

## Annual Reclamation Assessment Report (2024)

<b>ECMC Location Name (ID)</b>	MATT-64N67W /24NWSW (331001)
<b>Operator Location Name</b>	Matt 1 Well Pad & Facility
<b>ECMC Operator Name (ID)</b>	PDC ENERGY, INC (69175)
<b>Legal Description</b>	NWSW Sec. 24 T4N-R67W
<b>Well Pad Geographic Coordinates (WGS84)</b>	40.295627/ -104.846841
<b>Facility Pad Geographic Coordinates (WGS84)</b>	40.294865/-104.848239

### Introduction

Confluence Compliance Companies, LLC (Confluence) prepared this annual report (Report) for PDC Energy Inc. (PDC) to document the results of reclamation monitoring and maintenance activities on the Matt 1 well pad and tank battery locations, hereafter singularly as "Location" or plurally as "Locations". Following a complaint by the surface owner about subsurface impacts at the Locations, PDC entered an agreement with the Energy & Carbon Management Commission (ECMC). The agreement included more frequent monitoring and maintenance at the Locations with the goal of achieving reclamation success as quickly as possible.

During the 2024 growing season, Confluence personnel conducted monthly assessments to compare vegetation on the reclaimed Locations ("reclaim" singularly and "reclaims" plurally) with vegetation on adjacent undisturbed reference surfaces with similar growing conditions (reference). The Report includes information on project background, a review of field data collection, analysis, and reporting methods, and conclusions and recommendations for this year's efforts. Documentation of this year's field activities is provided in the attached maps and diagrams, field reports, and data and photo logs.

### Background

The Matt 1 well pad (API: 05-123-20011) and tank battery are located on private surface 2.4 miles south-southeast of Milliken, Colorado in Weld County. The Matt 1 well was drilled September 27, 2000, by Southwestern Production Corporation (operator # 81415). PDC acquired the Locations on June 30, 2012, and plugged and abandoned (P&A) the well and performed facility decommissioning in June of 2014 (Form 6 Document: 400825204). The historical well pad surface disturbance was 0.96 acres and was accessed via a preexisting surface owner access road. The facility is located 500 feet southwest of the well site with a historical surface disturbance of 0.43 acres. The Locations were reclaimed following well plugging and abandonment and have received annual monitoring of vegetation since then. Between Spring 2021 and Fall 2023, Confluence conducted seasonal reclamation assessments, collected and analyzed field data, and recommended site maintenance and further investigations based on observed conditions. During 2024, assessments were conducted on a monthly schedule for increased oversight with the intention to move the location towards closure. A more detailed list of activities, with dates, is provided as an attachment to this report.

## Methods

In preparation for the 2024 field season, Confluence reviewed historical records, consulted with PDC project personnel, and prepared a scope of work (SOW) to support collection of additional information about site conditions with the potential to affect revegetation success on the reclaims. Site visits to the location included qualitative and quantitative vegetation assessments, drone flights to collect high resolution aerial imagery of current conditions, and capturing other observations related to current or ongoing conditions which are, or have the potential to, affect reclamation success. These activities are discussed in more detail in the subsections below.

### Vegetation Assessment

Confluence completes a qualitative assessment of overall vegetation condition and reclamation status any time they evaluate a reclaimed surface. These qualitative Vegetation Progress Evaluations (VPE) provide an appraisal of a reclaimed surface based on regulatory requirements and/or client specifications, and whether the assessed condition indicates the need for vegetation management or other maintenance activities, or if it appears the site has met standards, and a more thorough quantitative assessment is warranted. In the event a VPE indicates a site meets reclamation standards and/or there is a request or other reason to collect more detailed information on reclaim vegetation status, Confluence will conduct a Quantitative Vegetation Survey (QVS) based on an approved methodology for the project area.

When completing a QVS, Confluence utilizes a line-point intercept (LPI) vegetation cover survey method with plot-level species inventories from the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems (Volume 2) [1]. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point within the two reclaim transects and within two reference transects. Each transect contains 50 survey points for a total of 100 points in the reclaim and 100 survey points in the reference.

