

MINE PLAN
Dated August 1, 2025

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MP.1.0 GENERAL DESCRIPTION OF MINING OPERATION

American Colloid Company is submitting the Sims application to the Wyoming Department of Environmental Quality's Land Quality Division to Amend lands into PT0322 in the Sims area, Update lands currently within PT0322 in the Sims area, and to consolidate all permitting actions that have occurred in the Sims Area. The Sims Consolidation Area includes a total of 1,019.33 acres in portions of Sections 26, 35, and 36 of Township 58 North Range 96 West, and Section 31 of Township 58 North Range 95 West. In addition to the Amendment lands, these lands include previously permitted and updated lands and have been inactive since the mid 1990's. The current Sims project proposes to Amend 330.00 acres into PT0322 and Update 409.33 acres. All lands being amended into PT0322 with this action are federal. The update lands consist of 49.33 acres of private lands and 360.00 acres of lands where the State of Wyoming maintains mineral ownership and the BLM owns the surface rights. Total proposed disturbance for the Sims Amendment/Update is 299.114 acres. Historical Changes to PT0322 in the Sims Consolidation area include Change 1 (original Sims amendment), Change 4 (Sims Update – Wyo-Ben), Change 5 (Sims Update – ACC), Change 8 (Sims Update – Wyo-Ben), Change 11 (Sims Update – Wyo-Ben), Change 13 (Sims Update – Wyo-Ben), and an unnumbered change (Sims Update – Wyo-Ben). Mining and Reclamation activities approved by the historical Changes listed above have been completed.

This area is located approximately 8.5 miles north of Lovell, Wyoming and approximately eight miles northwest of ACC's Lovell Plant. To see complete legal descriptions and the actions described above, please refer to the Introduction section of this application.

MP.1.1. Permitting History and Current Actions

American Colloid Company has mined bentonite in the Sims area since approximately 1977. As discussed in the Introduction of this application, six pre-1981 permitting Changes have occurred in the area and one action is proposed in this submittal (Sims Update/Amendment). Once this application is approved, this Mine Plan will supersede all previous Mine Plans that have been approved in the Sims area. The mine plans historically approved in the area are summarized below.

MP.1.1.1. Change Number 4 (White Acres 9, Blue Wash, Bischoff, Sims)

Change Number 4 to PT0322 consisted of updates to three properties. These included White Acres 9, Bischoff, and Blue Wash. Also included in this Change was an Update to portions of the Sims School Section for clay awarded to Wyo-Ben Inc. as a result of a trespass settlement. Please see the Introduction section of this application for additional information regarding the specific parcels in the Sims School Section updated by this Change. The current proposed Sims Update/Amendment area includes lands updated by Change 4. Data reported for this submittal included original pages 33 through 38 and two maps. Mining and reclamation activities approved by Change 4 have been completed.

MP.1.1.2. Change Number 5 (Andy May, Joy 4, Pak, White Rock, Sims)

Change Number 5 to PT0322 was approved May 17, 1985 and consisted of Updates to five properties. These included Andy May, Joy 4, Pak, White Rock, and Sims. This application includes information from the Sims portion of that submittal. Please see the Introduction section of this application for additional information regarding the location of this property. The current proposed Sims Update/Amendment proposes to affect the southern portion of the lands updated in Change 5 in the Sims area (SE4 Section 36 Township 58 North Range 96 West). The mine plan included seven pages (Pages MP-1 through MP-7) dated 11/1/84 and one map, Mine Plan – Sims (dated 11/1/84). All mining and reclamation activities approved in Change 5 have been completed.

MP.1.1.3. Change Number 8 (Lewis-Weathersbee, Sims, L-17-77, Pete, Threshing Machine)

Change Number 8 to PT0322 was approved April 6, 1987 and consisted of Updates to five properties. These included Lewis-Weathersbee, Sims, L-17-77, Pete, and Threshing Machine. This application includes information from the Sims portion of that submittal. Please see the Introduction section of this application for additional information regarding the location of this property. The portion of the Sims area that was updated in Change 8 is not included in the current Sims Update/Amendment. The mine plan included ten pages (Pages MP-1 through MP-10) and one map dated 2/27/87. All mining and reclamation activities approved in Change 8 have been completed.

MP.1.1.4. Change Number 11 (Sims Update)

Change Number 11 to PT0322 was approved on September 6, 1990 and consisted of an Update to 80 acres in the Sims School Section by Wyo-Ben Inc. as a result of clay awarded to Wyo-Ben Inc. in the trespass agreement. Please see the Introduction section of this application for complete information regarding the location and status of this property. This action increased the disturbance acreage approved in Change 4. The mine plan submitted by Wyo-Ben, Inc. for Change 11 consisted of 3 pages (Page 22-24) and one map. All mining and reclamation activities approved by Change 11 have been completed.

MP.1.1.5. Change Number 13 (Sims Update)

Change Number 13 to PT0322 was approved August 27, 1991 and consisted of an Update to the Sims School Section by Wyo-Ben Inc. as a result of clay awarded to Wyo-Ben Inc. in the trespass agreement. Please see the Introduction section of this application for complete information regarding the location and status of this property. This action increased the disturbance acreage approved in Changes 4 and 8. The mine plan submitted by Wyo-Ben, Inc. consisted of three pages (Page 18-20) and one map. All mining and reclamation activities approved by Change 13 have been completed.

MP.1.1.6. Unnumbered Change to PT0321 (Sims Update)

Wyo-Ben Inc. submitted a request to Update 20 acres of lands within PT0322 on the Sims School Section that was approved on January 19, 1996. This Update was not assigned a formal Change number. This action added lands to the disturbance area to aid in reclamation of lands on the Sims School Section. Please see the Introduction section of this application for complete legal descriptions and status of lands included in this Update. The submittal consisted of a five-

page letter and map to Jack Smith of LQD. All mining and reclamation approved by this unnumbered change have been completed.

MP.1.1.7. Sims Project area (Update/Amendment)

The Sims project area consists of 739.33 acres of federal and private lands. The project is part of the Sims consolidation area and is located in portions of Section 31, T58N R95W and Sections 26, 35, and 36 of T58N R96W. Please see the Introduction section of this application for complete legal descriptions of lands included in the Sims Amendment/Update area. The following mine plan only includes proposed mining for the Sims project area in the current submittal. Please note that Section 36 is split estate; the State of Wyoming maintains mineral ownership and the BLM holds the surface. ACC will maintain the proposed ROW WYWY-106743935 with the BLM for areas where 3809 does not apply.

MP.1.2. Type of Mine

The mining method used by ACC is surface mining: a sequence of small pits (generally 1-3 acres in size) are dug to access and remove the bentonite deposit. As the pits progress through a sequence, reclamation begins at the first pit and follows the active mining as overburden is backcast from the new pit to the previous pit in the series.

MP.1.3. Life of Mine

The life of mine is anticipated to be up to twenty years, with mining to commence upon approval. It is estimated that an average of twenty to thirty acres of new disturbance will be created in the Sims area annually.

Reclamation activities will occur concurrently with mining activities and as soon as possible after mining. As such, the total unreclaimed mine footprint in the area should remain relatively constant over time.

MP.1.4. Equipment List

Mining activities are generally conducted with the following or similar equipment:

- D-8, D-9, D-10, D-11, and 375 dozers
- 627 and 637 scrapers
- 980, 450, 972, and 966 front-end Loaders
- 140, 14, and 16 motor graders
- 300, 308, 330, and 345 excavators
- Over-the-road, belly dump haul trucks

MP.1.5. Nature of Ore

The bentonite to be mined on the Sims consolidation area is associated with the Frontier Sandstone (see *Appendix D-5*). The average thickness of the bentonite beds within the area is approximately 1-4 feet.

MP.1.6. Existing Underground Mines

There are no known existing underground mines on or adjacent to the proposed mining areas.

MP.1.7. Protection of Other Resources

ACC will conduct all mining activities in such a manner as to minimize the total area of disturbance and prevent undue degradation to the environment. Baseline cultural and environmental conditions for the area have been measured and reported on in Appendices D-3 through D-10. Planned mitigation measures specific to each resource are discussed throughout this Mine Plan where appropriate, described in detail in the aforementioned appendices, and summarized in Addenda MP.2 and MP.3.

