STATE OF COLORADO

Gibson - DNR, Amber <amber.gibson@state.co.us>

M-1987-116, Adequacy Response 1

1 message

Katie Todt <katie@lewicki.biz> Thu, May 30, 2024 at 4:32 PM
To: "amber.gibson@state.co.us" <amber.gibson@state.co.us>
Cc: Ben Miller <ben@lewicki.biz>, Nicole Martin <nicole@coloradoquarries.com>

Good afternoon, Amber:

Please allow the attached documents to serve as Lewicki and Associate's response on behalf of Colorado Quarries to your May 3, 2024 Adequacy Review 1. Kindly please confirm you've received the 11 attached documents and please let me know if you'd like any files as hard copies delivered via Fedex to the Division. Record of notices pertaining to this Response 1 will be forwarded to the Division early next week. Thank you for your consideration and please do not hesitate to give myself or Ben Miller a call with any questions.

Attached:

- Siskin Adequacy Response 240530.pdf
- Siskin Green 240523-C-1 Access Road.pdf
- Siskin Green 240523-C-2 Baseline Conditions.pdf
- Siskin Green 240523-C-3 Mining Plan.pdf
- Siskin Green 240523-C-4 Cross Sections.pdf
- Siskin Green 240523-F-1 Reclamation Plan.pdf
- DRMS 112c Siskin 240530 - amended pages.pdf
- Siskin Exhibit B 240521.pdf
- Siskin NRCS Soil Report - road and mine.pdf
- Siskin 200-foot notice receipts.pdf
- Siskin Newspaper proof of publication.pdf

Cheers,

Katie Todt

Senior Consultant

Lewicki and Associates, PLLC

(314) 704-4505

Lewicki & Associates
ENGINEERING | GEOLOGY | ENVIRONMENTAL

11 attachments

Siskin Adequacy Response 240530.pdf
308K

Siskin Green 240523-C-1 Access Road.pdf
1263K

Siskin Green 240523-C-2 Baseline Conditions.pdf
691K

Siskin Green 240523-C-3 Mining Plan.pdf
1009K

Siskin Green 240523-C-4 Cross Sections.pdf
1321K

Siskin Green 240523-F-1 Reclamation Plan.pdf
821K

DRMS 112c Siskin 240530 - amended pages.pdf
2257K

Siskin Exhibit B 240521.pdf
459K

Siskin NRCS Soil Report - road and mine.pdf
761K

Siskin 200-foot notice receipts.pdf
545K

Siskin Newspaper proof of publication.pdf
293K

May 30, 2024

Colorado Division of Reclamation, Mining, and Safety
1313 Sherman St, Rm 215
Denver, CO 80203

Delivered Via Email

RE: Siskin Pit, File No. M-1987-116, Conversion Application No. 1 (CN1), Adequacy Review 1

Ms. Gibson:

Please accept this response on behalf of Colorado Quarries for your first adequacy review letter dated May 3, 2024. Only permit narrative exhibits with changes are included as attachments to this response.

Exhibit A:

- *In the introduction page, prior to Exhibit A, the location is described as being three miles southeast of Silver Cliff city center. In the first paragraph of Exhibit A, the location is described as being four miles east-southeast of the Westcliffe city center. In the second paragraph of Exhibit A, it is described as being 2.5 miles southeast of the center of Silver Cliff and three miles southeast of Westcliffe.*

1. *Please edit these descriptions to be consistent throughout the location descriptions in the Introduction and Exhibit A portions of the application and resubmit these pages.*

Please refer to the revised text with the requested changes.

Exhibit B:

- *The physical copy of the Exhibit B Index Map is very faint and difficult to see.*

2. *Please resubmit this page as a PDF file that clearly illustrates the vicinity of the proposed site on a map that is compliant with Rule 6.4.2.*

A pdf of Exhibit B is attached to this letter.

Exhibit C:

- *Maps C-1, C-2, C-3, and C-4 are not signed.*

3. *Pursuant to Rule 6.2.1(2)(b), the Applicant shall submit maps that have been signed by a registered land surveyor, professional engineer, or other qualified person.*

Please refer to the revised maps with signatures. Please note that the original hard copy maps sent to the Division were signed, however, the package was lost by Fedex and therefore never reached the Division.

- *Parcel number 0010187100 is listed twice in the Property Owners table on Map C-1, but has different information for each entry.*

4. *Please describe this reasoning for this discrepancy to the Division or correct this on Map C-1 and any map including this parcel number.*

This discrepancy was due to an error in labeling of parcels. Please refer to the revised Map C-1 with this error corrected.

- *Exhibit D and the Introduction section describes the access road area totaling 8.2 acres. On Map C-2, the Access Road Permit & Affected area label states that this is approximately 8.7 acres.*

5. *Please update map C-1 to reflect the Access Road Permit & Affected area as being comprised of approximately 8.2 acres.*

Please refer to the revised Map C-1 with the corrected acreage of 8.2 acres.

- *In Exhibit S of the application, the Applicant states that there are fences owned by Silver Cliff Land and Cattle Co within 200 feet of the disturbed area. However, these structures are not depicted on the map. Additionally, in Exhibit S the Applicant states that structures owned wholly or partly by Colorado Quarries, Inc. are not included in Exhibit S. However, these structures must be listed and also included on the map. During the Division's pre-operational inspection, on May 1, 2024, several fences in varying condition were identified throughout and adjacent to the proposed permit area.*

6. *Please ensure all man-made structures, owned by outside parties and/or by the Applicant, are depicted on the map pursuant to Rule 6.4.3 (g).*

The maps have been updated to identify these structures with more clarity.

<u>Exhibit D:</u>

- *In Section 6.4.4(a) of Exhibit D, the Applicant states that the processing and stockpiling areas will move throughout the mine's life to optimize operations. This section also*

states that because stockpiles will be portable throughout the life of the mine, they have not been shown on Map C-3.

7. Please clarify to the Division if the stockpiles mentioned in this sentence include the topsoil stockpiles. Per Rule 3.1.9(4) topsoil stockpiles, once stabilized, should be handled as little as possible until they are to be used for reclamation.

8. Additionally, please include topsoil locations for each Phase on the Mining Plan maps.

The stockpiles mentioned in this portion of Exhibit D are in reference to the stockpiles for processing, and not for topsoil or overburden. Topsoil and overburden will be stored in separate (i.e., not mixed) perimeter berms used for stormwater control. The text and map have been revised to clarify this.

- *Table 1 lists the acres to be disturbed in each mining phase. The total for the acres provided in Table 1 equals 52.9 acres.*

9. Please describe the type of disturbance expected to occur within the remaining 24.6 acres of the 77.5-acre mining area.

The remaining 24.6 acres of the 77.5-acre mining area will not be disturbed by mining. These areas include the central portion of the site – excepting the mine access road and stock pond, the perimeter of the mine site, and the southernmost drainage and extent of the site.

- *Section 6.4.4(c) of the application, the Applicant states that safety and stormwater berms will be composed of overburden and topsoil material. Pursuant to Rules 3.1.9(1) and 3.1.9(3) topsoil must be stockpiled separately, and must be out of the way of ongoing mining operations.*

10. Please revise the plan for the topsoil piles in the narrative and resubmit the page.

Please refer to the revised text for the requested changes.

<u>Exhibit E:</u>

- *In Exhibit E, Section 6.4.5(2)(a) of the application, the Applicant states that the overburden at the site ranges from 0-24", with an average of 12" across the site. The Applicant then states that the majority of the site includes little to no overburden.*

11. If the plan is to replace overburden at a depth of 8" throughout the site, please clarify where the majority of the overburden will be salvaged from. Will the Operator/Applicant be able to salvage enough overburden in the first few phases to replace the overburden at this depth in the initial reclaimed phases?

Please refer to the revised text for the requested changes.

- *In Section 6.4.5(2)(c) please;*

12. Clarify to the Division whether acid-forming or toxic producing materials will be mined at the site, pursuant to Rule 3.1.5(5).

No acid-forming or toxic producing materials will be mined at the site. The text has been revised to include this information.

13. Clarify if the Operator intends to import structural fill to be used as backfill, pursuant to Rule 3.1.5(9).

a. If so, please include a narrative and affidavit describing the information required in Rule 3.1.5.(9)(a-f).

Imported backfill is not anticipated at this time; however, in the event that imports are desired, a Technical Revision will be secured prior to any importing occurring.

14. Describe how the 2' tall stormwater berms will be stabilized and protected to effectively control erosion pursuant to Rule 3.1.6(3).

The berms will be vegetated with seed mix to prevent erosion. This information has been added to the revised text.

- *In Section 6.4.5(2)(d) of the application, the Applicant provides an example native dry rangeland seed mix in Table 4. The Applicant states that the final seed mix will be comparable and may be slightly altered from the example list.*

15. The Applicant shall commit to a specific seed list and seeding rates. This information will be reviewed for the requirements of Rule 3.1.10 and used for reclamation cost estimating purposes. If the mix needs to be altered at a later date, the Operator shall submit a Technical Revision (per Rule 1.1(53)) in order to do so.

It is understood that a Technical Revision will be required to change the reclamation seed mix.

<u>Exhibit F:</u>

- *Map F-1 is not signed.*

16. Pursuant to Rule 6.2.1(2)(b), the Applicant shall submit maps that have been signed by a registered land surveyor, professional engineer, or other qualified person.

Please refer to the revised Map F-1 with the required signature.

Exhibit G:

- *The current pit floor elevation, shown on Map C-2, appears to indicate that it slopes east to west from an elevation around 8,405' to 8,398'. The final mining elevation in Map C-3, the reclaimed floor elevation shown on Map F-1 for Phases 1-4, and the final elevation provided in Tables 2 and 3 in Exhibit D of the Application, indicate that the Pit floors will be at an elevation of 8,300'. In Exhibit G of the application, under the Groundwater section heading, the Applicant states that expected groundwater levels are known to be 80' below the current mine floor. If the applicant intends to drop the current mine floor approximately 100 feet in Phases 1 and 2, and approximately 80 feet in Phases 3 and 4 (see Tables 2 and 3 in Exhibit D of the Application) it appears that groundwater would be expected to be encountered.*

17. Please explain this discrepancy, and clarify to the Division how groundwater will not be encountered at this site.

Colorado Quarries understands that groundwater may not be exposed without proper permits from the Colorado Division of Water Resources. As the mining method is drill and blast, pre-blast ~20-foot-deep drill holes will alert Colorado Quarries to the presence of water prior to blasting and mass disturbance of the next lift regardless of its location throughout the site. In the event that drill holes are wet, mining will cease in that area with the potential closure of that phase. If a phase is closed early due to encountered groundwater, a Technical Revision will be filed with the Division to account for the change in final pit floor elevation.

- *In Section 6.4.7(3) of the application, the Applicant states that dust control measures will be employed during mining operations, and that water will be used as needed.*

18. Pursuant to Rule 6.4.7(3) The Operator/Applicant shall provide an estimate of the project water requirements including flow rates and annual volumes for the development, mining and reclamation phases of the project.

All water used on site will be purchased and trucked to the active working area from a legal source. Approximately 1-3 3-5,000-gallon water trucks will be consumed on days when the site is operating. Water used on site will be fully consumed as dust mitigation on roads and the active mine area, as needed, as well as during material processing via spray bars. No water will be required for reclamation with the exception of water brought in via a water truck to maintain dust mitigation on the site access road.

Exhibit J:

- *The Applicant provides an aerial image and a photo of the site, indicating the general vegetation in the pre-mining and surrounding portions of the proposed permit area. The Applicant also provides a general yield of unspecified vegetation in the areas corresponding with the provided NRCS Soil Report map. However, the Division requires additional vegetation information (below).*

19. Pursuant to Rule 6.4.10(1)(a), please provide descriptions of present vegetation types, which include quantitative estimates of cover and height for the principal species in each life-form represented (i.e., trees, tall shrubs, low shrubs, grasses, forbs).

a. The Division recommends that the Applicant contacts their local Conservation District for assistance. The Custer County Conservation District can be contacted by phone at 719-783-2481 Ext. 100 or by email at custercountycd@gmail.com.

Please refer to the revised text with the requested changes.