Within the reclaim, transects are selected to run through areas of the historical surface disturbance that are representative of overall site condition. Wherever feasible, reference areas are selected to ensure that comparative assessments occur in areas: not previously impacted by oil and gas operations or other surface disturbing activities; with similar slope and aspect to the reclaimed surface; and to the extent practicable, reflective of pre-disturbance conditions or desired final ecological condition for the reclaimed surface. Survey point data are documented in the attached Transect Detail – Field Data Tables. Photographs are collected throughout the survey to document site conditions and depict transects. These photos are included in the Vegetation Assessment Photo Log. The Reclamation Survey Site Diagram illustrates transect locations as well as photo collection points.

Noxious weeds listed by the Colorado Department of Agriculture are excluded from the percent of reference vegetative coverage calculations, per ECMC Rule 1004.d. Undesirable cover includes species identified by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) as introduced and not native to the lower 48 states, and not considered beneficial for reclamation purposes. All other vegetation not classified as noxious or undesirable, is identified by growth habit (grass, forb, shrub) and is considered desirable vegetative cover.



## Results

### Vegetation Assessment

VPEs were completed on the Locations on the following dates in 2024: February 28<sup>th</sup>, March 27<sup>th</sup>, April 24<sup>th</sup>, May 31<sup>st</sup>, July 31<sup>st</sup>, August 28<sup>th</sup>, and September 25<sup>th</sup>.

In February, noxious weeds and other undesirable vegetation were observed alongside the road leading north of the former facility. While not present on the facility reclaim, coordination with the surface owner was recommended to control noxious weed spread. Additionally in February, run-on from the off-Location railroad culvert was noted on the former well site reclaim. On the former well pad, noxious and undesirable vegetation was observed to be dominant throughout the reclaim. Mowing with bag attachment was recommended to prevent further spread of undesirable and noxious vegetation.

In March and April, similar conditions were observed on the former facility and the former well site. Coordination with the surface owner was recommended to determine acceptable weed management strategies. In addition, the area previously used for stockpiling on the former facility remained mostly barren of vegetation.

In May, vehicle damage to the reclaim surface was noted after mowing operations on both the former facility and well site. On the former well site, noxious and undesirable vegetation was seen throughout the reclaimed surface. In addition, the vegetation on the former facility was observed to be similar to the reference and a QVS was recommended to compare the vegetation composition. QVS surveys were conducted while on site for both well and facility locations during the May on-site.

In July, similar conditions were observed on the former facility including comparable vegetation between the reclaim and the reference. Some bare areas were noted within the reclaim along with two prairie dog burrows and the same vehicle tracks observed in May. Vehicle tracks remained discernable on the former well site as well as noxious and undesirable vegetation. The entire field including both reclaims and the reference area were observed to have been recently mowed.

In August, noxious weed species were observed to have been successfully treated on the former well site with only two individual plants observed and hand pulled during the visit. Prairie dog burrows on both the former facility and the former well site were present, though no additional burrows from previous observations were noted.

In September, new vehicle tracks were observed on the former facility. On the former well site, undesirable species were noted along the roadway. Prairie dogs appear to have spread within both the former facility and the former well site.

Quantitative Vegetation Surveys were conducted on May 31<sup>st</sup>, 2024, and September 25<sup>th</sup>, 2024. A summary of findings is presented in the tables below. September's site conditions, influenced by summer mowing, led to an abundance of litter, which appears to have obstructed regrowth and smothered plants in the reclaim compared to reference. Additional detail on survey results can be found in the attached summary of field data, relative foliar species abundance tables, and field data tables.



May 31<sup>st</sup>, 2024

Table 1: Well Reclaimed Surface QVS Results			
Reclaim Vegetation Cover	Cover (%)	Reference Vegetation Cover	Cover (%)
Desirable Foliar Cover	62.0	Desirable Foliar Cover	17.0
Undesirable Foliar Cover	13.0	Undesirable Foliar Cover	12.0
Noxious Weed Foliar Cover	5.0	Noxious Weed Foliar Cover	24.0
<b>Desirable vegetation comparison (reclaim/reference)</b>			<b>365%</b>

