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August 24, 2006

Utah Coal Program
Division of Oil, Gas and Mining
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Task 2579

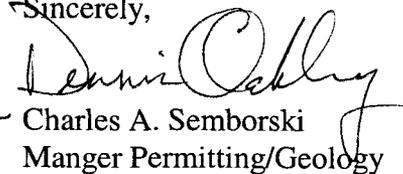
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e/015/0018*

Subject: Clean Copy Submittal of Amendment to North Rilda Volume 11, Task ID No. 2579, PacifiCorp, Deer Creek Mine, C/015/0018

PacifiCorp, by and through its wholly-owned subsidiary, Energy West Mining Company ("Energy West") as mine operator, hereby submits the clean copies to the amendment for North Rilda Volume 11, with the Division Task ID assignment No. 2579. This amendment was conditionally approved on August 11, 2006 upon receipt of seven (7) clean copies. The original C2 form is attached with this submittal to aid in incorporating into Volume 11 of the Deer Creek Mining and Reclamation Plan

If you have any questions or concerns regarding this document, please contact myself at (435) 687-4720 or Dennis Oakley at (435) 687-4825.

Sincerely,

for 
Charles A. Semborski
Manger Permitting/Geology

Enclosure: Seven (7) clean copies each Soils Section and Appendix Volume, Hydrology, Appendix B C2 Form

Cc: Doug Johnson (EWMC, w/o encl.)
File

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Deer Creek Mine

**Volume 11: Clean Copy Submittal, Task ID
#2579**

R645-301-200 Soils Section

Replace Pages 13 - 24

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existing soils, the pile will be constructed over a broad area with track mounted equipment. End dump trucks will haul the soil from facility area to the subsoil storage site. Trucks will travel on Emery County #306 to the storage site and access the area using a temporary road adjacent to the undisturbed culvert. Trucks will dump loads adjacent to culvert. Track mounted equipment will be distributed across the site. Construction of the soil storage slopes will not exceed 2:1. Maximum heights of the constructed slopes is projected at 70 feet, with an average height of approximately 40 feet. A conceptual subsoil pile is designed with a capacity of 107,000 yards³ of soil material. The conceptual configuration exceeds the estimated soil requirements (refer to R645-301-500 Engineering Section for mass balance analysis). Excess area will be needed to store large boulders encountered during construction activities and grubbed vegetation. Stored boulders will consist of sandstone and used during final reclamation for development of riprap or placed on the final reclaimed slopes to blend in with surrounding terrain. Grubbed vegetation material will be placed on the final surface of the subsoil stockpile in a layer not exceeding 6 inches. Upon completion of the subsoil storage pile, PacifiCorp will conduct an as-built survey of the site to accurately compute the volume of soil retrieved during development of the surface facilities. All appropriate maps and text will be revised to reflect as-built conditions.

The stockpiled material surface will be pocked to help retain runoff from precipitation events and to reduce erosion. Temporary sediment control will be installed around the perimeter of the piles to divert runoff around the pile and reduce erosion due to runoff from the surrounding area. The temporary sediment control will also serve to prevent the loss of soil from the site. The roughened surface of the stockpiles will prevent rapid runoff and help to control erosion until vegetation becomes reestablished.

The stockpile seeding is planned during the fall period with the sagebrush/grass seed mix outlined R645-300 Biology Section Table 300-8. Vegetative cover will protect the soil from wind and water erosion. If supplemental seeding is needed, it will be completed the following year. Sideslopes will be monitored for erosion as well and will be repaired if erosion appears to be excessive.

R645-301-231.200 Demonstration of Suitability

Analyses from the soil samples taken in the proposed disturbed area are listed in Volume 11 Appendix Volume - Soils: Appendix A and B. The suitability of this material for reclamation is discussed in Appendix A and B. Material proposed as a supplement to topsoil has also been tested and mapped. The suitability of this material for vegetative growth has been demonstrated through past reclamation activities in Rilda Canyon (AML reclaimed mines: Helco, Leroy and Rominger/Jeppson). Approximately 10.7 acres has been disturbed

during past mining activities, refer to Engineering Section Map 500-1. Approximately 4.4 acres of the Rilda Canyon Portal Facilities (included soil storage areas) has been previously disturbed by coal mining activities. Vegetation has become re-established quite successfully on the previously disturbed areas even in areas without the benefit of topsoil replacement, reseeding or supplemental irrigation.