- *Per Rule 6.4.10(1)(b) and Rule 6.4.10(2) information pertaining to the soil types in the affected area, and vegetation, may be addressed in the narrative of Exhibit J, or on a map. The soils map included in Appendix 3 of the application does not include information for the access road, and thus does not correlate completely with the Vegetation information in Exhibit J.*

20. Please include a corresponding map for the access area portion of the permit boundary.

Please see the attached NRCS soil survey that includes the full access road and mine area.

Exhibit L:

- *Exhibit L states that the "worst-case scenario" is presently based on mining and reclamation for the extent of Phase 1.*

21. Please clarify the following to the Division;

a. Does the maximum disturbance provided in Exhibit L for Phase I include–the total mining and processing areas, roads to be reclaimed, equipment storage, and any un-released reclaimed acres? If the Applicant intends to be initially only bonded for Phase 1, then the information provided in Exhibit L (plus any additional information mentioned above) will be sufficient for the Division to calculate the bond for the initial operations. However, prior to beginning disturbance in the next Phase, the Operator shall commit to notifying the Division so that the reclamation responsibility can be re-calculated and sufficiently bonded for prior to initiating new disturbance at the site.

Only Phase 1 will be bonded as described in the text. Prior to opening and disturbing ground in a new phase, the Operator shall notify the Division such that a new bond may be calculated.

Exhibit N:

- *In Exhibit N, the Applicant states that "Areas included within the permit area but outside the affected area are owned by Our Lady of the Assumption Roman Catholic Church and the Silver Cliff Land and Cattle Company and are limited to the site access road that will not be reclaimed following the completion of mining". The maps indicate that the permitted boundary and the affected boundary are synonymous at this site.*

22. Please clarify whether the statement about the access road is actually referring to the area outside of the 'mined area', rather than 'affected area'.

The statement is revised in the permit narrative.

Exhibit R:

- *No proof of filing with the County Clerk and Recorder was provided with the application.*

23. Pursuant to Rule 6.4.18, please provide the Division with an affidavit or receipt indicating the date on which the application was placed with the local County Clerk and Recorder for public review, pursuant to Rule1.6.2(1)(c).

Proof of filing with the county clerk and recorder is included with this response.

Exhibit S:

- *The narrative in Exhibit S lists Our Lady of the Assumption Catholic Church as the structure owner for CR-344. In the Structure Agreement notice submitted with the application, the Applicant lists fences and CR-344 on the Our Lady of the Assumption Catholic Church's agreement.*

24. Please update Exhibit S to reflect all of the structures within 200 feet of the affected land and their corresponding owners.

Please refer to the revised Exhibit S.

6.5 Geotechnical Stability Exhibit:

- *In the Blasting Plan, submitted as Appendix 2 with the Application, various residences, wells, and structures are listed within one mile of the permit boundary. The Applicant states that structure agreements signed by the Operator were either hand delivered to and signed by the recipient or delivered via certified mail.*

25. Please provide evidence to the Division that these have been sent to the listed structure owners within one mile of the permit boundary.

Proof of notification to structure owners listed in Exhibit S is provided with this letter. Letters to structures owners included in the Blast Plan but not Exhibit S are being sent again via certified mail to be able to provide record to the Division that they were sent. This record will be provided to Division staff in a follow-up submittal.

26. Pursuant to Rules 6.4.4(i) and 6.5(4), please demonstrate through appropriate blasting, vibration, geotechnical, and structural engineering analyses, that offsite areas will not be adversely affected by blasting.

After written request for clarification regarding this adequacy question, the Division replied to Lewicki and Associates on May 24, 2024 that upon further investigation and discussion, that the currently submitted blast plan is adequate with respect to the Office of Surface Mining Reclamation and Enforcement blasting standards for Ground Vibration and Air Blast (See Coal Rule 4.08.4) and that no further engineering be provided. However, the Division posed the following clarification points in their reply.

1. The Applicant commits to complying with the maximum allowed peak particle velocity of 1.0 in./second which is applicable for structures between 301 and 5,000 feet from the blast. However, if there are other structures closer than 301 feet, the Applicant needs to commit to not exceeding 1.25 inches per second. I would recommend revising the commitment to not exceed the PPV limits as outlined in Table 1. of the proposed plan.

There are no permanent above ground structures other than 3-strand barbed wire fences and road culverts within 300 feet of the permit boundary not already included as structures within the permit file. However, Colorado Quarries commits to complying with a maximum allowed peak particle velocity of 1.0 inches/second.

2. For Airblast, the Applicant commits to complying with the maximum allowed airblast of 129 dBL. In relation to this, the Applicant shall commit to using a measuring system with a Lower Frequency Limit of 6 Hz or lower.

Colorado Quarries commits to using a measuring system with a lower frequency limit of 6 Hz or lower.

Publication Requirements:

> *27. Pursuant to Rules 1.6.2(1)(d) and 1.6.5, please provide the Division with Proof of Publication.*

Proof of publication is provided with this letter.

> *28. Please provide the Division with proof of notice to the Owners of Record of surface and mineral rights of the affected land, and to Owners of Record of all land surface within 200 feet of the boundary of the affected land per Rule 1.6.2(1)(e).*

Proof of notices to surface and mineral owners are provided with this letter. These notices were delivered in the same envelope and certified mailing as the Exhibit S structure notices; the file is labeled as such.

> *29. Please remember that pursuant to Rule 1.6.2(1)(c), any changes or additions to the application on file in our office must also be reflected in the public review copy which was placed with the Las Animas County Clerk and Recorder. Pursuant to Rule 6.4.18, you must provide our office with an affidavit or receipt indicating the date this was done.*

Proof of submittal of this first Adequacy Response to the Custer County Clerk and Recorder will be forwarded to Division staff in the days following the responses submittal to the Division.

Please feel free to contact me with any questions.

Regards,

Ben Miller
Lewicki & Associates, PLLC
(303) 346-5196
ben@lewicki.biz

Attachments

- Siskin Green 240523-C-1 Access Road.pdf
- Siskin Green 240523-C-2 Baseline Conditions.pdf
- Siskin Green 240523-C-3 Mining Plan.pdf
- Siskin Green 240523-C-4 Cross Sections.pdf
- Siskin Green 240523-F-1 Reclamation Plan.pdf
- DRMS 112c Siskin 240530 - amended pages.pdf
- Siskin Exhibit B 240521.pdf

- Siskin NRCS Soil Report - road and mine.pdf
- Siskin 200-foot notice receipts.pdf
- Siskin Newspaper proof of publication.pdf

C-1 Access Road

Siskin Green

DRMS Permit Number: M-1987-116 — **Colorado Quarries, Inc.**

Mine Entry Location:	Latitude: 38.1131 N	Longitude: -105.4012W
State: CO	County: Custer	Nearest Town: Silver Cliff
Section: 26 & 23	Township: 22 S	Range: 72 W PM: 6th
Major Watershed:	Arkansas River	MSHA ID: N/A

Map Scale: 1": 400'

0 400 800

N

Map Georeferencing Information: **Datum: NAD83** **Projection: CO SOUTH**

Survey Source: USGS DEM	**Drawn by:** SAC	Date: 05/14/2024
Imagery Source:----	**Checked by:** MKT	Date: 05/14/2024
Survey Date: 2021	**Approved by:** BEL	Date: ----
Imagery Date: ----		

File Name: Siskin Green 240523

Lewicki & Associates
3375 West Powers Circle Littleton, CO USA 80123 (303)-346-5196 info@lewicki.biz

PROPERTY OWNERS

PARCEL NUMBER	NAME	ADDRESS	CITY	STATE	ZIP
0010017950 0010139452	COLORADO QUARRIES INC	270 SOUTH 15TH ST	CANON CITY	CO	81212
0010187100	SILVER CLIFF LAND & CATTLE CO	7800 E DORADO PL SUITE 250	GREENWOOD VILLAGE	CO	80111
0010160810	PETERSON JEROLD LEE	830 FOURTH ST	SILVER CLIFF	CO	81252
0010228600	CATHOLIC CEMETERY		WESTCLIFFE	CO	81252
0010139451	GAIDE SHAWN ADAM & BRENDA THERESA	3050 HWY 96	SILVER CLIFF	CO	81252
0010231850	BUREAU OF LAND MANAGEMENT	PO BOX 311	CANON CITY	CO	81212
0010219225	MILLER DUANE & TROYER MATTHEW; HOSTETLER WENDELL & SCHLABACH DEREK	67445 STATE HIGHWAY 69	WESTCLIFFE	CO	81252
0010219226	WIEDEMANN WALTER; GRUBLSTRASSE	A-5621 ST VEIT I. PG.	AUSTRIA	N/A	N/A
0010219220	WEAVER WILLIS RAY & CINDY W	4545 OLD STATE RD	WEST FARMINGTON	OH	44491
0010219222	SCHRIER AMANDA LYNNE & HEMMER CHAD MICHAEL	3068 HWY 96	SILVER CLIFF	CO	81252
0010219223	GAIDE SHAWN ADAM & BRENDA THERESA	3050 HWY 96	WESTCLIFFE	CO	81252
0010232554	GAIDE SHAWN ADAM & BRENDA THERESA	3050 HWY 96	WESTCLIFFE	CO	81252
0010033952	BOISVERT ALFRED G & SCHWARZ ROBIN LORRAINE	56380 HWY 69	WESTCLIFFE	CO	81252
0010033953	CUSTER DAVID D & CAROLE J	18626 N SPANISH GARDEN DR	SUN CITY WEST	AZ	85375
0010033954	CUSTER DAVID D & CAROLE J	18626 N SPANISH GARDEN DR	SUN CITY WEST	AZ	85375

LEGEND

LAND SURVEYS

- Property Boundary
- Public Land Survey System
  - Range or Township line (approx.)
  - Range or Township labels — R1E T2N
  - Section line (approx.)
  - Section numbers — 1-36

ROADS AND RELATED FEATURES

- Light duty road; gravel
- Unimproved road; gravel
- Building

RIVERS, LAKES, SHORELINES, AND CANALS

- Intermittent stream/ditch
- Perennial lake/pond
- Drainage Direction

VEGETATION

- Woodland
- NWI Wetlands

MINING FEATURES

- DRMS Permit Boundary
- 200' DRMS Permit Offset
- Culvert

BASELINE CONTOURS

- Index — 5280'
  - Approximate of indefinite
- Intermediate — 5281'
  - Approximate of indefinite
- Supplementary — 5281'

8380' 8385' 8390' 8395' 8400' 8405' 8410'

0010017950

0010187100

R72W T22S
72-23

R72W T22S
72-26

County Road 344

Access Road Permit &
Affected Area:
Approx. 8.2 acres

Stock Pond

Original
110 Permit
Boundary

Current Mining and
Operating Area

Product
Stockpiles (Typ.)