Table 2: Facility Reclaimed Surface QVS Results			
Reclaim Vegetation Cover	Cover (%)	Reference Vegetation Cover	Cover (%)
Desirable Foliar Cover	58.0	Desirable Foliar Cover	17.0
Undesirable Foliar Cover	1.0	Undesirable Foliar Cover	12.0
Noxious Weed Foliar Cover	1.0	Noxious Weed Foliar Cover	24.0
<b>Desirable vegetation comparison (reclaim/reference)</b>			<b>341%</b>

September 25<sup>th</sup>, 2024

Table 1: Well Reclaimed Surface QVS Results			
Reclaim Vegetation Cover	Cover (%)	Reference Vegetation Cover	Cover (%)
Desirable Foliar Cover	19.0	Desirable Foliar Cover	30.0
Undesirable Foliar Cover	6.0	Undesirable Foliar Cover	0.0
Noxious Weed Foliar Cover	0.0	Noxious Weed Foliar Cover	0.0
<b>Desirable vegetation comparison (reclaim/reference)</b>			<b>63%</b>

Table 2: Facility Reclaimed Surface QVS Results			
Reclaim Vegetation Cover	Cover (%)	Reference Vegetation Cover	Cover (%)
Desirable Foliar Cover	22.0	Desirable Foliar Cover	30.0
Undesirable Foliar Cover	0.0	Undesirable Foliar Cover	0.0
Noxious Weed Foliar Cover	0.0	Noxious Weed Foliar Cover	0.0
<b>Desirable vegetation comparison (reclaim/reference)</b>			<b>73%</b>



## Analysis and Recommendations

Based on observed conditions, there has been positive reclamation progress through the 2024 season. While noxious weeds and undesirable vegetation are still an issue on the well site and in the neighboring reference area, the highest priority targets for control (bull thistle) appear to have been controlled successfully. Kochia and Russian thistle remain, especially along the roadway, so a more comprehensive integrated weed management plan for the next growing season would be prudent.

Both the reclaimed surfaces and the reference area were mowed sometime between 5/31/24 and 7/31/24, which will allow for a better comparison in the coming year as the entire field begins the season from a similar growth stage.

Vehicle damage has been repeatedly noted throughout 2024 on both the well pad and the facility. In addition, bare spots are present on the facility where the surface owner previously stored unsecured sediment. To address this combination of setbacks, Confluence recommends the following: Collect agronomic focused soil samples in the reclaim and reference to identify soil suitability and nutrient availability. Sample results will guide soil amendment recommendations for a future application that can be combined with an interseeding effort at a seasonally appropriate time. In addition, as the reclaims appear to be repeatedly damaged by vehicle traffic using the area as a turn-around, Confluence recommends coordinating with the surface owner to fence both reclaims off from further disturbance.

Prairie dog encroachment may become more of an issue in 2025 as prairie dogs were observed to be colonizing throughout the reclaimed surface, which may result in vegetation damage and soil erosion. This may require active management including possible relocation or population control to prevent further negative impacts on reclamation efforts.

Confluence appreciates the opportunity to provide environmental consulting services on this project. If you have any questions about our methodology, the results of this assessment, or our conclusions, please let me know.

Respectfully,



Vincent Sepe  
Project Manager  
845.269.5102 (M)  
Vincent.sepe@confluence-cc.com  
Confluence Compliance Companies, LLC



## Attachments

1. Figures
  - a. Topographic Location Map
  - b. Quantitative Vegetation Survey Diagram (5/31/24)
  - c. Quantitative Vegetation Survey Diagram (9/25/24)
2. Matt 1 Monitoring and Maintenance Summary
3. Vegetation Progress Evaluation (VPE) Reports
  - a. 2/28/24 VPE Reports
  - b. 3/27/24 VPE Reports
  - c. 4/24/24 VPE Reports
  - d. 5/31/24 VPE Reports
  - e. 7/31/24 VPE Reports
  - f. 8/28/24 VPE Reports
  - g. 9/25/24 VPE Reports
4. Quantitative Vegetation Survey (QVS) Reports
  - a. 5/31/24 QVS Reports
  - b. 9/25/24 QVS Reports

## References

1. Herrcik, Jeffrey E, et al. "Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems." Monitoring Manual, 2nd Edition, USDA - ARS Jornada Experimental Range, 2009, <https://aim.landscapetoolbox.org/wp-content/uploads/2015/08/Monitoring-Manual-Volume-II.pdf>.



