



July 25, 2022

Tim Cazier
CO DRMS
1001 E. 62nd Avenue
Denver, CO 80216

RE: M-1981-044 Solberg Pit AM-03
Response to the Third Adequacy Review

Dear Mr. Cazier,

Please accept this correspondence in response to the Divisions review of the above referenced amendment application.

6.4.3 Exhibit C: Pre-mining and Mining Plan Map(s) Of Affected Lands
Item 12: Exhibit C is revised to represent 286 acres in the affected area boundary.

6.4.4 Exhibit D – Mining Plan
Item 12: The exhibit was not revised.

6.4.5 Exhibit E: Reclamation Plan
Item 25: The exhibit is revised to replace a hydro seeder with drill seed application. Total affected acres are 286.

6.4.6 Exhibit F: Reclamation Plan Map
Item 23: Exhibit F is revised to exclude the SW corner from the affected area.

6.4.12 Exhibit L – Reclamation Costs
Item 25: Reclamation cost estimate reflects drill seed application.

6.4.18 Exhibit R: Proof of Filing with County Clerk and Recorder
Proof of posting with El Paso County Clerk and Recorder is provided herein.

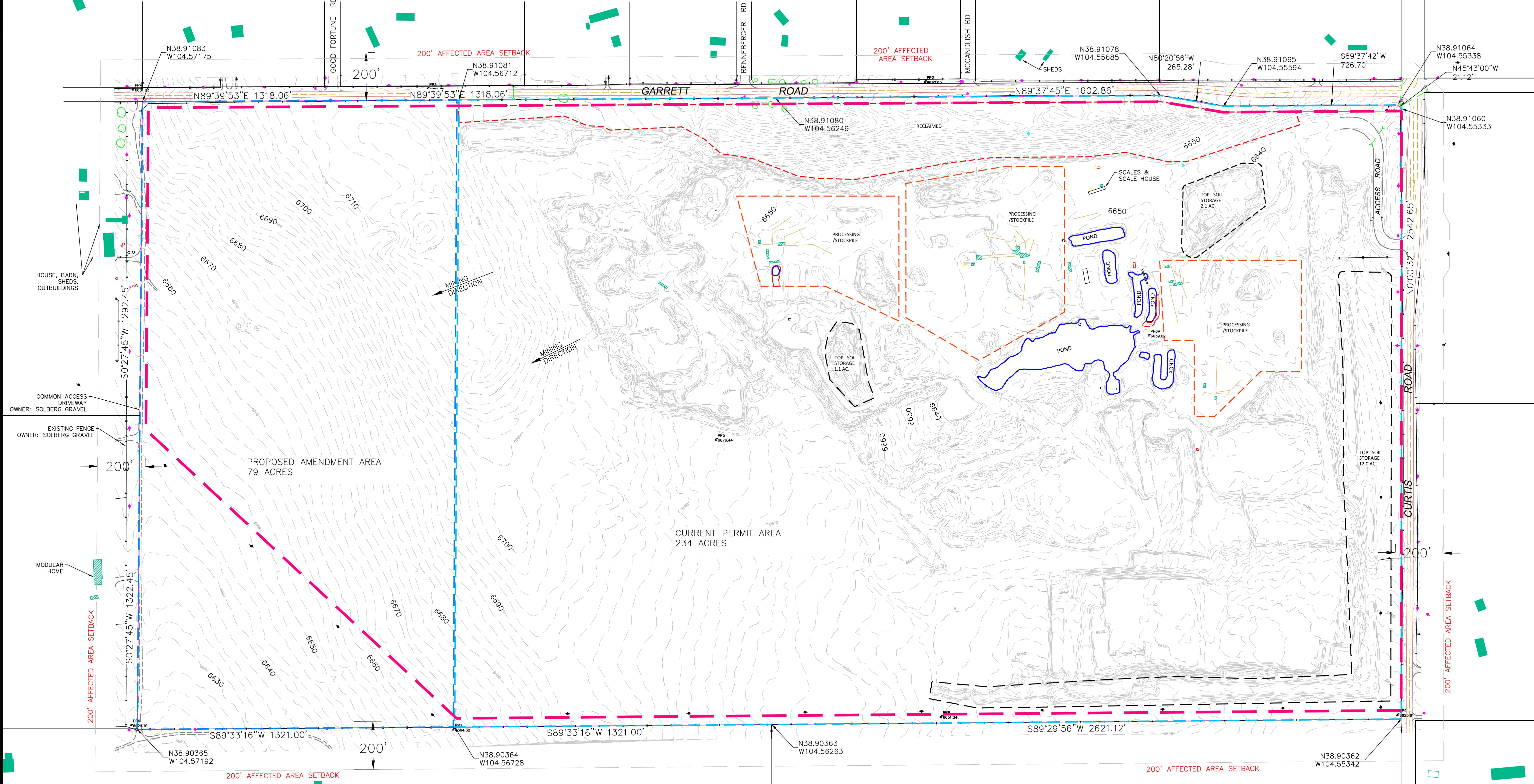
Please feel free to contact me directly with any questions