MP.1.8. Quality Assurance Plans

The mine site will be inspected by ACC personnel at regular intervals. ACC's mine manager, surveyors, and environmental personnel visit the mine sites frequently. ACC personnel also coordinate mining activity with the site foreman, who is on site daily to ensure proper operations are followed according to plan and schedule. Areas of concern, such as erosion problems, are communicated to the mining foreman and mining manager directly from operators and other observers.

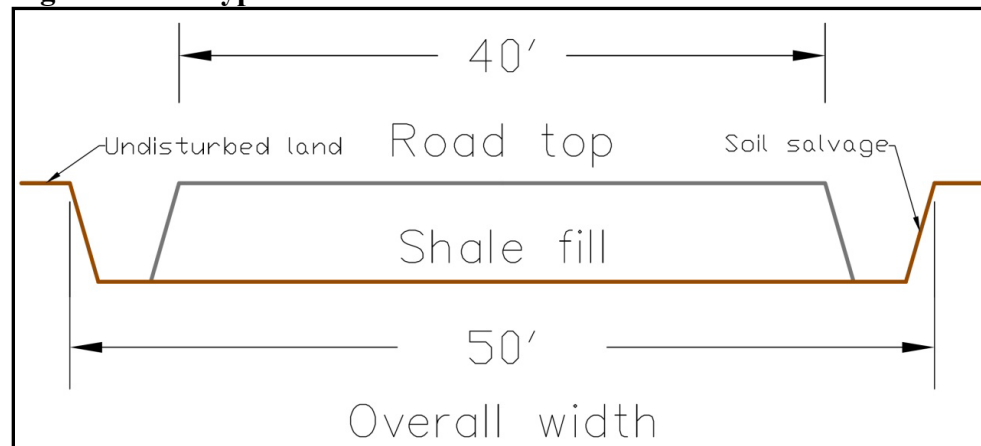
MP.1.9. Description of Mine Facilities

MP.1.9.1. Buildings, Processing Plants, and other Facilities

No buildings, processing plants, or other facilities will be constructed for this mining operation. The bentonite will be hauled to ACC's processing plant which is approximately three miles northeast of Lovell, Wyoming.

MP.1.9.2. Access and Haul Roads

Figure MP.1. Typical Haul Road Cross Section



A typical haul road cross section is provided in Figure MP.1. Actual dimensions may vary, especially for the existing haul roads present in the area. These roads will not be expanded; they will remain in their current state and will be maintained as needed. New roads constructed on federal land will be designed according to BLM Road Manual standards. If necessary,

appropriate cattle guards or gates will be installed where haul roads cross through existing fences. Adequately sized culverts will be installed as appropriate.

In-pit haul roads are temporary roads constructed over areas of future mining or on backfilled pits. These haul roads are reclaimed along with associated mining. Out-of-pit haul roads are constructed outside areas that will be or have been mined. These roads are reclaimed once mining concludes in an area unless desired by the private landowner or the federal land manager.

The access haul roads will replace existing four string fence gates with cattle guards where applicable.

The Sims area will be accessed via Highway 37, and Lane 9 ½. Access continues along ACC existing Rolling Hills haul road, the Sims haul road, and County Road 7 1/2. In-pit haul roads will access all mining from the existing ACC haul roads.

MP.1.9.3. Power Transmission, Communication Lines, and Utilities

No overhead powerlines, communication lines, or utilities are present in the Sims project area.

MP.1.9.4. Sedimentation and Treatment Ponds

There will be areas immediately behind the open pit that may be used as an area for stormwater storage that has collected within the pit. This water will either be used to water haul roads for dust control, discharged onto reclamation, or discharged into an ephemeral drainage as soon as the applicable effluent limits are achieved.

MP.1.9.5. Mill and Tailing Disposal Site

No mill or tailings disposal sites will be necessary for the mining operation.

MP.1.9.6. Hydraulic Diversions, Retention Systems & Mining Hydrology

Please refer to Appendix D-6 and Appendix D-10 for detailed information on the hydrology of the area. No perennial or intermittent streams will be disturbed by the mining operation. However, ephemeral drainages will be disturbed and properly reclaimed.

Best Management Practices (please see Appendix D-10) will be followed to minimize the potential for run-off to transport sediment to the rivers. Erosion will be kept to a minimum. If necessary, straw bales or wattles, erosion blankets, sediment fences, and/or water bars will be used for erosion control. Sediment in storm water run-off may also be controlled around disturbed areas by constructing temporary diversion ditches. Given the size of the affected watersheds in the area, these ditches may be constructed using a grader blade. The ditches would be triangular in shape and be a minimum of 1.5 feet deep with 2:1 side slopes. Soil salvaged while constructing the ditch would be placed on the downslope side of the ditch in order to create a berm that will further prevent run-off from flowing over disturbed areas. Due to inadequate capacity or special concerns, larger interceptor ditches may also be constructed with a scraper. These ditches would have a bottom width of approximately 12 feet with 1:1 side slopes. All interceptor ditches will have sufficient capacity to pass the peak flow from the 2-year, 6-hour

storm event as required by WDEQ/LQD Non-Coal Rules and Regulations, Chapter 3, Section 2(e)(ii)(F). All interceptor ditches will be blended into adjacent topography, soiled, and seeded when they are no longer necessary.

If surface water accumulates in an open pit, it will be buried or used to control dust in the disturbed area and/or on nearby haul roads. Any accumulated stormwater that is needed to be discharged into a drainage will be stored in a storage pond immediately behind the open pit and will be discharged into an ephemeral drainage when applicable effluent limits are achieved. Temporary overburden and soil stockpiles will not block drainages. Permanent overburden piles will be constructed to allow for natural drainage to occur. All disturbed areas will be revegetated as soon as possible to minimize the potential for post-mine erosion.

During the exploration drilling process, water was only encountered at relatively shallow depths and is likely perched water overlying bentonite beds. Based on the nature of the strata to be mined and past experiences, ACC does not anticipate that groundwater will be impacted.

One surface water right is present in the proposed disturbance area, located in the D series. This area holds water as a relatively stable pond from ephemeral channel D. ACC proposes to mine through this pond and replace it along Channel D. ACC proposes to mine through the area in the dry season and have the pond and drainage reclaimed to the approved capacity prior to spring runoff, so the quantity of surface water available for cattle grazing will be maintained. The arrangement has been approved by the surface water right holder. Please see the correspondence section of this application for the signed letter.

MP.1.9.7. Spill Contingency and Countermeasure Plan

No equipment will be serviced or fueled within at least 500 feet of any potential riparian areas present in the area. Because the Sims area generally drains to the nearby Bighorn River, Best Management Practices (please see Appendix D-10) will be followed to minimize the potential for run-off to transport pollutants to the rivers. Fuel will be delivered to the mine site and stored in mobile tanks that are relocated as necessary as mining equipment moves throughout the area. Containment berms are typically constructed from overburden around the mobile fuel tanks. These areas are always located where soil has been salvaged thereby creating a secondary containment basin. If a spill were to occur, mine personnel are instructed to make sure the site is safe, stop additional spillage, ensure containment of spilled materials, and contact the company's environmental representative. Per ACC's Stormwater Pollution Prevention Plan, all spills over 25 gallons will be reported. The spill cleanup process would be completed with the appropriate earth moving equipment depending on the size of the spill. Disposal of the contaminated material would be coordinated by ACC environmental personnel at an approved landfarm in accordance with state and federal regulations.

The potential exists for mined bentonite to unintentionally be spilled onto native land during mining operations. If this does occur, mine personnel are instructed to immediately remove the bentonite and then further clean the site to ensure that deleterious effects are minimized. If the magnitude of the spill requires the use of earth moving equipment to remove the spilled bentonite, any disturbance will be properly reclaimed once the bentonite has been properly removed from the area.

MP.1.9.8. Solid Waste Disposal

Any solid waste generated during mining operations will be disposed of at an appropriate landfill. All used oil generated from equipment will be recycled.

