## Additional Sheet 2023 Annual Report Coal Creek Resources M-1988-044 Schmidt Construction Company Anniversary Date: March 28

**OVERALL STATUS:** The entire operation has now been placed under full reclamation. In the last year all of the affected land, except for the road that connects the main road to the processing plant and the pit, was backfilled, graded, topsoiled, and seeded. No futher mining will occur under this permit. The final result fit the terms of the permit as well as the lease requirements.

The site was inspected on March 22 to see what the condition of the land was at the end of the snowy 2022-2023 winter. Some minor rilling was found in a few places in the pit as well as along the connecting road near where that road joins the main road through The Lowry Ranch. This land is under the ownership of the State of Colorado and managed by the Colorado State Board of Land Commissioners. The rills on the south end of the pit will be monitored and action taken to control the erosion as needed and indicated by their condition.

The shaping of the land came out excellent with a configuration that fits into the lay of the surrounding prairie lands very nicely with regard to slope grades and general shape and depth. With respect to the techniques of landscape analysis it is currently a considerable deviation with regard to texture and color simply because it is still barren land. But with regard to shape and line it fits well into the surrounding land and is only a moderate to slight deviation. Once vegetated it will still be noticeable to some extrent and likely be more of a curiosity than a deviation. In that sense it adds an interesting element in the overall rolling hills and valleys customary to this prairie land. Some deviations in the landscape add interest to the view, but if they clash with expectation they are perceived as negative elements.

No germination was noted during the inspection and soil temperature measures showed the surface soils 0 to 3 inches deep were in the mid-40° F. Of course those are soils that show a good deal of diurnal variation, especially when unvegetated. At greater depth (6" to 9") the soil varied from 38° to 41° F. At those temperatures germination would not be expected, especially for the warm season grasses. Moisture a few inches below the surface was good and excellent in some places. Semi-saturated soils were not seen in the pit area but a few very small locations were found on the plant site where water accumulates. This was expected for those locations. But none were found in the pit reclamation area. Soil moisture was a bit higher along the main drainage channel at the pit as expected for a drainage, but it did not approach semi-saturation much less saturation.

A very few pre-reclamation perennials were found that were putting up small bunches of leaves, but there was insufficient plant material to identify what species it was. These were widely scattered.

Seed drill lines were visible everywhere and it appeared that the seeding covered the entire site very nicely.

At the plant site specifically, the cottonwood trees that were growing in the now filled sediment basins and left in place by the grading have a good deal of dead wood but far more live branches than was expected. Buds appear to be quite healthy and the younger wood branches were cool to the touch and quite flexible with bark that was in good condition. It appears that most if not all of these trees will survive. In grading the land a basin was left around the trees up to about 18" to 24" deep that will catch runoff and direct the moisture down to the roots of the cottonwoods that are still in the ground and buried in the wet sediment that formed the bottom of the now buried sediment ponds. This wet, clayey material will probably supply water to the trees for some time. However, the parts of the tree trunks above the deep sediment layer will now have an opportunity to create adventitious roots higher up in the reclamation soils. Whether that happens or not will likely determine the future of these trees. It appears the backfill soils contain enough clay and sand to allow for the development of adventitious roots - but will they develop? At least the reclamation provided a suitable environment for that to happen; now it is up to Nature.

Some minor grading adjustments will be made at the plant site to redirect the runoff in some places to go where it should go as defined by the intended drainage topography. In a few places where small rises were created to provide diversion of runoff into the main drainage paths did not quite work as intended and need some minor adjustments. This will be accomplished before the larger thunderstorms arrive later this Spring. Except for these small, local spots, the drainage pattern established worked as intended over the winter; now will come the Spring and Summer test.

During the summer the vegetation will be monitored closely to watch for excessive weed growth and noxious species, especially diffuse knapweed which is locally common at some places on the Lowry Range. In past reclamation the knapweed did not appear, but tumbleweeds did grow in moderate abundance in the first year. This is not bad during the first year as it aids establishment of grasses by shading seedlings. If the land is not disturbed again to a significant degree the tumbleweeds naturally decline in season two and three and then all but disappear in the fourth season and sometimes even in the third season tumbleweed growth is not very competitive with the developing grasses. The tumbleweed cycle requires disturbance to perpetuate itself on most lands, unless the soil is very fertile or fertilizer is added at the time of seeding. Then tumbleweeds can be a significant problem until nitrogen levels in the soil are reduced to a low level. Tumbleweed species love nitrogen and the more the better. They can remain dense for years on very fertile soils with or without disturbance. But low to medium density is often actually beneficial.

Some sampling of the vegetation composition is intended to be done in the first and second season and, if necessary, in the third season. This will provide data to describe the development patterns on these two parcels of reclaimed land.