During coal mining activities, cuts and fills were made on both north and south facing sides of the canyon. Areas were leveled for staging areas, coal seam exposures, coal handling and drilling pads. The cuts were left in place. In several areas, no reclamation was conducted on the disturbed lands. Natural vegetation has moved in and become established on the previously disturbed areas even without the replacement of topsoil materials and seeding.

R645-301-231.300 Test Plan for Evaluation the Results of Topsoil Handling and Reclamation Procedures

At the time of final reclamation and after the subsoil material has been regraded, the soil material will be sampled on 500 foot intervals to a depth of 48 inches. A soil auger will be used to collect samples by 1.0 foot increments. A field instrument will be used to sample the regraded material for pH and EC parameters. Field sampling will allow immediate identification of salinity, acidity or sodicity problems. Should problem areas be located, sampling will be intensified to a 100 foot square grid described below. Four augered holes will be randomly placed in the regraded area of the mine facility. The randomly selected sites will be sampled along the survey baseline established for the mine facility area. The subsoil material will be sampled at 1.0 foot intervals. Samples will be sent to a certified laboratory to be analyzed for the parameters outlined in Table 6 of the Utah "*Guidelines for Topsoil and Overburden Handling*". If any potential problems are identified, additional sampling will be conducted in the vicinity of the suspect sample to better define the extent of the area affected. Should a problem be identified, the area would be resampled on a grid of 100 foot centers to define the nature and extent of the problem. The problem area would then be evaluated in consultation with the Division with the most appropriate remedial action implemented.

If testing finds the field parameters are within an acceptable range, redistribution of the topsoil will then be initiated. Topsoil will be sampled as it is hauled from the storage pile for comparison to the baseline data. Amendments would be added to the regraded areas at rates based on their comparison to the baseline soil data. Fertilizer would be added as needed by using a spreader then mixing the fertilizer into the soil, along the contour.

R645-301-231.400 Construction and Maintenance of Topsoil Handling and Storage

Construction of the topsoil storage site will begin by removing any large, existing vegetation and installing sediment control structures to channel natural undisturbed drainage away from the stockpile location. Existing soil from the storage area will not be removed. A colorful marker fabric, 1.0 foot in width, will be installed on 10.0 foot centers to identify the predisturbed surface. Topsoil will be hauled from the mine facility and sediment pond areas with end dump trucks to develop the storage pile. Once a topsoil stockpile has been developed from materials removed during construction of the proposed mine site, it will remain in place until final reclamation occurs. A field fence will be constructed to surround the topsoil pile to protect it from grazing. Maintenance of the topsoil pile throughout the life of the mining operation will consist of; 1) seeding new material added to the stockpile, 2) reseeding where erosion or other elements have caused a loss of vegetation, and 3) maintenance of the sediment control structures.

After the removal of the topsoil, subsoil/construction fill will be hauled from the mine and sediment pond areas and segregated in a separate area (Rominger Mine area) to develop the subsoil storage pile. Construction of the subsoil/construction storage site will begin by removing any large, existing vegetation and installing a culvert to channel natural undisturbed drainage away from the stockpile location. Installation of the bypass culvert will be accomplished by trackhoe(s), moving only the material necessary to install the culvert. Existing soil from the storage area will not be removed (refer to R645-302-200 Special Categories of Mining - Experimental Practice). A colorful marker fabric will be installed over the entire site to identify the predisturbed surface. Once a subsoil/construction stockpile has been developed from material removed during construction of the proposed mine site, it will remain in place until final reclamation occurs. A field fence will be constructed at the toe of the slope of the storage pile to protect it from grazing. In addition to the perimeter fence, a silt fence will be installed at the toe of the pile to prevent loss of soil due to erosion. Maintenance of the soil pile throughout the life of the mining operation, will consist of; 1) seeding new material added to the stockpile, 2) reseeding where erosion or other elements have caused a loss of vegetation, and 3) maintenance of the sediment control structures.

