

Decision Record

Ten Claims - Bentonite Mine Plan of Operation

BLM

Worland Field Office, Wind River/Bighorn Basin District, Wyoming

December 2015



The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

DOI-BLM-WY-R010-2014-0058-EA

DECISION RECORD
Wyo-Ben, Inc. Ten Claims
Plan of Operations for Bentonite Mining (WYW-165311)
DOI-BLM-WY-R010-2014-0058-EA

DECISION:

It is my decision to approve the Ten Claims Bentonite Mining (WYW-165311) described as the Proposed Action of Environmental Assessment No. DOI-BLM-WY-R010-2014-0058-EA, and to include those measures proposed by Wyo-Ben, Inc. in the submitted Plan of Operations. The Proposed Action includes an open pit bentonite mine of no more than 523.9 acres of disturbance that will consist of pits, out of pit stockpiles, and haul roads and be excavated in multiple phases using standard castback mining techniques and procedures, as submitted and with all necessary stipulations, mitigation, and monitoring measures as determined during review and environmental analysis.

I have determined that the Proposed Action will not cause unnecessary or undue degradation to the public lands if conducted with the proper mining and reclamation practices as described in the mining and reclamation plans, and with the attached stipulations, mitigation and monitoring measures implemented. The BLM will work regularly with Wyo-Ben to ensure compliance of the approved mining and reclamation plans, stipulations, and all mitigation and monitoring measures. These stipulations and mitigation and monitoring measures are attached.

AUTHORITIES:

The authority for this decision is contained in the Surface Management Regulations at 43 CFR § 3809 and in the laws governing the production of locatable minerals (the Mining Laws as amended). The National Environmental Policy Act (NEPA) of 1969, requirement for site-specific analysis has been met. The Proposed Action and No Action are in accordance with 43 CFR § 1610.5-3(a); Federal Land Policy and Management Act of 1976 as amended (FLPMA); Taylor Grazing Act of 1934; Endangered Species Act of 1983 as amended (ESA); Clean Air Act as amended; Clean Water Act of 1977; National Historic Preservation Act as amended (NHPA); Migratory Bird Treaty Act of 1918 as amended (MBTA); and Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing, August 12, 1997. All pertinent statutory requirements applicable to this proposal were considered.

Mitigation and Monitoring: A BLM representative will conduct at least two annual compliance inspections of the Ten Claims Plan of Operations during its lifetime.

This Authorization will be granted subject to the Project Design Features, Terms, Conditions, and Stipulations as attached.

PLAN CONFORMANCE AND CONSISTENCY:

The Proposed Action is in conformance with the *Worland Field Office Approved Resource Management Plan*, approved as a component of the Record of Decision (ROD) for the Rocky Mountain Region (September 2015). The Proposed Action is specifically supported by Record 2002, which states, "Lands not formally withdrawn or segregated from mineral entry are available for mineral entry for bentonite, gypsum, and other locatable minerals." The area proposed for new mining under this has not been withdrawn from mineral entry; therefore it is

open to mining claim location and subsequent mineral development after proper review and approval. All aspects of the Proposed Action (Alternative II) including the required stipulations, mitigation and monitoring measures will be required in authorizing the Proposed Action.

PUBLIC INVOLVEMENT:

This EA and Plan of Operations were made available for public comment for 30 days from November 2, 2015 to December 2, 2015. As per the regulations at 43 CFR § 3809.411(c), public comment was solicited through a Public Notice in *Northern Wyoming Daily News*, the local paper for Worland, Wyoming. The BLM also gave the public a 30-day opportunity to review the EA on the BLM website (<http://www.blm.gov/wy/st/en/info/NEPA/documents/wfo/wyo-ben-projects.html>) beginning November 2, 2015. No comments were received. The EA is incorporated by reference into the FONSI and Decision Record (DR).

ALTERNATIVES CONSIDERED:

(1) **No Action Alternative:** Disapprove/withhold approval of the Plan of Operations.

(2) **Proposed Action:** Approve the Plan of Operations as submitted with necessary stipulations, mitigation and monitoring measures determined during review and environmental analysis.

