

November 1, 2016

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Environmental Protection Specialist
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Vista Del Sol Ranch

Cecil "Cork" Powell
6500 U.S. Hwy 40
Dinosaur, CO 81610
970-374-2329

Dear Amy,

I realize that I have requested a previous extension but I am respectfully requesting another 30-60 days. I am attempting to re-evaluate the mining operation and am looking at the economic viability of operating the pit. This evaluation includes looking at potential demand and operating cost and also the cost of bonding and reclamation. Given that I spent approximately \$10-12,000.00 during October in the hopes of reducing the bonding requirement and not knowing what that reduction will be, I request a re-evaluation of the previous bonding value. This will allow me to make an informed decision on how to proceed.

At this juncture I am uncertain as to the future of the pit; it hinges on your evaluation, requirements, and the estimates of future income and cost.

I have provided a copy of a preliminary report on the reclamation work that was done in October. Keep in mind that it is provided as a draft document and is subject to revision, although I believe it provides sufficient information for you to evaluate the current reclaim. It will be provided as a final document for the permanent record in the future.

Thank you for your consideration of an extension and I am looking forward to resolving the future of the pit

Sincerely,


Cork Powell

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NOV 08 2016

GRAND JUNCTION FIELD OFFICE
DIVISION OF
RECLAMATION MINING & SAFETY

Reclamation Powell Gravel Pit 2016

(M1995012)

**Located
On The
Vista Del Sol Ranch**

**Owner:
Cecil "Cork" Powell**

**Subject to Revision and Editing
Draft**

Prepared For: Vista Del Sol Ranch and Cecil "Cork" Powell



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For: Cecil "Cork" Powell and the Vista Del Sol Ranch
By: Great Basin Environmental and Aquatics, www.greatbasinenvtl.com and www.greatbasinenvtl.com/solutions

Reclamation

In late September (2016) the owner/operator of the Powell Gravel Pit made the decision to reclaim approximately 1.1 acre. The reclaim concentrated on the eastern portions of the hill where terraces of overburden were left from the original mining in the 60's and 70's. See Map 1 for an approximate location.

On October 6, 2016 heavy equipment from W.C. Striegel, Inc. Rangely, Colorado, began working. Earthwork was finished on the 7th, with approximately 22 hours of equipment time between a CatD8R dozer and Cat345C excavator.



Photo 1. Earthwork in progress (see Photo 11 also).

The objectives:

- Return land form to a more natural appearance that conforms with the surroundings.
- Reduce slopes and maintain a 33% slope or less over a larger portion of the area if possible and economically feasible (not always possible).
- Seed with a species mix that would enhance the location for livestock and wildlife, plus reduce weedy plant species over time.
- Control water movement and reduce the potential for erosion.
- Meet the management objectives of Vista Del Sol Ranch and the pit ownership.

Name: Great Basin Vista Del Sol Ranch Mix				
Mix#: 2016.0535				
Kind	Variety	Purity of Mix	Germ	Origin
Siberian Wheatgrass	Vavilov	56.30%	77%	UT
Russian Wildrye	Bozoisky	12.95%	95%	UT
Slender Wheatgrass	Revenue	12.74%	95%	CN
Fourwing Saltbush	VNS	8.23%	56%	UT
Blue Flax	Appar	3.25%	92%	ID
Yellow Sweet Clover	VNS	1.08%	89%	CN
Other Crop:	0.05%	Noxious Weeds:		None
Inert Matter:	5.22%	Weed Seed:		0.18%
Net Weight:	11.8 lbs	Test Date:		2/16

Figure 1. Seed mix tag for mix used to seed the reclaim on October 8th.

The pit owner/operator has not had any equipment on the reclaimed area or removed any product, from the time of purchase in 1979. It had been at least 40 years since this location was disturbed.