MP.1.9.9. Railroads or Conveyors

No railroads or conveyors will be constructed for the mining operation.

MP.1.9.10. Storage and/or Stockpile Sites

Bentonite stockpiling will be minimized to the extent possible. However, some stockpiles may be necessary for field drying or storage prior to hauling to the plant. These stockpiles are typically placed on previously backfilled pits where soil has not yet been respread. Containment berms or basins will be constructed around any bentonite stockpiles as necessary. Other stockpiles present include temporary overburden stockpiles and topsoil and subsoil stockpiles. Temporary overburden stockpiles will be constructed in areas where soil has been salvaged. However, soil stockpiles may be constructed on areas (run-on) where no soil salvage has occurred. Map MP.1 includes the proposed locations of all temporary overburden and soil stockpiling areas.

MP.1.9.11. Access Control Features

Due to the small pit area disturbed at any one time and the relatively short time a single pit is open, no specific access control features are planned. Instead, any hazardous condition which develops during the operation will be eliminated, bermed, or fenced to protect human and animal life and then reclaimed after cessation of activities in the area.

MP.2.0 MINING METHOD AND SCHEDULE

MP.2.1. Soil Management

Prior to the movement of overburden, topsoil and subsoil will be stripped with equipment (generally scrapers or excavators) in at least two separate lifts. Salvaged topsoil and subsoil are either stockpiled separately or live spread (directly spread onto previously backfilled and contoured areas). Topsoil and subsoil from all affected areas will be salvaged prior to disturbance according to the recommendations described in Appendix D-7. The soils present in the Sims area have highly variable depths and chemical suitabilities. They vary from thick and suitable native soils in the northwestern portion of the project area to thin and sodic native soils in the central, southern, and eastern portions of the project area. Many of the soils are reclaimed and also have varying suitabilities. Suitable native soils will be salvaged, stockpiled, and respread separately from less suitable native soils. Also, native soils will be stockpiled, salvaged, and respread separately from reclaimed soils. Reclaimed soils with suitable chemical characteristics will be handled separately from those that are less suitable as well. All attempts will be made to ensure that soils will be respread in areas near to where they were salvaged.

Topsoil and subsoil will be clearly marked with signs reading TOPSOIL and SUBSOIL. Stockpiles left in place for more than one year will be seeded with the mixture described in Table MP.1 or with the seed mixes described in the Reclamation Plan in the spring or fall. Stockpiles will be reseeded if soil is taken from or added onto the stockpile or if significant erosion issues develop due to insufficient vegetation establishment. Soil not stockpiled will be live spread.

Occasionally ACC creates new soil stockpiles or adds/removes soil from existing stockpiles in late spring or early summer. In these months where application of native seed mixes would not be successful, ACC will seed these piles with a sterile cover crop, such as oats or barley. This application would occur prior to seeding with a native seed mix the following fall/winter. The Cody Field Office (CYFO) of the BLM would be consulted prior to planting a sterile cover crop on soil stockpiled on Federal Lands.

MP.2.2. Overburden Management

Overburden thickness in bentonite pit series typically range from 1 to 50 feet thick. Approximately 20,000 to 100,000 cubic yards of overburden is removed per pit. Overburden handling procedures are designed to immediately backfill an open pit as mining progresses with each new pit so that the resulting reclaimed substrate will support the successful growth of vegetation as quickly as possible. To achieve this, ACC utilizes a concurrent mining and reclamation strategy. Please see Addendum MP.1 for a detailed description and diagram of the strategy.

Overburden removed from the first pit of a mine series will be stockpiled. Depending on the design of the mine series in the immediate area, this overburden pile may be temporary or permanent. All overburden piles will be constructed away from drainage areas so that natural flow is not impeded or will be constructed to allow for through drainage. Prior to final reclamation, piles will be constructed to have stable slopes and will be monitored for erosion. Temporary piles will be used to fill in future, nearby open pits. Permanent piles will have reclaimed slopes no steeper than 4:1 and will be designed so that the best available material is placed near the surface and contoured to blend in with the surrounding topography prior to placing soil over the area. Topsoil and subsoil will be spread over permanent piles at appropriate depths to allow for best possible revegetation success.

Overburden suitability was evaluated relative to Table I-4, "Criteria to establish overburden suitability" (WDEQ Guideline No. 1, revised 1996). Please refer to Appendix D-5 for further discussion of overburden sample data. ACC is utilizing this data and the information presented in Appendix D-7 to develop the overburden handling plan described in the mine pit series descriptions below. Some overburden sample zones indicated overburden with unsuitable values. These zones will not be replaced in the reclamation root zone; however, special cases and adequate mitigating measures may allow marginal overburden to be placed near the surface. Handling of unsuitable constituent levels in specific overburden samples is discussed below according to mine series where they occur in Section MP.2.4, Mine Series Descriptions.

Two permanent out-of-pit spoil (OOPS) piles are proposed to be constructed in the Sims area. One is proposed for the first cut in the A series and will be roughly 50,000 cubic yards. The second is associated with the first cut in the E series and will be approximately 35,000 cubic yards. Two temporary spoil piles are also proposed for this mine plan. The first will be constructed from backfill from the first cut in the D series and will be used to fill the final cut in the E series. The second temporary pile will be constructed from backfill from the first cut of the F series and will be used to backfill the final cut in that series. Please refer to Map MP.1 for the location of the permanent and temporary OOPS piles. Please refer to Addendum RP.1 and Map

RP.1 in the Reclamation Plan for post-mine cross sections of the permanent spoil piles and topography for the area.

Table MP.1 Soil Stockpile Seed Mix

Species	PLS lbs./acre	No. seeds per lb.	Seeds per sq. ft.	Percent of mix	
Grasses					This mix will be used where Gardner saltbush was dominant in the pre-mine vegetation communities. Areas with topography particularly prone to catch and hold moisture may be targeted with 1 PLS lb./acre big sagebrush seeded separately to reestablish sagebrush inclusions present in pre-mine vegetation communities.
Indian ricegrass	1.25	141,000	4	3%	
Bottlebrush squirreltail	3	192,000	13	9%	
Western wheatgrass	2	110,000	5	3%	
Sandberg bluegrass	1	1,047,000	24	16%	
Bluebunch wheatgrass	2	140,000	6	4%	
Sand dropseed	0.1	5,298,000	12	8%	
					43%
Shrubs					
Fringed sagebrush	0.5	4,536,000	52	35%	
Fourwing saltbush	4	52,000	5	3%	
Shadscale	2	64,900	3	2%	
Gardner saltbush	4	111,500	10	7%	
Rubber rabbitbrush	0.5	400,000	5	3%	
					50%
Forbs					
Rocky Mountain beeplant	0.5	65,900	1	1%	
Annual sunflower	1	58,500	1	1%	
Blue flax	0.5	293,000	3	2%	
Scarlet globemallow	0.5	500,000	6	4%	
					7%
Total PLS lbs./acre	22.85		151		

Alternate species if others are in short supply				PLS seeding rate is based on broadcast seeding. If drill methods are used the rate will be reduced by 30-40%.
Grasses				
Thickspike wheatgrass	2	154,000	7	
Slender wheatgrass	2	159,000	7	
Great Basin wildrye*	2	130,000	6	
Russian wildrye Bozoisky*	2	175,000	8	
Alkali sacaton	0.5	1,758,000	20	
Forbs				
Western yarrow	1	2,770,000	64	
Northern sweetvetch	0.5	46,000	1	
Desert parsley	0.5	45,000	1	
Yellow sweetclover*	0.5	260,000	3	
American vetch	1	33,000	1	
Shrubs				
Big sagebrush	1	2,500,000	57	
Winterfat	0.5	123,000	1	

**Only on private lands*

MP.2.3. Mine Schedule

Mining in the Sims area will commence upon approval. The life of the mine in this area is estimated to be roughly twenty years. It is estimated that an average of twenty to thirty acres of new disturbance will be created in the area annually. The locations of active, approved, and proposed mine series and the estimated first year of mining on proposed lands are shown on Map MP.1. The timing and locations of active mining vary by market demands for various clay qualities as well as weather conditions. Minor changes (for example, sequence mining order, temporary stockpile locations, and pit numbering) to the mine plan are subject to revision at the actual time of mining. Significant changes (for example, the locations of permanent overburden piles) to the mine plan will be submitted for approval prior to occurring.

