

September 12, 2025

Colorado Division of Reclamation and Mining Safety  
Mr. Patrick Lennberg  
1313 Sherman Street, Room 215  
Denver, CO 80203

**RE: Technical Revision 3 Adequacy Review 1 – Monarch DENM Mine (Permit M-2022-009), Weld County, Colorado**

Dear Mr. Lennberg:

The following letter presents Monarch Mountain Minerals and Aggregates, LLC's (MMMA) responses to the Division's preliminary adequacy review letter for Technical Revision 3 (TR-03) dated September 8<sup>th</sup>, 2025. The Division's adequacy comments are presented below in *italics* and MMMA's responses are in **bold**.

*1. In TR-3 it is stated that the Cell 4 slurry wall curtain area is approximately 397,320 square feet (sq ft). In TR-2 the Cell 4 slurry wall curtain area was to decrease to 386,980 sq ft due to a reduction in overall length from 9,042 feet to 7,036 feet with the oil and gas infrastructure that was to be installed between Cells 3 and 4. Please clarify the discrepancy and provide an updated Reclamation Plan Map to show just the currently approved cells with their associated slurry wall length, and the location and length of all approved underdrains.*

**The slurry wall curtain area should be updated to 397,320 square feet, in the previous TR the length of the mine limit was mistakenly used. An updated Reclamation Plan Map has been included to show the currently approved cells with their associated slurry wall lengths and underdrains.**

*2. Please provide a table or list that clearly indicates the sequence of slurry wall installation along with when the underdrains are anticipated to be installed. Include within the list how or which items will be incorporated, through Technical Revisions, into the approved phased bonding for the site.*

**A slurry wall/underdrain sequencing table has been included on the attached Mine Plan Map. The Site proposes this sequencing:**

Slurry Wall / Underdrain Construction Timetable			
Order of Completion	Slurry Wall / Underdrain	Expected Construction Date	Bonding Notes
1	Cell 4 Slurry Wall	2026	Bonded through this TR
2	Cell 1 Slurry Wall	2033	To be bonded through future TR
3	Cell 2 Slurry Wall	2037	To be bonded through future TR
4	Cell 2B Slurry Wall	2044	To be bonded through future TR
4	Cell 2B Underdrain	2044	To be bonded through future TR
5	Cell 3 Slurry Wall	2047	To be bonded through future TR
5	Cell 3 Underdrain	2047	To be bonded through future TR

3. *With the change in cell mining the Reclamation Cost Estimate for the site needs to be updated, please provide an updated cost estimate for the site.*

**See attached updated Reclamation Cost Estimate.**

Thank you for your time and thorough review. Please reach out with any comments or questions.

Sincerely,  
CIVIL RESOURCES, LLC.