RATIONALE FOR DECISION:

My decision to approve the Proposed Action conforms with the Surface Management Regulations at 43 CFR § 3809, the Mining Laws (as amended), and FLPMA, which requires that the public lands are managed on the basis of multiple use, including production of locatable minerals. In addition, the decision to approve the Proposed Action conforms with the *Worland Field Office Approved Resource Management Plan*, approved as a component of the Record of Decision (ROD) for the Rocky Mountain Region (September 2015), which allows for location, exploration, and production of locatable minerals in areas open to mineral location in the Worland Field Office.

Based upon the analysis of the potential environmental impacts described in the EA (DOI-BLM-WY-R010-2014-0058-EA), and supporting documents in the case file, the Proposed Action was chosen. This Authorization will be granted subject to all attached stipulations and mitigation and monitoring measures relative to water quality and riparian-wetland area management, reclamation, visual aesthetics, livestock grazing management, BLM Sensitive wildlife species, raptors, migratory birds, noxious and invasive weed control, cultural resources, and paleontological resources. The Proposed Action, furthers the Worland RMP's objective to allow for location, exploration, and production of locatable minerals in areas open to mineral location in the Worland Field Office.

APPEAL LANGUAGE:

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and Form 1842-1. The Notice of Appeal must be filed with this office at 101 S 23rd St, Worland Wyoming, 82401, within 30 days from receipt of this decision. As the appellant, you have the burden of showing that the decision appealed from is in error.

If the applicant wishes to file a petition pursuant to regulation 43 CFR § 4.21 (58 CFR § 4939, January 19, 1993) for a stay of the effectiveness of this decision during the time that the appeal is being reviewed by the Board, the petition for a stay must accompany the notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below.

Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the Office of the Solicitor (see 43 CFR § 4.413); Rocky Mountain Region; 755 Parfet Street, Suite 151; Lakewood, CO 80215; at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- (1) the relative harm to the parties if the stay is granted or denied;
- (2) the likelihood of the appellant's success on the merits;
- (3) the likelihood of immediate and irreparable harm if the stay is not granted; and
- (4) whether the public interest favors granting the stay.

/s/ Michael J. Phillips

12/11/2015

Worland Field Manager

Date

Attachments: Project Design Features, Terms, Conditions, and Stipulations

Project Design Features, Terms, Conditions, and Stipulations

MITIGATION AND MONITORING MEASURES:

One Call

The operator will inspect the construction area for the presence of utility facilities both surface and subsurface, and notify the Wyoming One Call System 1-800-849-2476 before construction activities begin. The operator will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. The operator will be responsible for taking such measures as may be necessary to protect other authorized facilities on public lands from damage due to mining operations. The operator is responsible for contacting those other users and coordinating with them.

Water Quality and Riparian-Wetland Area Management

Wyo-Ben will maintain and implement a Storm Water Discharge Permit (SWDP) and associated Storm Water Pollution Prevention Plan (SWPPP) required by the WDEQ-WQD, per Section 401 of the CWA in the State of Wyoming.

Wyo-Ben will install check dams, where necessary, in newly constructed drainages, and establish vegetation communities in those reclaimed drainages to control sediment runoff in the waterways.

- Through drainage will be reestablished during final reclamation.
- Significant ephemeral channels (drainage basins of greater than 5 acres) will be temporarily directed around open pits during active mining stages. Channel design for both temporary and permanent diversions will match pre-mine channel gradients and cross-sectional shapes.
- Temporary diversions will comply with BLM regulations and Noncoal rules, chapter 3, section 2(e)(ii)(F) to allow passage of peak runoff from a 2 year, 6 hour precipitation event in a non-erosive manner. Permanent diversions (including reconstructed channels and adjacent topography) will comply with BLM regulations and Noncoal rules, chapter 3, section 2(e)(iv), to be erosionally stable during the passage of the peak runoff from a 100 year, 6 hour precipitation event. If necessary, sediment control fabric fences will be installed at discharge points into natural channels. These structures will be moved periodically to accommodate active mining areas.

Rainfall is based on SCS Type II Distribution. Latitude 44-20 Longitude 107-30-00. Precipitation reported in tenths of an inch.