Quarry Entry Location:
38.1131N, -105.4012W

Stock Pond

Permit and
Affected Area
(road excluded):
77.5 acres

8370' 8375'

C-2 Baseline Conditions

Siskin Green

DRMS Permit Number: M-1987-116 — **Colorado Quarries, Inc.**

Mine Entry Location:	Latitude: 38.1131 N	Longitude: -105.4012W
State: CO	County: Custer	Nearest Town: Silver Cliff
Section: 26 & 23	Township: 22 S	Range: 72 W PM: 6th
Major Watershed:	Arkansas River	MSHA ID: N/A

Map Scale: 1": 100'

0 100 200

N

Map Georeferencing Information: **Datum: NAD83** **Projection: CO SOUTH**

Survey Source: USGS DEM	**Drawn by:** SAC	Date: 05/14/2024
Imagery Source: ----	**Checked by:** MKT	Date: 05/14/2024
Survey Date: 2021	**Approved by:** BEL	Date: ----
Imagery Date: ----		

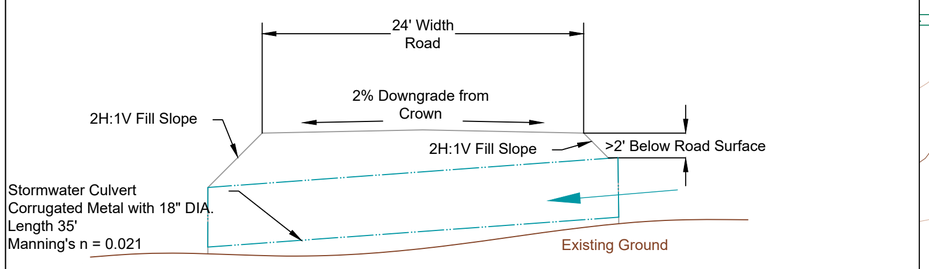
File Name: Siskin Green 240523

COLORADO LICENSED
WILLIAM E. LEWICKI
47151
05/14/24
PROFESSIONAL ENGINEER

Lewicki & Associates

3375 West Powers Circle
Littleton, CO USA 80123
(303)-346-5196
info@lewicki.biz

Detail 1



*Not To Scale

LEGEND

BOUNDARIES
- Property Boundary

ROADS AND RELATED FEATURES
- Light duty road; gravel
- Unimproved road; gravel

RIVERS, LAKES, SHORELINES, AND CANALS
- Intermittent stream/ditch
- Perennial lake/pond
- Surface Water Flow Direction

VEGETATION
- Woodland

MINING FEATURES
- DRMS Permit Boundary
- 200' DRMS Permit Offset
- Proposed Mine Phases
- Berm/windrow
- Culvert
- Drainage Basin

BASELINE CONTOURS
- Index
  Approximate of indefinite
- Intermediate
  Approximate of indefinite
- Supplementary

POST-MINING CONTOURS
- Index
  Approximate of indefinite
- Intermediate
  Approximate of indefinite
- Dump

Min. 50' Setback From Property Boundary Space Utilized for Topsoil Stockpiles

Topsoil & Overburden Stored in Perimeter Berms

24' Wide Road Max. 10% Grade

Min. 50' Setback From Property Boundary Space Utilized for Topsoil Stockpiles

24' Wide Mine Access Road Constructed Prior to Mining Phase 3 and 4 See Detail 1

Access Roads Acts as Dam for Stock Pond

Preliminary Discharge Point 001

Min. 100' From Drainage

Preliminary Discharge Point 002

Min. 2' Tall Stormwater Berm

20' Tall Near Vertical Benches 2H:1V Overall Bench Mining Slope

Topsoil & Overburden Stored in Perimeter Berms

County Road 344

Access Road Permit & Affected Area: Approx. 8.2 acres

Quarry Entry Location

New Mine Road Constructed During Phase 2 of Mining

Permit and Affected Area (road excluded): 77.5 acres

Min. 100' From Drainage

Phase 1

Phase 2

Phase 3

Phase 4

GENERAL MINING DIRECTION

GENERAL MINING DIRECTION

Exploration Drill Hole

8300'
8320'
8340'
8360'
8380'
8390'
8395'
8400'
8405'
8410'
8415'

C-3 Mining Plan

Siskin Green

DRMS Permit Number: M-1987-116 — **Colorado Quarries, Inc.**

Mine Entry Location:	Latitude: 38.1131 N	Longitude: -105.4012W
State: CO	County: Custer	Nearest Town: Silver Cliff
Section: 26 & 23	Township: 22 S	Range: 72 W PM: 6th
Major Watershed:	Arkansas River	MSHA ID: N/A

Map Scale: 1": 100

0 100 200

Map Georeferencing Information: **Datum:** NAD83 **Projection:** CO SOUTH

Survey Source: USGS DEM	**Drawn by:** SAC	Date: 05/14/2024
Imagery Source: ----	**Checked by:** MKT	Date: 05/14/2024
Survey Date: 2021	**Approved by:** BEL	Date: ----
Imagery Date: ----		

File Name: Siskin Green 240523

COLORADO LICENSED MARK E. LEWICKI 47151 05/14/24 PROFESSIONAL ENGINEER

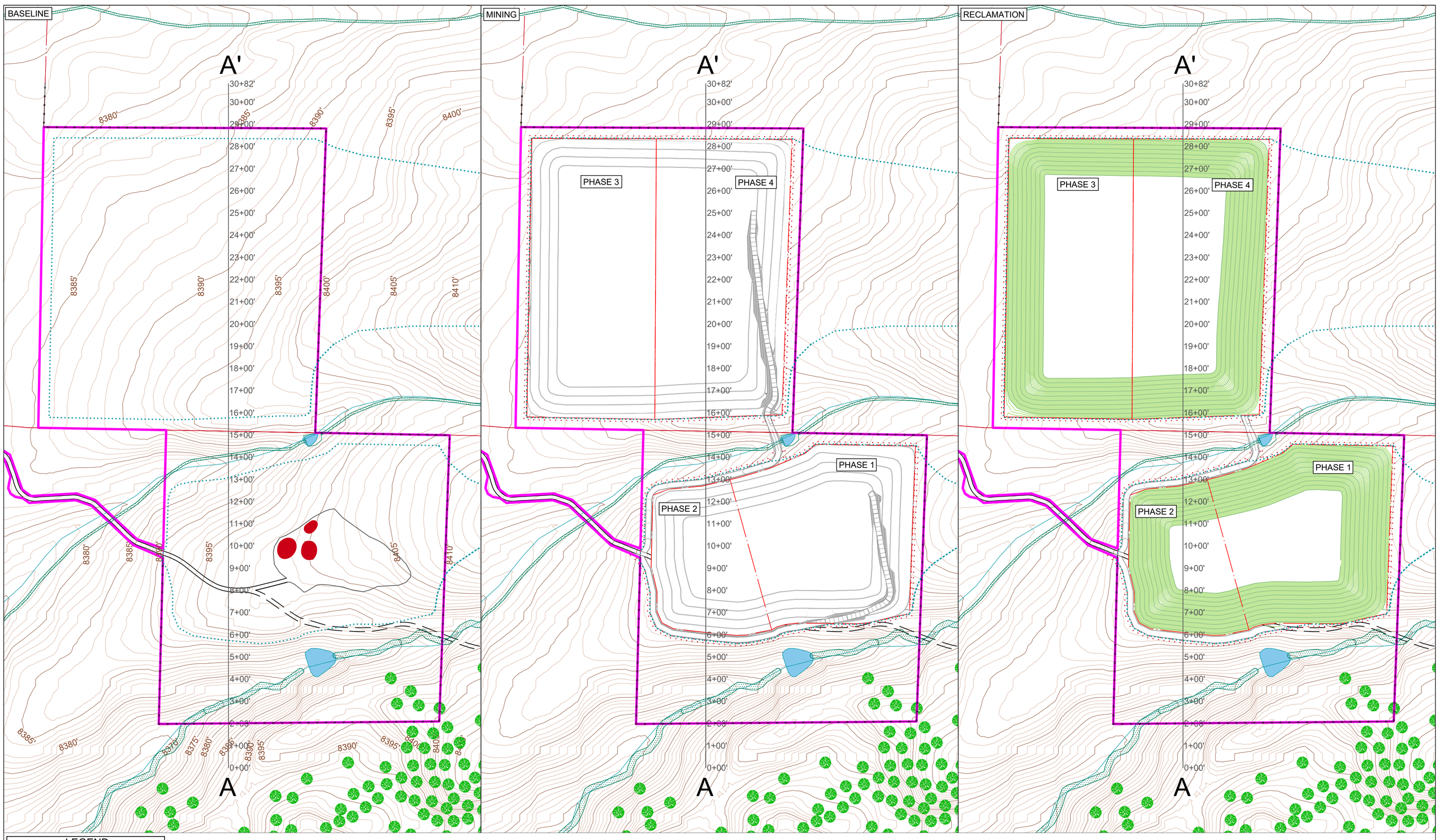
Lewicki & Associates

3375 West Powers Circle Littleton, CO USA 80123 (303)-346-5196 info@lewicki.biz

BASELINE

MINING

RECLAMATION

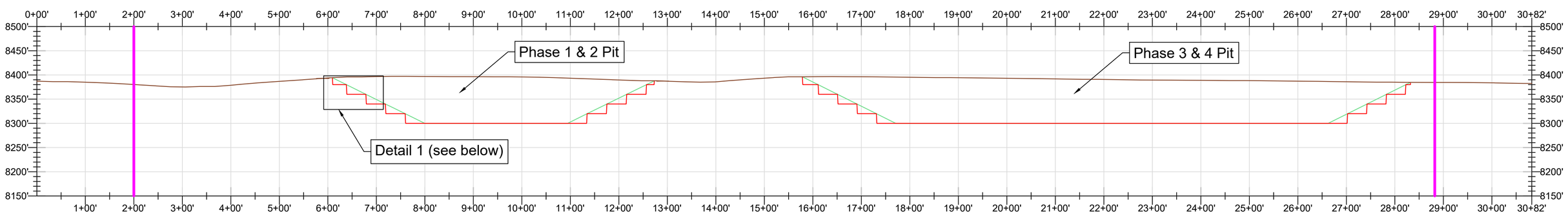


LEGEND

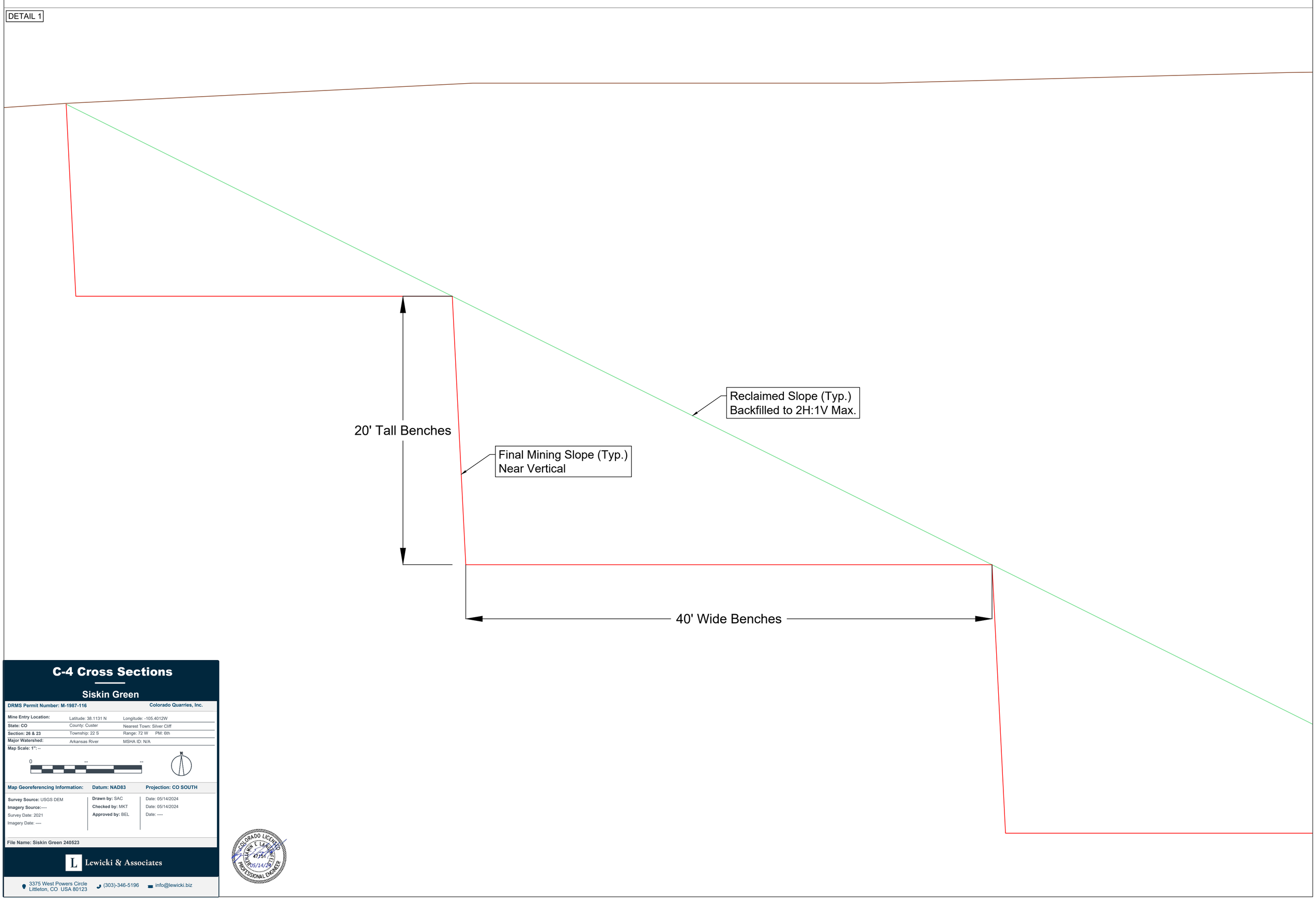
MINING FEATURES
- DRMS Permit Boundary

CROSS SECTIONS
- Baseline Topography
- Mining
- Reclamation

A-A' Cross Section



DETAIL 1



C-4 Cross Sections

Siskin Green

DRMS Permit Number: M-1987-116 — **Colorado Quarries, Inc.**

Mine Entry Location:	Latitude: 38.1131 N	Longitude: -105.4012W
State: CO	County: Custer	Nearest Town: Silver Cliff
Section: 26 & 23	Township: 22 S	Range: 72 W PM: 6th
Major Watershed:	Arkansas River	MSHA ID: N/A