R645-301-232 Topsoil and Subsoil Removal

Prior to the removal of the topsoil, all trees and brush will be cleared and removed from the site. Soil will be stripped to various depths up to 2.0 feet depending on soil type and/or topsoil depth. Where thick deposits of topsoil or material from reclaimed AML sites are found, as much soil material as possible will be removed. The coal waste will be removed from the area and disposed of at the existing Deer Creek waste rock site or utilized in the generation of electrical power. Topsoil and subsoil storage is illustrated on Maps 200-1, 200-2, Engineering Section 500-3 and 500-4 sheets 3 of 5 and 4 of 5.

Prior to any surface disturbance of the portal area soil test pits were dug. Soil test pits/trenches were established in the proposed disturbed areas (refer to refer to Volume 11 Appendix Volume - Soils: Appendix A and B). These areas included the pinon/juniper habitat areas, riparian habitat areas, sage/brush grass, mountain brush habitat areas, and AML reclaimed sites. Refer to Map 200-1 for test pit/trench site locations. Samples were taken at various depth intervals and analyzed according to the *Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining* (Leatherwood and Duce, 1988). Analyses of these pre-construction samples are found in Volume 11 Appendix Volume - Soils: Appendix A and B.

As documented during the soil survey (refer to Volume 11 Appendix Volume - Soils: Appendix A) and geotechnical investigation (refer to Volume 11 Appendix Volume - Engineering: Appendix F - 2004 AMEC/LGS Geophysics) an area of buried coal was encountered covering approximately 0.7 acres with an average depth of 4.0 feet. The buried coal is located directly below the reclaimed Leroy Mine portals. During development of the drainage control and sediment pond, the buried coal will be removed and transported either to the Deer Creek Waste Rock Storage Site or utilized for power generation if coal quality allows (refer to Volume 11 Appendix Volume - Soils: Appendix A for analysis of the coal waste material). A portion of the buried coal is located outside the proposed disturbed area as shown of Map 200-2. Energy West will cooperate with AML to enhance this area during site development.

Based on soil, geophysical and geotechnical surveys and knowledge of the site, it is estimated that at least 19,700 cubic yards of suitable topsoil material can be recovered and stockpiled during construction activities. The upper 24 inches of recommended topsoil salvage will include portions of the A and B horizons (refer to Volume 11 Appendix Volume - Soils: Appendix A & B). This volume was estimated utilizing digitized based maps where the area is multiplied by the salvage depth of 24 inches. In addition to the topsoil,

approximately 97,300 cubic yards of subsoil/construction fill will be salvaged consisting of a combination of B and C soil horizons, see following table:

TOPSOIL SALVAGE VOLUMES			
SOIL SALVAGE AREA	Acres	Salvage Depth (inches)	Estimated Volume (cubic yards)
Mine Facility: North of Emery County Road #306	4.5	24 (1)	14,500
Mine Facility: South of Emery County Road #306	1.6	24 (1)	5,200
Sediment Pond Area	1.0	(2)	3,200 (2)
SUBSOIL SALVAGE VOLUME			
Mine Facility: North of Emery County Road #306	4.5	Refer to Engineering Section Table 1 and Map 500-4 sheet 2 of 4	97,300

(1) Based on recommendations from the Order 1 survey conducted by Mr. Jim Nyenhuis (refer to Volume 11 Appendix Volume - Soils: Appendix B)

(2) Sediment Pond Area: Soil salvaged from this area will be used to enhance the previously AML reclaimed area, excess soil material will be segregated and stored as recommended by the qualified soil scientist monitoring the soil removal process. Re-exposed A & B horizons located below the coal waste will be sampled to determine final placement as topsoil for the AML reclaimed area or for storage in either the topsoil or subsoil/construction storage piles. The estimate on soil resource is based on the existence of 24 inches of native soil horizons below the buried coal waste. Disturbed soil with coal in the profile will not be salvaged. Coal waste encountered during soil salvaging and construction of the sediment pond will be segregated separately and transported to the Deer Creek Waste Rock Site for disposal or utilized power generation if coal quality allows.

