STATE OF COLORADO

Girardi - DNR, Chris <chris.girardi@state.co.us>

Passiflora NOI Project P2024011- Adequacy Review #2 Letter

1 message

Girardi - DNR, Chris <chris.girardi@state.co.us> Wed, Nov 13, 2024 at 3:23 PM
To: HARALD HOEGBERG <geohoeg@comcast.net>
Cc: Jared Ebert - DNR <jared.ebert@state.co.us>, Sara Stevenson-Benn - DNR <sara.stevenson-benn@state.co.us>, "Pike, James D" <jpike@blm.gov>

Good afternoon,

Attached to this email is a copy of the Division's Notice of Adequacy Review #2 Letter regarding the Passiflora NOI application to conduct mineral prospecting.

A hard copy will not be mailed unless requested.

Please let me know if you have any questions.

Thanks,
Chris

Chris Girardi

Environmental Protection Specialist Intern

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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Passiflora Project NOI Adequacy Review #2.pdf
680K

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

November 13, 2024

Viscount Colorado Holdings
Attn: Harald Hoegberg
1805 Turnbridge Dr.
Richmond, VA 23238

RE: Passiflora Project, DRMS File No. P-2024-011, Notice of Intent to Conduct Mineral Prospecting, Adequacy Review #2

Dear Mr. Harald Hoegberg,

On September 10th, 2024, the Colorado Division of Reclamation, Mining and Safety ("DRMS" or "Division") received a Notice of Intent to Conduct Prospecting Operations for Hard Rock/Metal Mines ("NOI") form. The Division sent an adequacy review letter on October 28, 2024, and on November 5, 2024 the Division received the response submitted by Viscount Colorado Holdings (VCH) to the adequacy review for the Passiflora Project NOI. The following adequacy items in the NOI application need to be addressed before the application can be approved.

Project Description:

1. Item 5 indicates "access disturbance, approximately 300 feet, will be leveled to original surface and reclaimed." Please clarify what this statement means?
    a. **VCH Response:** The disturbance is from accessing bore hole location with daily traffic such as sample collection, crew access, water trucks etc. The access areas will be flagged to minimize vehicular disturbance.
    b. **DRMS Response:** These access routes will need to be considered roads. Topsoil will need to be stripped, salvaged and stockpiles prior to the access routes being disturbed. Please update item 6(G) of the NOI application to specify the access route lengths and widths. Please provide a plan for salvaging, stockpiling and replacing topsoil over this affected land, in accordance with Rule 5.1.2(f) and (g), and Rule 3.1.9 and updated sect "IV. Operations and Reclamation Measures" subpart 3 of the NOI application with this information.

2. Item 6(A)- Please clarify how mud pits will be constructed and reclaimed.
    a. **VCH Response**: Concave mud pits will be excavated to a maximum depth of 8' to surface on both ends, and an 8'x8' surface footprint. The pits will be lined with heavy duty vinyl or other suitable material.
    b. **Division Response**: Please revise the application pages to include the newly

specified dimensions of the mud pits.

3. Item 6(G)- Please clarify where chemicals and fuel containers will be stored and containment measures in the event of a spill.
    a. **VCH Response**: Please see attachment 1.
    b. **Division Response**: The Applicant clarified spill containment measures that will be employed but failed to clarify the location of chemicals and fuel containers at the drilling operation. Please clarify this.

4. Item 6(H)- The Applicant indicates the disturbed area will be less than 0.25 acres. See item #10 below regarding drill pads. If each of the drill pads will be affected based on the dimensions provided on topographic gradient calculations page provided by with the application, then about 0.5 acres will be affected. Please clarify and update the NOI application accordingly.
    a. **VCH Response:** The drill pad calculation was prepared to show the general gradient combined with the "before" photographs, to see if the drillers though we needed to construct pad. None of the drillers thought the pads were necessary, and that the drill could be levelled using the drills hydraulics system. The "before" photographs and gradient calculations was attached to the NOI to conduct exploration for the DRMS reviewer to add support to item 5, in the application. It seems that the disturbance of0.5 acres was calculated and includes the 5 drill pads, since drill pads will not be needed the 0.25 seems more accurate.
    b. **Division Response:** It appears the applicant is arguing that a "drill pad", will not need to be constructed since the natural grade of the area does not require it for the drilling operation. The Division understands this, however the drill rig, water truck, rod truck, pickups (3), mud pits, light plant, and backhoe proposed to be used will certainly disturb the ground and affect the land during the operation. These areas will need to be reclaimed in accordance with the approved plan that conforms to the performance standards of Rule 3. Topsoil must be salvaged and stockpiled prior to the drilling operation and then replaced after the drilling operation. The affected land will then need to be revegetated. Please clarify the area that will be affected by the drilling operation, including access route/roads created, topsoil storage areas, equipment storage, parking, work areas, etc.