Respectfully submitted,

Angela M. Bellantoni Ph.D.

EXHIBIT C
MINE PLAN MAP - SOLBERG PIT

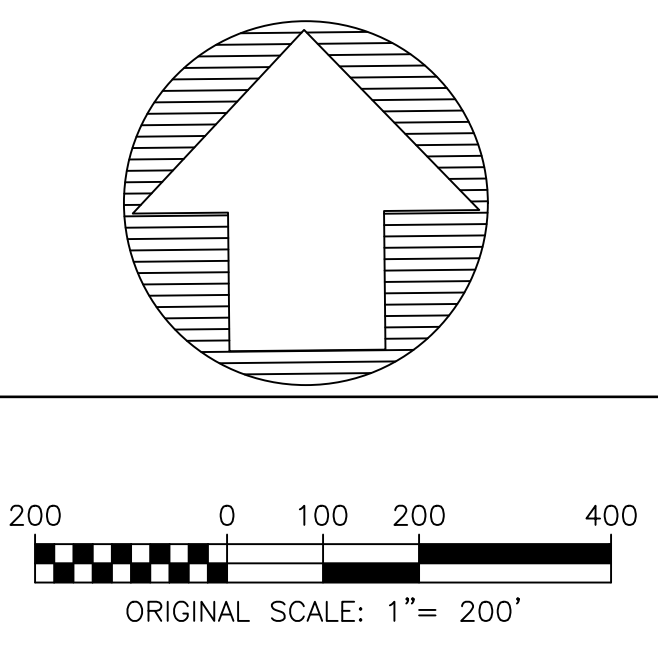
SECTION 21, TOWNSHIP 13 SOUTH, RANGE 64 WEST
OF THE 6TH P.M.
EL PASO COUNTY, COLORADO



I, JOHN E. KRATZ, HEREBY CERTIFY THIS EXHIBIT WAS PREPARED UNDER MY DIRECT SUPERVISION AND CHECKING, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF ACCURATELY DEPICTS THE MINE PERMIT AND AFFECTED AREA BOUNDARIES DEFINED HEREIN. THIS EXHIBIT IS NOT A LAND SURVEY PLAT. LAND USE INFORMATION SHOWN HEREIN IS FROM FIELD OBSERVATION (JULY 6, 2021), AERIAL PHOTOGRAPHY AND REPORT BY OTHERS AND MAY NOT BE ACCURATE AFTER THIS DATE.

John E. Kratz

20142
07/25/2022
PROFESSIONAL LAND SURVEYOR



- CURRENT PERMIT BOUNDARY (234 ACRES)
- PROPOSED AMENDMENT BOUNDARY (79 ACRES)
- AFFECTED AREA BOUNDARY (286 ACRES)
- PROCESSING / STOCKPILE AREAS (23 ACRES)
- TOP SOIL STOCKPILE (15 ACRES)
- RECLAIMED AREA (16 ACRES)
- PONDS (3 ACRES APPROX.)
- EXISTING FENCE
- EXISTING BUILDINGS
- TRANSMISSION POLE (NEXTERA ENERGY)
- DISTRIBUTION POLE (MOUNTAIN VALLEY ELECTRIC)