The following was done:

- Re-contoured overburden and terraces reducing the height and overall slope.
- Available topsoil was stripped and reused, although there were limited quantities.
- An attempt was made to not leave exposed areas of heavy, bentonitic clays on the surface.
- Large boulders were used to stabilize the toe of some steeper slopes.
- Five water bars were installed across the main slope (total of 365 ft).
- Eight "rock bars" were installed in a waterway (total of 80 ft).
- Biodegradable, weed free, straw filled blankets were used in strategic locations (8 ft x 600 ft covered).
- Biodegradable straw wattles were used (9 in dia. x 150 ft).
- The seed mix shown in Figure 1 was broadcast at double the drill rate, and a dozer "walked" the seed into the surface (Drill rate, 23 lbs/acre).
- Some remaining areas are steeper than a 3/1, with the long easterly facing slope averaging 6.75/1 (see Photos 4–6 and Appendix A, Map A4).
- 290 feet of steep, 40 year old, terraces (2/1 to 1/1) were contoured to considerably less (Map 1).
- Forage kochia will be seeded later in November with freshly harvested seed (2016 seed crop)

The lower portion of the south facing slope was not reduced in slope. This section has not been touched in over 40 years and has exhibited a high degree of stability under the current conditions. We believe that bedrock

provides stability, buttressing the hill, plus the soils are high in clays and exhibit minimal movement during precipitation and runoff events. The slope has also slowly re-vegetated over large portions and erosion has been minimal. The overall height of the hill was reduced and the slope was reduced above what appears to be a ledge of bedrock (Photos 2-3). This steep portion is approximately 0.25 acres and slopes range from 0.9/1 to 1.6/1 (see Map 1 and Appendix A, Map A4).

Photos 4-6 shows the original contour and the final as viewed from southeast boundary corner of the pit. Appendix B provides more photos of the before and after reclaiming.



Photo 2 and 3. Bedrock, solid yellow line and the dashed line is the top of the hill that was reduced in height.
Lower photo shows hill after contouring.

Face And Toe Of Terrace

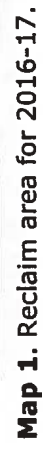




Photo 4. Hill before contouring to new configuration.



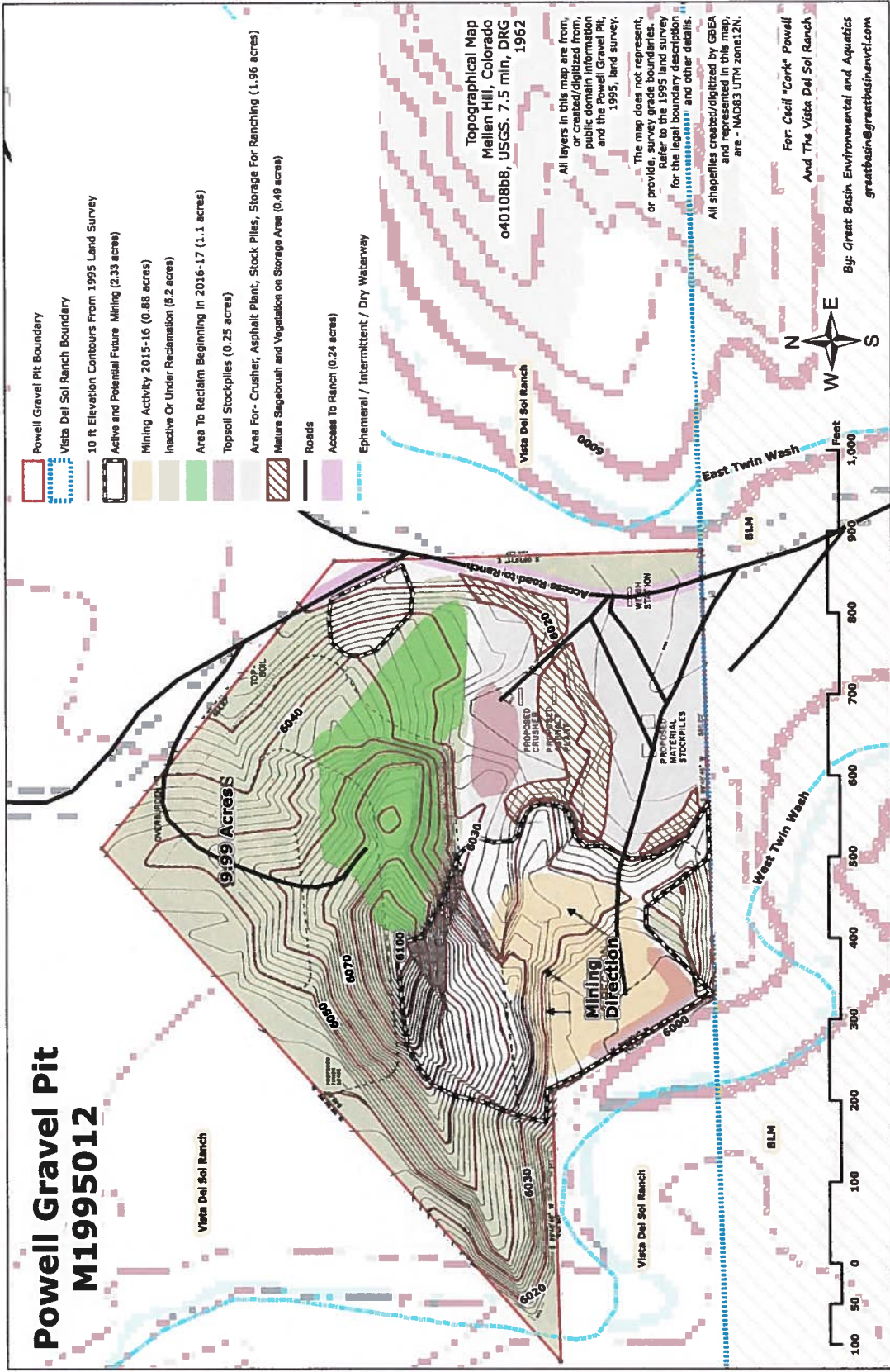
Photo 5. Earthwork in progress.



