

# SITE-SPECIFIC QUALITY ASSURANCE & QUALITY CONTROL AUDIT

Permit Closure Type – Final



## PERMIT CLOSURE REPORT – DESIGNATION LAND USE CHANGE

Location ID - 327723

Location Name – HALEY-62N68W22NESE

### Report Date

7 Nov 2022

Soil Sage has conducted a thorough data audit as part of our Quality Assurance and Quality Control (QA/QC) protocols. The audit revealed this site has gone through a land use change.

### Initial Job Assignment

Client	CIVITAS Resources
Work Assignment	179 Site Permit Closures
Date	July 20, 2022

### Quality Assurance & Quality Control Audit

Auditor	Soil Sage
Audit Date	11/3/2022

### Audit Methodology

The following source materials were consulted during the QA and QC audit process:

- ✓ Original List (spreadsheet) of proposed Site Permit Closures provided by CIVITAS Resources
- ✓ Colorado Oil & Gas Information System – COGIS Database
- ✓ On-site Evaluation and Proprietary Soil Sage Drone Imagery data collection
- ✓ Review of legacy imagery for site location and facility parameters
- ✓ Natural Resources Conservation Service (NRCS) Map Unit Description
- ✓ Hydrology Map

All pertinent data, imagery, and materials are included at the end of this report.

## Site Description

<b>Name</b>	HALEY-62N68W22NESE		
<b>Location ID</b>	327723		
<b>Operator / #</b>	CRESTONE PEAK RESOURCES OPERATING LLC / 10633		
<b>Field</b>	WATTENBERG 90750		
<b>County / State</b>	WELD / CO	<b>Lat/Long</b>	40.121254 / -104.983381
<b>Facility Status</b>	CL	<b>Location</b>	NESE 22 2N68W
<b>Facility Status Date</b>	02/26/2018	<b>Access Road</b>	Oil & Gas access road
<b>Facility Entities</b>	<input checked="" type="checkbox"/> Tank Battery	<input type="checkbox"/> Pits	
	<input checked="" type="checkbox"/> Wells	<input type="checkbox"/> Off-Location Flowlines	
	<input type="checkbox"/> Domestic Taps	<input checked="" type="checkbox"/> Flowlines	
<b>Environment Incidents &amp; Remediation</b>	<input type="checkbox"/> None	<input type="checkbox"/> Spill or Release ( <b>Form 19</b> )	
	<input checked="" type="checkbox"/> Remediation ( <b>Form 27</b> )		
<b>Sundry Notice (Form 4)</b>	<b>No Form 4s were detected during this QA &amp; QC Audit.</b>		
<b>On-Location Flowlines (Form 42)</b>	<b>Form 42s exist for Site Related Facilities.</b> See individual scout card data below for report details.		
<b>Off-Location Flowlines (Form 44)</b>	<b>No Form 44s were detected during this QA &amp; QC Audit.</b>		
<b>Site Investigation and Remediation Workplan (Form 27/27A)</b>	<p><b>Remediation Project # – 13382</b></p> <ul style="list-style-type: none"> <li>● <b>Form 27A - Supplemental Doc # &amp; Date – 402128040 on 08/29/2019</b> <ul style="list-style-type: none"> <li>○ <b>Approved – 08/28/2019</b> by Chris Canfield.</li> <li>○ <b>Final Resolution – Case closed on 08/28/2019</b></li> </ul> </li> <li>● <b>Form 27 Initial Doc# &amp; Date – 402015331 on 04/22/2019</b> <ul style="list-style-type: none"> <li>○ <b>Purpose – Pit/PW vessel closure.</b></li> <li>○ <b>Operator Comments – none</b></li> <li>○ <b>Type of Waste Requiring Remediation – E&amp;P Waste, Produced Water</b></li> <li>○ <b>Impacted Media – Soil</b></li> <li>○ <b>Impacted Type – Undetermined</b></li> <li>○ <b>Completion of Site Investigation Date – 04/29/2019</b></li> </ul> </li> </ul>		