# Figures

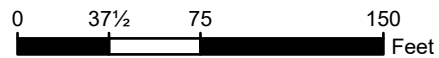




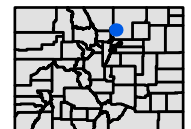
## QVS Site Survey Diagram - Spring

PDC Energy Inc  
 Matt 1  
 (MATT-64N67W/24NWSW )  
 ECMC Location ID: 331001  
 Weld County  
 NWSW 24 4N67W

- Reference Transect Starting Point
- Reclaim Transect Starting Point
- Reference Transect
- Reclaim Transect
- Working Surfaces



Map Drafted by: Kali Floris 10/8/2024



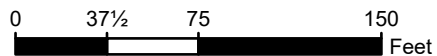
Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.



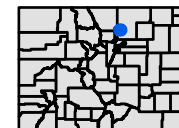
## QVS Site Survey Diagram - Fall

PDC Energy Inc  
 Matt 1  
 (MATT-64N67W/24NWSW )  
 ECMC Location ID: 331001  
 Weld County  
 NWSW 24 4N67W

- Reclaim Transect Starting Point
- Reference Transect Starting Point
- Reclaim Transect
- Reference Transect
- Working Surfaces



Map Drafted by: Kali Floris 10/8/2024



Spatial data was collected using a handheld GPS unit with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. The position of illustrated data may have been manually adjusted to align with the aerial imagery in a manner more representative of field conditions for presentation purposes only.

# Matt 1 Monitoring and Maintenance Summary



## Matt 1 Construction, Operation, & Reclamation Timeline

<b>ECMC Location Name (ID)</b>	MATT-64N67W /24NWSW (331001)
<b>Operator Location Name</b>	Matt 1 Well Pad & Facility
<b>ECMC Operator Name (ID)</b>	PDC ENERGY, INC (69175)
<b>Legal Description</b>	NWSW Sec. 24 T4N-R67W
<b>Well Pad Geographic Coordinates (WGS84)</b>	40.295627/ -104.846841
<b>Facility Pad Geographic Coordinates (WGS84)</b>	40.294865/-104.848239

Season / Year	Action
Fall 2000	<ul style="list-style-type: none"> <li>Southwestern Production Corporation (operator # 81415): Drilled well and constructed facility.</li> </ul>
Summer 2012	<ul style="list-style-type: none"> <li>PDC: Acquired Matt 1 Location.</li> </ul>
Summer 2014	<ul style="list-style-type: none"> <li>PDC: Plugged and abandoned well and decommissioned Location.</li> <li>PDC: Initiated final reclamation.</li> </ul>
Summer 2019	<ul style="list-style-type: none"> <li>PDC Contractor: Location maintenance.</li> </ul>
Summer 2020	<ul style="list-style-type: none"> <li>PDC Contractor: Location maintenance.</li> </ul>
Spring 2021	<ul style="list-style-type: none"> <li>Confluence: Vegetation Progress Evaluation with maintenance recommendations.</li> <li>PDC: Herbicide application and inter-seeding throughout the well pad.</li> </ul>
Summer 2021	<ul style="list-style-type: none"> <li>Confluence: Quantitative Vegetation Survey.</li> <li>PDC: Inter-seeding throughout bare regions of the Reclaimed Surface.</li> </ul>
Fall 2021	<ul style="list-style-type: none"> <li>PDC: Location mowed in conjunction with hay harvesting.</li> </ul>
Spring 2022	<ul style="list-style-type: none"> <li>Confluence: Vegetation Progress Evaluation with maintenance recommendations.</li> <li>PDC: Herbicide application completed on the well pad and both locations mowed.</li> </ul>
Summer 2022	<ul style="list-style-type: none"> <li>Confluence: Vegetation Progress Evaluation with maintenance recommendations.</li> <li>PDC: Subsidence corrected at well head, inter-seeding completed on both locations.</li> </ul>
Spring 2023	<ul style="list-style-type: none"> <li>PDC: Herbicide application at well and facility reclaims (5/3/2023).</li> <li>Confluence: Vegetation Progress Evaluation with maintenance recommendations. Soil sampling.</li> </ul>
Summer 2023	<ul style="list-style-type: none"> <li>PDC: Location aerated and drill seeded. Well subsidence repaired (6/30/2023). Herbicide application to well reclaim (7/28/2023). Well and facility reclaim interseeding (9/26/2023).</li> <li>Confluence: Quantitative Vegetation Survey. Drainage Basin Flow Analysis.</li> </ul>

