

DECISION RECORD
BLM CATEGORICAL EXCLUSION NO. F-10 (CX F-10), WY-070-CX14-093
Summit Gas Resources, Inc. (Summit),
Cresswell Clinker (“Scoria”) Mine, WYW-168459
Bureau of Land Management (BLM), Buffalo Field Office (BFO), Wyoming

DECISION:

BLM approves a Sales Contract application for removal of 5,000 cubic yards (CY) of Mineral Materials by Summit Gas Resources, Inc. (Summit) from their Cresswell Clinker (“Scoria”) Mine. The activities involved in the fulfillment of this Contract (BLM serial casefile WYW-168459) are described in CX F-10, WY-070-CX14-093, incorporated here by reference. This project is the result of collaboration between the BLM Buffalo Field Office (BFO) and Summit. The material to be removed is currently held in two (2) stockpiles of previously-prepared scoria, in addition to as-yet unmined material. The mine area includes 10 acres of privately-owned surface and BLM-administered federal mineral lands in the area indicated below. The surface disturbance is inclusive of all support infrastructure to include, but not limited to, the mine, staging area, access road, etc. No new disturbance is to occur during the 5-year life of this Sales Contract.

Compliance. This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); Interior Order 3310.
- The Materials Act of 1947 (30 USC 601 et seq.), as amended; 43 CFR 3600 et seq.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- Buffalo Resource Management Plan (RMP) and Records of Decision (RODs) 1985, 2001, 2003, 2011.
- Supplement to Memorandum of Understanding No. WY 19 Between the US DOI BLM, Wyoming State Office, and the State of Wyoming DEQ LQD for Management of Surface Mining and Exploration for Mineral Materials (Salable Minerals) on Public Lands; 2013.

The following summarizes details of the approval. The project description and site-specific mitigation measures are found in the CX F-10, WY-070-CX14-093.

County	Feature	TWN	RNG	Sec	Subdivision	Acres
Campbell	Summit’s Cresswell Clinker (“Scoria”) Mine	58 N	76 W	27	SESW	10.0
TOTAL						10.0

Limitations. Approval of this project is subject to compliance with the Standard Stipulations with the 2008 EA, WY-070-EA09-088, incorporated here by reference, in addition to the Standard and Special Stipulations attached for CX F-10, WY-070-CX14-093.

THE FINDING OF NO SIGNIFICANT IMPACT (FONSI). Analysis of the EA, WY-070-EA08-133, and its finding, found no significant impact on the human environment, both incorporated here by reference. The CX F-10 found that this type of action is categorically excluded from having significant impacts on the human environment, thus an EIS, EA, and FONSI are not required.

COMMENT OR NEW INFORMATION SUMMARY. Public scoping for Sales Contracts is not required by 43 CFR 3600, although BLM will post the decision to its website.

DECISION RATIONALE. The BLM approves the project for the following reasons:

1. BLM and Summit added design features and mitigation measures which reduced environmental impacts while meeting the BLM's need:
 - a. BLM approves the Sales Contract as submitted by Summit to remove 5,000 CY of scoria from an existing disturbance of 2.5 acres on 10 acres of privately-owned surface and BLM-administered federally-owned mineral lands, contingent upon compliance with other conditions of approval and reclamation; and,
 - b. To reduce impacts to nesting raptors:
 1. No surface-disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season.
 2. Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface-disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface-disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.
 3. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
 - c. To reduce impacts to nesting northern long-eared bats (proposed for federal endangered species listing): No trees shall be removed without prior authorization by BLM.
2. The approved project will not result in any undue or unnecessary environmental degradation and complies with 43 CFR 3602, Mineral Materials Sales.
3. The approved project will help meet the nation's mineral materials needs.
4. The approved project will help ensure continued public health and safety by meeting needs for nearby road maintenance.
5. The approved project will help stimulate local economies by maintaining workforce stability.
6. The Operator committed to:
 - a. Comply with all applicable federal, state, and local laws and regulations.
 - b. Confine the surface disturbance to that existing at the time of this FUP application.
 - c. Reclaim the mine to the standards in the WY BLM Reclamation Policy found in Appendix A to WY-070-CX14-093; Pinnacle (former mine operator) agreed to this in its' 2008 application, and Summit agreed in its' 2011 assumption (transfer) of this operation.
 - d. Comply with the terms and conditions in force from the EA, WY-070-EA08-133, and further grandfathered here.
7. The Operator certified it has posted an acceptable bond or that bond was waived.
8. This project is not located in or near, nor will it affect, a floodplain, wetland, or riparian area. The nearest riparian area is more than 3 miles to the east and south, along Powder River.
9. The project is clearly lacking in wilderness characteristics as it is smaller than 5,000 acres.
10. BLM reviewed the 12 extraordinary circumstances and none apply, 43 CFR 46.215.