A volume of approximately 19,700 cubic yards would be needed to cover the regraded mine site (at the time of final reclamation) with twenty-four inches of topsoil material. Actual soil depth at the time of reclamation will be dependent upon the soil salvaged during construction of the facilities. Upon completion of the construction activities and development of the soil storage site, the topsoil and subsoil piles will be surveyed to document the actual amounts salvaged.

R645-301-232.500 Subsoil Segregation

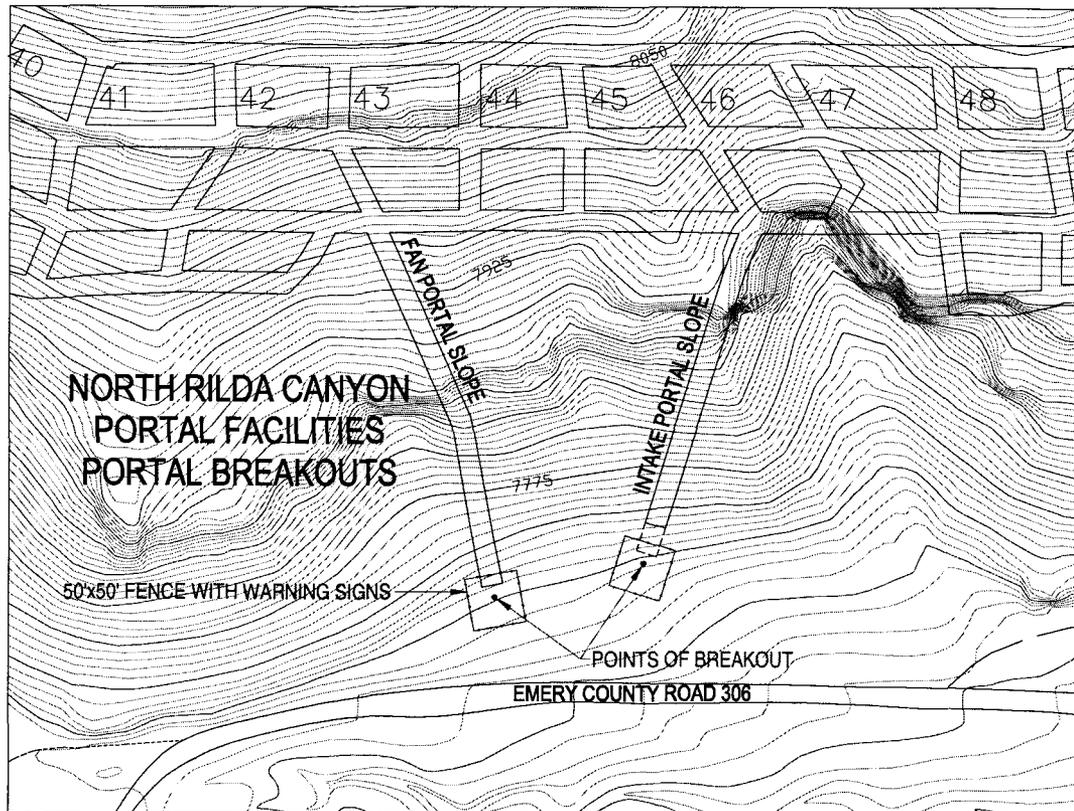
After removing and storing the topsoil, the underlying strata of soil will be removed, segregated, and stockpiled separately. There is an estimated 97,300 cubic yards of subsoil that will be utilized for reclamation (refer to Engineering chapter, R645-301-553: Backfilling and Grading for cut/fill construction estimates). Subsoil storage is located approximately 0.5 miles below the portal facilities in Rominger Canyon. Refer to Maps 200-1, 200-2, Engineering Section 500-3, 500-4 sheets 3 fo 5 and 4 of 5, to review the soil storage locations. Approximately 3.0 acres will be disturbed for subsoil storage including access to the site. A portion (approximately 1.4 acres) of this location was previously disturbed by historic coal mining activities and reclaimed by AML during reclamation of the Rominger and Leroy mines in 1988. Portals were not backfilled during the AML project. Concrete block stoppings were installed to prevent access to the mines. As discussed above, brush and boulders will be cleared from the site before storing soil. Boulders larger than 1.0 foot in diameter will be segregated and stockpiled and utilized for reclamation. A colorful marker fabric will be installed over the entire site to identify the predisturbed surface.