IV. Operation and Reclamation Measures:

5. Item 3- The Applicant states that topsoil will be stockpiled and replaced after completion. If topsoil stockpiles are left in place for greater than 180 days, please commit to planting with appropriate annual and/or perennial plant species to provide stabilization of the stockpile in accordance with Rule 3.1.9(3). Please provide a seed mixture to be used for this purpose.

a. **VCH Response**: If topsoil is encountered it will be stock piled and replaced as part of the hole completion. No topsoil has been encountered during Viscount's drilling programs beginning in 2016. If stockpiles are left in place for more than 180 days, they will be seeded with the seed mix recommended by CSU's Extension Program to the BLM for the 2017 drill program.
b. **Division Response**: The Applicant states that if topsoil stockpiles are left in place for greater than 180 days, the stockpiles will be reseeded with a seed mix recommended by CSU's Extension Program. Please clarify if the seed mix included in the NOI application is also the seed mix to be used for used for reseeding topsoil stockpiles as well.

6. Item 3 indicates 0-3 inches of topsoil exists within the area proposed to be affected by the prospecting operation. According to the Web Soil Survey provided by the Natural Resource Conservation Service, there are two soil types within this area. These include the Buena Vista Sandy Loam and the Feltonia-Coutis Sandy Loam with the topsoil horizon being 8-10 inches deep. Please commit to salvaging and stockpiling 8-10 inches of topsoil from areas to be affected by the drill pad, drill holes, and mud pits. Please revise and update Item #3 of the Operation and Reclamation Measures section of the NOI application to reflect this commitment.
    a. **VCH Response**: No sandy loams have been encountered to date during the drill programs, and no topsoil has been stockpiled. The only agricultural activity is a small amount of livestock grazing. A test pit dug during the gradient survey only revealed residual clay soils. The drill sites are located on a ridge that is underlaid by eroded phyllic altered rhyolites, consisting mostly of sericite and argillic material. The area may have been mapped as containing the sandy loams, but it is clear what scale those amps were drawn at. The area under consideration only spans about 750m and follows the ridge line.
    b. **Division Response**: The Division reiterates that according to the Web Soil Survey provided by the Natural Resource Conservation Service, there are two soil types within this area. The topsoil horizon is shown to be 8-10 inches deep according to the Web Soil Survey provided by the Natural Resource Conservation Service. Attached to this letter is this soil information. Photographs of the proposed drilling area included in the NOI application show evidence of considerable vegetation present. The applicant will need to provide a detailed soil survey to substantiate their claim regarding the lack of topsoil. Otherwise please commit to salvaging the top 8 to 10 inches of soil. Provide a plan for stockpiling the topsoil, stabilizing the pile, and replacing the topsoil after the drilling operation has concluded. Please revise and update Item #3 of the Operation and Reclamation Measures section of the NOI application to reflect this commitment.

7. Item 7(B)- The Applicant indicates that broadcast seeding method will be used to apply the

seed mixture. Please clarify if the application rate of the seed mixture provided has been doubled to account for the lower success rate typically associated with broadcast seeding.

a. **VCH Response**: The broadcast method and seed mix proposed by the CSU Extension survey used in all drill campaigns is the one listed in the NOI and the reclamation of previously drill sites have been deemed successful by the DRMS.
b. **Division Response**: Please clarify if the application rate of the seed mixture provided has already been doubled to account for the lower success rate typically associated with broadcast seeding.

Financial Warranty:

8. Enclosed is the reclamation cost estimate for the proposed operation. Please review the estimate. DRMS must seek concurrence with the Bureau of Land Management on the proposed financial warranty amount. In the meantime, please review the estimate and let us know if you concur.
    a. **VCH Response**: We have reviewed your reclamation cost estimate, and we do not concur. It is over 420% higher than the cost estimate calculated by BLM's Daniel Pike, with which we agree. Our calculations, based on our experience since 2016, were around $12,000.
    b. **Division Response**: The Division is required to hold a financial warranty sufficient to complete the reclamation plan in accordance with Rule 4.2.1. The reclamation cost estimate provided is what it would cost the Division to, plug and seal the drillholes proposed with this project and reclaim the land affected by the operation. The Division has consulted with the Bureau of Land Management regarding this, and we agree with this requirement. However, it seems there may be a discrepancy in the scope of the project in terms of number and depth of drill holes. As the applicant is proposing five drill holes at a depth of 5,000 feet each and with drill holes being 12 inches in diameter, the Division must hold a financial warranty to plug and seal these holes which is a substantial cost. If the applicant would like to revise their plan by reducing the number of drill holes, drill depths, etc. that would reduce the required financial warranty amount. The applicant will need to post the required financial warranty and receive DRMS authorization to proceed prior to conducting the prospecting operation.