<p><b>Field Inspection (Form INSP)</b></p>	<p><b>Form INSP Doc # &amp; Date – 681902462 – 01/02/2018</b></p> <ul style="list-style-type: none"> <li>○ <b>Inspection Status – SI – Shut In</b></li> <li>○ <b>Inspection Date &amp; Inspector – 01/02/2018 by Gary Helgeland. No follow up inspection required.</b></li> <li>○ <b>Purpose – Follow up Inspection of well – HALEY 2-22 – Facility ID 247277.</b></li> <li>○ <b>Comments – Refer to inspection Form INSP – Doc # &amp; Date - 600000947 – 03/19/2014 for information concerning shared battery and equipment. Operator - Encana Oil &amp; Gas Inc.</b></li> </ul>
<p><b>COGIS Well Information (Scout Card)</b></p>	<p><b>Well – HALEY #2-22 FACILITY ID 247277</b></p> <ul style="list-style-type: none"> <li>○ <b>Well Status &amp; Date – PA – 02/26/2018</b></li> <li>○ <b>Form 6 Subsequent – Doc # &amp; Date – 401567148 – Approved on 05/30/2019 by Nick McFarland.</b></li> <li>○ <b>Form 42 – Doc # &amp; Date – 401624315 submitted on 04/30/2018 Purpose – Flowlines Abandoned. Completed on 02/23/2018.</b></li> <li>○ <b>Form 42 – Doc # &amp; Date – 401533229 on 02/01/2018 Purpose – Start of Plugging Operations 48 Hours notice.</b></li> </ul>

## Audit Key Findings - Designation Land Use Change Observations

PREVIOUS LAND USE	CURRENT LAND USE
Reference Imagery for Infrastructure – DRCOG 2014	Remotely Sense Imagery – 09/15/2022
Designation – Well Pad	Designation – Parking, Storage

### The following imagery sources were reviewed during this audit:

EarthExplorer, DRCOG 2010 - 2014, NAIP Imagery 2011, 2013, 2015, 2017, 2019, 2021, ESRI Maxar and Remotely Sensed Imagery Sep 2022

### Closure Information

Tank battery no related documents were located within the COGCC databas.e

## Site Summary

Based on the key findings of our thorough data audit, the following information is provided:

### *Site Investigation Date*

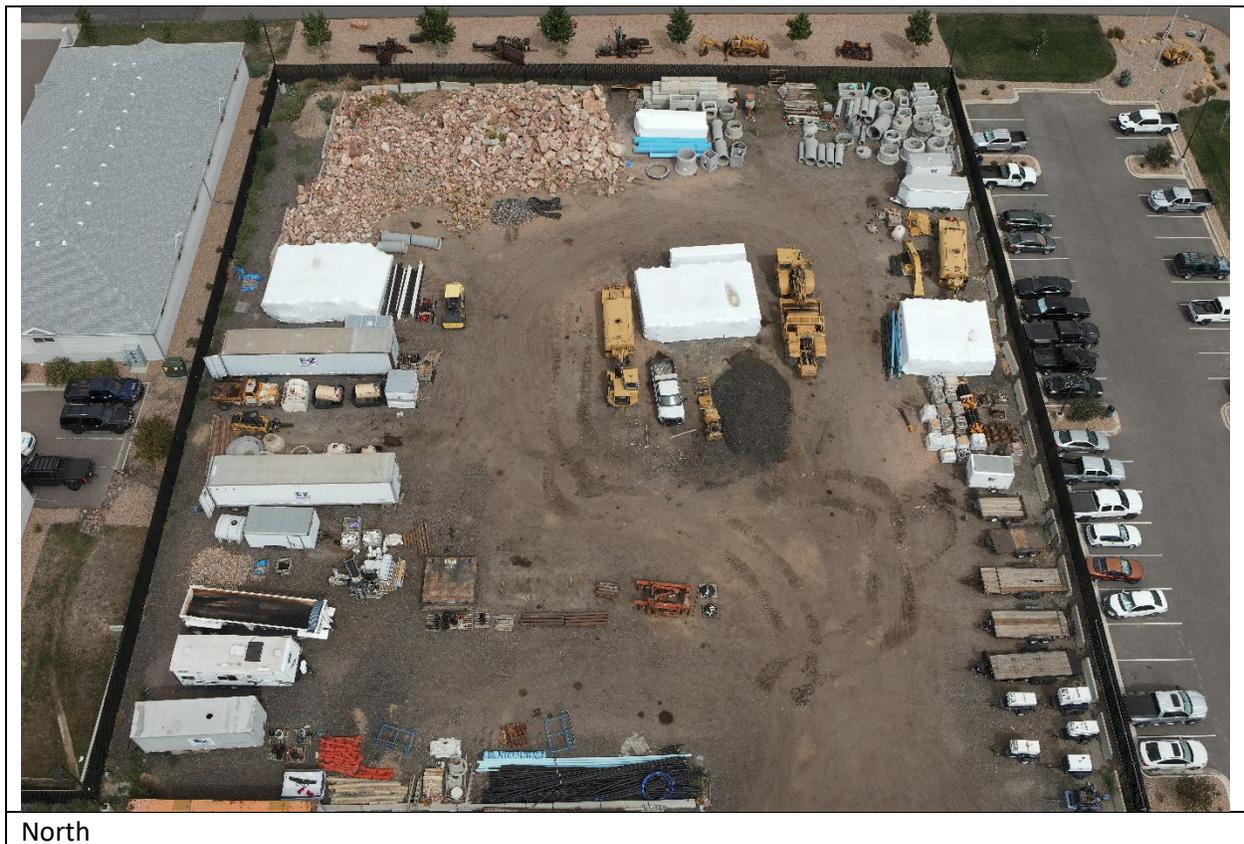
09/15/2022

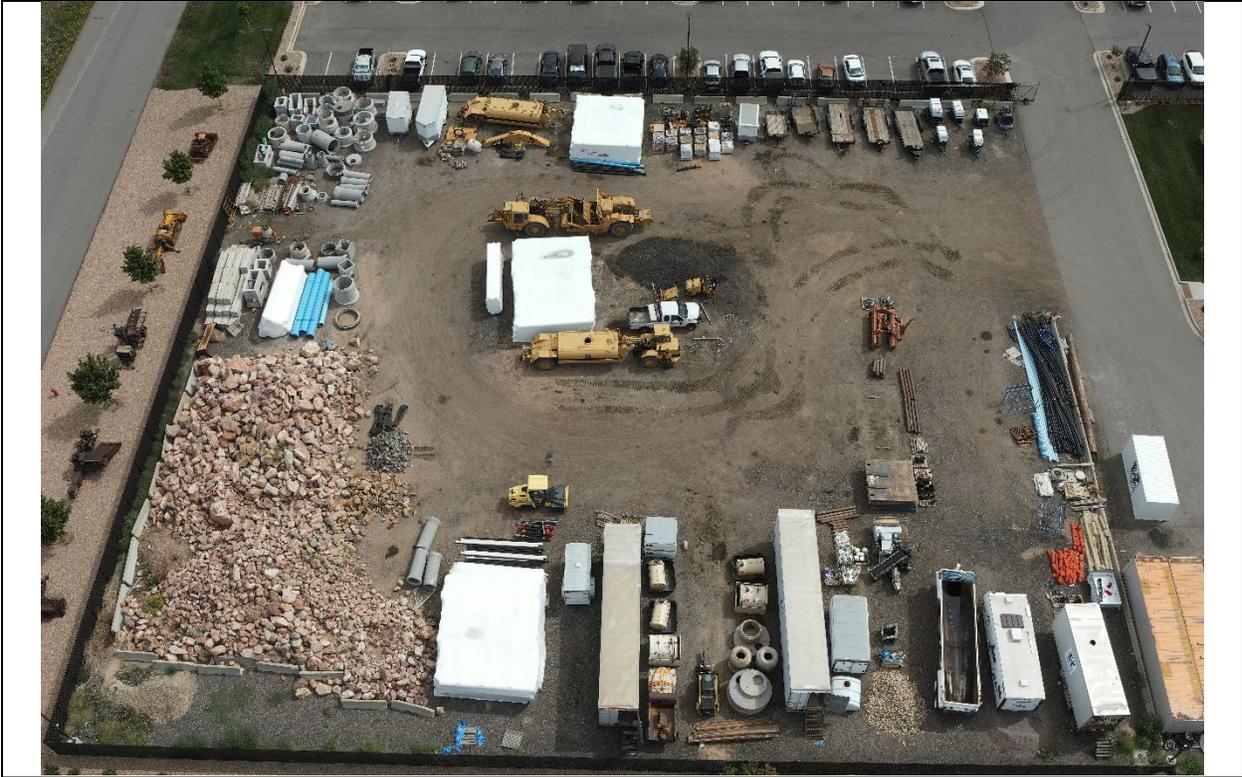
### *Reference Area Photos*

Site photos.

15 Sep 2022

Cardinal directional photos of the site





East



South



West

# ATTACHMENTS

## Maps and Figures

### *Area Maps*

Previous Infrastructure Overview

Current Site Overview

Hydrology – (2 CCR 404-1 – 303.b.3.G pg.34)

## Background Information

*Natural Resources Conservation Service (NRCS) Map Unit Description*

Reference Soil Document

# Soil Properties

## USDA Soil Description

<b>Location ID / Name</b>	327723 - HALEY-62N68W22NESE
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### Reference Soil Information