Kyle S. Regan

Cc: Eric Leigh

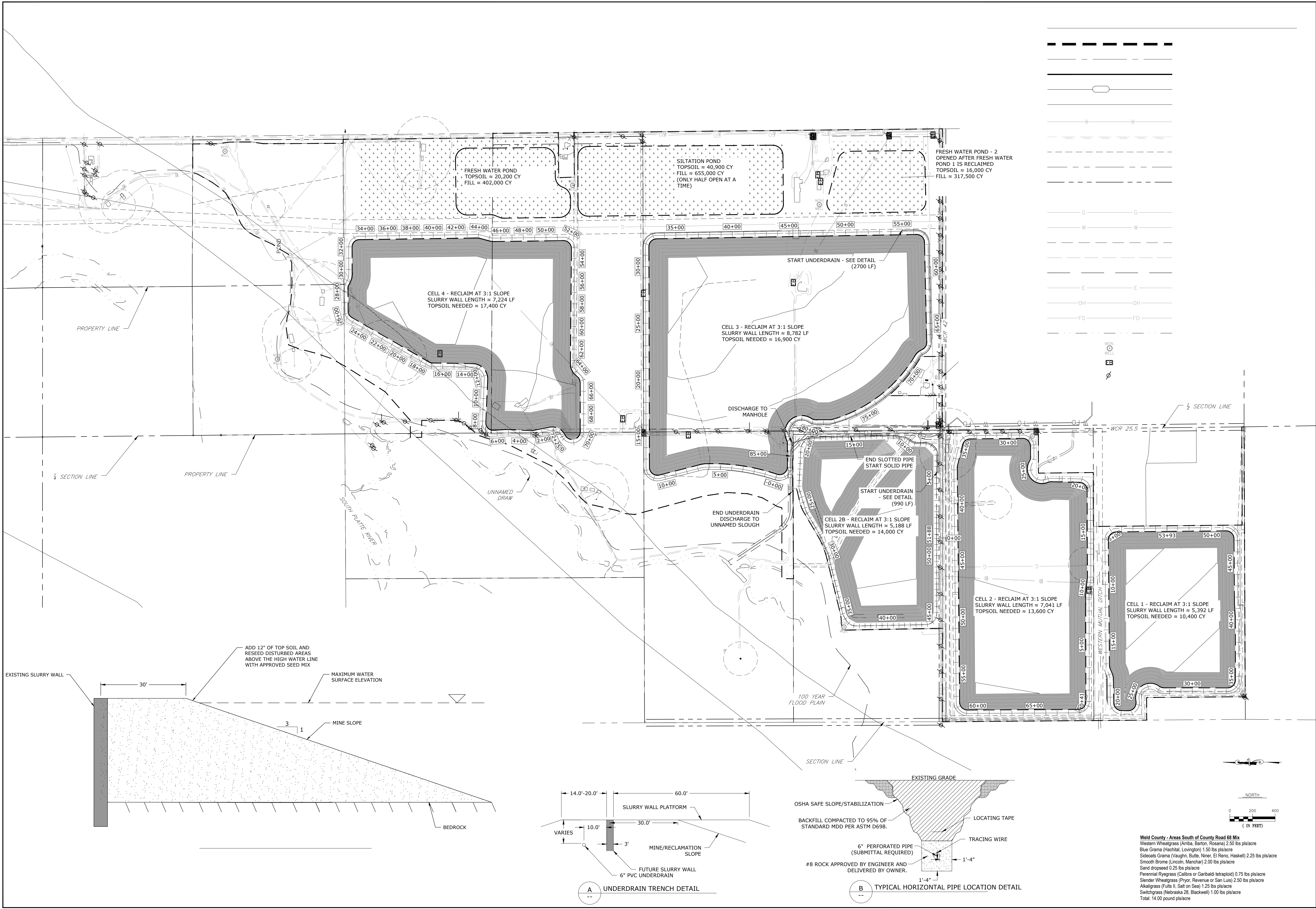
*Attachments:*  
*Mining Plan Map*  
*Reclamation Plan Map*  
*Reclamation Cost Table*







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MONARCH MOUNTAIN M&A  
5 CONCOURSE PKWY, SUITE 1900  
ATLANTA, GA 30328  
720.289-5584 (p)  
ERIC LEIGH

MONARCH-DENM GRAVEL MINE  
DRMS 112 PERMIT APPLICATION  
WELD COUNTY, COLORADO

BLH	9/12/2025
KR	AS NOTED
BLH	AS NOTED

EX-C5-MINE PLAN AND REC PLAN.DWG

RECLAMATION  
PLAN  
MAP

F-1

Weld County - Areas South of County Road 68 Mix  
Western Wheatgrass (Arriba, Barton, Rosama) 2.50 lbs pls/acre  
Blue Grama (Hatchuel, Lovington) 1.50 lbs pls/acre  
Sideoats Grama (Vaughn, Butte, Niner, El Reno, Haskell) 2.25 lbs pls/acre  
Smooth Brome (Lincoln, Manchac) 2.00 lbs pls/acre  
Sand dropped 0.25 lbs pls/acre  
Perennial Ryegrass (Calibra or Garibaldi tetraploid) 0.75 lbs pls/acre  
Slender Wheatgrass (Pryor, Revenue or San Luis) 2.50 lbs pls/acre  
Alkaligrass (Fido II, Salt on Sea) 1.25 lbs pls/acre  
Switchgrass (Nebraska 28, Blackwell) 1.00 lbs pls/acre  
Total: 14.00 pound pls/acre