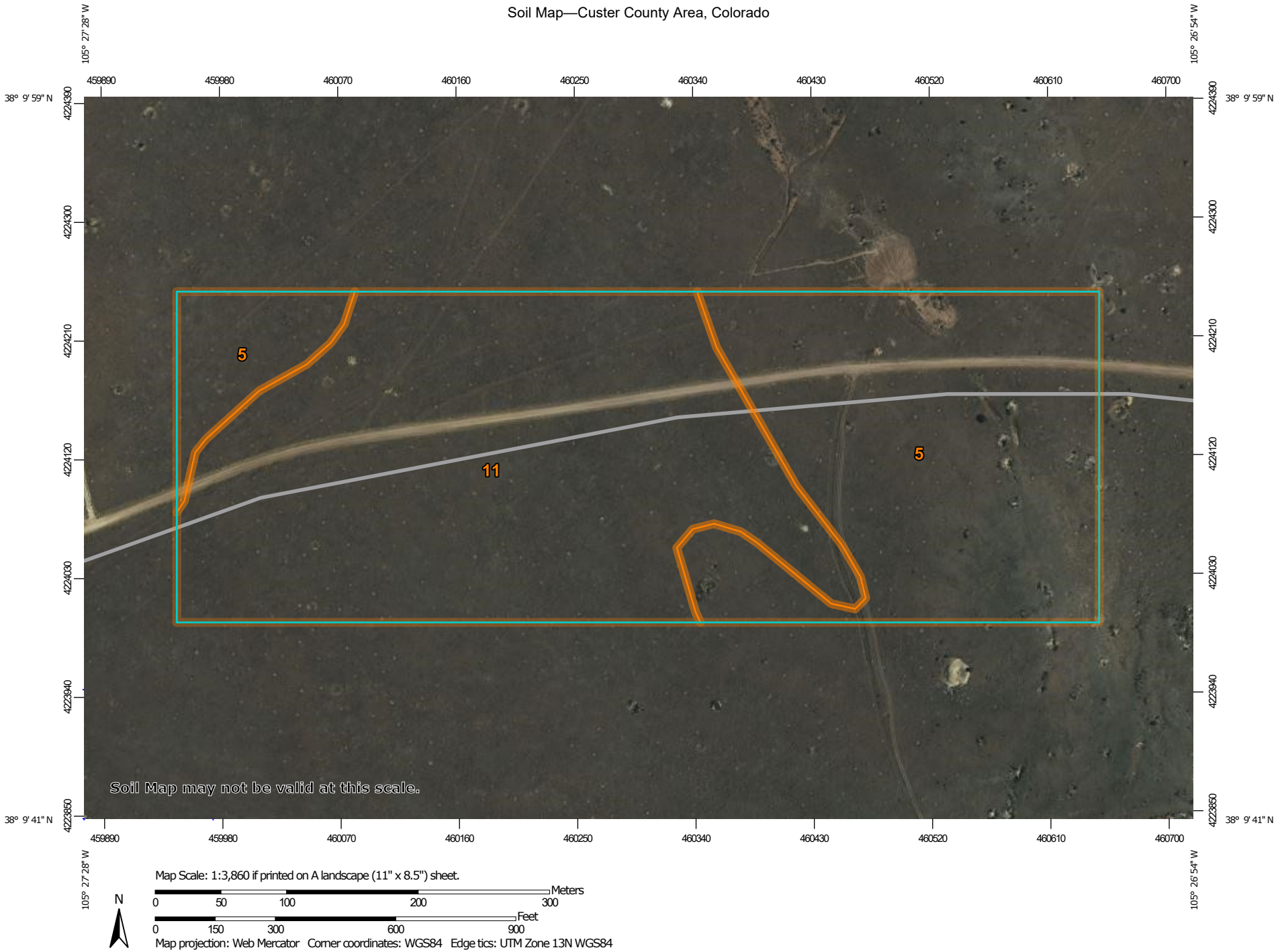
Pursuant to Rule 5.1.3(c) of the Hard Rock/Metal Mining Rules and Regulations, all adequacy items must be addressed by **December 27, 2024**. If this date arrives and the adequacy concerns have not been addressed and/or the additional financial warranty has not been submitted and accepted by the Division, the NOI will be denied. Please note that prospecting operations may not begin until authorized by the Division and until the Plan of Operations has been approved by the Bureau of Land Management.

If you have any questions, please contact me at chris.girardi@state.co.us or at (720) 793-3041.

Sincerely,

Chris Girardi
Environmental Protection Specialist Intern

EC: Daniel Pike, BLM, jpike@blm.gov
Jared Ebert, DRMS jared.ebert@state.co.us
Sara Stevensen-Benn, DRMS sara.stevenson-benn@state.co.us



Map Scale: 1:3,860 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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 15, Aug 29, 2024

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	19.1	43.7%
11	Feltonia-Coutis sandy loams, 6 to 15 percent slopes	24.6	56.3%
Totals for Area of Interest		**43.7**	**100.0%**

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

Data Source Information

Soil Survey Area: Custer County Area, Colorado
Survey Area Data: Version 15, Aug 29, 2024

Custer County Area, Colorado

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: Hills, fan terraces
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

Data Source Information

Soil Survey Area: Custer County Area, Colorado
Survey Area Data: Version 15, Aug 29, 2024