<p>Spring 2024</p>	<ul style="list-style-type: none"> <li>• Confluence: Vegetation Progress Evaluations completed (2/28/24, 3/27/24, 4/24/24, 5/31/24). Quantitative Vegetation Survey completed (5/31/24).</li> </ul>
<p>Summer 2024</p>	<ul style="list-style-type: none"> <li>• PDC or Surface owner: Sites and surrounding reference area mowed between 5/31/24 and 7/31/24.</li> <li>• Confluence: Vegetation Progress Evaluations completed (7/31/24, 8/28/24, 9/25/24). Quantitative Vegetation Survey completed (9/25/24).</li> </ul>



# Vegetation Progress Evaluation Reports



## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc
<b>Operator Location Name</b>	Matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.295495 / -104.846403
<b>Inspection Date</b>	2/28/2024
<b>Inspector Name</b>	Carolyn Craveiro de Sa
<b>Inspection Coordinates</b>	40.295495 / -104.846403

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy and Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The Matt 1 Well is located in non-crop lands on private surface. The reclaim and reference were dormant at the time of inspection and a portion of the reclaimed surface had been recently mowed and seeded. Run-on from an off-Location railroad culvert northwest of the reclaimed surface has impacted the reclaim and reference and introduced noxious and undesirable vegetation. Based on dormant vegetation, vegetative cover of the reclaim and immediate reference is approximately 5% though unimpacted reference areas farther south have a desirable vegetative cover of approximately 20%. Some perennial grasses are beginning to sprout within the reclaim, but were not identifiable when assessed do to their small size. Undesirable vegetation includes Kochia (*Bassia scoparia*), Russian thistle (*Salsola spp.*), Prairie sunflower (*Helianthus petiolaris*), Maretail (*Conyza canadensis*), Pigweed (*Amaranthus palmeri*), and Stinkgrass (*Eragrostis cilianensis*). Listed Noxious species include Cheatgrass (*Bromus tectorum* - List C), Musk Thistle (*Carduus nutans* - List B), Scotch thistle (*Onopordum acanthium* - List B), and Common mullein (*Verbascum thapsus* - List C). Based on ocular assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the adjacent reference, though reference areas farther south are dominated by desirable perennial grasses. One bare patch is present immediately over the location of the former well head and shows signs of recent seeding.

Reclamation Benchmark Phase: 1

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with COGCC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Variance / Surface Owner Consultation	Run-on from the off-Location railroad culvert has caused site degradation.	Since off-Location run-on is resulting in site degradation and is not in the control of PDC, a variance is recommended to request waiver from final reclamation vegetation establishment requirements.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Noxious and undesirable vegetation doiminate the reclaim.	Mechanical weed management (mowing with bagging attachment) is recommended on the full extent of the well pad reclaimed surface. Currently, only a portion of the historical surface disturbance has been mowed. This will help to remove developed weed seeds. If possible, and pending surface owner approval, the adjacent reference area dominated with weeds should be mowed as well to prevent migration of weeds from the reference into the reclaim. Chemical weed management is not recommended until seeded grasses germinate and become established.

Maintenance Contract Type: 3  
 Square Foot Estimate: 41,970

Tertiary Recommendation:	Rationale:	Description:
Continued Monitoring	Reclamation area was dormant at time of inspection.	Continued monitoring is recommended to evaluate reclamation trajectory once seeded and existing perennial vegetation begin growing.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - Matt 1

COGCC Location ID 331001  
 API 05-123-20011  
 Location Type Well  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 5%  
 What is the % vegetation cover of the reference? 10%  
 What is the percent cover of the reclaim compared to the reference? 50%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? Yes  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes  
 Most common weed species observed: Kochia  
 Second most common weed species observed: Russian thistle  
 Third most common weed species observed: Cheatgrass

### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

### Soils

Has the reclaimed surface been disturbed by vehicles? No  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

### Other Comments

The surface owner spoke with inspectors while on location. He expressed the desire to use controlled burning as a weed management strategy.