2 Year 6 Hour = 1.00 Event used for temporary diversions.

10 Year 6 Hour = 1.73 Event used for corrugated metal pipe (CMP) Road Crossings.

100 Year 6 Hour = 2.57 Event used for stability of permanent diversions.

Access, Culverts and Low Water Crossings

Wyo-Ben will sign all roads as an active mining area to alert the public of the possibility of heavy truck traffic.

Wyo-Ben will install one culvert on Haul Road HR-63.1 and upgrade two culverts on Haul Road HR-63.4. New and existing culverts will be installed and maintained throughout the life of the approved activities to accommodate precipitation predicted for 10 year/6 hour events and sized in accordance with BLM Section 9113 standards.

Soil

Wyo-Ben will save all available top and subsoil for reclamation during the initial stripping part of the mining process, and will either stockpile or spread it live utilizing the castback process.

Interim Management

In the event Wyo-Ben temporarily closes a pit, interim management procedures as per 43 CFR 3809.401 (5) will be implemented as follows: A berm will be placed in all areas around the pit phase where a highwall occurs. A berm will also be installed at the ramps of the pit to prevent entrance. Temporary water diversions will be made around the pit to prevent water from entering the particular pit phase. Bentonite stockpiles and stockpiles with potential deleterious material (overburden piles, etc.) will be bermed to prevent off-site sedimentation. Ephemeral drainages that have the potential to receive deleterious material will have check dams installed. If soil piles are expected to be in place for an extended period due to the temporary closure, they will be seeded to prevent erosion and loss of soil. All equipment and supplies will be kept within the disturbance area. Any fuel storage tanks will either have a perimeter berm or placed within an excavated containment pit to control any potential spills. Annual and semi-annual inspections will be completed by Wyo-Ben employees, a representative from the DEQ, and a representative from the BLM. Finally the pit area will be monitored on a regular basis to determine if problems are occurring that will need to be addressed.

Spill Management

Wyo-Ben Inc. will immediately notify both the Wyoming Water Quality Division of the Department of Environmental Quality and the Worland Field Office of the BLM for any accidental spills of petroleum products involving more than twenty-five gallons. Soils contaminated by smaller spills will be removed to the Wyo-Ben Stucco Mill Site for natural weathering treatment.

No solid wastes, either hazardous or non-hazardous, will be disposed of at these sites. All bulk fuel storage tanks will either be bermed for spill containment or placed in an excavated containment pit.

Reclamation

Wyo-Ben will utilize the standard castback mining techniques for mining and reclamation.

Final reclamation contours will be consistent with those necessary to reestablish the projected postmining land use goals of domestic livestock grazing, wildlife habitat, and low visual impact to the of the proposed mining. Final slopes and surface contours will approximate native gradients and will blend with adjacent topography. Through drainage will be reestablished in all backfilled phases. Ephemeral channels to be impacted by this proposed mining activity will be temporarily directed around open pits during active mining stages.

Reclamation backfill will follow the castback mining sequence illustrated in Figure MP-2 in the Mine Plan Section. Following backfilling and contouring, all compacted surfaces will be ripped to improve water infiltration and retention. Subsoil and topsoil will be replaced from stockpiles or hauled directly during the castback mining sequence. Final reclamation of these areas will include deep ripping, spreading topsoil/subsoil and seeding.

Reclamation of the steep-sloped bentonite beds like the A and B beds of the Mowry Formation may include leaving the upper portion of the post mine base rock exposed, in VRM Class III & IV areas, with backfilling and contouring of overburden occurring below that point, in small areas. Contouring will simulate the "pie-pan" nature of premine topography, with the lateral outside edges of those features forming reclaimed drainages that will tie into native drainages.

Wyo-Ben will comply with the requirements listed in Noncoal rules, Chapter 13, Section 3 (a) (vi) regarding the timeliness of reclamation.

Revegetation Techniques and Seed Mixtures

Seedbed preparations may include deep-ripping after soil replacement to break up the surface and loosen the soil. Additional surface manipulations such as deep parallel furrows or pitting may be used to enhance moisture harvesting capacities of the areas receiving seed. Seed mixtures will be broadcast seeded when using the pitter or 4-wheeler and no till drill seeded with the Truax depending on the terrain and soil conditions. In general, seeding will be conducted in the fall and early winter (prior to freeze-up) to take full advantage of fall, winter and spring moisture. From time to time, Wyo-Ben may exercise their discretion to attempt spring seeding on areas where live topsoil has been directly placed during winter months to reduce destruction of native species volunteering during the first growing season and prior to what will be the fall seeding period. Although no negative grazing impacts are anticipated on newly seeded areas, attempts will be made to coordinate timing of use with the grazing permittee if problems develop. Reclaimed areas may be fenced if it is determined grazing may be detrimental to reclamation efforts.