**EXHIBIT L - RECLAMATION COST**

Activity	Quantity	Units	Unit Costs	Cost
<b>A. Processing area/Office/Shop (Equipment: Excavators, Dozers, Tractor, Water Truck)</b>				
1 Remove concrete pad for wash plant	30	CY	\$ 65.00	\$ 1,950.00
2 Demolish and remove foundation of 250' x 50' drying screening operation	400	CY	\$ 65.00	\$ 26,000.00
3 Demolish building	1	LS	\$ 3,000.00	\$ 3,000.00
4 Remove concrete base for scale	10	CY	\$ 65.00	\$ 650.00
5 Remove 12' diamter concrete foundation for silos	4	CY	\$ 65.00	\$ 260.00
6 Remove and dispose of silos	1	LS	\$ 3,000.00	\$ 3,000.00
7 Scarify ground	15	Acres	\$ 150.00	\$ 2,250.00
8 Spread 12" topsoil	24,300	CY	\$ 0.75	\$ 18,225.00
9 Seed and Mulch	15	Acres	\$ 900.00	\$ 13,500.00
Subtotal				\$ 68,835.00
<b>B. Unlined Ponds and Stockpiles (Equipment: Excavators, Dozers, Scrapers, Water Truck)</b>				
1 Backfill Fresh Water Pond 12.5 acres, 60% recovery(one pond open at a time)	402,000	CY	\$ 2.05	\$ 824,100.00
2 Backfill Siltation Pond, 60% recovery(10 acres open at one time)	366,360	CY	\$ 2.05	\$ 751,038.00
3 Scariffy Ground(unlined pond and stockpile areas)	66	Acres	\$ 150.00	\$ 9,900.00
4 Spread 12" topsoil(unlined pond and stockpile areas)	106,121	CY	\$ 1.50	\$ 159,181.50
5 Seed and Mulch(unlined pond and stockpile areas)	66	Acres	\$ 900.00	\$ 59,400.00
Subtotal				\$ 1,803,619.50
<b>C. Area Surrounding Lined Reservoirs (Equipment: Dozers, Scrapers, Water truck)</b>				
1 Scariffy Ground	36	Acres	\$ 150.00	\$ 5,400.00
2 Spread 12" topsoil	58,300	CY	\$ 1.50	\$ 87,450.00
3 Seed and Mulch	36	Acres	\$ 900.00	\$ 32,400.00
Subtotal				\$ 125,250.00
<b>D. Slurry Wall @ 100% Installation Cost (\$8.25 per SF) per DRMS Bonding Requirement. Assumes 55' average depth (including 4' key into bedrock.) Cell 1-3 slurry walls, Cell 2b underdrain &amp; Cell 3 underdrain will not be constructed for more than 2 years. Equipment used- Excavators, Dozers, Scrapers, Water Truck</b>				
1 Cell 1 Slurry Wall @0%, 5392 linear feet of slurry wall approx 55' deep	5,392	SF		
2 Cell 2 Slurry Wall @0%, 7,041 linear feet of slurry wall approx 55' deep	7,041	SF		
3 Cell 2B Slurry Wall @0%, 5,188 linear feet of slurry wall approx 55' deep	5,188	SF		
4 Cell 2B Underdrain(approximately 990 south of Cell 2B)	990	LF		
5 Cell 3 Slurry Wall @0%, 8,782 linear feet of slurry wall approx 55' deep	8,782	SF		
6 Cell 3 Underdrain(approximately 2,700' along south of Cell 3)	2,700	LF		
7 Cell 4 Slurry Wall @100%, 7224 linear feet of slurry wall approx 55' deep	397,320	SF	\$ 8.25	\$ 3,277,890.00
(slurrywalls/underdrain for Cells 1-3 are more than 2 years out, and will be bonded prior to construction)				
Subtotal				\$ 3,277,890.00
<b>Total Disturbance Costs</b>				<b>\$ 5,275,594.50</b>
<b>Indirect Costs</b>				
<b>Overhead &amp; Profit</b>				
Performance Bond (2.02%) - Based on DRMS estimate				\$ 106,567.01
Performance Bond (3.07%) - Based on DRMS estimate				\$ 55,393.74
Job Superintendent (240 hours @ \$75/hr) - Based on DRMS estimate				\$ 18,000.00
Contractor Mob and DeMob (3%) Based on DRMS estimate				\$ 158,267.84
Contractor Overhead and Profit (10%) - Based on DRMS estimate				\$ 527,559.45
Subtotal				\$ 865,788.04
<b>Contract Amount (direct + O &amp; P)</b>				<b>\$ 6,141,382.54</b>
<b>Legal, Engineering &amp; Project Management</b>				
Financial warranty processing (legal/related costs) (\$500)				\$ 500.00
Engineering Work and/or contract/bid preparation (4.25%)				\$ 261,008.76
Reclamation management and/or administration (5%) - Based on DRMS estimate				\$ 307,069.13
Contingency (3%)				\$ 158,267.84
Subtotal				\$ 726,845.72
<b>Total Indirect Costs</b>				<b>\$ 1,592,633.76</b>
<b>Total Bond Amount</b>				<b>\$ 6,868,228.26</b>