other Damage	☑	☐	☐	☐
11. Contemporaneous Reclamation	☑	☐	☐	☐
12. Backfilling And Grading	☑	☐	☐	☐
13. Revegetation	☑	☐	☑	☐
14. Subsidence Control	☑	☐	☐	☐
15. Cessation of Operations	☑	☐	☐	☐
16.a Roads: Construction, Maintenance, Surfacing	☑	☐	☐	☐
16.b Roads: Drainage Controls	☑	☐	☐	☐
17. Other Transportation Facilities	☑	☐	☐	☐
18. Support Facilities, Utility Installations	☑	☐	☐	☐
19. AVS Check	☑	☐	☐	☐
20. Air Quality Permit	☑	☐	☑	☐
21. Bonding and Insurance	☑	☐	☑	☐
22. Other	☑	☐	☐	☐

1. Permits, Change, Transfer, Renewal, Sale

The DOGM permit is effective 04/01/2014 and expires 04/01/2019. Other documents include the following:

·Certificate of Insurance issued 06/01/2016 and terminates 06/01/2017.
·Reclamation agreement is dated August 6, 2008 and is signed by both parties.
·UPDES permit UT0025640 effective 05/01/2011 and expires midnight 04/30/2016. Extended.
·Air Quality permit DAQE-055-99 issued 01/14/1999.
·SPCC Plan dated August, 2012.

2. Signs and Markers

The mine identification signs are clearly posted at all access points into the mining permit area. The signs contain all of the required information set forth in the Utah Coal Rules.

4.b Hydrologic Balance: Sediment Ponds and Impoundments

The 2015 annual and forth quarter sediment pond inspection was conducted on 11/19/2015. The annual sediment pond inspection was P.E. certified on 11/21/2015. The first quarter 2016 sediment pond inspection was done on 02/23/2016. No instabilities were noted. Existing sediment level is below the 60% elevation.

4.c Hydrologic Balance: Other Sediment Control Measures

Work was actively taking place on the silt fence around the base of the topsoil pile during the inspection.

4.e Hydrologic Balance: Effluent Limitations

The discharge monitoring reports for January, February, March and April 2016 were reviewed. No discharge from 001 occurred in any of the referenced months. Outfall 002 discharge in January and February, but did not exceed any parameters. Mine water flow has been stopped with the mine being idled.

13. Revegetation

On March 19, 2016, The Division and OSM conducted an oversite inspection on the reference areas to be used to determine revegetation success standards for bond release. Those in attendance were: Joe Helfrich, Priscilla Burton, Lisa Reinhart, Spencer Shumate, Tom Medlin, and Karin Madsen. Weather was warm and clear. We arrived to the Mine Office around 10:00 and had a quick review with Karin before heading out to see the sites. The first site was the P/J site and although the vegetation matched the records, we were not able to verify exact location noted in the photos because we didn't locate stakes/markers. We then inspected the Douglas Fir/Rocky Mountain Juniper site. Again, we located the general location and vegetation matched the data but we could not locate the stakes in the ground. Finally, we traveled to the Douglas Fir/Maple site but again, did not locate stakes. In general, the referenced vegetation communities match the descriptions. Karin stated she would visit with Mt. Nebo Scientific to further identify the locations and will stake them out for future reference.

20. Air Quality Permit

DAQE-055-99 issued January 9, 1999, still effective.

21. Bonding and Insurance

Total disturbed acres 31.24. Two bonds in place. National Union Fire Insurance Company $2,117,000 and Rockwood Casualty Company $67,000. Total bond $2,184,000.