Reclamation will generally be concurrent with the mining progression and will begin as soon as possible. In general, the following schedule will be followed: reclamation will begin within two years and be completed within four years of the date the lands were affected. If field drying operations are employed, reclamation will begin within three years and be completed within five years of the date the land is affected. However, under certain situations, this general schedule may not be followed: an out-of-pit haul road will be reclaimed within two years of the completion of mining in all series that the road is associated with unless the landowner requests that the road be made into a permanent feature. An in-pit haul road will be reclaimed within two years of the completion of mining in all series that the road is associated with. A temporary out-of-pit spoil pile will be used for contouring and reclaiming the series it is associated with within two years of the completion of the associated series. Permanent out-of-pit spoil piles will be reclaimed within two years of the creation of the pile.

Table MP.2 indicates the proposed estimated mining schedule in five-year blocks for all mining, proposed and approved, in the Sims Area. Series and phases listed in Table MP.2 correlate with those displayed in Map MP.1

Table MP.2 Estimated Mine Progression Schedule

Mine Plan Block	Years Following Approval	Series	Phase
1	Approval-5	A	1-9
		D	1-10
2	6-10	A	10-18
		D	11-20
3	11-15	B	1-9
		E	1-5
4	16-20	B	10-18
		E	6-9
5	21-25	C	1-5
6	26-30	F	1-2

MP.2.4. Mine Series Descriptions

Six series in the Sims area are included in this Mine Plan. A total of up to 317.305 acres are proposed to be disturbed during the mining operations.

MP.2.4.1. A Series

Mining in the A series of the Sims area will begin in the E2SW4 of Section 36 and proceed to the east through the S2S2 of Section 36, ACC's patented Scorpion and Horned Toad claims, and ending in the BLM Sims 15, 16, and 17 claims. Mining will be completed in roughly eighteen phases. Mining will target American Colloid's FB (Crombie) and FC (Frame West) bentonite beds of the Frontier Sandstone and be taken to an approximate maximum depth of 50 feet. The Crombie bed is roughly one foot thick and the Frame West varies from two to four feet in thickness. In this area, the FB and FC beds are about 26 to 28 feet apart stratigraphically.

Access to this series will be via in-pit haul roads that connect to ACC's existing haul roads.

Overburden for the first pit in the A series will form a permanent out-of-pit spoil pile, Pile A. The size of this pile will be roughly 50,000 cubic yards. The final pit in the series (A-18) will be backfilled by the first cut in the B series. Overburden for the Frame West bed (FC) was sampled by hole 24J0573 (see Table D5.3 and Appendix D5.4.2.3). Unsuitably high SAR values exist throughout the profile. The average SAR value for the entire profile is 22.3 (upper four feet classified as soil material). The majority of the material below two feet is marginally to unsuitably acidic, and the profile from 14 to 44 feet has an unsuitable acid-base potential. Some mixing of overburden is expected to occur using American Colloid's concurrent mining and reclamation strategy, and overburden will be covered by suitable material (see Addendum MP.1). However, high SAR and low pH values are not uncommon in the Bighorn Basin and are not expected to inhibit reclamation efforts.

The dominant soil type that will be disturbed by mining of the A series is Bond Released Soils – East. Others include the Sayles-Persayo Complex and Mudray-Larim Variant Complex. Bentonite-Shale Outcrops are also present in the A series. Salvage depths recommended in Table D7.1.2 will be followed: 4-6" topsoil/0-16" subsoil for the Sayles-Persayo Complex, 6" topsoil and 6" subsoil for the Mudray-Larim Variant Complex, no salvage for Bentonite-Shale Outcrops, and 4" topsoil and 0" subsoil for the Bond Released Lands East. Native soils will be stockpiled and respread separately from reclaimed soils. Any salvageable material from the Greybull sandy clay loam will be saved and used for seedbed replacement.

Vegetation communities in the area of the A series consist of Bond Released Lands, Gardner Saltbush Shrubland, Black Greasewood/Big Sagebrush Shrubland, and Bentonite-Shale Outcrops. After soil resources have been replaced and prepared, the disturbance will be reseeded with an approved seed mix. Disturbed areas that were mapped as Black Greasewood/Big Sagebrush Shrubland will be targeted for sagebrush reestablishment and areas of reclaimed drainages may be hand-seeded for Big Sagebrush.

The disturbance boundary for the A series proposes to disturb portions of Channels E, F, G, H, I, and J, as well as wetlands 2, 3, 4, and 5. ACC will maintain through drainage for these channels

during mining. As displayed in Appendix D10 Wetlands, Wetlands two through five only hold water seasonally and do not display wetland vegetation. ACC does not propose to reclaim these areas as wetlands; reclamation will consist of re-establishing through drainage in all channels. Reclamation of channel disturbances will accommodate a 100-year 6-hour precipitation event.

No utility lines will be disturbed by mining of the A series. Portions of the A series will disturb a fence constructed on the boundary of Section 36. ACC will remove the fence and reconstruct it temporarily to maintain grazing containment in the area. If necessary, a gate and cattleguard will be constructed on any access road through the grazing containment. ACC will remove any cattleguards and reconstruct the fence to BLM wildlife-friendly specifications along the eastern boundary of Section 36 following completion of all mining activities to the east of Section 36 in the A and B series. ACC's haul road in the area will be disturbed during mining of the A series; however, access will be maintained throughout the mining and reclamation process and the road will be reclaimed to its original dimensions.

MP.2.4.2. B Series

Mining in the B series of the Sims area will begin in claim Sims 16 in Section 31 and proceed to the west through roughly 18 phases in claims Sims 17 and 15, ACC's patented Horned Toad claim, and the S2S2 of Section 36. Mining will target American Colloid's FD (Tutti Frutti) bentonite bed of the Frontier Sandstone and be taken to an approximate maximum depth of 50 feet. The FD bed is roughly 1-1.5 feet thick.

Access to the B series will be via in-pit haul roads that connect to ACC's existing haul roads.

Overburden for the first pit in the B series will backfill the final pit in the A series. The final pit in the series (B-18) will be backfilled by the first cut in the C series. Overburden for the Tutti Frutti bed (FD) was sampled by hole 24J0572 (see Table D5.3 and Appendix D5.4.2.2). Marginally and unsuitably high SAR values exist throughout the profile. The average SAR value for the entire profile is 15.5 (upper four feet classified as soil). The material from four feet to 24 feet is marginally to unsuitably acidic, while the material from 34-43 feet is marginally to unsuitably alkaline. Marginal saturation percentages were determined for the material from 29-43 feet, and marginal, clay-heavy textures were present for all material except for the material from 24-34 feet., and the interval from 24-29 feet has an unsuitable acid-base potential. Some mixing of overburden is expected to occur using American Colloid's concurrent mining and reclamation strategy, and overburden will be covered by suitable material (see Figure MP.2). However, high SAR and unsuitably high and low pH values are not uncommon in the Bighorn Basin and are not expected to inhibit reclamation efforts.

Soils to be disturbed by mining in the B series include Bond Released Land-East, Bentonite-Shale Outcrops, the Sayles-Persayo-Youngston Complex, and the Mudray-Larim-Variant Complex. Recommended salvage depths in Appendix D-7 will be followed. Sayles-Persayo-Youngston Complex soils will be salvaged for 4-6" topsoil and 0-16" subsoil. Recommended salvage for Bond Released Land-East is 4" topsoil/0" subsoil, and there is no recommended salvage for Bentonite-Shale Outcrops. The Mudray-Larim Variant Complex will be salvaged for 6" topsoil and 6" subsoil. All salvaged soil resources will be saved and used for seedbed replacement.