R645-301-232.600 Timing

To alleviate ventilation concerns at the Deer Creek Mine, the Bureau of Land Management (BLM) during a telephone conference on August 23rd /October 27th, 2005, recommended that Energy West submit an R₂P₂ request to allow the continuation of the Rilda Canyon fan portal /intake entry rock slope development to intercept the outcrop in Rilda Canyon. Approving the development of a the portals from within the mine to the surface is consistent with the stipulations outlined in the Federal Lease U-06039 (Special Stipulation #14). In an email received by the BLM (August, 2005), the Manti LaSal Forest Supervisor agreed to allow Energy West to develop the fan portal breakout as long as no equipment is used on the surface and the public is protected from potential harm, no permanent structures will be constructed until Energy West receives approval from the Assistant Secretary of Land and Minerals at the Department of Interior. During the August, 2005 phone conference, OSM personnel indicted the proposed action is not considered mine plan modification.

On October 27th, 2005, Energy West participated a phone conference with BLS, USFS, OSM, and DOGM to discuss the potential of developing an intake entry immediately east of the fan portal. This additional entry is needed for additional ventilation to the Mill Fork Lease (ML48258) mine workings. All in attendance agreed that the intake entry portal should be developed identically to the fan portal development (i.e. no equipment is used on the surface and the public is protected from potential harm, no permanent structures will be constructed until Energy West receives approval from the Assistant Secretary of Land and Minerals at

the Department of Interior). In an email received by the BLM (October, 2005), the Manti LaSal Forest Supervisor agreed to allow Energy West to develop the intake entry portal breakout.



R645-301-200 Figure 1: North Rilda Canyon Portal Facilities - Points of Breakout

The area affected by the portal developments, two areas approximately 30x40 feet (0.056 acres, refer to R645-301-200: Figure 1). As outlined in the BLM R₂P₂ request, Energy West will follow the outlined steps:

1. All rock slope development will be from within the mine to the outcrop of the Star Point Sandstone.
- 2) Colluvial material encountered at the outcrop interface will be stored within the mine.

- 3) During the final breakout process, mine personnel will be stationed at the outcrop to warn/prevent unwarranted access and to monitor the area for any unsafe condition(s).
- 4) If any rocks are dislodged as a result of the portal development which impact public safety, Energy West will immediately rectify the situation.
- 5) Warning signs will be installed along Emery County Road #306 warn the public of the portal development process.
- 6) A temporary fence will be erected around the breakout area to prevent unwarranted access. Fencing materials used will be non-shiny material and/or of dark color.
- 7) Silt fence will be erected downslope of the portal breakouts to prevent additional contribution of suspended solids to the receiving stream.
- 8) Warning signs will be installed along the exterior of the fence, including; NO SMOKING, NO UNAUTHORIZED PERSONNEL BEYOND THIS POINT, DANGER.
- 9) No equipment will be used on the surface except for hand tools to remove material to prevent unsafe conditions.
- 10) All slopes, ribs or faces of the opening or unstable areas in the surrounding area will be scaled, secured and supported before completion.
- 11) The exiting brow of the mine openings will be secured and the exit of the mine openings will be posted off with timber and fencing upon completion of the mine development.
- 12) No permanent structures will be constructed until Energy West receives approval from the Assistant Secretary of Land and Minerals at the Department of Interior