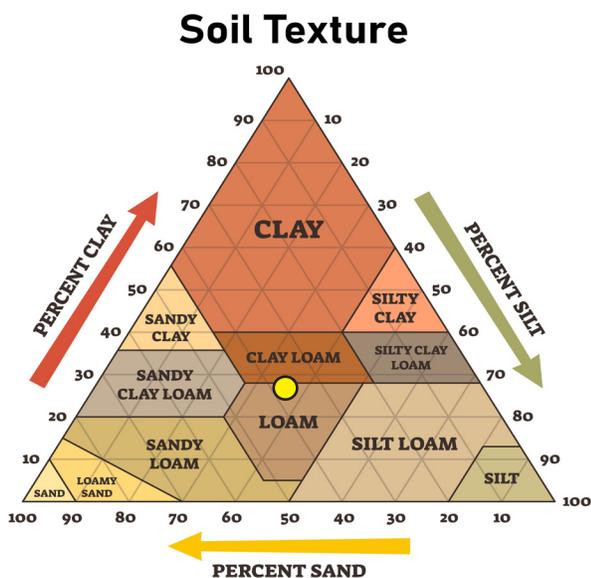
The location of the site is contained within one soil type, Nunn loam.

### Map Unit 40 Reference Soil information - Nunn loam

This soil is formed from pleistocene aged alluvium and/or eolian deposits. Landform is terraces, with the Loamy Plains Ecological Site. Soils are well drained with a high water holding capacity, and slope 1-3 percent.

Depth (in)	Physical			Chemical			
	Texture	Bulk Density	Partical Size Percent sand, silt, clay	pH	EC	SAR	OM%
0-10	Loam	1.43	39-35-26	7.4	0.5	0.0	1.50
10-20	Clay Loam	1.38	32-30-38	7.6	0.5	0.0	1.50
20-30	Clay Loam	1.41	36-38-36	7.8	0.3	0.0	1.20
30-40	Clay Loam	1.51	46-31-22	8.4	0.5	0.1	0.31
40-50	Loam	1.53	47-31-22	8.4	0.5	0.1	0.25
50 +	Loam	1.54	48-28-24	8.5	0.5	0.1	0.25

### Soil Texture Triangle reflect the 0-10 in depth



### Erosion Potential (10 inches)

- K Factor, Whole soil - .43. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.
- Wind Erodibility Group – 5. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.

Infrastructure

Facility – CL – 2/26/2018  
Well – PA – 2/26/2018  
Tank Battery – Present – No Docs  
Pit - NA  
Road – Oil and Gas Access  
On-Location FLO – 401624265 – 3/1/2018  
Off-Location FLO – NA  
Environmental – RPN – 13382  
Resolved 8/28/2019



**CIV - 327723- HALEY**  
**Map Extent - DRCOG 2014**

Imagery: DRCOG  
Imagery Date: 2014  
Map Date: 10 Nov 2022  
Datum: NAD\_1983\_UTM\_Zone\_13N  
POC: Soil Sage

**Legend**

- ◆ Wells
- Disturbance Extent
- Road
- Tank Battery



Overall Disturbance:  
1.19 Acres  
Scale: 1:600

Pad Location:  
40.121254  
-104.983381



Service Credits - Maxar, Microsoft





**Infrastructure**  
 Facility – CL – 2/26/2018  
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 Environmental – RPN – 13382  
 Resolved 8/28/2019

**CIV - 327723- HALEY**  
**Map Extent - Overview**

Imagery: RS Orthomosaic & DSM  
 Imagery Date: 15 Sep 2022  
 Map Date: 10 Nov 2022  
 Datum: NAD\_1983\_UTM\_Zone\_13N  
 POC: Soil Sage

**Legend**

◆ Wells	□ Road
▭ Disturbance Extent	▭ Tank Battery

0 0.01 0.01 0.02 Miles

Overall Disturbance: 1.19 Acres  
 Scale: 1:600

Pad Location: 40.121254  
 -104.983381

N



Service Credits - Maxar, Microsoft



**Infrastructure**  
 Facility – CL – 2/26/2018  
 Well – PA – 2/26/2018  
 Tank Battery – Present – No Docs  
 Pit - NA  
 Road – Oil and Gas Access  
 On-Location FLO – 401624265 – 3/1/2018  
 Off-Location FLO – NA  
 Environmental – RPN – 13382  
 Resolved 8/28/2019

**CIV - 327723- HALEY**  
**Map Extent - Hydrology**

Imagery: RS Orthomosaic & DSM  
 Imagery Date: 15 Sep 2022  
 Map Date: 10 Nov 2022  
 Datum: NAD\_1983\_UTM\_Zone\_13N  
 POC: Soil Sage

◆ Wells	Stream Order
▭ Disturbance Extent	— 1
▭ Road	— 2
▭ Tank Battery	— 3

0 0.01 0.01 0.02 Miles

Overall Disturbance: 1.19 Acres  
 Scale: 1:600

Pad Location: 40.121254  
 -104.983381

N



Service Credits - Maxar, Microsoft