Map Scale: 1": --

0 -- --

Map Georeferencing Information: **Datum: NAD83** **Projection: CO SOUTH**

Survey Source: USGS DEM	**Drawn by:** SAC	Date: 05/14/2024
Imagery Source:----	**Checked by:** MKT	Date: 05/14/2024
Survey Date: 2021	**Approved by:** BEL	Date: ----
Imagery Date: ----		

File Name: Siskin Green 240523

COLORADO LICENSED — KEVIN E. LEWICKI — 47151 — 05/14/24 — PROFESSIONAL ENGINEER

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LEGEND

BOUNDARIES

- Property Boundary

ROADS AND RELATED FEATURES

- Light duty road; gravel
- Unimproved road; gravel

RIVERS, LAKES, SHORELINES, AND CANALS

- Intermittent stream/ditch
- Perennial lake/pond
- Surface Water Flow Direction

VEGETATION

- Woodland

MINING FEATURES

- DRMS Permit Boundary
- 200' DRMS Permit Offset
- Proposed Mine Phases
- Berm/windrow
- Culvert
- Drainage Basin

BASELINE CONTOURS

- Index
  - Approximate of indefinite
- Intermediate
  - Approximate of indefinite
- Supplementary

POST-RECLAMATION CONTOURS

- Index
  - Approximate of indefinite
- Intermediate
  - Approximate of indefinite
- Dump

Phase 4

Phase 3

Phase 2

Phase 1

Post-mine Land Use:
Rangeland

Revegate All Disturbances

County Road 344

2H:1V Backfilled Reclamation Slope

Access and ranch road exempt from reclamation at the request of all landowners

Access Road Permit & Affected Area: 8.2 acres

Retain Roads for Post Reclamation Site Access

Flatten Stormwater Berms

Permit and Affected Area: 77.5 acres

Post-mine Land Use:
Rangeland

F-1 Reclamation Plan

Siskin Green

DRMS Permit Number: M-1987-116 — **Colorado Quarries, Inc.**

Mine Entry Location:	Latitude: 38.1131 N	Longitude: -105.4012W
State: CO	County: Custer	Nearest Town: Silver Cliff
Section: 26 & 23	Township: 22 S	Range: 72 W PM: 6th
Major Watershed:	Arkansas River	MSHA ID: N/A

Map Scale: 1": 100

0 100 200

Map Georeferencing Information: **Datum:** NAD83 **Projection:** CO SOUTH

Survey Source: USGS DEM	**Drawn by:** SAC	Date: 05/14/2024
Imagery Source:----	**Checked by:** MKT	Date: 05/14/2024
Survey Date: 2021	**Approved by:** BEL	Date: ----
Imagery Date: ----		

File Name: Siskin Green 240523

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Siskin Pit

January 8, 2024

Revised Submission May 30, 2024
Initial Submission July 6, 1987

112c Application to the Colorado Division of Reclamation, Mining, and Safety

By:

Colorado Quarries, Inc.

Represented by:

Lewicki & Associates

ENGINEERING | GEOLOGY | ENVIRONMENTAL

Introduction

The Siskin Pit is located approximately 3 miles southeast of the Silver Cliff city center in Custer County at an elevation of 8400 feet. The Siskin Pit was originally permitted as a 9-acre site under a Colorado Division of Reclamation, Mining, and Safety (DRMS) 110 construction materials permit in 1987 (M-1987-116). This permit change includes a conversion to a 112c permit. The property and mineral rights of the mining area are owned solely by Colorado Quarries, Inc., who is also the operator. The access road surface and mineral rights are owned by the Our Lady of the Assumption Roman Catholic Church and the Silver Cliff Land and Cattle Company; the road will remain intact following mining and reclamation.

The total permit area will include 85.7 acres. The access road is comprised of 8.2 acres while the mining area includes 77.5 acres.

EXHIBIT A LEGAL DESCRIPTION

This site exists within the town limits of Silver Cliff and is approximately 4 miles east-southeast of the Westcliffe city center and approximately 3 miles east-southeast of the Silver Cliff city center. The property and surrounding area consist of rangeland and includes the existing Siskin Pit. Site access is vis CR 344 that enters the property from the west and exits to the east. CR 344 was once a County Road but is now considered private by Custer County. The existing pit is located in the middle of the southern half of the expanded permit area with additional ground added to the north. The permit area includes an access route (i.e., haul route) and ranch road that will remain following the completion of mining and a quarry area that will be reclaimed.

Legal Description

The Siskin Pit – quarry extent – is located in the N. ½ of the N.E. ¼ Sec. 26 and S. ½ of the S.E. ¼ Sec. 23, T22S, R72W, 6 P.M. Custer County, Colorado.

The haul road is composed of a 2.2-mile-long ranch road from the southwest corner of the Assumption Cemetery, Westcliffe, Colorado to the quarry entrance location. The road is maintained by Colorado Quarries, Inc. and includes multiple turn-outs and culverts to control stormwater flows.

The full permit area is 85.7 acres with a total affected area of 77.5 acres. The haul road will not be reclaimed once mining activities are completed. The haul road legal description represents a centerline with a 30-foot Right of Way and turnouts to reach a final road area of 8.2 acres.

Commencing at the shared ranch and mine gate located at the Assumption Cemetery and represents the beginning of the haul road centerline:

Latitude 38.1213 N, Longitude -105.4366 W,
Course: N03° 30' 34.89"W Length: 391.911'
Course: N27° 48' 54.00"W Length: 66.368'
Course: N51° 34' 55.11"W Length: 287.655'
Course: N40° 36' 28.26"W Length: 769.263'
Course: N45° 11' 00.81"W Length: 611.969'

Course: N40° 19' 31.98"W Length: 237.272'
Course: N48° 48' 11.69"W Length: 244.580'
Course: N72° 50' 05.95"W Length: 74.927'
Course: N89° 11' 10.71"W Length: 2055.506'
Course: N86° 14' 40.82"W Length: 793.654'
Course: N87° 01' 10.64"W Length: 615.976'
Course: N79° 50' 50.46"W Length: 226.911'
Course: S75° 25' 13.21"W Length: 195.375'
Course: N87° 18' 09.78"W Length: 92.710'
Course: N83° 55' 28.10"W Length: 1965.713'
Course: N84° 07' 49.02"W Length: 1878.589'
Course: N58° 55' 52.56"W Length: 73.686'
Course: N19° 35' 30.52"W Length: 166.632'
Course: N53° 49' 13.54"W Length: 58.831'
Course: S86° 44' 57.10"W Length: 207.282'
Course: N70° 51' 27.77"W Length: 82.285'
Course: N46° 47' 05.17"W Length: 258.520'
Course: N68° 24' 28.90"W Length: 134.927'

The mining area is represented as commencing at the mine entry location:

Latitude 38.1131 N, Longitude -105.4012 W,
Course: N01° 26' 38.55"E Length: 563.6’
Course: N88° 57' 46.91"W Length: 575.8’
Course: N01° 02' 13.09"E Length: 1354.5’
Course: S89° 44' 18.90"E Length: 1271.6’
Course: S02° 03' 41.78"W Length: 1371.9’
Course: S88° 57' 46.79"E Length: 605.7’

Course: S02° 05' 49.38"W Length: 1290.5’

Course: S89° 29' 11.30"W Length: 1262.9’

Course: N01° 26' 38.55"E Length: 760.9’

The quarry entrance location is:

Latitude 38.1131 N

Longitude -105.4012 W

See USGS Quad Map with access location in Exhibit B.

EXHIBIT B **INDEX MAP**

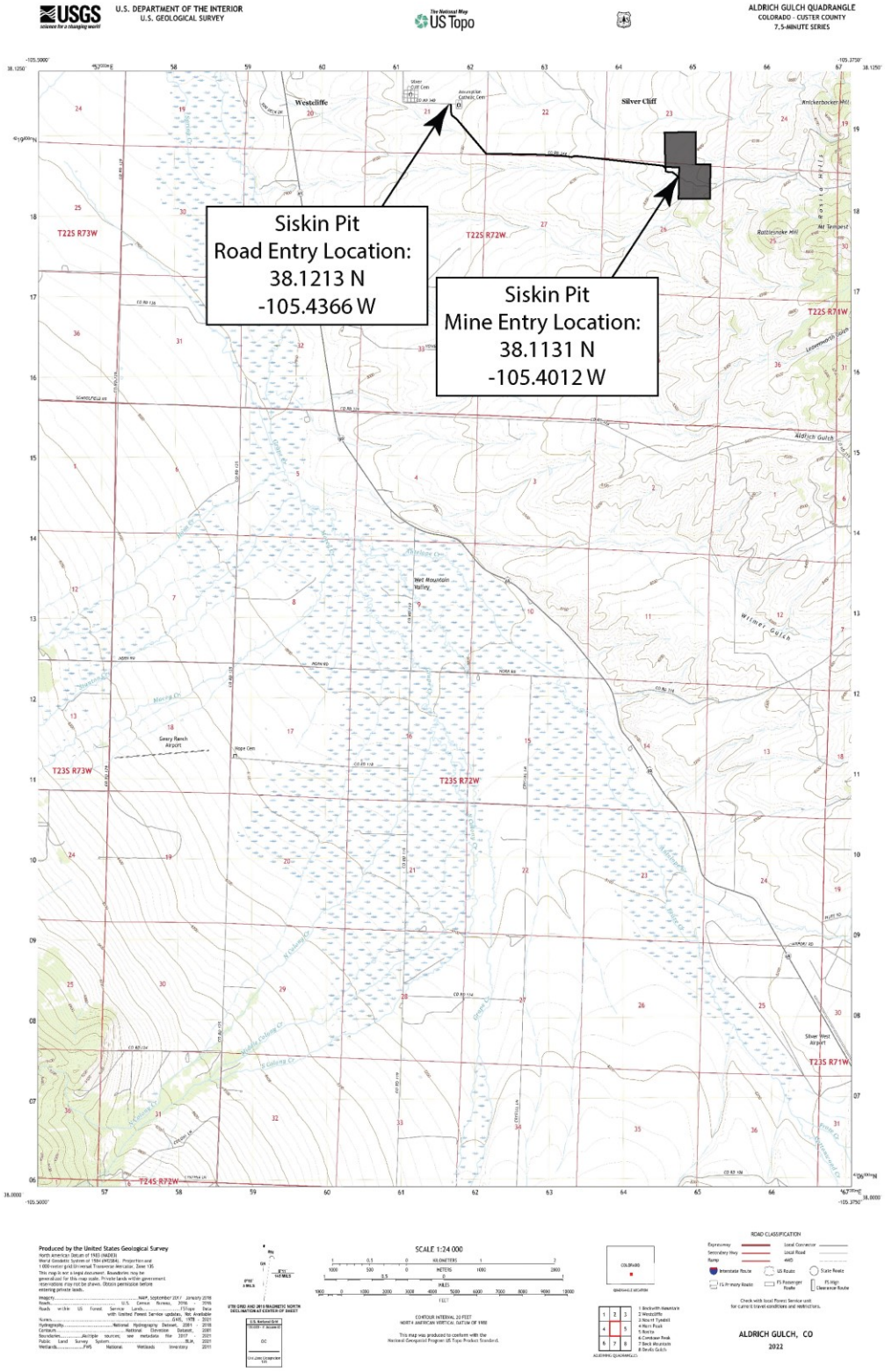

EXHIBIT D MINE PLAN

1. General Mining Plan

Map C-2 shows the current conditions of the Siskin Pit; all maps are located in Appendix 1. Mine access is via CR 344. The total mined area will be 52.9 acres; the total affected and disturbed area to be reclaimed is 77.5 acres; the haul road and associated Right of Way is 8.2 acres and will be excluded from reclamation; and the permitted acreage will be 85.7 acres. The difference in mined area and affected will be topsoil and overburden pile storage as well as buffer between the drainages and working areas. The permit area is currently unfenced. Property corners are marked by white stakes. Fencing may be erected as necessary for wildlife and livestock conservation.