Development of the fan/intake entry portals from within the mine is consistent with the engineering plans outlined in the permit. Exception to the plan is soil stripping prior to development of the portals. As discussed earlier, development of the fan/intake entry portals from within the mine will involve two areas approximately 30 x 40 feet, or 0.02856 acres. During development of the fan/intake entry portals, all material extracted will be stored within the mine. The exact location of the Star Point Sandstone and colluvial interface is unknown, thereby estimating the subsoil quantity is not possible. Energy West will take all precautions necessary to minimize disruption to the surface topography. The amount of topsoil stored within the mine, assuming a two foot salvage depth, would be approximately 89178 yd³. Depending on the conditions of the rock interface, if Energy West is unable to segregate the soil, final reclamation of this area will not be compromised. Energy West commits to removing the extracted soil material temporarily stored in the mine and placing

it in the approved soil storage area as outlined in Soils Section upon approval from the Assistant Secretary of Land and Minerals at the Department of Interior.

All soil resource material to be removed and stockpiled will be salvaged prior to significant surface disturbance. Vegetation and boulders that might interfere with topsoil salvage will be removed prior to salvaging the soil. Boulders encountered during site development will be stored within the salvage soil or in boulder piles and randomly scattered upon final reclamation to restore the natural appearance of the area and provide habitat for wildlife and microclimate for plants.

R645-301-233 Topsoil Substitutes and Supplements

Inspections of the disturbed areas of Rilda Canyon related to the historic coal mining activities have shown that the regraded colluvium materials have provided a suitable growth medium for sustaining native vegetation on previously disturbed surfaces. Even without replacement of the topsoil material, existing revegetation at the sites indicate that excavated, regraded materials are capable of successfully supporting vegetation that existed prior to disturbance with minimal surface preparation. The revegetation has occurred without the addition of mulch, seed, nutrients or supplements and without the installation of erosion protection. Based on the soil surveys conducted for the Rilda Canyon Portal Facilities, substitute topsoil will not be required for final reclamation of the mine site.

R645-301-234 Topsoil Storage

As required under R645-301-234, permanent stockpiles of topsoil and subsoil, for use during final reclamation, will be placed on a stable surface within the permit area where it will not be subject to significant disturbance, wind erosion, or compaction during life of mine. The stockpile locations are considered ASCA areas where BTCA technique's will be used for the treatment of runoff water from the area. Refer to R645-301-700 for details concerning ASCA areas. The stockpile locations are presented on Maps 200-1, 200-2, Engineering Section Maps 500-3, 500-4 sheets 3 of 4. The topsoil storage pile site will occupy approximately 1.1 acres. Stockpile slopes will not exceed 2:1. The soil depth within the topsoil stockpile will range from 0 to 40.0 feet, however, the average depth will be 20.0 feet. Depths in the subsoil/construction fill pile will range from 0 to 70.0 feet with an average depth of 40.0 feet. The conceptual piles are designed with a capacity as follows; 1) topsoil - 25,000 cubic yards and 2) subsoil/construction fill - 107,000 cubic yards of soil material. Slopes will be irregular, pocked, mulched and covered with approximately 6.0 inches of grubbed vegetation to help retain precipitation and minimize runoff.

Revegetation of the topsoil storage pile will be with an effective cover sagebrush/grass (refer to R645-301-300: Biology Table 300-8 for seed mix). The stockpile will not be disturbed prior to final topsoil redistribution without prior approval by the Division. According to Neinhaus, 2004, the quality of the subsoil (below 2 feet depth) varies little from the top 2 feet of material. Revegetation of the subsoil storage piles will be identical to the topsoil pile.

The stockpiles will be a BCTA area, with runoff being treated by a combination of irregular surface, pocking, mulch, grubbed vegetation material, vegetation, and silt fencing. Temporary sediment control (silt fences, berms, ditches, or culverts) will be placed above the stockpiles to divert undisturbed drainage to culverts or away from and past the stockpile area. The pile surfaces will be roughened and pocked to minimize surface runoff perimeter fence will be installed to control grazing.