ADMINISTRATIVE APPEAL. This decision is subject to administrative review in accordance with 43 CFR 3601.80. Request for administrative review of this decision must include information required under 43 CFR 4 and is appealed to the Interior Board of Land Appeals, as provided in 43 CFR 3601.80 and 43 CFR 4. A party adversely affected by a decision of the authorized officer or State Director made pursuant to subpart 43 CFR 3600, et. al., has the right of appeal to the Interior Board of Land Appeals, Office of Hearings and Appeals, pursuant to 43 CFR 4 and 43 CFR 1840.

Field Manager: /s/Duane W. Spencer

Date: 9/8/14

BLM CATEGORICAL EXCLUSION NO. F-10 (CX F-10), WY-070-CX14-093
Summit Gas Resources, Inc. (Summit),
Cresswell Clinker (“Scoria”) Mine, WYW-168459
Bureau of Land Management (BLM), Buffalo Field Office (BFO), Wyoming

BLM Categorical Exclusion (pursuant to 516 DM 11.9) No. F-10. Disposal of mineral materials, such as sand, stone, gravel, pumice, pumicite, cinders, and clay, in amounts not exceeding 50,000 cubic yards or disturbing more than 5 acres, except in riparian areas.

A. BACKGROUND

OFFICE: BLM, Buffalo Field Office (BFO), 1425 Fort St., Buffalo, WY, 82834.

TRACKING NUMBERS: WY-070-CX14-093.

* WY-070-EA08-133, approved July 15, 2008, for Pinnacle Gas Resources, Inc. (Pinnacle) [former mine operator], Cresswell Clinker (“Scoria”) Mine. This mine and its’ various approvals were assumed by Summit Gas Resources in 2011. See BLM casefile WYW-169944.

* WY-070-EA09-088, approved July 10, 2009, for Johnson County’s Rome Hills Sand/Gravel Mine. See BLM casefile WYW-170016.

* WY-070-EA10-171, approved May 13, 2010, for Johnson County’s Hakert Sand/Gravel Mine. See BLM casefile WYW-170084.

* WY-070-EA12-109, approved March 22, 2013, for Quality Aggregate and Construction’s Recluse Clinker (“Scoria”) Mine. See BLM casefile WYW-168351.

* BLM tiers to and incorporates these NEPA analyses by reference here because of substantially similar proposed mining operations, geography, and/or other resource issues.

BLM CASEFILE NO.: WYW-168459.

TITLE OF PROPOSED ACTION: New Sales Contract for Summit’s Cresswell Clinker (“Scoria”) Mine.

PROPOSED ACTION: Remove 5,000 cubic yards (CY) of clinker (“scoria”) from an existing 2.5-acre disturbance within an approved area of 10 acres, over 5 years’ time. This site exists entirely on privately-owned surface and BLM-administered federal mineral estate. No new surface disturbance is proposed at this time.

LEGAL DESCRIPTION:

County	Feature	TWN	RNG	Sec	Subdivision	Acres
Campbell	Summit’s Cresswell Clinker (“Scoria”) Mine	58 N	76 W	27	SESW	10.0
TOTAL						10.0

APPLICANT: Summit Gas Resources, Inc. (Summit), 1 East Alger Street, Sheridan, WY, 82801.

Description of Proposed Action: Summit applied for a new Sales Contract in order to continue removing mineral materials (clinker, also called porcellanite, or locally “scoria”) from their Cresswell Scoria Mine. This Sales Contract application indicates they wish to remove 5,000 CY of scoria from an existing mine, over 5 years’ time. This site consists of approximately 2.5 acres of existing disturbance, all entirely on privately-owned surface and BLM-administered federal mineral estate. This mine is permitted under Wyoming Department of Environmental Quality (WDEQ) Land Quality Division (LQD) Permit to Mine #1440ET, for 10 acres. The current disturbance consists of the actual mine area, staging areas, and access road. No new disturbance is anticipated to occur during the duration of this proposed Sales Contract. Some material is already stockpiled, and some will be mined from the within the disturbed areas. See Figures 1 through 5. It is likely that another Sales Contract application will be submitted after this one, and that reclamation of this site will not occur for some time. Summit sells, and directly uses some, the scoria to surface nearby oil/gas and ranch roads.