Reclamation of haul roads will be accomplished by contouring to restore drainage patterns, remove culverts, and blend with surrounding topography. These areas will then be deep-ripped, subsoiled/topsoiled and seeded.

Composition of the proposed seed mixture is detailed below. Use of all species depends on seed availability in the year of seeding. Due to the mostly thin and low reclamation potential of soils in the proposed disturbance area, Wyo-Ben will use a less diversified seed mix as shown for the Juniper, Steep Complex, and Greasewood/Annual map units as shown below.

<u>Seed Species</u>	<u>Rate-lb PLS/acre</u>
Gardner saltbush (<i>A. gardneri</i>)	4.0
Fourwing saltbush (<i>A. canescens</i>)	2.0
Rubber rabbitbrush (<i>Chrysothamnus nauseosus</i>)	1.0
Bluebunch wheatgrass (<i>Agropyron spicatum</i>)	2.0
Indian ricegrass (<i>Oryzopsis hymenoides</i>)	1.5
Red threeawn (<i>Aristida longiseta</i>)	1.0
Sandberg bluegrass (<i>Poa sandbergii</i>)	1.0
Western wheatgrass (<i>Agropyron smithii</i>)	1.0
American vetch (<i>Vicia americana</i>)	1.0
Rocky mountain bee plant (<i>Cleome serrulata</i>)	1.0
Tansyleaf tansyaster (<i>Machaeranthera tanacetifolia</i>)	1.0
	16.5 lb/acre

This mixture will be supplemented with Big sagebrush (*Artemisia tridentata*) at a rate of 1 to 2 pounds per acre in targeted areas of greater moisture potential (i.e. drainages and depressions), in the Juniper and Mixed Shrub Complex (MSC) map unit, and higher quality soils, Basin wildrye (*Elymus cinereus*) broadcast onto uplands and reconstructed drainages and other low-lying areas at a rate of 0.5 to 2 pounds per acre. Monitoring of past reclamation successes and failures may influence seed mixture composition and surface preparation techniques.

Prior to any seed mix revisions or substitutions, Wyo-Ben will contact the BLM and the WDEQ for approval of the proposed changes.

All seed applied on BLM administered public lands will comply with the BLM seed policy in IM-2006-073 (see Appendix C). Also per IM-2006-073,

Copies of the seed lab test results, including purity and germination (viability) rate, must be forwarded to the appropriate BLM office prior to seed application. If the seed does not meet the BLM and State/Federal standard for noxious weed seed content or other crop seed allowances, it shall not be applied to public land.

Seed will be planted in the fall or early winter (occasionally in early spring) as soon as possible after topsoiling. All seed will be certified to be cheatgrass and noxious weed seed-free. If Wyo-Ben decides to try mulching, they must first contact the BLM for approval.

Visual Resource Management Class II Area (from KOP #2)

Wyo-Ben will implement measures for the area that is specifically located within the VRM Class II area to address additional reclamation and visual viewshed solutions:

Landform

Wyo-Ben will minimize the amount of disturbance in this area by:

- For the VRM Class II area, Wyo-Ben will limit the size of the highwall buffer from (8' -12') to (3' - 5'), it has been determined that there is limited potential for activity above the high wall area and in order to limit the amount of the disturbance and make the disturbance less visible. If at any later time, it is determined that there is a potential hazard, then this buffer will be increased to a safe distance as determined by the Mining Supervisor.
- Associated Disturbance - For the VRM Class II area Wyo-Ben will limit this amount of disturbance to 100' to 150' depending on the required amount of room to maneuver the equipment.
- Wyo-Ben will keep the haul roads contained within the bentonite bed disturbance and off of the ridgelines, where possible.
- Wyo-Ben will reduce the haul road to a 35 foot footprint for the VRM Class II area to minimize the disturbance and make it less visible.
- Wyo-Ben will locate bentonite stockpiles into the adjacent lower VRM Class IV area.
- Wyo-Ben will locate top soil and sub soil stockpiles behind existing geological structural features or shape the stockpiles to repeat the landscapes basic elements.
- Wyo-Ben will commit to maintain all equipment "camp" areas outside of the VRM Class II area in order to reduce the visual impact and to place them in a less sensitive VRM Classification.
- Wyo-Ben will maintain partial contouring with the castback mining technique to mimic the original premine contour to reduce the visual impact.