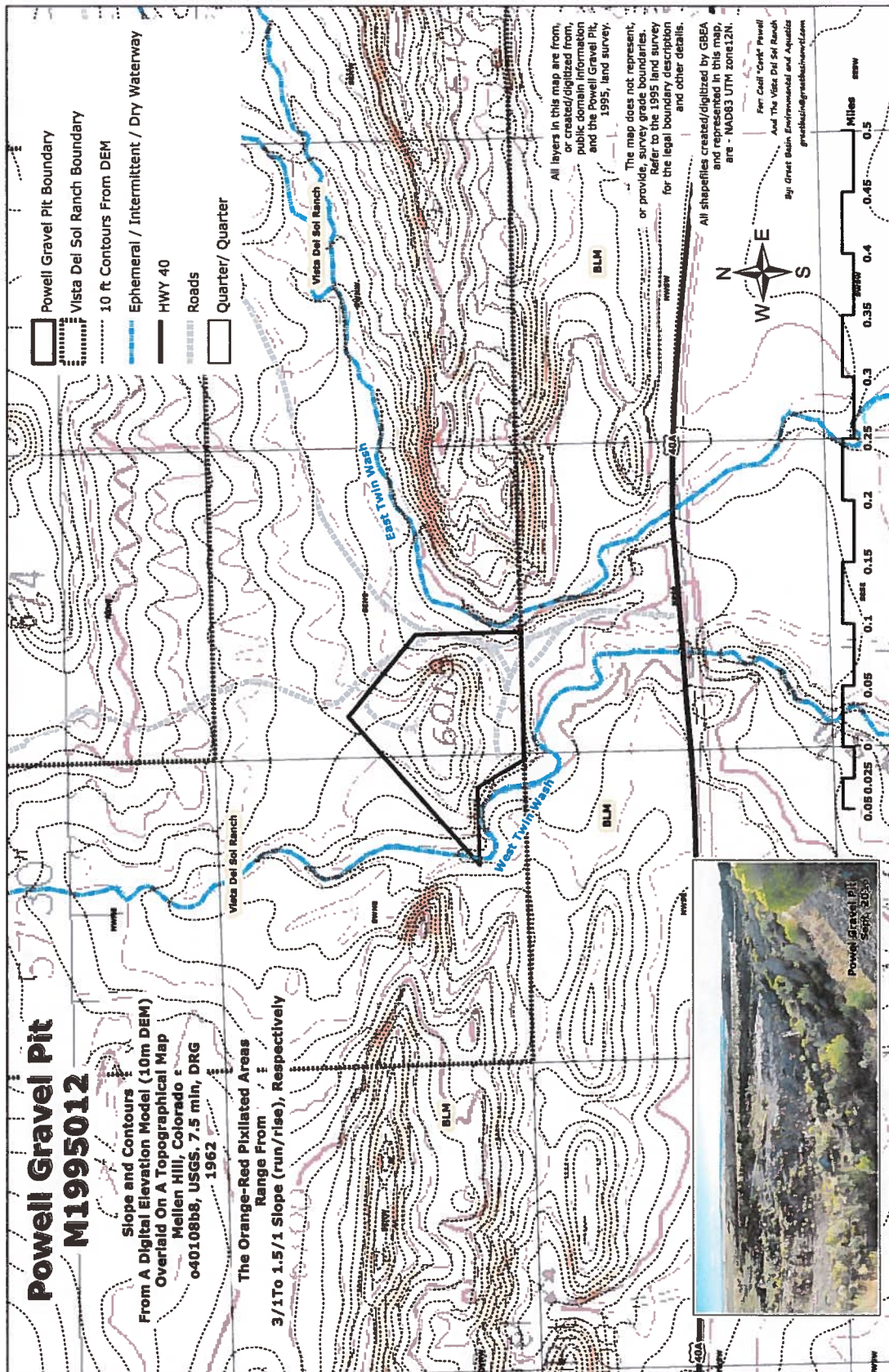
Photo 6. Final contour of reclaim area.