1. TOPOGRAPHY BY LANDMARK MAPPING, INC. FROM AERIAL PHOTOGRAPHY 4/20/21.
2. CONTOUR INTERVAL 2 FEET.
3. BOUNDARY SURVEY INFORMATION FROM LSP 207900045, PLS 28658

REVISIONS			
NO.	DATE	BY	
4	11/09/21	JEK	REVISE AFFECTED AREA BOUNDARY
5	11/09/21	JEK	REVISE AFFECTED AREA BOUNDARY
6	02/16/22	JEK	DRWS COMMENTS OF 1/13/22
7	02/23/22	JEK	OWNERS - POLES, ROADS
8	07/25/22	JEK	CORRECTIONS TO AFFECTED AREA BNDRY

SCALE VERIFICATION
BAR IS 1" = 100' ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REUSE OF DOCUMENT
THIS EXHIBIT IS CERTIFIED ONLY TO THE PARTIES NAMED HEREON AND REMAINS THE PROPERTY OF RED ROCK LAND SURVEYS, INC. NO GUARANTEE IS MADE FOR ANY OTHER USE OR FOR CORRECT USE OF THIS PLAT SHOULD NEW OR UNDISCOVERED FACTS EMERGE. USE OF THIS PLAT BY OTHER THAN CERTIFICATE HOLDER IS AT YOUR OWN RISK.

PREPARED FOR: PIONEER LANDSCAPE MATERIALS

2021 MAP
SOLBERG GRAVEL, LLC
13745 GARRETT ROAD
PEYTON, CO 80831

SYMBOL	DESCRIPTION
△	FIRE
✱	LPOLE
○	MANHOLE
●	SIGN
◆	UPOLE
+	FENCE
•	MISC
●	TOWER
●	PILE
—	CULVERT
⊙	ROCK
⊙	IRRIGATION
⊙	MAILBOX
○	TREE
—	TRAFFIC
—	RIP-RAP
—	POLE-ANCHOR

6.4.5 Exhibit E Reclamation Plan

Post-mining land use will remain rangeland as approved in the current permit. Final topographical configuration will manifest as a graded mine floor at 6441 ft. elevation with 3H:1V or less sloped sides. The mine floor will be graded to allow for stormwater drainage into the natural drainage ditch in the southeast corner. As mining activity progresses west into the amendment area, reclamation will begin in the mined out east portion of the mine.

At the time of this amendment, of the total 286 acres in the affected area boundary, 16 acres along the north boundary are reclaimed. This leaves a total of 270 acres that remain to be reclaimed.

Upon completion of mining and processing in a portion of the mine, the mine floor will be graded with a motor grader. The recycle water pond will be backfilled with a bulldozer and graded. Perimeter slopes in the vicinity will be shaped to a slope of 3H:1V or gentler using a bulldozer.

Topsoil will continue to be salvaged and stockpiled inside the mine for use during reclamation. Topsoil will be replaced to a minimum depth of six inches. The topsoil will be transported from the stockpiles to the target area by dump trucks that are filled using a loader. The topsoil will be distributed using a motor grader.