Reviewed By C. Craveiro  
 Form ID 59bcf4bc-3858-45e4-97ca-411725b1e2b1  
 Event ID 240228-Event0001

Client Unique ID Functional ID: CD2BBFA8C9F843FEA064EC1E2A20FD57, Asset/Well ID: E456D67075A44CF5AEE130B03FC672EB  
 Confluence ID Asset ID: PDC046724L1WEL

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name Matt 1  
Location Type Well Site  
Event ID 240228-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240228-Event0001

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240228-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240228-Event0001

**PRIMARY SITE RECOMMENDATION: Variance / Surface Owner Consultation**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name Matt 1  
Location Type Well Site  
Event ID 240228-Event0001

**SECONDARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Date Collected: 2/28/2024

Operator Location Name Matt 1  
Location Type Well Site  
Event ID 240228-Event0001

TERTIARY SITE RECOMMENDATION: Continue Monitoring

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

**Client** PDC Energy, Inc  
**Operator Location Name** Matt 1  
**ECMC Location ID** 331001  
**API** 05-123-20011  
**Location Type** Tank Battery  
**Reclamation Phase** Final Reclaim  
**Location Coordinates** 40.294918 / -104.848208  
**Inspection Date** 2/28/2024  
**Inspector Name** Carolyn Craveiro de Sa  
**Inspection Coordinates** 40.294918 / -104.848208

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy and Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The Matt 1 Tank Battery is located in non-crop lands on private surface. The reclaim and reference were dormant at the time of inspection and the reclaimed surface had been recently mowed and seeded. The adjacent reference had also been mowed. Based on dormant vegetation, vegetative cover of the reclaim is approximately 5% and the adjacent reference vegetative cover is approximately 20%. Some perennial grasses are beginning to sprout within the reclaim, but were not identifiable when assessed do to their small size. A few occurrences of Kochia (*Bassia scoparia*) and Cheatgrass (*Bromus tectorum* - List C) were present within both the reclaim and reference. Listed Noxious weed species were present north of the Location in the undisturbed reference area east of the surface owner road. These Noxious species included Cheatgrass (*Bromus tectorum* - List C), Musk Thistle (*Carduus nutans* - List B), Scotch thistle (*Onopordum acanthium* - List B), and Common mullein (*Verbascum thapsus* - List C). While most Noxious vegetation was remnants of previous growing season vegetation, occurrences of Noxious thistle rosettes are becoming established. Based on ocular assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the adjacent reference. One bare patch is present where the surface owner previously stored a road base stockpile though this bare area shows signs of recent seeding.

Reclamation Benchmark Phase: 2

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with COGCC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

#### Primary Recommendation:

Maintenance

#### Rationale:

Noxious and undesirable vegetation are present along the access road north of the Location.

#### Description:

Coordination with the surface owner is recommended to encourage him to manage Noxious weed establishment along the access road north of the Location. No Noxious vegetation is present within the reclaimed surface, however, developed seeds are present on remnant vegetation from the previous growing season. Without intervention it is highly likely that these noxious weeds will encroach and become established within the reclaimed surface. Mechanical weed management (mowing with a bagging attachment) is recommended followed by targeted chemical weed management to manage Noxious thistle species.

Maintenance Contract Type: 3  
 Square Foot Estimate: 20,196

#### Secondary Recommendation:

Continued Monitoring

#### Rationale:

Reclamation area was dormant at time of inspection.