Appendix A

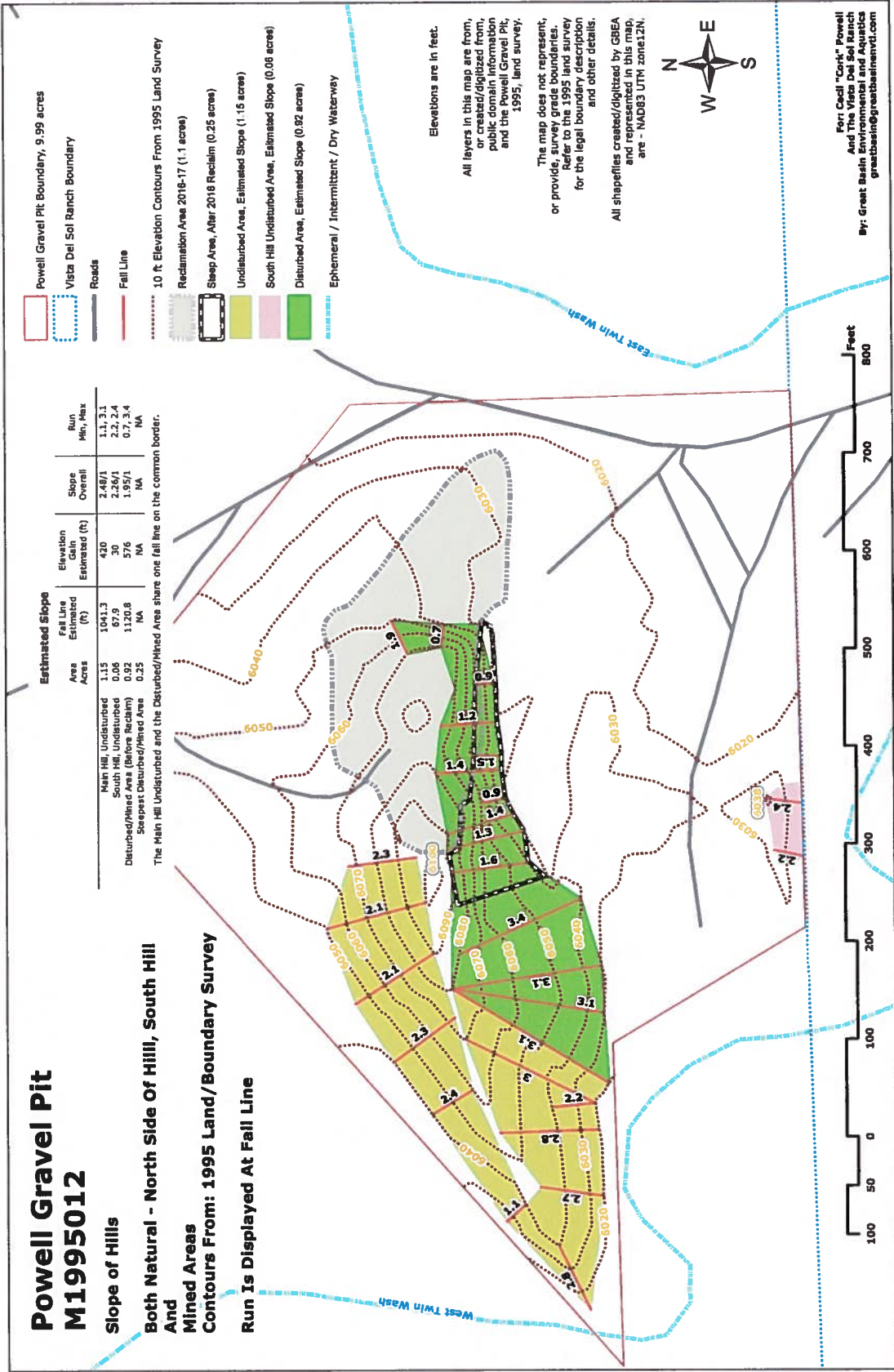
GIS and Maps, 11"x17"



Map A1. Overview of current and future management.