The Siskin Pit will produce decorative stone gravel and pozzolan – a cement additive – from Tertiary Rhyolite overlain in some areas by Miocene Pringle Latite and the upper part of the Pliocene and Miocene Santa Fe formation. The rhyolite formation is underlain by Precambrian Migmatitic Gneiss. Topsoil is expected to be 6-10 inches thick with 0-24 inches of variably thick Miocene Pringle Latite and unconsolidated soils and gravels as overburden.

Mining activities are expected to occur intermittently throughout all months of the year and processing operations, which include washing (optional), screening and crushing of gravel, will occur concurrently. Mining will occur to the phase limits shown on Map C-3 and will progress as shown on the Exhibit C maps.

Expected annual average production is 200,000 tons. Actual production rates will fluctuate based on market conditions. The estimated life of mine is 64 years.

6.4.4(a)

The majority of the site and all bedrock material will be mined using drill and blast techniques as the deposit has been mined prior to this amendment. There will be no changes to the current blasting procedure. In general, each new mining phase will be mined by first excavating vegetation and 6-10 inches of topsoil. If overburden is encountered, it will also be stripped and stockpiled for reclamation. After topsoil and potential overburden is removed, the underlying bedrock will be drilled and blasted to a specified rough sized product transported to the onsite

processing area, processed, and sorted. Each subsequent bench will be stripped just in time to create the next new working bench.

The processing and stockpiling areas will move throughout the mine life to optimize operations. Processing equipment is portable and will enter and leave the site throughout the year. The processing area will include a portable crushing and screening plant, material stockpiling, mobile fuel tanks, mobile truck scales, and related structures. The crushing and screening plant will produce various sizes of product sorted into separate product stockpiles. As equipment and product stockpiles will be portable throughout this time, such associated structures are not shown on Map C-3.

Mining will occur in four phases and may occur out of order. Table 1: Mining Phase Dimensions details expected rates, tonnage, and disturbance by phase. All phases will continue the existing pit in benches of 20 feet to a maximum pit depth of 100 feet relative to the highest pre-mine elevation. The additional remaining area will be utilized for topsoil and overburden stockpiling as well as buffer around the drainage areas.

Reclamation will occur concurrent to mining to further stabilize the landscape and minimize the visual impact of the Siskin Pit over the course of the mine's life. Additionally, rapid reclamation will provide the added benefit of sound dampening and dust mitigation.

Table 1: Mining Phase Dimensions

Phase #	Final Mined/Disturbed Surface (acres)	Anticipated Recoverable Tons (millions)	Duration (years)*
1	12.9	3.21	16
2	6.6	1.49	7
3	17.0	4.13	21
4	16.4	3.92	20

*Duration assumes a 200,000 ton/year mining rate.

6.4.4(b)

Earthmoving consists of topsoil and overburden handling, rhyolite mining and processing and will be performed in a variety of ways using multiple types of equipment. Recovered topsoil and overburden will be stored in site perimeter stormwater berms and within temporary stockpiles within the processing area. Any topsoil or overburden berm and any soils stockpiles will be seeded within 90 days of establishment (180 days if berms are built outside the growing season) with a reclamation rangeland seed mix or quick oats to prevent erosion. Stockpiles and berms will be constructed to 2.0H:1.0V slopes. Overburden stockpiles will not exceed 9 feet in height.

Portable mining equipment such as loaders, dozers, trucks and excavators will be serviced on an as-needed basis. Upon reclamation, all portable equipment will be removed from the site. The following list is the best estimate of equipment and vehicles that will be used onsite throughout the mine life:

- 1 front end loader
- 1 bulldozer
- 1 4000-gallon water truck
- Haul (dump) trucks (number will depend upon production needs)
- 15- and 24-ton on-road haul trucks (number will depend upon production needs)

A summary of fixed and portable installations that may exist on site at any given time is listed below.

- Portable truck scales
- Portable office trailer
- Equipment parking and maintenance area
- Overflow resource stockpiling area
- Portable crusher and screening plant (may include washing)
- Portable conveyors
- Portable 10,000-gallon diesel fuel tank in secondary containment (110% of tank capacity)
- Portable lights with a generator for emergency after hours maintenance support

6.4.4(c)

It is expected that all stormwater will percolate into the fractured ground within 72 hours; please refer to Exhibit G for additional discussion on water handling. All disturbed areas of the site will be surrounded by a stormwater berm >24" in height to minimize sediment leaving the site. These stormwater berms will also serve to divert upland stormwater flows from entering the disturbed areas of the site.

The active mining pit will behave as a sediment settling sump following major storm events. In the event that pooled water is observed beyond 72 hours after a rain event, stormwater will be pumped to the closest adjacent drainage following ample time for sediment settling. Only sediment free water will be discharged, and all discharges will occur within the bounds of the site's CDPHE discharge permit. Tentative discharge locations are shown on Map C-3. By using this method, no excess stormwater will accumulate within the mining area beyond 72 hours; an event that is highly unanticipated and none-the-less prepared for. Mining traffic will avoid sump areas.

An additional 3-foot safety and stormwater berm will be installed around the crest of each phase of mining using overburden or topsoil material. Note that topsoil and overburden will not be mixed and will be stockpiled separately. This berm will prevent stormwater from entering the pit by collecting and directing stormwater towards throughgoing preexisting drainages.

6.4.4(d)

Mining will occur in four phases as shown on Map C-3. A new phase will not be opened until mining in the previous phase is complete; however, pre-mine stripping may occur while the previous phase transitions from mining to reclamation activities.

Blasting and mining will occur in 20-foot benches. The final blasts along each phase's mining extent will be excavated and promptly backfilled to create a final 2.0H:1.0V slope. Therefore, the maximum active highwall during mining will be 20 feet tall and ~1,200 feet long during phases 3 and 4. Once a bench is reclaimed, it is no longer considered a highwall. As shown on the Map C-4 cross sections, mined benches will create an overall 2.0H:1.0V mining slope that, when backfilled and reclaimed, becomes a uniform 2.0H:1.0V reclamation slope.

See Rule 6.5 – Geotechnical Stability Exhibit for slope stability details.

The elevation of each bench will dictate its lateral extents with higher elevation benches being longer than lower elevation benches. Throughout all mining areas and across each bench elevation, an entire bench may be mined at once or may be mined in stages.

6.4.4(e)

Mining will be completed based on market conditions over four phases. Mining will begin with continued operation of phase 1, followed by mining phases 2-4. Phases may be mined out of numerical order. Exhibit C maps detail the mine plan by projected phase and F-1 features the final reclaimed site layout.

The mining schedule is planned to minimize disturbance by reclaiming mined-out areas concurrently with mining. Note, if large contracts are awarded to the site, production could increase and reduce the life of the quarry. Conversely, if contracts are less than anticipated, the life of the quarry could be extended.

Approximate projected acreage, anticipated recoverable tons, and duration of mining are shown in Table 1: Mining Phase Dimensions for each phase. To calculate anticipated recovered tons, a mining rate of 200,000 tons per year was used for production approximations.

6.4.4(e)(i)

See Table 1: Mining Phase Dimensions.

6.4.4(e)(ii)

See Table 1: Mining Phase Dimensions.

6.4.4(e)(iii)

Mining is planned to be completed in numerical phase order; however, the operator reserves the right to mine phases out of numerical order.

6.4.4(f)(i)

The deposit to be mined is a Miocene rhyolite expected to have a depth of >300 feet. Blasting and mining will reach a depth of approximately 8,300-foot elevation. This is below the pre-mine ground surface (Maps C-3 and F-1). Mining depths with respect to the highest undisturbed ground point are included on Tables 2 and 3. The highest pre-mining ground surface elevation is approximately 8,500 feet and the final post mine elevation is 8,300 feet.

Table 2. Mining Depths, Phases 1 and 2

Bench #	Starting Elevation (feet)	Final Elevation (feet)	Elevation Delta (feet)
1	8400	8380	20
2	8380	8360	20
3	8360	8340	20
4	8340	8320	20
5	8320	8300	20

Table 3. Mining Depths, Phases 3 and 4

Bench #	Starting Elevation (feet)	Final Elevation (feet)	Elevation Delta (feet)
1	8380	8360	20
2	8360	8340	20
3	8340	8320	20
4	8320	8300	20

6.4.4(f)(ii)

The target rhyolite is underlain by Precambrian migmatitic gneiss; neither unit is sedimentary.

6.4.4(g)

The primary material to be extracted is the green rhyolite stone for use as decorative stone, landscaping material, and pozzolan. Material will be crushed and further processed with respect

to size and sorted into piles accordingly. Sorted and stockpiled final saleable material will be hauled off site. There is no secondary product to be mined at this site.

6.4.4(h)

No incidental products will be produced at this mine. In the event that incidental commodities become available, a Technical Revision will be filed with the Division prior to the sale of said incidental products.

6.4.4(i)

Explosives will be used in the same way they are used currently. See the blast plan included in Appendix 2 –Blast Plan. Blasting will continue to be completed in-house by the operator.

6.4.4(j)

The site will use existing on-site roads, where possible and until they are mined, and will create new onsite roads as mining progresses throughout the site. Current onsite roads are shown on Maps C-1 and C-2, roads created during mining are shown on Map C-3 and final reclamation roads are shown on Map F-1. Haul traffic will exit the site and travel towards Highway 96. Road CR 344 runs directly to the current mine and will be slightly rerouted to remain outside the mining extents of phases 1 and 2 of the mine. An access road will also be constructed extending from CR 344 for access to the north pit of the mine.

Newly constructed roads feature an uphill parallel ditch that diverts stormwater from running across the road. All diverted stormwater will be discharged in accordance with the site's CDPHE discharge permit. Map C-3 and the included inset cross section detail how drainage crossings will be constructed.

EXHIBIT E RECLAMATION PLAN

1. General Reclamation Plan

6.4.5(1)

The total affected area to be reclaimed under this permit is 77.5 acres. The Siskin Pit will mine a total of 77.5 acres across 85.7 permitted acres. Final reclamation slopes are shown on Map F-1. The final post-mine reclamation land use is rangeland.

To mimic the surrounding natural slopes and to create safe and suitable conditions for revegetation, sloped quarry walls will be reclaimed to a 2.0H:1.0V slope as soon as possible following mining. Flat pads such as the processing area and base of the mined quarry will be reclaimed at the end of the mine's life by resurfacing and seeding with rangeland species.

6.4.5(2)(a)

Rangeland with ancillary wildlife habitat benefits will serve as reclamation for the 77.5 affected acres, emulating the current land use. Post-mining land use will return the entire disturbed site back to pre-mine ecosystem.

As described in the mining plan, reclamation will occur concurrently with mining. Reclamation of each bench will occur once mining on that bench is complete. Backfilling will be completed with site derived crushed rock, overburden and potentially waste fines.

Following the bulk of backfilling, overburden will be placed to a depth of 8" or greater. While the average pre-mine overburden depth is 12" across the site (0-24"), after bulk backfilling of the slopes overburden will be replaced at an average of 12". Recovered topsoil will be replaced to a depth of 8", the average of the pre-mine topsoil depth.

6.4.5(2)(b)

Post-mining land use will be consistent with the current land use and the land use of surrounding property parcels.

6.4.5(2)(c)

Reclamation will be conducted to the standards of Rule 3.1 as detailed throughout this Exhibit E. All stormwater and perimeter berms will be vegetated to stabilize the berms and prevent erosion. No acid-forming or toxic producing materials are expected at the site based on previous mining and geologic information.

No import of material is anticipated currently. If the import of material is desired a technical revision will be filed.

Grade and the installed stormwater berms will direct water flow into the site's mining phases to prevent sediment from exiting the disturbed area.