Vegetation

- All topsoiled lands will be reseeded in the fall except for the VRM Class II area, Wyo-Ben will complete concurrent reclamation with seeding to be completed in the fall and spring season as the

mine sequence advances to minimize the amount of disturbed lands and to get the vegetation started as quickly as possible.

- Wyo-Ben will seed soil stockpiles with a 3 grass seed mixture as determined by per the vegetation transects. As a substitute to one of the grass seeds, Wyo-Ben will consider using a nitrogen fixing plant such as a Vetch (American), Scarlet Globemallow, Purple Prairie clover, and/or a low lying penstemon as per BLM Management suggestion, subject to price and availability.
- Wyo-Ben may use a hydro seeder to help re-establish and stabilize the vegetation in a timely manner. The hydro seeder may be used in areas of concern of highly erosive soils and areas that we are unable to get the pitter on.
- Wyo-Ben will minimize the removal of native vegetation by reducing the physical footprint of mining activity as indicate above in the landform section.
- Wyo-Ben will limit access to and from the site with a single haul road access. Wyo-Ben will commit to keeping the haul roads contained within the bentonite bed disturbance and off of the ridgelines, where possible. Wyo-Ben normally constructs a haul road with a 60 foot disturbance footprint and will reduce the haul road to a 35 foot footprint for the VRM Class II area.
- Wyo-Ben will recommend that their contractor utilize carpooling for the mining crew in order to reduce the amount of traffic in this area.
- Wyo-Ben will limit the amount of equipment working in the Class II area to a single crew of (Rock Truck, Scraper, Dozer, and Excavator) as not to distract the eye of the casual observer and make the activity less visible.
- Reclamation will be feathered back into the original native soils to minimize the contrast of the disturbance and to establish a diffuse edge.
- Wyo-Ben will monitor the area within the VRM Class II, every spring and fall to visually see the vegetation growth, growth of invasive species, and any erosion issues. Wyo-Ben will complete soil testing in areas that are struggling after 2 growing season to determine what supplement(s) may need to be added to a particular area. Monitoring results are reported in the Annual Report under the Pit Summary.
- Wyo-Ben will treat noxious weeds as identified in their Noxious Weed Management Plan for Federal Lands.
- Wyo-Ben will mine the VRM Class II area progressing from Little Cottonwood Creek and work westerly to US HWY 16. The disturbance will be in various phases as a result of the cast back mining technique.

Structures

- Wyo-Ben will not have any structures within the VRM Class II area.
- All Camp Equipment sites, porta potties, and bentonite stockpile areas will be located in adjacent higher VRM sites of III & IV.

- Wyo-Ben will commit to locating top soil and sub soil stockpiles behind existing geological structural features, move them to VRM class III or IV areas, or shape the stockpiles to repeat the landscapes basic elements.

- Haul roads and all disturbances will be minimized and located to have the least visual impact within the VRM Class II Area.

Wyo-Ben will consider alternative innovative techniques for reclamation in order to achieve bond release. Some of these innovative techniques may include pitting, broadcasting, drilling, hydro-seeding, the crimping of straw, candy-stripping of soil where there is little to spread, seed coating, additives to the soil (including but not limited to mycorrhizae, boron, gypsum, limestone, fertilizers, mulch, grass clippings, wood chippings, weed free manure, biosolids, polymers, sugar), sagebrush seedlings, fencing, spraying of invasive species before and/or after mining, alternative irrigation techniques, alternative seed mixtures which may include approved non-native species, or other methods that will require BLM and DEQ approval prior to the application.