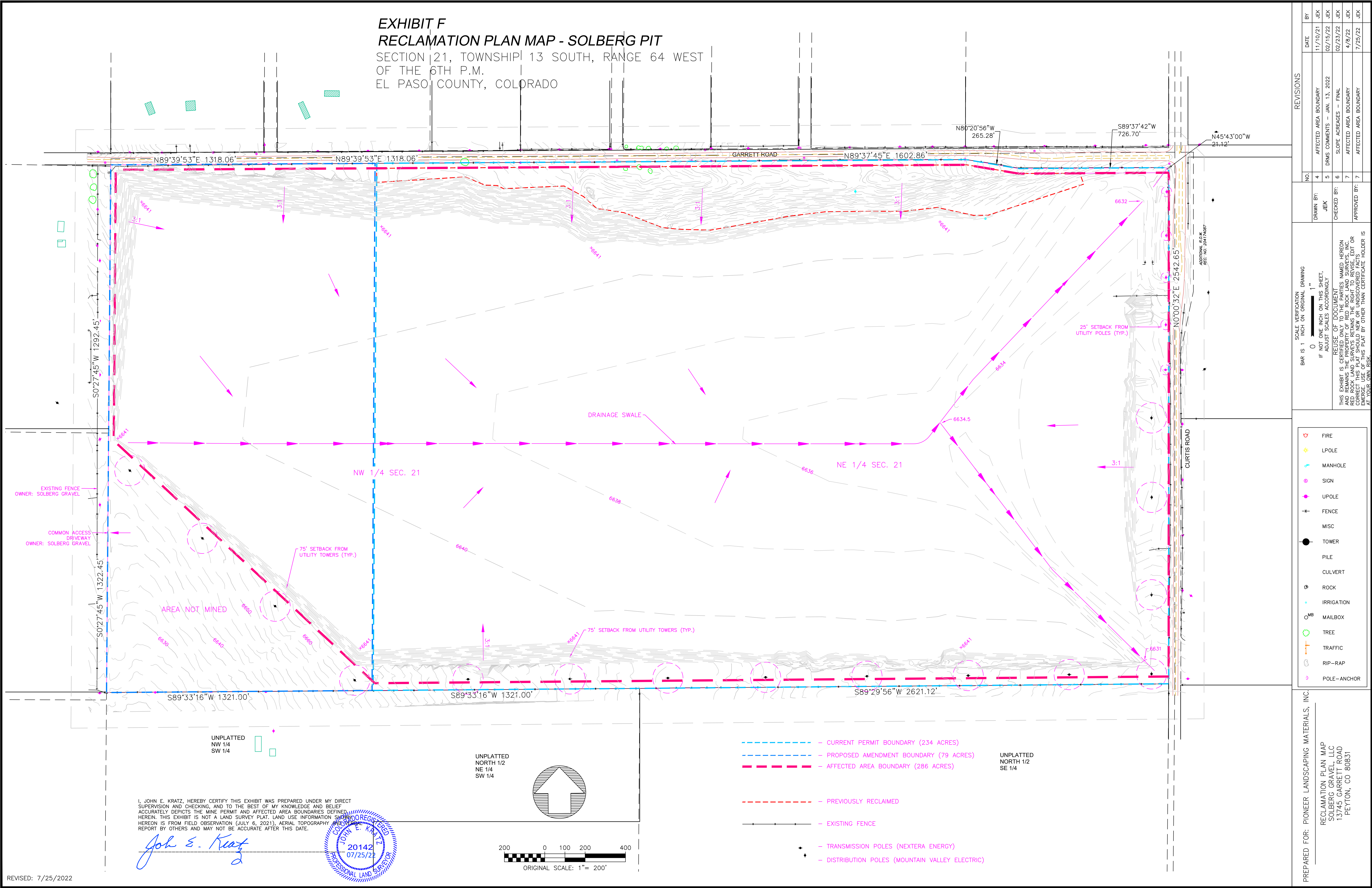
Reseeding will use a drill seeder. Seeding will occur between October 1 and April 30. The reclamation seed mix is consistent with the 2006 reclamation plan. Hydromulch will be applied the contains a tacifier, eliminating the need for straw mulch and crimping equipment.

To address the potential for erosion during reclamation, contour furrows will be shaped into the slope at 30 vertical foot intervals down the face of the slope, perpendicular to the slope. The contour furrows will be approximately 20 ft. long and spaced approximately 50 ft. apart.

The reclaimed slopes will be monitored regularly for vegetation success or erosion impacts. Additional erosion control measures will be implemented if necessary. Weed control will be performed if the weed density inhibits the establishment of grasses or if noxious weeds appear in the reclaimed area.

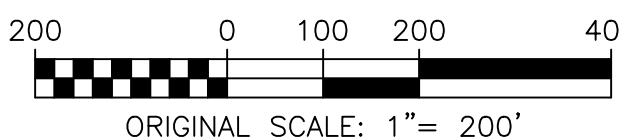
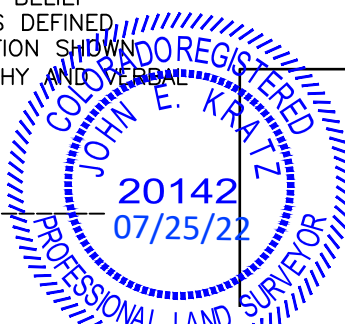
EXHIBIT F
RECLAMATION PLAN MAP - SOLBERG PIT