R645-301-240 RECLAMATION PLAN

As mining activities at the Deer Creek Mine ceases and the utilization of the surface facilities is no longer needed, land reclamation processes will commence. Reclamation of all disturbed areas will follow the requirements of R645-301. The Soils Reclamation plan for the Rilda Canyon Portal Facilities is detailed below.

R645-301-242 Soil Redistribution

At the time of reclamation of the Rilda Canyon Portal Facilities, PacifiCorp will reduce the footprint of the Portal Facility Area disturbed area by redistributing soil material to be consistent with the postmining land use of the area. This will be accomplished by cutting and/or filling the areas disturbed by mining activities. Prior to initiating regrading process at the facility area, the entire area will be ripped with a dozer to a depth of approximately two feet to reduce soil compaction.

Soil will be removed from the soil storage sites until excavation encounters the indicator fabric placed during development of the site. Topsoil materials that were previously stockpiled will be redistributed in a uniform thickness on the scarified, postmining regraded subsoil surface. The material will be hauled to the regraded area by dump truck. Track-mounted equipment will be used to recontour the disturbed area. Refer to R645-301-500: Engineering where a detailed plan for recontouring the area is presented. Travel over redistributed soil material will be minimized to the extent possible. This will be accomplished by reclaiming the mine in specific sequences, utilizing existing roads and travelways to live haul soil material. It is important to understand that while reclamation will be specifically sequenced, various stages will be occurring simultaneously throughout the site. The regraded surface will be staked to indicate the depth of

topsoil to be applied. After the topsoil has been spread and leveled, it will be pocked/scarified along contour, unless prohibited by slope configuration or grade. At this time other additives would be incorporated into the soil if deemed necessary by soil sampling. Seeding and mulching will be completed soon after redistribution of the topsoil to minimize wind and water erosion. A volume of approximately 19,700 cubic yards would be needed to cover the regraded mine site (6.1 acres, excludes Emery County Road #306 and the sediment pond area) with 24.0 inches of topsoil material. Actual soil depth at the time of reclamation will be dependent upon the soil salvaged during construction of the facilities. The sediment pond area, approximately 1.0 acre, will be regraded and covered with available soil salvaged from this area. As discussed in R645-301-553: Backfilling and Grading, there is approximately 6,000 cubic yards of excess soil material for reclamation. If additional soil is available, it will be used to create mounds, extrusions, etc. to provide a natural aesthetic appearance to the reclaimed slopes.

The soil storage sites will be reclaimed by first removing the indicator fabric, then on slopes greater than 2H:1V, the entire surface will be treated with anionic polyacrylamide (PAM). On slopes less than 2H:1V, post pile bulk density data will be compared to baseline data, if the density values exceed the baseline by twenty-five percent, the entire surface will be ripped with a dozer to the lowest attainable depth allowed by field conditions. Prior to the implementation, PacifiCorp will consult with Division and Forest Service personnel. Boulders will be randomly placed on the surface similar to pre-existing conditions, estimated at approximately five percent coverage. Revegetation of the soil storage piles will be with an effective vegetative cover (refer to R645-301-300: Biology Tables 300-7 and 300-8 for seed mixtures).

R645-301-243 Soil Nutrients and Amendments

Nutrients and soil amendments will be applied to the redistributed material when deemed necessary by assessment of the laboratory analyses. Laboratory analyses for the redistributed topsoil will be compared to soil samples collected from the baseline studies. Nutrients and amendments will be added, to make the redistributed soil similar to the undisturbed soils and aid in establishment of the vegetative cover. The nutrients can be added by hydroseeding, by broadcasting or by drilling. If the nutrients and amendments are broadcast to the ground surface they will be intermixed with the soil during placement.