Vegetation communities in the area of the B series consist of Bond Released Lands, Gardner Saltbush Shrubland, Black Greasewood/Big Sagebrush Shrubland, and Bentonite-Shale Outcrops. After soil resources have been replaced and prepared, the disturbance will be reseeded with an approved seed mix. Disturbed areas that were mapped as Black Greasewood/Big Sagebrush Shrubland will be targeted for sagebrush reestablishment and areas of reclaimed drainages may be hand-seeded for Big Sagebrush.

The disturbance boundary for the B series proposes to disturb portions of Channels E, F, G, H, and I. ACC will maintain through drainage for these channels during mining. Reclamation of channel disturbances will accommodate a 100-year 6-hour precipitation event.

No utility lines will be disturbed by mining of the B series. Portions of the B series will disturb a fence constructed on the boundary of Section 36. ACC will remove the fence and reconstruct it temporarily to maintain grazing containment in the area. If necessary, a gate and cattleguard will be constructed on any access road through the grazing containment. ACC will remove any cattleguards and reconstruct the fence to BLM wildlife-friendly specifications along the eastern boundary of Section 36 following completion of all mining activities to the east of Section 36 in the A and B series. ACC's haul road in the area will be disturbed during mining of the B series; however, access will be maintained throughout the mining and reclamation process and the road will be reclaimed to its original dimensions.

MP.2.4.3. C series

Mining in the C series will begin in the central portion of the W2SE4 of Section 36. Mining will continue to the northeast into the NE4SE4 of Section 36 through roughly five phases. Mining will target American Colloid's FB (Crombie) and FC (Frame West) bentonite beds of the Frontier Sandstone and be taken to an approximate maximum depth of 50 feet. The FC bed is roughly two to three feet thick and the FB bed is 0.5 to one foot thick. In this series the FB and FC beds are roughly 22-23 feet apart stratigraphically.

Access to the C series will be via in-pit haul roads that connect to ACC's existing haul roads.

Overburden for the first pit in the C series will backfill the final pit in the B series. The final pit in the series (C-5) will be reclaimed by reducing the highwall and blending it into the existing draw. Overburden for the Frame West bed (FC) was sampled by holes 24J0573 and 24J0571. (see Table D5.3 and Appendix D5.4.2.2). Overburden on the Crombie bed was not sampled in drill hole 24J0573 but it was in 24J0571. Unsuitably high SAR values exist throughout the profiles. The majority of the material below two feet is marginally to unsuitably acidic, while material from 24-39 feet in sample 24J0571 is marginally alkaline. A significant portion of the sampled overburden also has an unsuitable acid-base potential. Some mixing of overburden is expected to occur using American Colloid's concurrent mining and reclamation strategy, and overburden will be covered by suitable material (see Figure MP.2). However, high SAR and low pH values are not uncommon in the Bighorn Basin and are not expected to inhibit reclamation efforts.

Soils to be disturbed by mining in the C series include Reclaimed Land, Bentonite-Shale Outcrops, the Sayles-Persayo-Youngston Complex, and the Oceanet-Rock Outcrop Complex.

Recommended salvage depths in Appendix D-7 will be followed. Sayles variant clay loam soils will be salvaged for 3" topsoil and 7" subsoil. Sayles-Persayo-Youngston Complex soils will be salvaged for 4-6" topsoil and 0-16" subsoil. Recommended salvage for Bond Released Land-East is 4" topsoil/0" subsoil, and there is no recommended salvage for Bentonite-Shale Outcrops. The Oceanet-Rock Outcrop Complex will be salvaged for 6" topsoil and 0" subsoil. All salvaged soil resources will be saved and used for seedbed replacement.

Vegetation communities in the area of the C series consist of Reclaimed, Black Greasewood/Big Sagebrush Shrubland, and Bentonite-Shale Outcrops. After soil resources have been replaced and prepared, the disturbance will be reseeded with an approved seed mix. Disturbed areas that were mapped as Black Greasewood/Big Sagebrush Shrubland will be targeted for sagebrush reestablishment and areas of reclaimed drainages may be hand-seeded for Big Sagebrush.

The disturbance boundary for the C series does not propose to disturb any significant ephemeral drainages or wetland areas. Reclamation of any other ephemeral channel disturbances will recreate pre-mine size and capacity.

No utility lines will be disturbed by mining of the C series. ACC's haul road in the area will be disturbed during mining of the C series; however, access will be maintained throughout the mining and reclamation process and the road will be reclaimed to its original dimensions.

MP.2.4.4. D series

D series mining in the Sims area will begin in the NE4SW4 of Section 36 and proceed to the northwest through the NW4SW4 of Section 36, the BLM Sims 14, 13, 11, 12, 10, 7, 6, 3, and ending in claim Sims 2. Mining will be completed in roughly 20 phases. Mining will target American Colloid's FB (Crombie) and FC (Frame West) bentonite beds of the Frontier Sandstone and be taken to an approximate maximum depth of 50 feet. The Crombie bed is roughly one to two feet thick and the Frame West varies from three to five feet in thickness. In this area, the FB and FC beds are about 23 to 27 feet apart stratigraphically.

Access to this series will be via in-pit haul roads that connect to ACC's existing haul roads.

Overburden for the first pit in the D series will be used to construct a temporary out-of-pit spoil pile that will fill the final pit in the E series (E-9). The final pit in the series (D-20) will be reclaimed by reducing the highwall and blending it into the surrounding topography.

Overburden for the Frame West bed (FC) was sampled by holes 24J0573 and 24J0571 (see Table D5.3 and Appendix D5.4.2.2). Overburden on the Crombie bed was not sampled in drill hole 24J0573 but it was in 24J0571. Unsuitably high SAR values exist throughout the profiles. The majority of the material below two feet is marginally to unsuitably acidic, while material from 24-39 feet in sample 24J0571 is marginally alkaline. A significant portion of the sampled overburden also has an unsuitable acid-base potential. Some mixing of overburden is expected to occur using American Colloid's concurrent mining and reclamation strategy, and overburden will be covered by suitable material (see Figure MP.2). However, high SAR and low pH values are not uncommon in the Bighorn Basin and are not expected to inhibit reclamation efforts.

The dominant soil type that will be disturbed by mining of the D series is Bond Released Soils – Middle. Others include the Bond Released Soils-West, Sayles-Persayo Complex and Mudray-

Larim Variant Complex. Bentonite-Shale Outcrops are also present in small areas in the D series. Salvage depths recommended in Table D7.1.2 will be followed: 4-6" topsoil/0-16" subsoil for the Sayles-Persayo Complex, 6" topsoil and 6" subsoil for the Mudray-Larim Variant Complex, no salvage for Bentonite-Shale Outcrops, and 6" topsoil and 0-6" subsoil for the Bond Released Lands - Middle. Salvage recommendations for Bond Released Land – West is 5" topsoil and 0" subsoil. Native soils will be stockpiled and respread separately from reclaimed soils.

Bond Released Land is the dominant vegetation community in the area where mining activities associated with the D series will occur. Other communities include, Gardner Saltbush Shrubland and Black Greasewood/Big Sagebrush Shrubland. A few small areas mapped as Bentonite-Shale Outcrops will also be disturbed. After soil resources have been replaced and prepared, the disturbance will be reseeded with an approved seed mix. Disturbed areas that were mapped as Black Greasewood/Big Sagebrush Shrubland will be targeted for sagebrush reestablishment and areas of reclaimed drainages may be hand-seeded for Big Sagebrush.

The disturbance boundary for the D series proposes to disturb portions of Channels B, C, and D. A small portion of Channel E will be disturbed as well. ACC will maintain through drainage for these channels during mining. No areas mapped as NWI wetlands are within the proposed area of disturbance in the D series. However, four areas that do seasonally hold water will be disturbed. One of these pond areas has a surface water right. ACC has committed to the surface water right holder to disturb the pond and the associated drainages during the dry season and have a holding area with the same capacity fully reclaimed prior to the next time livestock will be using the area. Please see the correspondence section of this application for this signed agreement. The other areas where water has collected premine will not be reclaimed as ponds. Through drainage will be maintained during the mining process and in final reclamation of the area. Reclamation of channel disturbances will accommodate a 100-year 6-hour precipitation event.