6.4.5(2)(d)

Prior to seeding, topsoil may be disked (where not laden with small cobble) to loosen surficial soils. Heavy furrows will be left in the tilled topsoil to provide moisture concentration and shade areas to promote better conditions for successful vegetation establishment. Due to the mild grade, seed can be drilled in most areas, but broadcast seeding will be utilized where reclaimed perimeter slopes do not allow drilling. Broadcast seeding will be done at double the drill rate. Native dry rangeland seed mix will be distributed at a similar rate as detailed in the mix shown in Table 4.

Table 4: Native Dry Rangeland Seed Mix

Scientific Name	Common Name	% of Mix	LBS/PLS Required
Achiliea millefolium	Western yarrow	5	0.1
Achnatherum hymenoides	Indian ricegrass	5	2.0
Bouteloua gracilis	Blue grama	10	0.9
Bromus marginatus	Mountain brome	5	5.1
Elymus elymoides	Bottlebrush squirreltail	10	3.4
Elymus lanceolatus	Thickspike wheatgrass	10	4.2
Eragrostis trichodes	Sand lovegrass	5	0.2
Koeleria macrantha	Prairie junegrass	5	0.1
Linum lewisii	Blue flax	5	1.9
Nassella viridula	Green needlegrass	5	1.9
Pascopyrum smithii	Western wheatgrass	10	5.7
Poa secunda	Sandberg bluegrass	5	0.3
Pseudoroegneria spicata	Bluebunch wheatgrass	10	5.2
Schizachyrium scoparium	Little bluestem	5	1.4
Sorghastrum nutans	Yellow Indiangrass	5	1.9
	Total:	**100**	**34.3**

Notes:
Quantity assumes 150 seeds per square foot broadcast seeded.
*Quantity based on **1.0 acres** of seeding (adjust according to required acreage).*
Final species composition and rates subject to availability.

6.4.5(2)(e)

Reclamation will be performed concurrently with mining to minimize liability and to keep the financial warranty lower. Slopes will be regraded, backfilled, and topsoil applied as soon as they are able to be reclaimed and as additional mining phases become active. Seeding will take place during the spring or fall following topsoil application. See Table 1: Mining Phase Dimensions for a description of size and timing of each phase.

An additional estimated 6 months of final reclamation construction will be required after mining is completed. For example, Phase 1 is estimated to take 16 years in active mining, in which case phase 1 may be fully reclaimed (subject to time for establishment of vegetation) within 17 years of the operation's first date of activity. Mining is ongoing at the site as of the date of submittal and will be completed by 2086 if all four phases are mined completely. Therefore, final

reclamation and bond release is expected to be completed by 2087 or within 65 years from the start of mining. Mining and final reclamation may occur quicker or faster than the estimates included herein based on market conditions and demand.

6.4.5(2)(f)

Final mined design slopes of 2.0H:1.0V will remain constant. The 2.0H:1.0V finished slopes will match the natural landforms surrounding the mined area thereby allowing the reclaimed mine area to blend naturally with adjacent existing pre-mine landforms. This 80-foot-tall slope will include on contour drainage ditches – "catch ditches" – every 20 vertical feet to prevent riling. These catch ditches will be ripped into the slope following final grading of each lift.

Fertilization of reclamation vegetation is not expected. If, following initial revegetation attempts, fertilization is required, amendments will be determined via soil testing and verified for proper nutrients required by the chosen reclamation species. By using onsite stockpiled materials and completing reclamation of mined phases concurrently with active mining, the distance that growth medium is transported, as well as the amount of material to be rehandled, will be minimized.

Map F-1 shows planned post-reclamation roads to remain indefinitely as determined by the landowner.

Reclaimed areas will be deemed adequate when vegetation is established, when noxious weeds are not present in any significant amounts, and when all of the conditions of Rule 3.1.10 are met. Monitoring reclamation on an ongoing basis will allow minor revisions to assure efficient and successful reclamation. If minor changes or modifications are needed to the seeding and reclamation plan, revision plans will be submitted to the Division, as required. It is anticipated that the Division will provide assistance in evaluating the success of ongoing reclamation processes. All areas disturbed and reclaimed and any other important items regarding reclamation will be submitted in the required annual reports to the Division.

Measures will be employed for the control of any noxious weed species. The objective of this weed management plan is to control undesirable plants on the Siskin site. Plants identified through the Colorado Noxious Weed Act (C.R.S. 35-5.5) and the Custer County Noxious Weed

List as undesirable and designated for management within the County will be removed. Plants identified as noxious weeds will be managed by control measures. A Weed Control Plan will be utilized as follows:

1) Periodically, a weed survey will be taken of the permit area.

2) If any weedy patches or noxious plants are identified, chemicals approved for use by the weed control staff of Custer County will be sprayed by backpack sprayer or 4-wheeler.

3) After reclamation, weed control will continue until the site meets DRMS permit release requirements.

The plan does not contemplate total weed removal on the property. Past experiences show that some initial weed cover in the first year following growth medium application is beneficial to reclamation efforts in rangeland sites. Weeds provide shade for new grasses and are a means of holding snow on the seedbed longer and protect seedlings from wind and water erosion until the planted species firmly take hold.

All phases and areas of the mining operation will be monitored closely throughout the year allowing the Operator to determine if any additional weeds become present and formulate the best plan to mitigate the new infestation.

EXHIBIT G WATER INFORMATION

6.4.7(1) and 6.4.7(2)

Surface Water

Two perennial drainages flow through the site. The site is well outside of FEMA identified floodplains. Maps C-1 shows surface water information for the pre-mine conditions of the area.

Protection of the prevailing hydrologic balance with regard to surface water is achieved by:

- Ensuring that offsite discharge is the same or less following mining;
- Ensuring that offsite discharge velocity is equal or less than pre-mine;
  OR
- Ensuring that offsite discharge velocity for new discharge paths is non-erosive (<5 fps).
- Preventing an increase in sediment discharge from the site.

In conjunction with these goals, water quality is ensured during mining by complying with required CDPHE discharge permits. Finally, protecting the prevailing hydrologic balance means ensuring that no area water rights are injured through runoff diversion. The water handling plans for the Siskin Pit were designed to accomplish these goals.

Pre-mining Surface Hydrology

Surface flows that do not occur within the active mining area will be diverted around the disturbed area via ≥ 24”-foot-tall isolation berms and will infiltrate into the native soils of the undisturbed areas of the site within 72 hours. Precipitation and runoff that enters the pit is expected, based on current mining efforts at the site, to infiltrate via the pit floor within 72 hours. In the event that infiltration is not complete 72 hours following a storm event, sediment free stormwater will be pumped to the approved CDPHE discharge points. Appendix 1 maps show the approximate direction of drainage throughout the site prior to mining, during mining, and post-mining during reclamation as well as stormwater berm locations.

The hydrologic conditions at the Siskin Pit consist mostly of surface water drainage along long-established pathways and areas. Site soils are identified in NRCS surveys as rock complexes that are predominantly hydrologic soil groups A, C, and D; see Appendix 3.

The site contains Feltonia-Coutis sandy loams with 6-15% slopes (roughly 33%) that are Hydrologic Soil Group A. Also found on site are Woodhall-Rogert extremely cobbly sandy loams with 5-20% slopes (roughly 32%) that are Hydrologic Soil Groups C and D. These two soil units evenly cover most of the planned mining areas and are currently vegetated as native rangeland. Other soil profiles exist primarily in the drainage areas and are left out of the planned mining areas.

During Mining Surface Hydrology

During Phase 1, the entire processing area will act as a 'sump' that allows stormwater to infiltrate into the porous processing area pad, see Map C-3. Fine sediment will be removed from the lowest settling area of the pad, as needed. Surface water within the disturbed area of the site will be controlled by perimeter berms which border the disturbed area. When paired with small perimeter berms, the designed pad elevation of the processing area will have the capacity to contain all stormwater that falls within the stormwater berms surrounding the site. Runoff calculations are shown in the next section. All stormwater is expected to infiltrate within the disturbed ground of the mining area within 72 hours. In the event that stormwater remains >72 hours following a storm event, sediment free stormwater will be pumped and discharged in accordance with the site discharge permit.

Stormwater runoff associated with the drainage through the center of the site will be maintained with a culvert through the haul road crossing. The culvert design is shown on the mining map in Appendix 1, while the calculations are provided in Appendix 4.

The typical 24-HR events for this area are listed below (NOAA Atlas 14 Point Precipitation Frequency Estimates: Westcliffe, Colorado (https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=co)) :

Table 5. Area Storm Events.

Event Probability	Event Rainfall (inches)
100-YR 24-HR	4.24
25-YR 24-HR	3.08
10-YR 24-HR	2.45

After Reclamation

Reclaimed conditions include revegetation across the entire site that will create the same conditions as baseline pre-mining vegetation. The curve number for all reclaimed areas is assumed to be no greater than that of baseline conditions. The lack of firm compaction of material beyond that provided by tracked equipment during slope grading in reclamation will lead to greater infiltration of surface water runoff than baseline conditions. Additionally, the fractured nature of the underlying and unmined substrate will continue to allow stormwater infiltration into the underlying groundwater system. Therefore, all stormwater that falls within the reclaimed areas of the site, including a 100-year storm scenario, will infiltrate the relatively porous reclaimed surface within 72 hours.

Stormwater Runoff Calculations

The 100-year 24-hour storm even was used as the basis for the runoff calculations. The expected rainfall from this event is 4.24 inches. The two pits will be more than capable of carrying the entire capacity of the runoff event this large during mining and reclamation. This will allow time for the surface water to infiltrate or evaporate, or to settle before pumping, if necessary, after 72 hours. However, only infiltration and evaporation will occur after reclamation.

The runoff was calculated in AutoCAD's Hydraflow software using the TR-55 method. The calculations are provided in Appendix 4. A summary of the results demonstrating that the pit's have the capacity to capture the runoff from this event is in the tables below.

Table 6. Curve Numbers

Area (ac)	Cover Description	Soil Type	Curve Number
51.1	Disturbed for north pit	Various	89
24.3	Disturbed for south pit	Various	89
2.6	Rangeland north	Sandy Loam (A)	55
0.16	Rangeland south	Sandy Loam (A)	55
14.8	Rangeland north	Cobbly Sandy Loam (D)	85
2.99	Rangeland south	Cobbly Sandy Loam (D)	85

Table 7. Runoff and Storage Volumes

Drainage Basin	Area (ac)	Peak Runoff (cfs)	Runoff Volume (cy)	Pit Volume (cy)*
South Pit	27.45	21.24	4,082	>2,000,000
North Pit	68.5	30.76	9,555	>3,000,000

*Calculated in CAD.

Groundwater

Expected groundwater levels are known to be 80 feet below the current mine floor of (~8400ft) (>100-feet below the pre-mined surface) based on a single exploration drill hole placed in the current pit near the southern perennial drainage in 2022. No known aquifers exist within the deposit to be mined, and there are no water rights associated with it. No non-tributary, not non-tributary, or tributary water rights are fed by groundwater flows from this site. Therefore, groundwater will not be encountered during continued mining of the current pit nor during mining of currently undisturbed phases. Additionally, the mining method of drilling and blasting is not compatible with the presence of groundwater. If water is encountered during ~20-foot depth pre-blast drilling, which is not expected, the mining depth will be adjusted to be above the water depth. If a change is made to the final mine plan, a Technical Revision will be filed with the Division.

Pit depth is shown as 100 feet from the existing surface, however, the pit will not be allowed to go below the ground water table. The pit is being mined using drill and blast, therefore, prior to

starting a new bench, the operator will need to drill >20-foot-deep blast holes. If ground water is encountered in a blast hole, the water table will be evaluated by drilling additional blast holes to determine the top of the water table. Excavation will be kept at least 2 feet above the determined ground water table. No pit dewatering will take place as the groundwater table is below the bottom of the quarry elevations (pre-mine and post-mine) shown on Maps C-2 and F-1.

According to searches on the Division of Water Resources (DWR) database, there are no known wells permitted within 600 feet of the Siskin Pit permit boundary.

6.4.7(3)

Dust will be controlled by water on a day-to-day basis, though additional dust mitigation on roadways includes bi-annual or as needed applications of magnesium chloride. Water will be used as needed to eliminate any problem dust areas and to be used in a spray bar during initial crushing. Based on current operations, it is anticipated that the site will require 1-3 x 5,000 gallon water trucks per day for dust mitigation.