#### Description:

Continued monitoring is recommended to evaluate reclamation trajectory once seeded and existing perennial vegetation begin growing.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

#### Tertiary Recommendation:

NA

#### Rationale:

NA

#### Description:

NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - Matt 1

COGCC Location ID 331001  
 API 05-123-20011  
 Location Type Tank Battery  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present?	No
Is the access road or access point in use?	No
Is the surface owner using the disturbance area?	No

### Vegetation Assessment

Current Land Use	Non-crop
Crop Type	NA
What is the % vegetation cover of the reclaimed disturbance?	5%
What is the % vegetation cover of the reference?	20%
What is the percent cover of the reclaim compared to the reference?	25%
Is the vegetative cover and composition of the reclaim comparable to the reference?	Yes
Are vegetation health and vigor of the reclaim comparable to the reference?	Yes
Are weeds present within the reclaim?	Yes
Are weedy species over represented within the reclaimed surface when compared to the reference?	Yes
Most common weed species observed:	Kochia
Second most common weed species observed:	Russian thistle
Third most common weed species observed:	NA

### Housekeeping

Is oil and gas equipment present on the location?	No
What oil and gas equipment is present?	NA
Are livestock or wildlife disturbances evident?	No
Is there surface owner trash or debris present on the reclaimed surface?	No

### Soils

Has the reclaimed surface been disturbed by vehicles?	No
Was subsidence observed within the reclaimed surface?	No
Are cut and fill slopes evident?	No
Are any erosive features present on or adjacent to the reclaimed surface?	No
Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface?	No
Is soil staining and/or discoloration present on or adjacent to the reclaimed surface?	No
Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface?	Yes

### Other Comments

The surface owner spoke with inspectors while on location. He expressed the desire to "leave the reclaim alone since it is doing better."

Reviewed By C. Craveiro  
 Form ID 59bcf4bc-3858-45e4-97ca-411725b1e2b2  
 Event ID 240228-Event0002

Client Unique ID Functional ID: CD2BBFA8C9F843FEA064EC1E2A20FD57, Asset/Well ID: NA  
 Confluence ID Asset ID: PDC046724L2BAT

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240228-Event0002

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240228-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 2/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240228-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



Vegetation Progress Evaluation - Photo Log

Date Collected: 2/28/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240228-Event0002

PRIMARY SITE RECOMMENDATION: Maintenance

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Date Collected: 2/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240228-Event0002

SECONDARY SITE RECOMMENDATION: Continue Monitoring

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc
<b>Operator Location Name</b>	Matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well Site
<b>Reclamation Phase</b>	Final
<b>Location Coordinates</b>	40.295495 / -104.846403
<b>Inspection Date</b>	03/27/2024
<b>Inspector Name</b>	Miranda Beard
<b>Location Coordinates</b>	40.295495 / -104.846403

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy and Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The Matt 1 Well is located in non-crop lands on private surface. At the time of the inspection, the reclaim and reference showed early signs of vegetative growth though the majority of the surface remained covered by remnants of the previous growing season's vegetation. Vegetative cover of the reclaim is approximately 7% and adjacent reference vegetative cover is approximately 20%. Some perennial grasses are beginning to sprout within the reclaim, but were not identifiable when assessed due to their small size. Undesirable vegetation includes Kochia (*Bassia scoparia*), Russian thistle (*Salsola spp.*), Prairie sunflower (*Helianthus petiolaris*), Marehail (*Conyza canadensis*), Pigweed (*Amaranthus palmeri*), and Stinkgrass (*Eragrostis cilianensis*). Listed Noxious species include Cheatgrass (*Bromus tectorum* - List C), Musk Thistle (*Carduus nutans* - List B), Scotch thistle (*Onopordum acanthium* - List B), and Common mullein (*Verbascum thapsus* - List C). Noxious thistles were only prevalent in the southern portion of the former well pad. Based on visual assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the adjacent reference, though reference areas farther south are dominated by desirable perennial grasses. One bare patch is present immediately over the Location of the former well head and is not yet showing signs of vegetative growth.