No utility lines or roads will be disturbed by mining of the D series. All in-pit haul roads will be reclaimed.

MP.2.4.5. E series

The E series will begin in claims Sims 14 in section 35 and proceed to the southeast through the NW4SW4 and NE4SW4 of Section 36 and ending in the SE4SW4 of Section 36 in roughly nine phases. E series mining will target the Tutti Frutti (FD) bentonite bed of the Frontier Sandstone. The bentonite bed varies from one to two feet in thickness and will be mined to a maximum depth of 50 feet.

Access to this series will be via in-pit haul roads that connect to ACC's existing haul roads.

Overburden for the first pit in the E series will be used to construct a permanent out-of-pit spoil pile, Pile B. The proposed cubic yardage of this Pile B will be approximately 35,000 cyd. The final pit in the series (E-9) will be reclaimed by backfill from the temporary overburden pile constructed from the first cut of the A series. Overburden for first cut in the D series disturbing the Tutti Frutti bed (FD) was sampled by hole 24J0574 (see Table D5.3 and Appendix D5.4.2.2).

Unsuitably high SAR values exist throughout the profile. The majority of the sampled overburden is also marginally saline. The material below two feet is marginally to unsuitably acidic from 19-39 feet in sample and marginally alkaline from 14-19 feet. The lower twenty feet of the sampled overburden has an unsuitable acid-base potential. Marginal saturation percentages and textures (heavy in clay) are also present throughout the profile. Some mixing of overburden is expected to occur using American Colloid's concurrent mining and reclamation strategy, and overburden will be covered by suitable material (see Figure MP.2). However, high SAR and low pH values are not uncommon in the Bighorn Basin and are not expected to inhibit reclamation efforts.

The dominant soil types that will be disturbed by mining of the E series are the Sayles-Persayo Complex and the Mudray-Larim Variant Complex. Bentonite-Shale Outcrops are also present in one area in the E series. Salvage depths recommended in Table D7.1.2 will be followed: 4-6" topsoil/0-16" subsoil for the Sayles-Persayo Complex, 6" topsoil and 6" subsoil for the Mudray-Larim Variant Complex, and no salvage for Bentonite-Shale Outcrops.

Gardner Saltbush Shrubland and Black Greasewood/Big Sagebrush Shrubland are the vegetation communities mapped in the disturbance boundary of the E series. An area mapped as Bentonite-Shale Outcrop will also be disturbed. After soil resources have been replaced and prepared, the disturbance will be reseeded with an approved seed mix. Disturbed areas that were mapped as Black Greasewood/Big Sagebrush Shrubland will be targeted for sagebrush reestablishment and areas of reclaimed drainages may be hand-seeded for Big Sagebrush.

The disturbance boundary for the E series proposes to disturb portions of Channel D. ACC will maintain through drainage for Channel E during mining. No areas mapped as NWI wetlands are within the proposed area of pit disturbance in the E series. Through drainage will be maintained during the mining process and in final reclamation of the area. Reclamation of the channel disturbance will accommodate a 100-year 6-hour precipitation event.

No utility lines or roads will be disturbed by mining of the E series. All in-pit haul roads will be reclaimed.

MP.2.4.6. F Series

The F series is a small series that will begin in claims Sims 7 in section 35 and proceed to the southeast into claims Sims 8, 10, and 11 in two phases. F series mining will target the Crombie (FB) bentonite bed of the Frontier Sandstone. The bentonite bed varies from one to two feet in thickness and will be mined to a maximum depth of 50 feet.

Access to this series will be via in-pit haul roads that connect to ACC's existing haul roads.

Overburden for the first pit in the F series will be used to construct a temporary out-of-pit spoil pile. The final pit in the series (F-2) will be reclaimed by backfill from the temporary overburden pile constructed from the first cut of the F series. Overburden specific to the FB bed was sampled by the lower 24 feet of drillhole 24J0571 (see Table D5.3 and Appendix D5.4.2.2). All the material has unsuitably high SAR value and marginal to unsuitably alkaline pH values. The material from 24-34 feet also has an unsuitable acid-base potential. The material above the

Crombie bed may be assumed to be backfilled and mixed overburden from historical mining of the FC bed by Wyo-Ben, Inc. Some mixing of overburden is expected to occur using American Colloid's concurrent mining and reclamation strategy, and overburden will be covered by suitable material (see Figure MP.2). However, high SAR and low pH values are not uncommon in the Bighorn Basin and are not expected to inhibit reclamation efforts.

The soil type that will be disturbed by mining of the F series is Bond Released Land - Middle. Six inches of topsoil will be salvaged and up to six inches of subsoil, where present, will also be salvaged for reclamation of F series mining.

Bond Released Land is the vegetation community mapped in the disturbance boundary of the F series. After soil resources have been replaced and prepared, the disturbance will be reseeded with an approved seed mix.

The disturbance boundary for the F series does not propose to disturb any channels designated as significant. No areas mapped as NWI wetlands are within the proposed area of pit disturbance in the F series. Through drainage of any insignificant ephemeral drainages will be reclaimed.

No utility lines or roads will be disturbed by mining of the F series. All in-pit haul roads will be reclaimed.

MP.2.5. Disposal of Combustible, Toxic, Acid-Forming, or Radioactive Materials

No combustible, toxic, or radioactive substances are expected to be encountered based on baseline studies. Some overburden was found to potentially be acid-forming. Should any unanticipated combustible, toxic, or radioactive substances be encountered, it will be handled according to state and federal laws. Please see Appendix D-5 for more information on overburden quality in the Sims Update/Amendment area.

MP.2.6. Compaction of Backfilled Material

Past experience demonstrates that compaction due to equipment passing over replaced or stockpiled overburden is sufficient to provide stability and prevent subsidence.

MP.2.7. Removal Process

Bentonite may be hauled from pits with scrapers for field drying or temporary stockpiling. The clay may also be extracted from the pits with excavators or rubber-tire front-end loaders. Ultimately, over-the-road haul trucks are used to transport the bentonite to ACC's processing plant near Lovell, Wyoming.

MP.2.8. Handling

At ACC's processing plant, bentonite of various qualities will be blended as it is loaded into a cutter for sizing. After sizing, the bentonite will go through a dryer to reduce moisture content. After drying, it will be sized again by a series of screens and classifiers. Finally, it will be bagged or loaded in bulk for shipment to the customer by truck or rail.

MP.3.0 SOCIOECONOMIC CONDITIONS

ACC expects there to be no social or economic impact on population of the area. ACC does not expect to change the number of workers and contractors because of this project. The rural lifestyle of the area is not expected to be impacted since the bentonite industry has a long history in the area.

MP.4.0 MONITORING PLANS

The mine site will be monitored for excessive erosion from storm water runoff which could impact surface water quality. Average annual precipitation at the mine site is approximately 6" per year, so storm water is not anticipated to be a significant problem. Monitoring frequency will coincide with significant precipitation events.

High walls of open pits are monitored for stability as mining and environmental personnel are in the area. Soil is salvaged from a buffer zone around all pits to ensure that any high wall slump would not result in loss of topsoil resources. Backfilled areas are also monitored for sediment releases.

Reclamation is monitored for vegetation establishment and the presence of noxious weeds, which may need to be controlled. Reseeding or interseeding efforts will be considered after four consecutive years of evidence that the initial seeding attempt has failed. However, efforts may occur before four years in order to control erosion. If it is necessary to control noxious or invasive weeds on federally managed land, a Pesticide Use Proposal (PUP) and written approval from the Authorized Officer (BLM Field Manager) will be obtained prior to any treatments.

MP.4.1. Air Quality

Air quality is visually monitored for dust, and ACC maintains a steady road watering program wherever hauling activities are occurring. Dust is typically not a problem with actual mining activity due to the nature of the moisture laden shale and crude bentonite where mining occurs. ACC currently does not hold any WDEQ Air Quality Division (AQD) permits for bentonite mining. Any AQD permits required for gravel processing will be obtained prior to initiating operations.