The mine is in a somewhat remote area: approximately 25 miles north of the town of Arvada, Wyoming, approximately 50 miles east-northeast of the city of Sheridan, Wyoming, and approximately 1.5 miles south of the Montana-Wyoming border. The area can be accessed by taking Powder River Road (County Road 269) north from US Highway 14/16 approximately 3 miles north of Arvada. Approximately 14 miles north along CR 269 is Pee Gee Ranch’s locked gate. This gated unnamed ranch road is where the series of other unnamed ranch/oil/gas roads leading to the mine area begins. The access road leading directly into the mine is approximately 12.5 miles along these other roads from the locked ranch gate. All equipment needed to remove these materials will be operated and housed in the current area of disturbance. The 2008 authorization for this mine to Pinnacle (assumed by Summit in 2011) approved a 10-acre mine (see EA #WY-070-EA08-133, to which this CX tiers). Subsequently, this application covers 10 acres, and stipulates no new surface disturbance above the 2.5 already disturbed.

B. LAND USE PLAN CONFORMANCE

Land Use Plan: Buffalo Resource Management Plan (RMP) approved 1985; Amended 2001, 2003, and 2011.

The proposal conforms to the applicable RMP because it is specifically provided for in the following RMP decision(s):

Buffalo Resource Management Plan (RMP), 1985, p. 8; MM-8: The entire resource area is available for mineral materials sales initiated either by the BLM or by application. This does not include sites designated by the BLM for free use by city, county, and state entities.

C. COMPLIANCE WITH NEPA

The proposal is categorically excluded from further analysis under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9: F. Solid Minerals, 10, “Disposal of mineral materials, such as sand, stone, gravel, pumice, pumicite, cinders, and clay, in amounts not exceeding 50,000 cubic yards or disturbing more than 5 acres, except in riparian areas.” [Note that 50,000 cubic yards (CY) of sand/gravel equals approximately 33,333 tons, as 1 CY equals approximately 1.5 tons.]

This CX F-10 is appropriate in this situation because there are no extraordinary circumstances having effects that may significantly affect the environment. BLM reviewed the proposal and none of the extraordinary circumstances in 516 DM 2 (and BLM NEPA Handbook H-1790-1, Appendix 5) apply.

Considered:

- BLM and Summit added design features and mitigation measures which reduced environmental impacts while meeting the BLM's need:
 - BLM approves the Sales Contract as submitted by Summit to remove 5,000 CY of scoria from an existing disturbance of 2.5 acres on 10 acres of privately-owned surface and BLM-administered federally-owned mineral lands, contingent upon compliance with other conditions of approval and reclamation; and,
 - The following conditions will alleviate impacts to raptors:
 - No surface-disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season.
 - Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface-disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface-disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.
 - If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
 - The following condition will alleviate impacts to northern long-eared bats (proposed for federal endangered species listing):
 - No trees shall be removed without prior authorization by BLM.
- The approved project will not result in any undue or unnecessary environmental degradation and complies with 43 CFR 3602, Mineral Materials Sales.
- The approved project will help meet the nation's mineral materials needs.
- The approved project will help ensure continued public health and safety by meeting needs for nearby road maintenance.
- The approved project will help stimulate local economies by maintaining workforce stability.
- The Operator has committed to:
 - Comply with all applicable federal, state, and local laws and regulations.
 - Confine the surface disturbance to that existing at the time of this Sales Contract application.
 - Reclaim the mine to the standards in the WY BLM Reclamation Policy found in Appendix A to WY-070-CX14-093; Pinnacle (former mine operator) agreed to this in its' 2008 application, and Summit agreed in its' 2011 assumption (transfer) of this operation.
 - Comply with the terms and conditions in force from the EA, WY-070-EA08-133, and further grandfathered here.
- The Operator certified it has posted an acceptable bond or that bond was waived.
- This project is not located in or near, nor will it affect, a floodplain, wetland, or riparian area. The nearest riparian area is more than 3 miles to the east and south, along Powder River.
- The project is clearly lacking in wilderness characteristics as it is smaller than 5,000 acres.