SECTION 21, TOWNSHIP 13 SOUTH, RANGE 64 WEST
OF THE 6TH P.M.
EL PASO COUNTY, COLORADO



I, JOHN E. KRATZ, HEREBY CERTIFY THIS EXHIBIT WAS PREPARED UNDER MY DIRECT SUPERVISION AND CHECKING, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF ACCURATELY DEPICTS THE MINE PERMIT AND AFFECTED AREA BOUNDARIES DEFINED HEREIN. THIS EXHIBIT IS NOT A LAND SURVEY PLAT. LAND USE INFORMATION SHOWN HEREON IS FROM FIELD OBSERVATION (JULY 6, 2021), AERIAL TOPOGRAPHY, AND A REPORT BY OTHERS AND MAY NOT BE ACCURATE AFTER THIS DATE.

John E. Kratz



Reclamation Cost Summary

Site: Solberg Pit

TASK LIST

TASK	Description	Task Hours	Cost
001C	Final shaping of perimeter slopes	136.00	\$ 22,989.44
002	Rip haul roads and scale house site	1.00	\$ 169.04
003	Backfill water ponds	86.04	\$ 14,544.95
005	Finish grade disturbed area	47.37	\$ 7,182.00
006	Distribute and grade topsoil	391.26	\$ 410,286.74
010	Reseed disturbed area	540	\$ 284,434.20
011	Remove scale house and scales from site*	4	\$ 13,961.90
012	Mobilize and demobilize	2.5	\$ 6,345.13

Hours Total: 1208.18

Direct Costs Total: \$ 759,913.40

INDIRECT COSTS

OVERHEAD AND PROFIT

Liability insurance: 2.02% \$ 15,350.25

Performance bond: 1.05% \$ 8,207.06

Profit: 5% \$ 37,995.67

CONTRACT AMOUNT (DIRECT AND O&P) \$ 821,466.39

LEGAL-ENGINEERING-PROJECT MANAGEMENT

Engineering work and/or contract/bid preparation 0.00% \$ -

Reclamation management and/or administration 4.50% \$ 36,965.99

TOTAL BOND AMOUNT \$ 858,432.38

* Cost estimate based on subcontractor invoice at other mine site.

Task Description: Mobilize /Demobilize Task # 012
 Site: Solberg Pit

EQUIPMENT TRANSPORT RIG COST

Rig Capacities:	0-25 Tons	26-50 tons	51+ tons
Unit Cost:	\$ 88.67	\$ 117.55	\$ 125.45

NON ROADABLE EQUIPMENT

Machine	Weight/Tons	Haul trip cost/hr/fleet	Return Trip cost/hr/fleet	DOT Permit cost/fleet
CAT D6	53.08	\$ 205.64	\$ 125.45	\$ 250.00
CAT 12M	16.01	\$ 112.15	\$ 88.67	\$ 250.00
CAT 950	20.13	\$ 184.07	\$ 88.67	\$ 250.00
C730 Haul truck	26	\$ 112.15	\$ 88.67	\$ 250.00
Hydroseeder	25	\$ 128.26	\$ 88.67	\$ -
Subtotal		\$ 742.27	\$ 480.13	\$ 1,000.00

ROADABLE EQUIPMENT

2500 gallon water truck	\$ 68.18	\$ 68.18
Fuel tanker	\$ 81.14	\$ 81.14
Lube truck	\$ 94.90	\$ 94.90
Flatbed truck	\$ 115.89	\$ 115.89
Subtotal	\$ 360.11	\$ 360.11

EQUIPMENT HAUL DISTANCE AND TIME

Falcon 10 miles one-way
 Average speed 40 mph

Transportion Cycle Time Hours

	Non-Roadable	Roadable
Haul time:	0.25	0.25
Return time:	0.25	0.25
Loading time:	0.5	NA
Unloading time:	0.5	NA
Subtotals:	1.5	0.5

