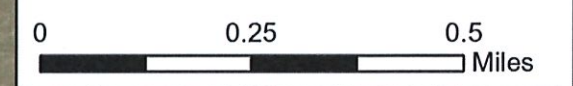


- Legend**
- Proposed Access Road
 - Proposed Oil and Gas Location
 - Proposed Working Pad Surface
 - One Mile Buffer
- Soil Types**
- Keith-Richfield silt loams, 0 to 2 percent slopes

Source: Colorado Geological Survey
 No faults, landslides, expansive soils, dikes, radioactive soils, earthquakes, floodplains, avalanches, or mudflows were evident in the area.

SOURCE: <https://cologeosurvey.maos.arcgis.com/apps/webappviewer/index.html?id=a6f816b35fb64d3da096e84af661f070>

Date Saved: 4/10/2023 6:39 PM



WAVETECH HELIUM, INC.
1 WAVETECH HADACHEK TRUST 21-23
SEC. 23 T13S R43W (NE/4 NW/4)
CHEYENNE COUNTY, CO
SURFACE: FEE
SOILS

Coordinate System: NAD 83 StatePlane
 Colorado South FIPS 0503 Feet

Prepared By: **REDHAWK** GIS

Cheyenne County, Colorado

19—Keith-Richfield silt loams, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2s7w6

Elevation: 3,940 to 4,590 feet

Mean annual precipitation: 15 to 24 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 140 to 190 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Keith and similar soils: 50 percent

Richfield and similar soils: 30 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Keith

Setting

Landform: Plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loess

Typical profile

Ap - 0 to 6 inches: silt loam

Bt1 - 6 to 10 inches: silty clay loam

Bt2 - 10 to 25 inches: silty clay loam

C - 25 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 2 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 (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R067BY002CO - Loamy Plains
Hydric soil rating: No

Description of Richfield

Setting

Landform: Plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess

Typical profile

Ap - 0 to 6 inches: silt loam
Bt1 - 6 to 18 inches: silty clay loam
Bt2 - 18 to 24 inches: silty clay loam
Bk - 24 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 2 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 (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 14 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0
mmhos/cm)
Available water supply, 0 to 60 inches: Very high (about 12.6
inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R067BY002CO - Loamy Plains
Hydric soil rating: No

Minor Components

Goshen

Percent of map unit: 10 percent
Landform: Swales
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope

Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R067BY002CO - Loamy Plains
Hydric soil rating: No

Ulysses

Percent of map unit: 5 percent
Landform: Rises
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R067BY002CO - Loamy Plains
Hydric soil rating: No

Satanta

Percent of map unit: 5 percent
Landform: Plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R067BY002CO - Loamy Plains
Hydric soil rating: No

Data Source Information

Soil Survey Area: Cheyenne County, Colorado
Survey Area Data: Version 23, Aug 31, 2021

Cheyenne County, Colorado						
Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year	Normal year	Unfavorable year		
		<i>Lb/ac</i>	<i>Lb/ac</i>	<i>Lb/ac</i>		<i>Pct</i>
19—Keith-Richfield silt loams, 0 to 2 percent slopes						
Keith	R067BY002CO: Loamy Plains	1,800	1,300	600	Blue grama	25
					Sideoats grama	20
					Western wheatgrass	20
					Buffalograss	15
					Big bluestem	5
					Little bluestem	5
					Switchgrass	3
					Slimflower scurfpea	2
					Engelmann daisy	2
					Catclaw sensitive briar	1
					Heath aster	1
Richfield	R067BY002CO: Loamy Plains	1,800	1,300	600	Blue grama	25
					Western wheatgrass	20
					Sideoats grama	20
					Buffalograss	15
					Big bluestem	5
					Little bluestem	5
					Switchgrass	3
					Engelmann daisy	2
					Slimflower scurfpea	2
					Catclaw sensitive briar	1
					Western ragweed	1
Heath aster	1					