6.4.7(4)

The legal source of water for consumed purposes (e.g., dust control) will be fully consumable water rights leased to the operation.

The site will not affect existing water rights. The quarry will not expose groundwater and will not store stormwater for more than 72 hours. After reclamation, stormwater encountered in the mining area will continue to infiltrate or evaporate.

6.4.7(5)

The operator will apply for and receive a CDPHE discharge permit.

EXHIBIT J VEGETATION INFORMATION

1. Existing Vegetation Community

The pre-mine vegetation community at the Siskin Pit is dry rangeland. The site and surrounding areas are used to graze cattle; therefore, pre-mining vegetation will likely show grazing pressure. Figure 1 shows an aerial Google Earth photo that shows the community as generally seen on site. Figure 1-4 show typical pre-mine current site conditions. Table 8 details site specific the NRCS Range Production for a normal year; Map Unit Symbols correlate to the NRCS Soil Report included in Appendix 3.

Vegetation found on site includes but is not limited to juniper, mullein, stonecrop, wallflower, paintbrush, yucca, sagebrush, rabbitbrush, mahogany, gumweed, winterfat, ball cactus, hedgehog cactus, cholla, prickly pear, yarrow, milkvetch, milkweed, bee plant, thistle, mustard, buckwheat, aster, phlox, clover, dandelion, kochia, brome, salsify, grama, mallow, needlegrass, wheatgrass, fescue, and cheatgrass. The site is composed of mixed rocky soils devoid of vegetation and ~10-30% vegetative cover.

~<1% of the project land is composed of juniper trees >5-foot height located within the natural drainages of the site. The remaining vegetation is shrubs, grasses, and seasonal flowering plants <5-feet tall.

Table 8. NRCS Range Production (Normal Year).

Map Unit Symbol	Rating (lbs/acre/yr)
6	1200
8	1860
9	1590
10	560
11	1030
50	680

Figure 1. Aerial view of rangeland of the Siskin Pit, permit area shown outlined in yellow. Google Earth image from October 5, 2019.

Figure 2. Rangeland of the Siskin Pit as seen from the existing pit. View to the north-northeast, photo captured August 4, 2022.

Figure 3. Rangeland of the Siskin Pit as seen from outside the existing pit. View to the northwest, photo captured August 4, 2022.

Figure 4. Rangeland of the Siskin Pit as seen from outside the existing pit. View to the north, photo captured August 4, 2022.

EXHIBIT N RIGHT OF ENTRY

The surface and mineral owner of the properties that will be mined is Colorado Quarries, Inc. Areas included within the permit area but outside the mining area are owned by Our Lady of the Assumption Roman Catholic Church and the Silver Cliff Land and Cattle Company and are limited to the site access road that will not be reclaimed following the completion of mining.

The Operator is Colorado Quarries, Inc.

EXHIBIT S PERMANENT MAN-MADE STRUCTURES

The following is an inventory of man-made structures within 200 feet of the disturbed area. Landowner boundaries can also be found on Map C-1. In accordance with current DRMS practice, structure agreements were signed and notarized by the Operator and were hand delivered and signed or delivered via certified mail to those listed below.

All delivery addresses were discovered on the Custer County Assessors' website and were augmented, where possible, with a direct contact address. Distributed structure agreements are shown at the end of this exhibit. In the event that a fully executed (signed by Colorado Quarries, Inc. and the structure owner) structure agreement was unobtainable, see the Geotechnical Stability Exhibit.

1. CR-344 – Our Lady of the Assumption Catholic Church
2. CR-344 – Silver Cliff Land and Cattle Co.
3. Fences – Colorado Quarries, Silver Cliff Land and Cattle Co., and Our Lady of the Assumption Catholic Church

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Silver Cliff Land + Cattle Co.
c/o Cordillera Corp.
7800 E. Dorado Placer Suite 250
Greenwood Village, CO 80111

9590 9402 6830 1074 7804 57

2. Article Number *(Transfer from service label)*

7005 1820 0001 1605 6981

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A. Signature

X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

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- ☐ Adult Signature Restricted Delivery
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Silver Cliff Land + Cattle
Street, Apt. No.; or PO Box No. 7800 E. Dorado Placer, Ste 250
City, State, ZIP+4
Greenwood Village, CO 80111

PS Form 3800, June 2002 See Reverse for Instructions

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Our Lady of the Assumption Catholic Church
109 S. Fifth St.
Westcliffe, CO 81252

9590 9402 6830 1074 7804 64

2. Article Number *(Transfer from service label)*

7005 1820 0001 1605 6974

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

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If YES, enter delivery address below: ☐ No

3. Service Type

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Total Postage & Fees	$ 8.69

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Sent To: Our Lady of the Assumption Catholic Church
Street, Apt. No.; or PO Box No. 109 S. 5th St.
City, State, ZIP+4 Westcliffe, CO 81252

PS Form 3800, June 2002 See Reverse for Instructions

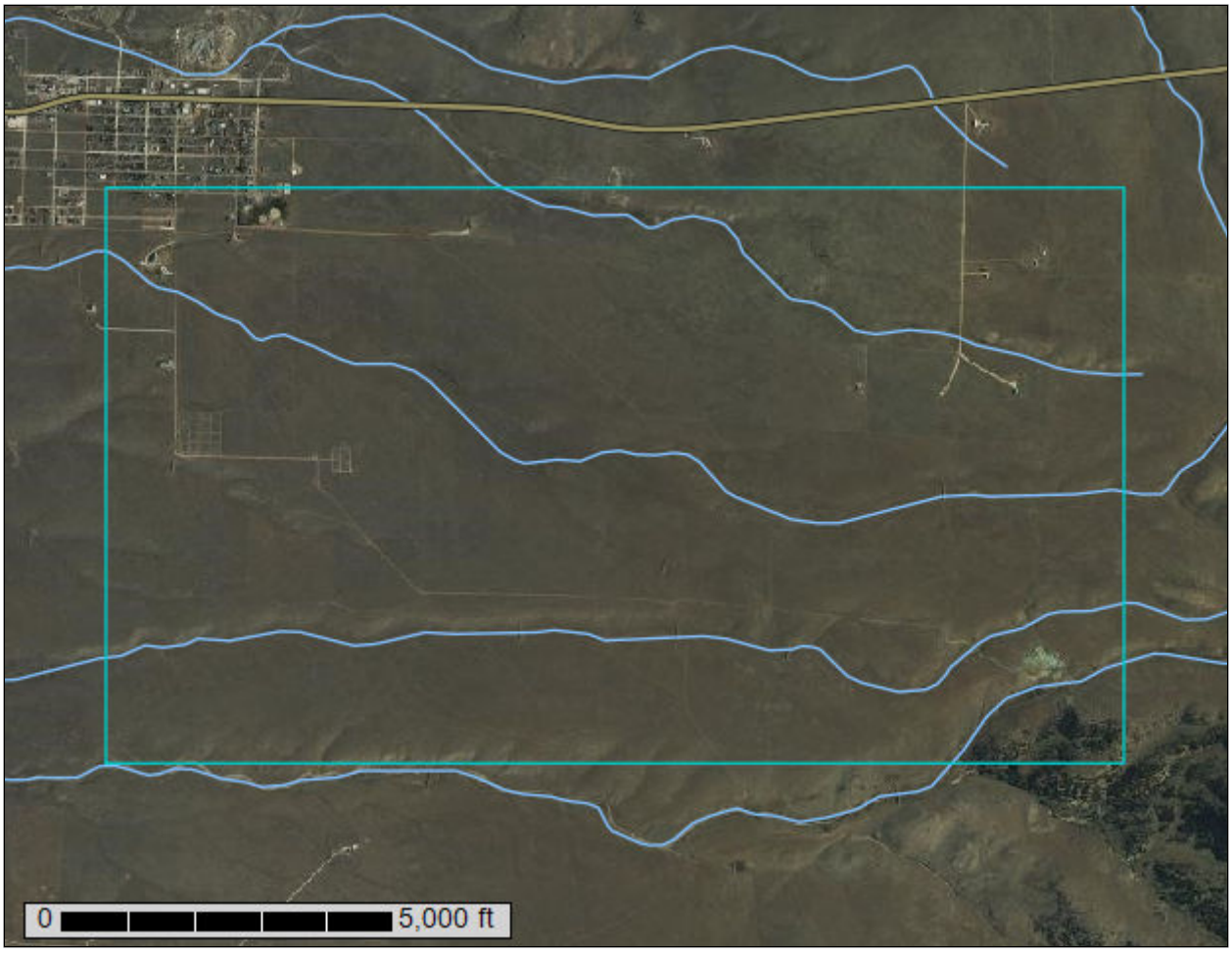
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Custer County Area, Colorado



May 23, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

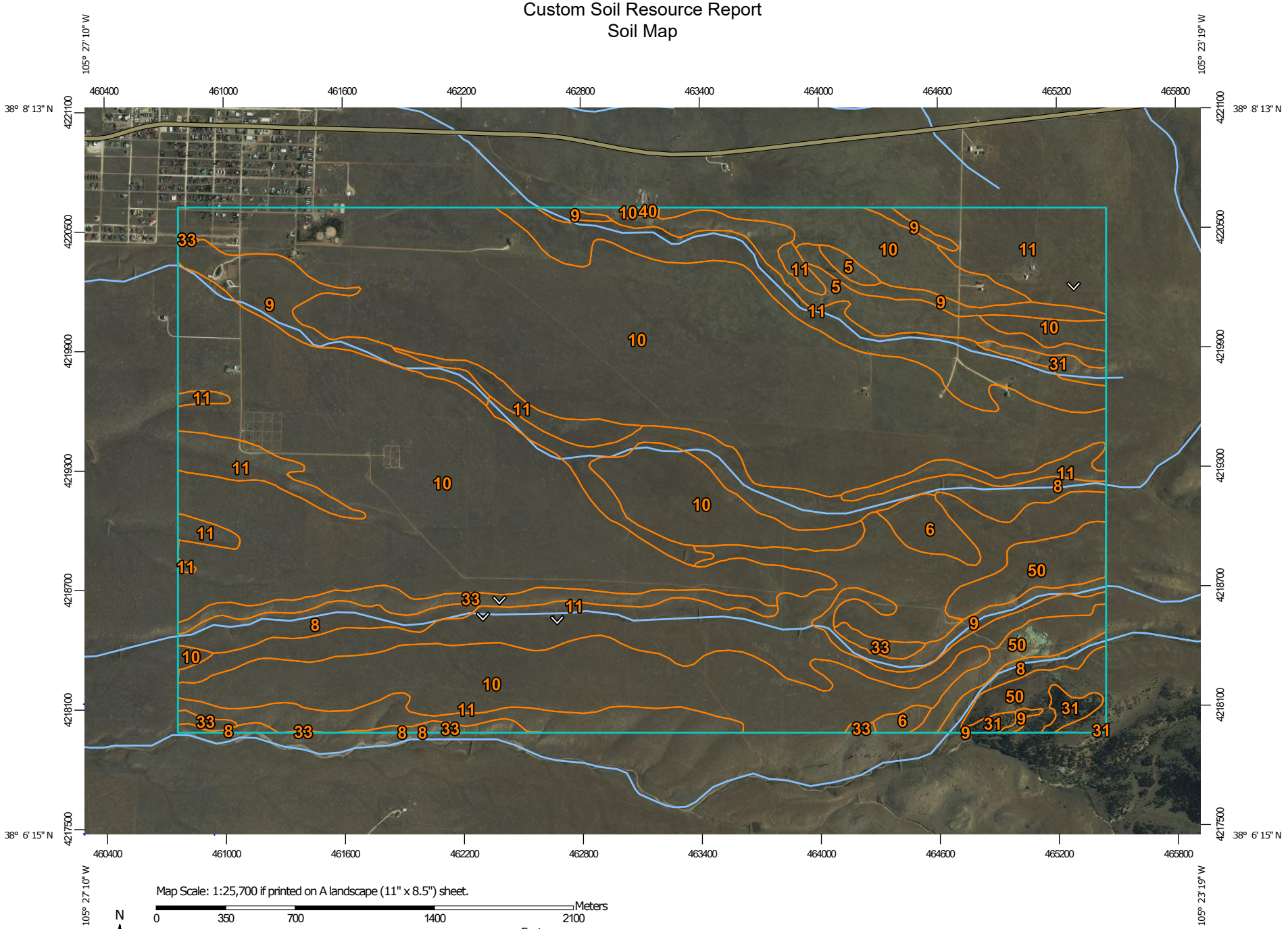
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Custer County Area, Colorado
Survey Area Data: Version 14, Aug 24, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2020—May 21, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5	Buena Vista sandy loam, 3 to 20 percent slopes	75.7	2.5%
6	Buffork sandy loam, warm, 5 to 12 percent slopes	30.1	1.0%
8	Coutis sandy loam, 2 to 5 percent slopes	169.4	5.5%
9	Coutis sandy loam, 5 to 15 percent slopes	127.2	4.2%
10	Feltonia sandy loam, 2 to 6 percent slopes	1,760.4	57.5%
11	Feltonia-Coutis sandy loams, 6 to 15 percent slopes	687.4	22.4%
31	Rogert-Woodhall extremely cobbly sandy loams, 20 to 45 percent	24.9	0.8%
33	Silvercliff cobbly sandy loam, 15 to 35 percent slopes	72.9	2.4%
40	Troutdale-Rogert complex, 5 to 15 percent slopes	1.1	0.0%
50	Woodhall-Rogert extremely cobbly sandy loams, 5 to 20 percent	113.5	3.7%
Totals for Area of Interest		**3,062.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a

particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Custer County Area, Colorado