Timing of Construction Activities within the VRM Class II (West)

For the western portion of the Ten Claims proposed disturbance boundary, there is an overlap of the VRM Class II and the proposed disturbance boundary that is visible from KOP #2. Timing of Construction Activities will be restricted for this area:

- Wyo-Ben will mine only during the months of September through May and that any mining disturbance will be back filled, contoured, sub soiled, topsoiled and seeded each spring.

- In the case that the demand for bentonite decreases drastically while mining in this particular area, then Wyo-Ben will consult with the Worland Field Manager to discuss interim stabilization for a period of time and to address the visual impact of the disturbance.

- Wyo-Ben will disturb only that portion that is necessary as identified in the Potential Disturbance Area between the bentonite bed and the northern boundary.

Noxious Weed Management Plan for Federal Lands

Wyo-Ben Inc. will implement the following management plan to address noxious weed control on all of its activities conducted on Federal lands:

- The list of Prohibited and Noxious Weeds, located in the DEQ/LQD Guideline2, Appendix I will be used to identify noxious weeds and other weeds that may reduce wildlife habitat. This list of noxious weeds will be monitored and addressed for treatment once they are identified.

- All Wyo-Ben activity areas and access routes will be inventoried for infestations of noxious weeds of particular concern. Wyo-Ben personnel will conduct on-going monitoring of noxious weed presence at all activity sites and their access routes and take action, in cooperation with the Washakie County Weed and Pest, to remove noxious weeds when located.

- All off-road access will be limited to only necessary routes to minimize impacted areas and reduce spread of weeds.

- Wyo-Ben will control access through infested areas until weed removal is accomplished.

- Wyo-Ben, Inc. will train mining personnel (including contractor representatives) to identify noxious weeds of particular concern to assist in the monitoring process. Weed identification materials will be made readily available to assist in field identification.
- Vegetation will be reestablished on all vegetated soil disturbed by construction, reconstruction or maintenance activities at the first available window of opportunity. This may mean waiting until the fall planting season to help ensure the success of vegetation establishment.
- All seed will be laboratory tested for the presence of noxious weed seed. Native seed offered by local collectors will only be utilized after Wyo-Ben personnel have consulted with the collectors to ensure they possess the skills necessary to recognize noxious weeds of concern and sign a statement certifying that they have not collected seed in areas with noxious weed infestations.
- All hay or straw used for check-dam construction or mulching will be certified weed-free.
- All herbicides used on the BLM administered public land will be approved by the BLM prior to its application.

Allotment Fences

Wyo-Ben will maintain temporary fences as mining progresses through particular areas, and to coordinate with the ranchers the timing of their permitted use. Once an area has been fully mined out, stockpiles have been removed, and soil has been replaced and seeded then Wyo-Ben will replace the temporary fence with permanent fencing.

Wildlife

Raptors/Migratory Birds

Wyo-Ben will follow raptor nesting survey and buffer protocols outlined by the USFWS. These include conducting at least three surveys during nesting periods from early March through early June and maintaining a disturbance-free zone around active golden eagle nests of at least 0.5 miles and 0.25 miles for other active raptor nests during the nesting season (February 1 to August 15), or until it is determined that the young have fledged.

Wyo-Ben will maintain at least a 0.5 mile buffer from the eagle nest, found approximately .75mile from the proposed activity, and will monitor the nest for activity between January 15 and July 31

Wyo-Ben will address Migratory Birds by conducting ground surveys/nest searches prior to initial ground disturbing activities from April 1 through July 15. If Migratory Bird nests/broods are noted, operations will be delayed in the affected areas until young have fledged or the WDEQ-LQD, Worland BLM field office and USFWS consulted for alternative mitigation suggestions.

Sensitive Species

Wyo-Ben will address other BLM sensitive species by conducting ground surveys within immediate areas to be affected prior to disturbance by heavy equipment if initial ground disturbing activity occurs during nesting or brood-rearing periods (April 1 through July 15). If sensitive specie nests/broods are noted, operations will be delayed in the affected areas until young have fledged or the WY-LQD, Worland BLM field office and USFWS consulted for alternative mitigation suggestions.