Persons and Agencies Consulted

The following individuals and agencies were consulted and contributed to this document:

- Kurt King; WDEQ LQD Sr. Environmental Analyst
- Don Brewer; BLM Biologist
- Ardeth Hahn; BLM Archaeologist
- John Kelley; BLM NEPA Coordinator
- Kerry Aggen; BLM Geologist, Project Lead, and Document Preparer

D: SIGNATURE

Field Manager: _____/s/Duane W. Spencer_____ Date: 9/8/14_____

CONTACT PERSON: Kerry Aggen, Field Office Geologist, Buffalo Field Office, 1425 Fort Street, Buffalo, WY, 82834, 307-684-1196, kaggen@blm.gov.

REVIEW AND DOCUMENTATION FOR EXTRAORDINARY CIRCUMSTANCES:

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 516 DM 2 (and BLM NEPA Handbook H-1790-1, Appendix 5) apply.

EXTRAORDINARY CIRCUMSTANCES:		
1. Have significant impacts on public health or safety.		
Yes	No XX	This project will have <i>positive</i> impacts on public health and safety. The mineral materials obtained from the project area will be used on nearby ranch/oil/gas roads to help keep them passable for much of the year. These roads are used regularly by employees of the surrounding Pee Gee Ranch, as well as oil/gas operators and contractors servicing the oil/gas facilities on the Ranch. State and federal employees also use these roads to access these facilities to conduct inspections and other required activities. In addition, various powerlines and telephone lines cross this area to provide power and phone service to the Pee Gee Ranch, and surrounding neighboring areas. Employees of these companies also regularly access the area via these roads to maintain such facilities vital to public health and safety. As the main Pee Gee Ranch road leading to this area is kept locked, and much of the surface estate of the Ranch is privately-owned, the general public is not allowed access to this area. Any potentially possible negative impacts on public health and safety from their inadvertent excursions into the area are extremely minimal; any residual amount is mitigated for and/or minimized through the Standard Stipulations attached to this project.
2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		
Yes	No XX	No historic properties will be impacted by the proposed project. Following the 2014 <i>State Protocol Between the Wyoming Bureau of Land Management State Director and The Wyoming State Historic Preservation Officer</i> , Section V(E)(iii), the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on June 4, 2014, that no historic properties exist within the area of potential effect (APE). The entire project area is covered by previously accepted Class III (intensive) Cultural Resource Inventories (BFO project nos. 70010111, 70070083). No cultural resources are located in the proposed project area. There are no areas of critical environmental concern, wilderness study areas, monuments, or other areas with special designation or needing special protection in or near the project area. The project area does not occur in, nor will it affect, a floodplain, wetland, or riparian area. The nearest riparian area is in Powder River, over 3 miles east and south of the project area.
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102 (2) (E)].		
Yes	No XX	This project involves continued mining and removal of scoria from an existing mine. This mine has been in existence since 2008, when it was first opened by Summit/Pinnacle through

EXTRAORDINARY CIRCUMSTANCES:		
		<p>an inadvertent unapproved operation. The subsequent approved authorization (WYW-169944) was also to Summit/Pinnacle.</p> <p>The nearest BLM-authorized scoria mines to the project area are: Pee Gee Ranch's Pee Gee (WYW-168399) and Wood Group's Bow & Arrow/Chriswell (WYW-168350), approx. 4.5 miles south and southeast, respectively; Earthwork Solutions' Cresswell (WYW-169892), approx. 10 miles east-southeast. Several more are approx. 15-22 miles southeast: Hettinger's Brug (WYW-169859); Quality Aggregate's Recluse (WYW-168351) and Harris (WYW-168373); and Campbell County's Davis (WYW-168448). There are no other BLM-authorized mineral materials mines within 20 miles of this mine.</p> <p>The impacts of this project are similar to other mineral materials projects that have been implemented and monitored. Therefore, impacts of the proposed project are well-known, and will be overwhelmingly positive (see #1 above).</p>
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		
Yes	No XX	The proposed action generally has very predictable consequences well established as insignificant.
5. Establish a precedent for future action or represent a decision in principal about future actions with potentially significant environmental effects.		
Yes	No XX	This project will not have a potentially significant environmental effect.
6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		
Yes	No XX	This project does not have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.
7. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.		
Yes	No XX	The project area consists entirely of existing disturbances, and no new disturbances are proposed. No Cultural Resources, including historical properties, will be affected (see #2 above).
8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species. A table of analyses for specific threatened, endangered and sensitive species can be found in the project files.		
Yes	No XX	<p>The project area is outside of core/connectivity areas for greater sage-grouse (GSG) conservation (as outlined in Wyoming State Executive Order 2011-5, "Greater Sage-Grouse Core Area Protection."). No GSG leks occur within 4 miles of the existing mine. Suitable nesting habitat is limited to very marginal cover adjacent to the mine.</p> <p>Suitable raptor nesting habitat is present within 0.5 miles of the proposed project. One nest (BLM #4272) has been documented near the project area.</p>