Map A3. Slope and contours of the surrounding land form. It is probably that the slope and contours in the pit boundaries represent historical conditions.



Map A4. Contours and slope of the pit landform derived from the 1995 land and boundary survey. For Cecil "Cork" Powell and the Vista Del Sol Ranch. By: Great Basin Environmental and Aquatics, www.greatbasinenvtl.com and www.greatbasinenvtl.com

Table A1. Soils and plants by soil type (NRCS, 2004)

Soils and Plant Species Surrounding The Powel Gravel Pit*		
MUSYN#	Description	
198	Tomorthants-Rock outcrop, shale complex, 30 to 75 percent slopes	
197	Tomorthants-Rock outcrop, sandstone complex, 25 to 75 percent slopes	
160	Tomorthants-Rock outcrop, 50 to 75 percent slopes	
62	Egheim bany fine sand, 0 to 3 percent slopes	
54	Deaver-Avalon complex, 5 to 45 percent slopes	
Native Plant Climax Species		
Grasses		
Common Name		MUSYN#
Indian Ricegrass		198, 197, 160, 62, 54
Bottlebrush Squinikail		198, 197, 160, 54
Needle and Thread		198, 197, 160, 54
Western Wheatgrass		198, 197, 160, 54
Alkali Sacaton		62
Basin Wildrye		62
Bluebunch Wheatgrass		197
Galleta		62
Salina Wildrye		54
Shrubs		
Common Name		MUSYN#
Shadscale		198, 197, 160, 54
Wyoming Big Sagebrush		198, 197, 160, 54
Bad Sagebrush		198, 197, 160
Fourwing Saltbush		198, 160, 62, 54
Arctostaphylos		197
Big Sagebrush		62
Greensword		62
True Mountain Mahogany		197

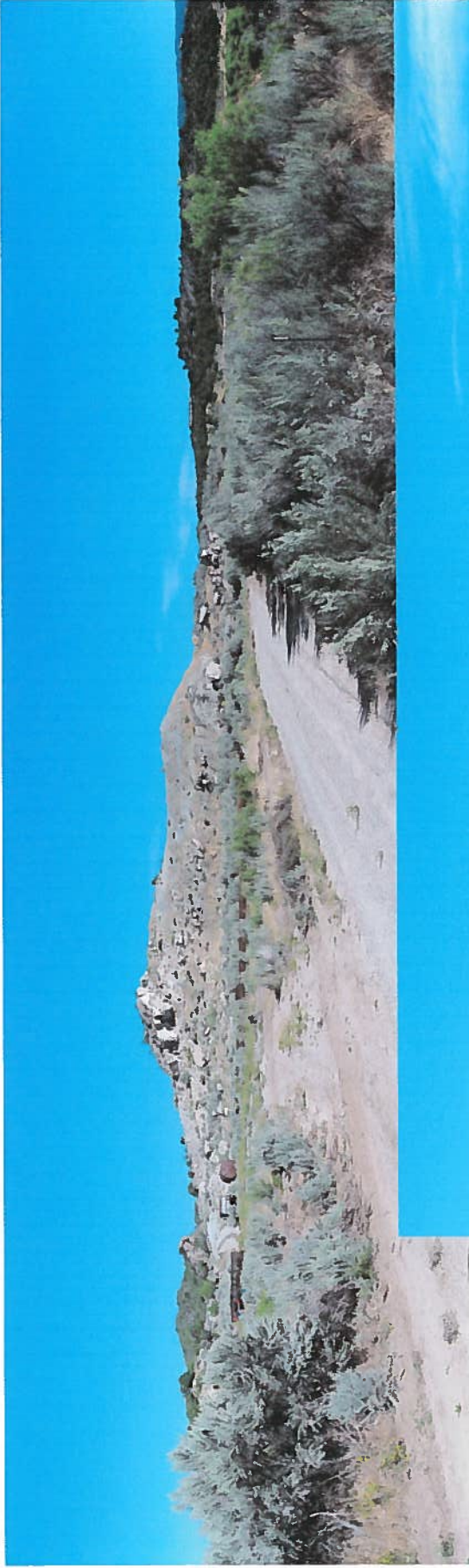
*From the NRCS soil surveys

Table A2. Geology key.