Sage Grouse

Wyo-Ben will mitigate potential impacts to sage-grouse in the proposed mining area by the following:

- During the mating season, from March 15 through May 30, no mining or hauling activity will occur within ½ mile of a lek during the consecutive hours between 6:00 pm and 8:00 am to reduce impacts to mating birds due to audio and visual distractions.
- No initial surface disturbing activities will occur between May 15 (nesting season) and July 15 (brooding season) in areas that are within ¼ mile of active leks.
- Areas planned for disturbance that are further than ¼ mile from active leks will be checked for possible nesting or brooding sage-grouse between April 15 and July 15 before any activities begin. If nesting or brooding sage-grouse hens or chicks are found, mining will be halted until the birds can survive independent of the immediate nest habitat.
- Wyo-Ben will practice concurrent reclamation, including the separation and saving or direct, live spreading of topsoil and subsoil in order to increase the chances of quick revegetation success.
- Wyo-Ben will use a seed mix that will establish a diverse population of vegetation. Wyoming big sagebrush seed will be targeted to areas most likely to support initial sagebrush establishment at a rate of two to four pounds per acre.

Post Closure Management

Wyo-Ben will monitor all of its reclaimed lands post closure for off-site sedimentation, erosion and seeding failures. Off-site sedimentation is controlled by installation of straw bale or fabric check dams into affected drainages. If unacceptable erosion is detected, it is repaired at the first available opportunity.

Wyo-Ben will monitor seeding on a regular basis. If after two to four growing seasons vegetation establishment is not adequate, Wyo-Ben will determine the reason for failure and mitigate the problem including reseeding of the site.

STIPULATIONS:

Cultural Resources

Wyo-Ben will install a temporary barrier fence between the proposed surface disturbance and contributing portion of site 48WA2382. The fence will be in place prior to and during surface disturbing activities in the vicinity of the site.

Cultural Resources Mining Stipulations (compatible with the current 43 CFR § 3809 regulations): The operator is responsible for informing all persons associated with this project that they may be subject to prosecution for knowingly disturbing, altering, injuring, excavating, removing or destroying any historical or archaeological site, structure, building, or object on Federal lands.

The operator shall immediately bring to the attention of the Authorized Officer any cultural resources that might be altered or destroyed on Federal lands by his/her operations. If archaeological, historical, or Native American resources are discovered, the operator is to suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Any such discovery shall be left intact until the operator is told to proceed by the Authorized Officer.

The Authorized Officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after

notification to the Authorized Officer of such discovery. The decision as to the appropriate measures to mitigate adverse effects to cultural or paleontological resources shall be made by the Authorized Officer after consulting with the operator.

Before a Plan of Operations is approved, the operator is responsible for the cost of any investigations necessary and any mitigation measures required by the Authorized Officer. The Authorized Officer will provide technical and procedural guidelines for the conduct of the required evaluation and mitigation.

After the Plan of Operations is approved, or where a Plan of Operations is not involved, the Federal Government (BLM) shall have the responsibility and bear the cost of investigations and salvage of any cultural (and paleontological) values discovered by the operator.

Archaeological Resources Protection Act

No person may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to an issued permit.

Human Remains: If human remains are discovered or suspected, the operator shall suspend operations immediately, physically guard the area, and notify BLM immediately.

Paleontological Resources Mining Stipulations (compatible with the current 43 CFR § 3809 regulations):

1. **Collecting:** The project operator is responsible for informing all persons associated with this project including employees, contractors, and subcontractors under their direction that they shall be subject to prosecution for damaging, altering, excavating or removing any vertebrate fossils or other scientifically significant paleontological resources from the project area. Collection of vertebrate fossils (bones, teeth, turtle shells) or other scientifically significant paleontological resources is prohibited without a permit. Unlawful removal, damage, or vandalism of paleontological resources will be prosecuted by federal law enforcement personnel.

2. **Discovery:** If vertebrate or other scientifically significant paleontological resources (fossils) are discovered on BLM-administered land during operations, the Operator shall suspend operations that could disturb the materials, stabilize and protect the site, and immediately contact the BLM Worland Field Office Manager (Authorized Officer).

3. **Avoidance:** All vertebrate or scientifically significant paleontological resources found as a result of the project/action will be avoided during operations. Avoidance in this case means, “No action or disturbance within a distance of at least 100 feet of the outer edge of the paleontological locality.”