EXTRAORDINARY CIRCUMSTANCES:		
		<p>Suitable nesting habitat for migratory birds exists in the project area. No nests were located during surveys.</p> <p>No new surface disturbance is proposed for the pit. Impacts to wildlife from the hauling of stockpiled material will be minimal.</p> <p>No listed threatened and endangered species, or their critical habitat, occur in/near the project area. The northern long-eared bat, a species proposed for Endangered Species Act list potentially occurs in the mine area.</p> <p>Special Stipulations were recommended to be attached to the mine's authorization to protect raptors and northern long-eared bats.</p>
9. Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment.		
Yes	No XX	The existing mining operation is currently, and will continue to be, permitted by WDEQ LQD under Permit to Mine #1440ET. WGFD will routinely monitor the site for wildlife impacts.
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		
Yes	No XX	Neither low-income nor minority populations will be impacted. The nearest residents to the project area are the residents of the surrounding Pee Gee Ranch; this Ranch owns much of the adjacent surface and/or mineral lands.
11. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).		
Yes	No XX	No sacred sites exist in or near the project area, therefore access to sacred sites will not be affected by approval of this project (see #2 above).
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).		
Yes	No XX	Operator has agreed to abide by the Standard Stipulations attached to the approval of this project. These Stipulations include requirements that the operator take necessary actions to prevent the introduction and/or spread of noxious or non-native invasive species in the project area.

Figure 1. Map showing location of Summit's existing Cresswell Clinker ("Scoria") Mine project (WYW-168459). The current mine disturbance areas are outlined in red. These areas total approximately 1.6 acres; the remaining approximately 0.9 acres of disturbance includes the mine access road. Approximate location of access road shown by dark black dashed line. The "Jeep Trail" shown on the map is an unnamed Pee Gee Ranch road; this is the road along which the telephone poles run. No further disturbance is proposed here, and none has occurred since 2008. Disturbances GPS'ed by BLM's Jerry Queen on October 22, 2008.