5—Buena Vista sandy loam, 3 to 20 percent slopes

Map Unit Setting

National map unit symbol: jqmy
Elevation: 7,800 to 8,200 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 40 to 44 degrees F
Frost-free period: 55 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Buena vista and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buena Vista

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from trachyte

Typical profile

H1 - 0 to 10 inches: sandy loam
H2 - 10 to 15 inches: extremely channery sandy loam
H3 - 15 to 19 inches: extremely channery sandy loam
H4 - 19 to 26 inches: extremely flaggy sandy loam
H5 - 26 to 30 inches: extremely channery sandy loam
H6 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 20 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Very low (about 1.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Minor Components

Coutis

Percent of map unit: 15 percent
Hydric soil rating: No

6—Buffork sandy loam, warm, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: jqn0
Elevation: 8,500 to 9,200 feet
Mean annual precipitation: 16 to 20 inches
Mean annual air temperature: 40 to 44 degrees F
Frost-free period: 55 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Buffork, warm, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buffork, Warm

Setting

Landform: Pediments
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from igneous rock

Typical profile

H1 - 0 to 8 inches: sandy loam
H2 - 8 to 30 inches: sandy clay loam
H3 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c

Hydrologic Soil Group: C
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Minor Components

Coutis
Percent of map unit: 20 percent
Hydric soil rating: No

8—Coutis sandy loam, 2 to 5 percent slopes

Map Unit Setting
National map unit symbol: jqn2
Elevation: 7,700 to 9,000 feet
Mean annual precipitation: 14 to 23 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 40 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition
Coutis and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Coutis

Setting
Landform: Drainageways, hills
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile
H1 - 0 to 11 inches: sandy loam
H2 - 11 to 48 inches: sandy loam
H3 - 48 to 60 inches: gravelly sandy loam

Properties and qualities
Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Minor Components

Venable

Percent of map unit: 5 percent
Landform: Flood-plain steps, stream terraces
Ecological site: R048AY241CO - Mountain Meadow
Hydric soil rating: Yes

9—Coutis sandy loam, 5 to 15 percent slopes

Map Unit Setting

National map unit symbol: jqn3
Elevation: 7,700 to 9,000 feet
Mean annual precipitation: 14 to 23 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 40 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Coutis and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Coutis

Setting

Landform: Stream terraces, hills
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 48 inches: sandy loam
H3 - 48 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Minor Components

Norriston

Percent of map unit: 15 percent
Hydric soil rating: No

Venable

Percent of map unit: 5 percent
Landform: Flood-plain steps, stream terraces
Ecological site: R048AY241CO - Mountain Meadow
Hydric soil rating: Yes

10—Feltonia sandy loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: jqlk
Elevation: 7,800 to 8,500 feet
Mean annual precipitation: 14 to 17 inches
Mean annual air temperature: 40 to 44 degrees F
Frost-free period: 55 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Feltonia and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Feltonia

Setting

Landform: Fan terraces, alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: sandy loam

H2 - 8 to 19 inches: gravelly sandy loam
H3 - 19 to 32 inches: gravelly sandy loam
H4 - 32 to 60 inches: very gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Minor Components

Coutis

Percent of map unit: 20 percent
Hydric soil rating: No

Silvercliff

Percent of map unit: 10 percent
Hydric soil rating: No

11—Feltonia-Coutis sandy loams, 6 to 15 percent slopes

Map Unit Setting

National map unit symbol: jqll
Elevation: 7,800 to 8,500 feet
Mean annual precipitation: 14 to 17 inches
Mean annual air temperature: 40 to 44 degrees F
Frost-free period: 55 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Feltonia and similar soils: 50 percent
Coutis and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Feltonia

Setting

Landform: Fan terraces, hills
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 8 inches: sandy loam
H2 - 8 to 19 inches: gravelly sandy loam
H3 - 19 to 32 inches: gravelly sandy loam
H4 - 32 to 60 inches: very gravelly sandy loam

Properties and qualities

Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Description of Coutis

Setting

Landform: Hills
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 48 inches: sandy loam
H3 - 48 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Minor Components

Silvercliff

Percent of map unit: 15 percent
Hydric soil rating: No

31—Rogert-Woodhall extremely cobbly sandy loams, 20 to 45 percent

Map Unit Setting

National map unit symbol: jqm9
Elevation: 8,000 to 10,000 feet
Mean annual precipitation: 18 to 23 inches
Mean annual air temperature: 38 to 42 degrees F
Frost-free period: 40 to 60 days
Farmland classification: Not prime farmland

Map Unit Composition

Rogert and similar soils: 50 percent
Woodhall and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rogert

Setting

Landform: Mountains
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from igneous rock

Typical profile

H1 - 0 to 10 inches: extremely cobbly sandy loam
H2 - 10 to 15 inches: very gravelly sandy loam
H3 - 15 to 19 inches: unweathered bedrock

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R048AY230CO - Shallow Loam
Hydric soil rating: No

Description of Woodhall

Setting

Landform: Mountains
Landform position (three-dimensional): Mountainflank
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Colluvium and/or residuum

Typical profile

H1 - 0 to 10 inches: extremely cobbly sandy loam
H2 - 10 to 28 inches: very cobbly clay loam
H3 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: R048AY230CO - Shallow Loam
Hydric soil rating: No

Minor Components

Coutis

Percent of map unit: 10 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: No

33—Silvercliff cobbly sandy loam, 15 to 35 percent slopes

Map Unit Setting

National map unit symbol: jqmc
Elevation: 8,000 to 9,200 feet
Mean annual precipitation: 14 to 17 inches
Mean annual air temperature: 40 to 44 degrees F
Frost-free period: 55 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Silvercliff and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Silvercliff

Setting

Landform: Fan terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous alluvium

Typical profile

H1 - 0 to 8 inches: cobbly sandy loam
H2 - 8 to 14 inches: very gravelly sandy loam
H3 - 14 to 60 inches: stratified very gravelly sand to cobbly loam

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Minor Components

Coutis

Percent of map unit: 15 percent
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

40—Troutdale-Rogert complex, 5 to 15 percent slopes

Map Unit Setting

National map unit symbol: jqmm
Elevation: 7,300 to 9,000 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 40 to 44 degrees F
Frost-free period: 55 to 85 days
Farmland classification: Not prime farmland

Map Unit Composition

Troutdale and similar soils: 65 percent
Rogert and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Troutdale

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from schist

Typical profile

H1 - 0 to 14 inches: sandy loam
H2 - 14 to 20 inches: gravelly sandy clay loam
H3 - 20 to 35 inches: sandy loam
H4 - 35 to 39 inches: weathered bedrock

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Description of Rogert

Setting

Landform: Hills
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum

Typical profile

H1 - 0 to 8 inches: gravelly sandy loam
H2 - 8 to 15 inches: very gravelly sandy loam
H3 - 15 to 19 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R048AY230CO - Shallow Loam
Hydric soil rating: No

Minor Components

Coutis

Percent of map unit: 10 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: No

50—Woodhall-Rogert extremely cobbly sandy loams, 5 to 20 percent

Map Unit Setting

National map unit symbol: jqmz
Elevation: 7,500 to 10,000 feet
Mean annual precipitation: 16 to 23 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 40 to 70 days
Farmland classification: Not prime farmland

Map Unit Composition

Woodhall and similar soils: 50 percent
Rogert and similar soils: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Woodhall

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Colluvium derived from granite and/or residuum weathered from granite

Typical profile

H1 - 0 to 10 inches: extremely cobbly sandy loam
H2 - 10 to 28 inches: very cobbly clay loam
H3 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: R048AY230CO - Shallow Loam

Hydric soil rating: No

Description of Rogert

Setting

Landform: Hills
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from granite

Typical profile

H1 - 0 to 10 inches: extremely cobbly sandy loam
H2 - 10 to 15 inches: very gravelly sandy loam
H3 - 15 to 19 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 20 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R048AY230CO - Shallow Loam
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: No

Lamphier

Percent of map unit: 5 percent
Hydric soil rating: No

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Wet Mountain Tribune

PROOF OF PUBLICATION

State of Colorado]
County of Custer]

I, **JORDAN HEDBERG,** do solemnly swear that I am Publisher of **THE WET MOUNTAIN TRIBUNE,** that the same is a weekly newspaper published in the County of Custer. State of Colorado and has a general circulation therein; that said newspaper has been published continuously and uninterruptedly in said County of Custer for a period of more than fifty-two consecutive weeks next prior to the first publication of the annexed legal notice or advertisement, that said newspaper has been admitted to the United States mails as second-class matter under the provisions of the Act of March 3,1879, or any amendments thereof, and that said newspaper is a weekly newspaper duly qualified for publishing legal notices and advertisements within the meaning of the laws of the State of Colorado.

That the annexed legal notice or advertisement was published in the regular and entire issue of every number of said weekly newspaper for the period of 4 consecutive insertions; and that the first publication of said notice was in the issue of said newspaper dated 14 March A.D., 2024 and that the last publication of said notice was in the issue of said newspaper dated 4 April A.D., 2024

In witness whereof I have hereunto set my hand this day of 4 April A.D., 2024

Publisher

Subscribed and sworn to before me, a notary public in and for the State of Colorado, this 4th day of April A.D., 2024

Notary Public

My Commission expires 2-18-2028

LINDA WARREN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20204006624
MY COMMISSION EXPIRES FEBRUARY 18, 2028

NOTICE
PUBLIC NOTICE

Colorado Quarries, Inc.; whose address is 270 15th St, Cañon City, CO 81212, and phone number is (719) 275-6894, has filed an application for a Regular (112) Construction Materials Reclamation Permit with the Colorado Mined Land Reclamation Board under provisions of the Colorado Land Reclamation Act for the Extraction of Construction Materials.

The mine is known as the Siskin Mine and is located at or near Sections 26, Township 22 South Range 72 West of 6th Prime Meridian.

The proposed date of commencement is June 2023, and the proposed date of completion is 64 years from now, ~2087. The proposed future use of the land is rangeland. Additional information and tentative decision date may be obtained from the Division of Reclamation, Mining, and Safety, 1313 Sherman Street, Room 215, Denver, Colorado 80203, (303) 866-3567, or at the Custer County Clerk and Recorder's office; 205 S 6th St, Westcliffe, CO 81252 or the above-named applicant. A complete copy of the application is available at the above-named County Clerk and Recorder's office and at the Division's office.

Comments concerning the application and exhibits must be in writing and must be received by the Division of Reclamation, Mining, and Safety by 4:00 p.m. twenty days from the last publication date of this notice.

Please note that under the provisions of c.r.s. 34-32.5-101 et seq. comments related to noise, truck traffic, hours of operation, visual impacts, effects on property values and other social or economic concerns are issues not subject to this office's jurisdiction. These subjects, and similar ones, are typically addressed by your local governments, rather than the division of reclamation, mining and safety or the mined land reclamation board.

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