MP.5.0 INTERIM MANAGEMENT PLANS

Periods of inactivity may occur at mine sites as the earthmoving equipment moves among different sites throughout PT0322 to provide the plant with the required clay qualities. Prior to moving equipment from an active mine site, berms and ditches are constructed to divert surface water around the active mine area as necessary. Containment basins may also be utilized to collect stormwater runoff from temporary overburden piles or bentonite stockpiles. Soil is salvaged from a buffer zone around pits to ensure soil resources are not at risk in the event of a highwall slump. Berms are also employed to barricade pit highwalls for safety of humans and wildlife.

Temporary overburden stockpiles typically exhibit physical and chemical characteristics that are not conducive to vegetation growth, particularly high SAR values. All overburden stockpiles are constructed on areas where soil materials have been previously salvaged to prevent contamination of soil and surface material that will eventually be used for reclamation. A

twelve-foot wide buffer around these stockpiles prevents overburden from sloughing onto adjacent vegetated land and also contains any stormwater runoff. When mining resumes, unsuitable materials will be handled as described in Sections MP.2.1. and MP.2.2.

All equipment is moved from the site once the area is determined safe, stable, and clean. Occasionally a piece of earthmoving equipment undergoing repair may be left in the area while waiting for parts.

Informal monitoring of these sites typically occurs as mining and environmental personnel travel between the different mine sites throughout PT0322. ACC is constantly in contact with mine foremen to ensure that mining and reclamation activities are properly occurring.

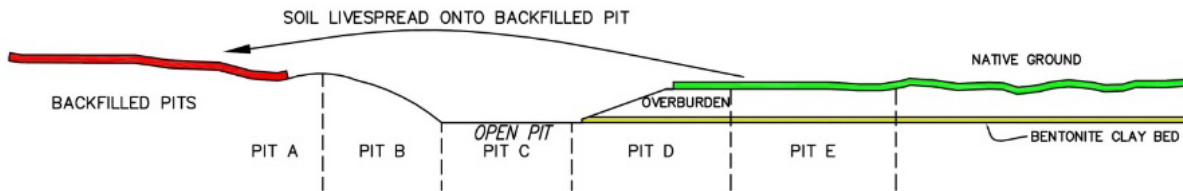
If conditions arise that will delay reclamation, they will be identified in the required PT0322 Annual Report submitted to WDEQ/LQD and the BLM. A revised reclamation schedule will also be presented to address the circumstance.

ADDENDUM MP.1

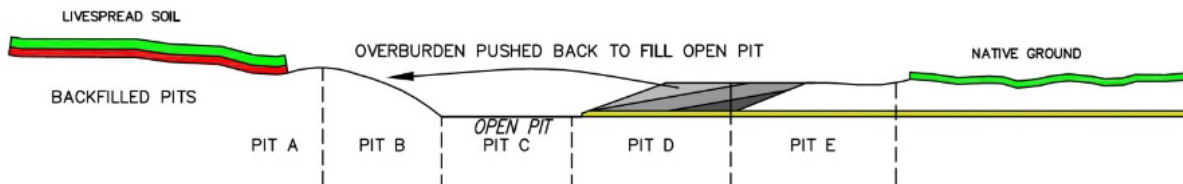
TYPICAL SCRAPER/DOZER MINING OPERATION

After a pit series has been established, ACC utilizes a concurrent mining and reclamation strategy, shown in the following figure and described below.

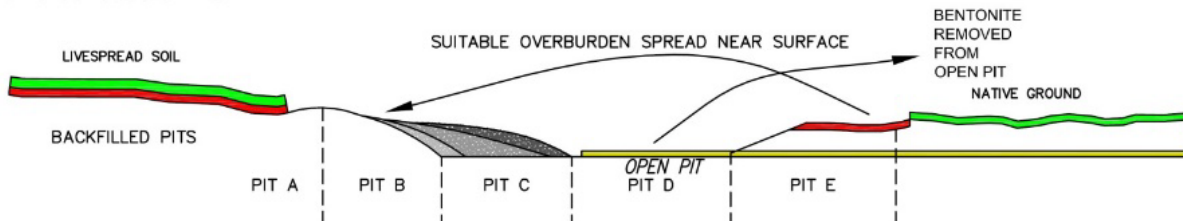
PHASE 1



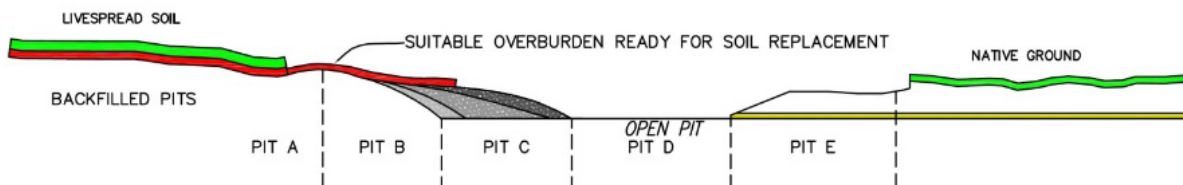
PHASE 2



PHASE 3



PHASE 4



PIT SERIES PROGRESSION →

Phase 1: An open pit (Pit C) has had the bentonite excavated from it. Behind Pit C are a partially backfilled pit (Pit B) and previous pits (Pit A and prior pits) that have been backfilled and contoured. In preparation of the opening of the next pit (Pit D), scrapers strip soil resources which are live spread over the backfilled and contoured pits. If no area is available to spread the soil, the soil will be stockpiled for later use.

Phase 2: The exposed overburden over future Pit D is ripped with dozers and then pushed with dozers or hauled by scrapers to finish filling Pit B and begin filling Pit C. This leads to the opening of Pit D. As the overburden is moved, it tends to be mixed across strata so that any potential undesirable chemical properties are diluted in the reclaimed pit. Material closest to the bentonite is typically buried deepest in the reclaimed pit. During this phase, the overburden over Pit B is contoured to blend with native topography.

Phase 3: After the bentonite is removed from Pit D, the most suitable material, which is often the uppermost material, is removed where soil resources have been stripped over future Pit E. At least 4 feet of suitable material is spread over the overburden moved in Phase 2 to establish an adequate root zone depth.

Phase 4: The suitable material from Pit E has been spread and contoured over the overburden of Pit B. All bentonite has been removed from Pit D. Phase 1 can now be restarted with the stripping of soil resources that will be live spread over the suitable material on Pit B.

Reclamation of the last pit in the mine series is accomplished by filling it with material from a temporary overburden stockpile. If no overburden stockpile is available for replacement, material from the surrounding area will be utilized and contoured to provide through drainage. Specific overburden replacement plans are described in the Mine Series Descriptions.

Addendum MP.2
Construction Stipulations and Wildlife Monitoring Commitments

Best Management Practices will be implemented to ensure no unnecessary or undue degradation to land and wildlife resources occurs. Mining equipment in the area will frequently be limited to a single dozer and two scrapers. Therefore, dust or vibrations from mining activities is likely to be minimal. Haul roads will be watered to mitigate for dust creation by vehicles and equipment.

No equipment staging, servicing, or fueling areas will be constructed within 500 feet of any wetland or riparian areas.

Care will be taken to ensure that the spread of AIS is prevented. AIS could potentially be spread by equipment that has been used in association with surface water, such as haul road watering equipment. If any such equipment is known to have been used in a high risk infected water (a water known to contain Dreissenid mussels), the equipment will be inspected by an authorized aquatic invasive species inspector recognized by the state of Wyoming prior to allowing the equipment to enter the area. If any such equipment coming from a different state is being transported to the area between March and November (regardless of where it was last used), the equipment will be inspected as necessary by an authorized aquatic invasive species inspector prior to allowing the equipment to enter the area. If AIS are found on equipment, the equipment will be decontaminated by an authorized invasive species inspector prior to being allowed to enter the area. Additionally, if such equipment is moved from one 4th level (8-digit) Hydrological Unit Code watershed to another within the state, the following guidelines will be followed as necessary: All water will be drained from the equipment; plants, mud, and debris will be cleaned from the equipment; and the equipment will be allowed to properly dry.