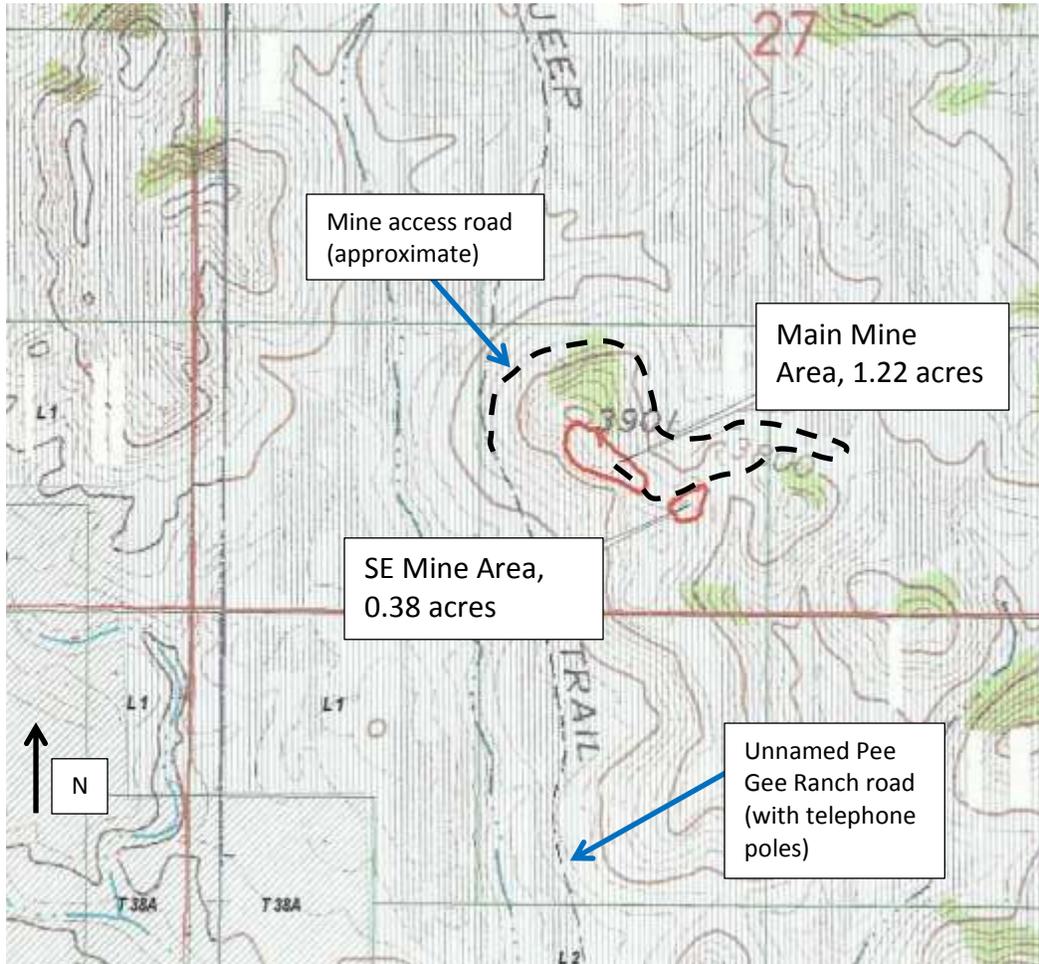


Figure 2. Long-distance view of Summit’s existing Cresswell Clinker (“Scoria”) Mine project (WYW-168459). The westernmost portion of the Main Mine Area (and westernmost portion of the Mine floor) can be seen to left in far ground; easternmost portions are unseen, behind the middle hillcrest in far ground. The SE Mine Area is also unseen, behind same hillcrest. The unnamed Pee Gee Ranch road from which the Mine’s access road comes off can be seen across middle ground. Note the equipment near the telephone poles along this road; repairmen were present when this mine inspection occurred, and they were replacing and repairing some of those vital facilities/structures. Photo taken looking east-northeast from another unnamed Ranch road west-southwest of the Mine on October 28, 2011, by Kerry L. Aggen.



Figure 3. Panoramic photo of entire Summit’s existing Cresswell Clinker (“Scoria”) Mine project (WYW-168459). The Main Mine Area (and main portion of the Mine floor) can be seen across entire near ground. The SE Mine Area can be seen in left middle ground; the hillcrest to its’ right hides this area in Figure 2. The Main Area’s scoria stockpile is now mostly covered by the dark green vegetation in center through right near ground. Photo taken looking approx. east through south from near northern edge of disturbance on August 26, 2014, by Kerry L. Aggen.



Figure 4. Photo of Main Area’s stockpile, Summit’s existing Cresswell Clinker (“Scoria”) Mine project (WYW-168459). The face of the Main Mine Area’s scoria stockpile is shown in near ground, behind SUV. The hillcrest behind and to its’ right, is the point from which the photo in Fig. 3 was taken, and is the southern end of the northernmost (leftmost) hillcrest in Fig. 2. Photo taken looking approx. northwest from Main Mine Area floor on August 26, 2014, by Kerry L. Aggen.



Figure 5. Panoramic photo of SE Mine Area of Summit’s existing Cresswell Clinker (“Scoria”) Mine project (WYW-168459). The SE Mine Area’s scoria stockpile is shown across left through center near ground, behind SUV. The hillcrest to its’ right (unseen) is the hillcrest that hides this area in Fig. 2. Photo taken looking approx. south from Mine access road on August 26, 2014, by Kerry L. Aggen.



APPENDIX A: RECLAMATION REQUIREMENTS, WYOMING BLM.

The following Reclamation Requirements apply to all surface disturbing activities, including BLM-initiated activities, and must be addressed in each reclamation plan. These requirements also must be met prior to release of the bond and/or the reclamation liability. Where these Reclamation Requirements differ from other applicable federal, laws, rules, and regulations, those requirements supersede this policy. State and/or local statutes or regulations may also apply.