The topsoil will be sampled as it is being put in place as described in R645-301-231.300. Random grab samples will be collected from the regraded surface during redistribution of the topsoil. Three composite samples will be collected for each of the areas to be topsoiled: mine facility and sediment pond areas. Soil nutrients and amendments will be added as dictated by the results of the tests in comparison with baseline sampling results.

To increase the fertility of the topsoil during reclamation, PacifiCorp will enhance the establishment of locally adapted microrhizomes by mixing 1 cubic foot of undisturbed topsoil from areas adjacent to the disturbed area to the hydroseeder prior to application. The supernatant from this slurry mixture will be applied to regraded topsoil during the reclamation process.

R645-301-244 Soil Stabilization

Various sized rocks and boulders (litter) will be randomly placed on slopes of reclaimed areas to control slope slippage, promote microhabitats, and provide a natural aesthetic appearance. Where it is deemed necessary, especially on slopes greater than 20%, a soil tackifier (refer to R645-301-300: Biology, Seeding Techniques) will be incorporated into the reclamation process to stabilize soil material.

Rills and gullies, which develop in areas that have been regraded and topsoiled and which either; 1) disrupts the approved postmining land use or the reestablishment of the vegetative cover, or 2) causes or contributes to the violation of water quality standards for receiving streams will be filled, regraded, or otherwise stabilized.

R645-301-250 PERFORMANCE STANDARDS

All topsoil and subsoil will be removed, maintained and redistributed according to the plan given under R645-301-230 and R645-301-240.

All stockpiled topsoil and subsoil will be located, maintained and redistributed according to plans given under R645-301-230 and R645-301-240.

PacifiCorp
Energy West Mining
Company

Deer Creek Mine

Volume 11, Appendix Volume: Clean Copy
Submittal, Task ID #2579

Hydrology, Appendix B

Replace Pages 19-20

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- h) The runoff from the spillway will travel into undisturbed diversion ditch UD-9, which will then discharge to the main channel below the minesite.
- i) The culvert outlet will be equipped with an adequately sized rip-rap apron to slow the combined flow sufficiently to prevent erosion of the downstream channel.

3.5 Temporary Sediment Control

The primary means of the sediment control during construction of the minesite will be provided by a temporary sediment control practices; including sediment basins, silt fences and straw bales. Temporary sediment controls will be installed before any construction activity takes place at the site including any timber and vegetation removal, or any other construction related activity. A temporary sediment basins will be constructed near the lower end of the Minesite Facilities Area. The dam embankment will be designed to create a substantial sediment trap behind (upstream from) the temporary dam. At the upsteam end of the temporary dams, a culvert will be fitted with an open riser which will extend vertically and will terminate at an elevation several feet lower than the tip of the temporary dam (refer to Figure 9 for details). This riser will allow any silt-laden runoff water to impound behind the dam. During subsequent construction the vertical riser will function as an emergency spillway in the unlikely event that the precipitation event is large enough to completely fill the impoundment. Outfall from the temporary basins located north of Emery County Road #306 will be routed through the existing culverts installed along the road.

It should be noted that this temporary sediment structure will be required for only a short time during the construction (approximately 1 year) until such time as the permanent sediment pond (life-of-facilities) structures are in place. The temporary sediment pond embankment will be constructed according to the design certified by a registered professional engineer (PE). It will be constructed in lifts and

compacted to a 95% density. After the temporary sediment pond has been installed, construction can then begin on the other upstream mine facilities. Once the permanent sediment pond (life-of-facilities)is constructed and is functional and capable of controlling the sediment from the remainder of the construction site, the temporary sediment basins can then be removed (i.e. filled). At this time, the riser spillway can be removed and the bypass culvert below the temporary pond and permanent ponds can be connected with short segment of culvert. The bypass culvert will then be fully functional and the temporary basins can be filled.

The temporary sediment basins will each have a storage capacity of 0.05 acre-feet below the vertical riser spillways. The calculated sediment contribution for the entire minesite is 0.014 acre-feet per year; therefore, the basins will each have the equivalent of more than 3 years of sediment storage capacity.