The area will be monitored for the presence and occupation of raptor nests between January 15 and July 31 as necessary. If new raptor nests are found in the vicinity (i.e. ½ mile for general raptors and golden eagles; 1 mile for bald eagles) of the proposed area of disturbance, ACC will consult with WDEQ/LQD and the BLM to develop appropriate mitigation measures.

Ground nest surveys will occur within 72 hours of any new surface disturbing activities scheduled to occur between April 10th and July 15th. If occupied nests are located, no activity will occur until the nest is vacated. Annual surveys will be conducted for other Endangered, Threatened, Proposed, and Candidate Species; Migratory Bird Species of Management Concern in Wyoming; BLM Sensitive Species; and raptor species as appropriate.

Reclamation will occur concurrently with mining. Seeding will occur during the first fall/winter after topsoil has been replaced. The seed mixes that will be used are described in the Reclamation Plan. In addition to normal seeding, areas that have specific conditions conducive to big sagebrush reclamation will be targeted in order to reestablish the inclusions observed during vegetation studies.

Mining and reclamation areas will continue to be monitored throughout the life of the mine. Annual surveys will be conducted for Endangered, Threatened, Proposed, and Candidate Species; Migratory Bird Species of Management Concern in Wyoming; and raptor species. Prior

to beginning surface activities from April 10 to July 15, the area will be searched for nests. If nests are located nearby, ACC will consult with the appropriate regulatory agencies to develop appropriate stipulations and buffers to reduce potential impacts.

The Wyoming Game and Fish Department requested that ACC take measures to curb the encroachment of Annual Invasive Grasses. ACC currently maintains an active Pesticide Use Proposal with the BLM that includes chemical to treat cheatgrass. If any other invasive annual grass is found in the project area, ACC will amend the PUP to allow for chemical treatment. ACC has committed to use chemical control for cheatgrass in the project area.

Addendum MP.3
**Best Management Practices for Erosion/Sediment Control
And Mining Operations Near Wetlands**

All personnel working near wetlands should be trained on these BMP's to ensure that they are properly and consistently followed.

Adequate vegetation buffers should be maintained, where possible, between disturbed areas and wetlands to minimize erosion control and thereby minimize the potential for sediment to be transported to the wetlands.

Disturbed areas near wetlands should be reclaimed as soon as possible to allow for the reestablishment of vegetation that will enhance the stability of respread soils and thereby minimize the potential for sediment to be transported to the wetlands.

Prior to reclamation, erosion and sediment control (erosion blankets, straw wattles, silt fences, etc.) structures should be installed in areas where disturbed land is near wetlands. These structures may also be necessary on reclaimed land where vegetation is not yet sufficiently reestablished or lands reclaimed back to badlands or barren areas. These structures should prevent erosion while also containing sediment so that the potential for sediment to be transported to the wetlands is minimized.

Temporary diversion ditches may need to be created to minimize the amount of run-off entering and leaving disturbed lands near wetlands. The aforementioned erosion and sediment control structures may need to be used in conjunction with the ditches to minimize the potential for sediment to be transported to the wetlands.

Active disturbed areas will be watered as necessary to minimize fugitive dust that may drift into nearby wetlands.

Areas where equipment is staged, serviced, or fueled and portable chemical toilets or other similar facilities will be located at least 500 feet from wetlands.

Stormwater Pollution Prevention Plans and Spill Prevention and Control Plans should be carefully followed to minimize the release of contaminants that could be washed to wetlands.

Addendum MP.4
Methods and Reclamation Practices
Developmental Drilling

Method Description

The proposed activity will consist of drilling a 4" diameter hole with a rubber-tired four-wheel drive trucks with rear-mounted, auxiliary-powered drills. A small amount of bentonite sample will be collected for analytical purposes. Maximum depth of drilling will be approximately fifty feet. A wooden 1" x 4" x 24" tagged stake will mark the location of each hole. This location will be surveyed and used in short-term mine planning. Maximum disturbance for each drillhole is not expected to exceed nine square feet.

Access to developmental drilling areas will be via the constructed access road. Off-road sampling will be conducted in such a manner as to not cause any significant surface disturbance. No new temporary two-track trails are expected to develop from developmental drilling; however, minimal disturbance may potentially result. This off-road sampling will be accessed within the approved disturbance area.

Best management practices will be implemented to ensure no unnecessary or undue degradation occurs. Activities will be conducted in such a manner as to not cause any significant surface disturbance. Drilling will avoid driving over vegetated areas repeatedly, and drilling activities will be suspended when field conditions are wet in order to prevent surface rutting from vehicles.

ACC will respect and follow all mitigation included within the approved Mine Plan/Plan of Operations for all wildlife within the Sims area and perform developmental drilling activities in accordance with these stipulations.

Reclamation Plan

Reclamation of the disturbed area related to each hole will be completed immediately prior to the drill truck leaving the developmental drillhole. Reclamation will meet or exceed the standards described in CFR 3809.420. Prior to drilling, soil, where present, will be salvaged from the potential area of disturbance. Following completion of the hole, cuttings and materials extracted from the drillhole will be placed back into the drillhole and raked level with the ground. The salvaged topsoil is then replaced and seeded with the Standard Exploration Seed Mix or an alternative seed mix from currently approved Reclamation Plan used in mining reclamation.

In cases where drill trucks leave deep tracks in soft soils, ACC will rake or harrow out tracks prior to seeding in order to reduce the visibility of deep tracks and the potential for erosion. Additionally, any new two-track trail which develops as a result of repeated travel by the drill trucks will be reclaimed by disking or harrowing and seeding with the approved seed mix, though no new trails are anticipated to develop.

Standard Exploration Seed Mix

Species	PLS lbs./acre	No. Seeds per lb.	Seeds per sq. ft	Percent of mix
<u>Grasses</u>				
Thickspike wheatgrass	2	133000	6	15%
Western wheatgrass	2	120000	6	14%
Bluebunch wheatgrass	2	117000	5	13%
Indian Ricegrass	1	141000	3	8%
Slender wheatgrass	2	160000	7	18%
Sandberg Bluegrass	0.5	175000	2	5%
<u>Shrubs</u>				
Gardner Saltbush	3	111500	8	19%
Fourwing Saltbush	2	60000	3	7%
Shadscale	1	64900	1	4%
Total	15.5		40	

Drilling equipment will be washed at ACC's designated wash facility at the Lovell Plant Site prior to arrival at the area of interest to prevent the spread of any noxious weeds. If any noxious weeds develop in the area of interest as a result from developmental drilling activities, ACC will treat the weeds appropriately. If weeds develop on Federal Lands, ACC will obtain a Pesticide Use Proposal from the Bureau of Land Management and treat the weeds according to the procedures outlined in the PUP. Weeds occurring on private or state lands will be treated using similar procedures as in the PUP in an effort to provide consistent treatments across the area of interest.

Based on historical knowledge of previous drilling and mining in the area, groundwater will not be encountered at the shallow depths of the proposed exploration, so protection of groundwater resources is not a concern.

Developmental drilling activities will be reported to the appropriate regulatory agency and bonded according to state statute. Up to 750 developmental holes may be drilled in the Sims Area and are already in place and included in the Annual Report for PT0322. Any monitoring requirements or activity stipulations associated with the Sims Mine and Reclamation Plans will be adhered to during developmental drilling activities. Developmental drilling in the consolidation area will be done within the approved permit area and disturbance boundary. The holes will be drilled on ACC patented land and on Wyoming State land that ACC leases. These holes will be reported to the Land Quality Division of the Department of Environmental Quality and accounted for in the drilling section of the annual report. If any developmental drilling is necessary within the approved permit area but not within the approved disturbance boundary, the Land Quality Division will be notified and approval of a Drilling Notice Update granted prior to drilling activities. A Notice of Intent to Explore will be filed and approved with the BLM prior to drilling on Federal Lands in drilling areas outside of the approved disturbance boundary. A Mine Plan Revision and/or Plan of Operations

Modification will be submitted to include areas outside of the approved disturbance boundary and will not be affected by mining activities prior to approval of the revision/modification.