Geology Surrounding The Powel Gravel Pit

Key	
Geology Code	Description
Qac	Alluvial and colluvial deposits, undivided
Qaf	Alluvial fan
Qt	Terrace gravels
Jm	Morrison Formation
Kcb	Cedar Mountain Formation, Buckhorn Conglomerate Member
Kcs	Cedar Mountain Formation, Shale Member
Kd	Dakota Sandstone
Kmf	Mancos Shale, Frontier Sandstone Member
Km	Mancos Shale, Main body

Appendix B
Photos
Current Conditions and Reclamation
2016



Top photo was taken in late August 2016 and the bottom photo just after the seeding of the reclaim area.

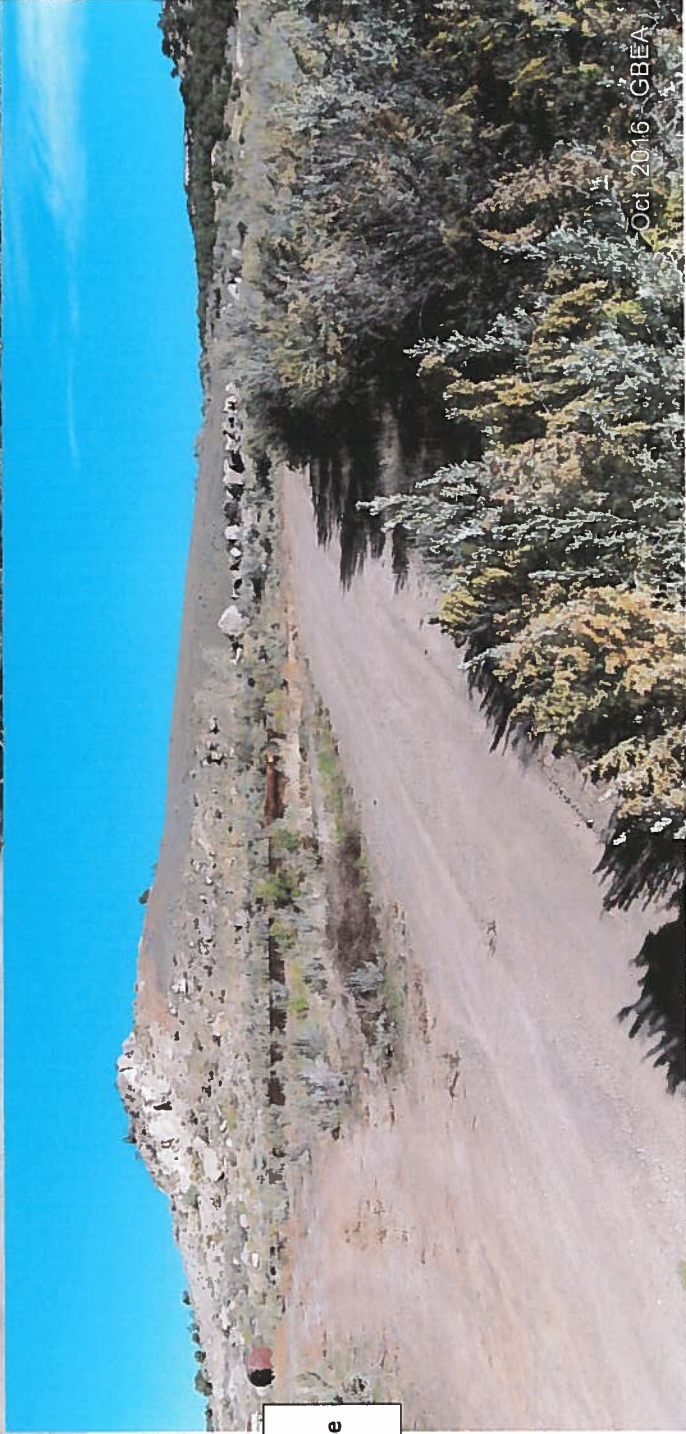


Photo B6 and B7. Overview of pit before and after the October 2016 reclamation. Photos taken from the southeast corner of the pit boundaries.

For Cecil "Cork" Powell and the Vista Del Sol Ranch
 By: Great Basin Environmental and Aquatics, www.greatbasinenvtl.com and www.greatbasinenvtl.com

Oct 2016 GBEA