Total Non-Roadable Cost: \$ 1,992.51

Total Roadable Cost: \$ 180.06

JOB TIME AND COST

Total time: 2.5

Total cost: \$ 6,345.13

Task Description: Reseed disturbed area Task # 010
 Site: Solberg Pit

Seed Bed Preparation	Cost/acre
Discing	\$ 117.18
Weed control spray	\$ 290.40

Reseeding Activity	Description	Cost/Acre
Tractor with drill seeder		\$ 675.00

Seed Mix/Comon Name	Rate-PLS lbs/Acre	Cost/lb	Drilled Cost/acre
Western Wheatgrass	6.0	\$ 9.00	\$ 54.00
Intermediate Wheatgrass	5.0	\$ 2.85	\$ 14.25
Sideoats Grama	4.0	\$ 9.28	\$ 37.12
Blue Grama	1.0	\$ 5.27	\$ 5.27
Little Bluestem	2.0	\$ 12.00	\$ 24.00
Needlegrass	3.0	\$ 7.00	\$ 21.00
Hydrogreen	15.0	\$ 5.53	\$ 82.95
	36.0		\$ 238.59

Mulch		
Hydromulch	30 40 lb bags/acre	\$ 407.29

Job time and estimate	Initial Seeding
No. of Acres	270
Cost/acre	\$ 1,053.46
Job Cost	\$ 284,434.20
Total Job Cost	\$ 284,434.20
Job Hours	540

Task Description:	<u>Distribute and grade topsoil</u>	Task #	<u>006</u>
Site:	<u>Solberg Pit</u>		

HOURLY EQUIPMENT COST

Basic Machine:	<u>CAT 12M</u>	<u>2500 gallon water truck</u>	<u>CAT 623G Scraper</u>
Unit Cost/Hour:	<u>\$ 151.62</u>	<u>\$ 30.60</u>	2 433.2
			\$ 866.40

MATERIAL QUANTITIES

Area:	<u>270</u> acres
Unit production:	<u>716.42</u> LCY/hr
6 inches over 286 acres	280309 LCY

JOB TIME AND COST

Fleet size:	1 grader, 2 scrapers, 1, water truck
Fleet cost/hour:	\$ 1,048.62
Total job time:	391.26
Total job cost:	\$ 410,286.74

Task Description: Finish grade mine floor Task # 005
Site: Solberg Pit

HOURLY EQUIPMENT COST

Basic Machine: CAT 12M
Horsepower: 158
Unit Cost/Hour: \$ 151.62

MATERIAL QUANTITIES

Area: 270 acres
Unit production: 5.7 acre/hr

JOB TIME AND COST

Fleet size: 1 grader
Unit cost: \$ 26.60
Total job time: 47.37
Total job cost: \$ 7,182.00

Task Description: Backfill water ponds
Site: Solberg Pit

Task # 003

HOURLY EQUIPMENT COST

Basic Machine: CAT D6
Horsepower: 310
Unit Cost/Hour: \$ 169.04

MATERIAL QUANTITIES

Area: 3 acres
Fill depth 8 feet
Volume: 38,720 CY
Unit production: 450 CY/hr

JOB TIME AND COST

Fleet size: 1 dozer
Total job time: 86.04
Total job cost: \$ 14,544.95

Task Description: Rip haul roads and scale house site
Site: Solberg Pit

Task # 002

HOURLY EQUIPMENT COST

Basic Machine: Cat D6 with 3-shank ripper
Horsepower: 310
Unit Cost/Hour: \$ 169.04

MATERIAL QUANTITIES

Area: 0.75 acres
Rip depth 0.5 feet
Volume: 605 CY
Unit production: 0.75 acre/hr

JOB TIME AND COST

Fleet size: 1 dozer
Unit cost: \$ 225.39
Total job time: 1.00
Total job cost: \$ 169.04

Task Description: Final shaping of perimeter slopes
Site: Solberg Pit

Task # 001C

HOURLY EQUIPMENT COST

Basic Machine: CatD6 Dozer
Unit Cost/Hour: \$ 169.04
Horsepower 310

MATERIAL QUANTITIES

Area: 34 acres
Unit production: 0.25 acre/hr

JOB TIME AND COST

Fleet size: 1 bulldozer
Unit cost: \$ 676.16
Total job time: 136.00
Total job cost: \$ 22,989.44