1. Manage all waste materials:

- a. Segregate, treat, and/or bio-remediate contaminated soil material.
- b. Bury only authorized waste materials on site. Buried material must be covered with a minimum of three feet of suitable material or meet other program standards.
- c. Ensure all waste materials moved off-site are transported to an authorized disposal facility.

2. Ensure subsurface integrity, and eliminate sources of ground and surface water contamination:

- a. Properly plug all drill holes and other subsurface openings (mine shafts, adits etc.).
- b. Stabilize, properly back fill, cap, and/or restrict from entry all open shafts, underground workings, and other openings.
- c. Control sources of contamination and implement best management practices to protect surface and ground water quality.

3. Re-establish slope stability, surface stability, and desired topographic diversity:

- a. Reconstruct the landscape to the approximate original original contour or consistent with the land use plan.
- b. Maximize geomorphic stability and topographic diversity of the reclaimed topography.
- c. Eliminate highwalls, cut slopes, and/or topographic depressions on site, unless otherwise approved.
- d. Minimize sheet and rill erosion on/or adjacent to the reclaimed area. There shall be no evidence of mass wasting, head cutting, large rills or gullies, downcutting in drainages, or overall slope instability on/or adjacent to the reclaimed area.

4. Reconstruct and stabilize water courses and drainage features:

- a. Reconstruct drainage basins and reclaim impoundments to maintain the drainage pattern, profile, and dimension to approximate the natural features found in nearby naturally functioning basins.
- b. Reconstruct and stabilize stream channels, drainages, and impoundments to exhibit similar hydrologic characteristics found in stable naturally functioning systems.

5. Maintain the biological, chemical, and physical integrity of the topsoil and subsoil (where appropriate):

- a. Identify, delineate, and segregate all salvaged topsoil and subsoil based on a site-specific soil evaluation, including depth, chemical, and physical characteristics.
- b. Protect all stored soil material from erosion, degradation, and contamination.
- c. Incorporate stored soil material into the disturbed landscape.
- d. Seed soils to be stored beyond one growing season, with desired vegetation.
- e. Identify stockpiles with appropriate signage.

6. Prepare site for revegetation:

- a. Redistribute soil materials in a manner similar to the original vertical profile.
- b. Reduce compaction to an appropriate depth (generally below the root zone) prior to redistribution of topsoil, to accommodate desired plant species.
- c. Provide suitable surface and subsurface physical, chemical, and biological properties to support the long term establishment and viability of the desired plant community.
- d. Protect seed and seedling establishment (e.g. erosion control matting, mulching, hydro-seeding, surface roughening, fencing, etc.)

7. Establish a desired self-perpetuating native plant community:

- a. Establish species composition, diversity, structure, and total ground cover appropriate for the desired plant community.
- b. Enhance critical resource values (e.g. wildlife, range, recreation, etc.), where appropriate, by augmenting plant community composition, diversity, and/or structure.
- c. Select genetically appropriate and locally-adapted native plant materials based on the site characteristics and ecological setting.
- d. Select non-native plants only as an approved short term and non-persistent alternative to native plant materials. Ensure the non-natives will not hybridize, displace, or offer long-term competition to the endemic plants, and are designed to aid in the re-establishment of native plant communities.

8. Reestablish complementary visual composition:

- a. Ensure the reclaimed landscape features blend into the adjacent area and conform to the land use plan decisions.
- b. Ensure the reclaimed landscape does not result in a long-term change to the scenic quality of the area.

9. Manage Invasive Plants:

- a. Assess for invasive plants before initiating surface disturbing activities.
- b. Develop an invasive plant management plan.
- c. Control invasive plants utilizing an integrated pest management approach.
- d. Monitor invasive plant treatments.

10. Develop and implement a reclamation monitoring and reporting strategy:

- a. Conduct compliance and effectiveness monitoring in accordance with a BLM- (or other surface management agency-) approved monitoring protocol.
- b. Evaluate monitoring data for compliance with the reclamation plan.
- c. Document and report monitoring data and recommend revised reclamation strategies.
- d. Implement revised reclamation strategies as needed.
- e. Repeat the process of monitoring, evaluating, documenting/reporting, and implementing, until reclamation goals are achieved.