Reclamation Benchmark Phase: 1

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with COGCC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Primary Recommendation:	Rationale:	Description:
Maintenance	Noxious and undesirable vegetation dominate the reclaim.	Coordination with the surface owner is recommended to discuss the most desirable approach to weed management on location. Spot treating noxious thistle species is recommended for best management and to reduce potential for further encroachment of noxious vegetation within the reclaim. Another recommended approach would be to mow the historical surface disturbance and adjacent reference area to help remove developed weed seeds and reduce further migration of weeds from the reference into the reclaim.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Continued Monitoring	Apart from some new growth of perennial grasses and thistles, the reclamation area was still mostly dormant at time of inspection.	Continued monitoring is recommended to evaluate reclamation trajectory.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - Matt 1

COGCC Location ID 331001  
 API 05-123-20011  
 Location Type Well  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 7%  
 What is the % vegetation cover of the reference? 20%  
 What is the percent cover of the reclaim compared to the reference? 28%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? No  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes  
 Most common weed species observed: Kochia  
 Second most common weed species observed: Scotch thistle  
 Third most common weed species observed: Musk thistle

### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

### Soils

Has the reclaimed surface been disturbed by vehicles? No  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

### Other Comments

Reviewed By C. Craveiro  
 Form ID 59bcf4bc-3858-45e4-97ca-411725b1e2b1  
 Event ID 240327-Event0001

Client Unique ID Functional ID: CD2BBFA8C9F843FEA064EC1E2A20FD57, Asset/Well ID: E456D67075A44CF5AEE130B03FC672EB  
 Confluence ID Asset ID: PDC046724L1WEL

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name Matt 1  
Location Type Well Site  
Event ID 240327-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240327-Event0001

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name Matt 1  
 Location Type Well Site  
 Event ID 240327-Event0001

RECLAIMED SURFACE - ACCESS ROAD	
Access Road - Entrance Facing Disturbance	Access Road - Center Facing Entrance
	
Access Road - Center Facing Disturbance	Access Road - End Facing Entrance
Image Not Applicable	Image Not Applicable

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240327-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240327-Event0001

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240327-Event0001

**SECONDARY SITE RECOMMENDATION: Continue Monitoring**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc
<b>Operator Location Name</b>	Matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Tank Battery
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.294918 / -104.848208
<b>Inspection Date</b>	3/27/2024
<b>Inspector Name</b>	Miranda Beard
<b>Inspection Coordinates</b>	40.294918 / -104.848208

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy and Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The Matt 1 Tank Battery is located in non-crop lands on private surface. Vegetative cover of the reclaim is approximately 15% and the adjacent reference vegetative cover is approximately 25%. Perennial grasses are becoming established within the reclaim. However, the location of the former tank battery is noticeably behind on regrowth. Kochia (*Bassia scoparia*) is present within both the reclaim and reference. Listed Noxious weed species were present north of the Location in the undisturbed reference area east of the surface owner road. These Noxious species included Cheatgrass (*Bromus tectorum* - List C), Musk Thistle (*Carduus nutans* - List B), Scotch thistle (*Onopordum acanthium* - List B), and Common mullein (*Verbascum thapsus* - List C). While most noxious vegetation were remnants of previous growing season vegetation, occurrences of noxious thistle rosettes are becoming more established, especially along the eastern side of the road between the former tank battery and well pad. Based on visual assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the adjacent reference. A large bare patch greater than 1 square meter remains present where a gravel stockpile was previously stored. Tire tracks remain present in the southern and northern portion of the reclaim.

Reclamation Benchmark Phase: 2

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with COGCC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

<b>Primary Recommendation:</b> Continued Monitoring	<b>Rationale:</b> Annual grasses are growing in the reclaim. However, the portion of the reclaim previously used as a stockpile storage remains mostly barren.	<b>Description:</b> Continued monitoring is recommended to evaluate reclamation trajectory.
--	---	--

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

<b>Secondary Recommendation:</b> Maintenance	<b>Rationale:</b> Noxious and undesirable vegetation are present along the access road north of the Location.	<b>Description:</b> Coordination with the surface owner is recommended to discuss the most desirable approach to weed management on location. Noxious vegetation is present immediately adjacent to the reclaimed surface including musk and scotch thistle rosettes. Spot treating noxious thistle species is recommended for best management and to reduce potential for further encroachment of noxious vegetation within the reclaim.
---	--	--

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

<b>Tertiary Recommendation:</b> NA	<b>Rationale:</b> NA	<b>Description:</b> NA
---------------------------------------	-------------------------	---------------------------

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - Matt 1

COGCC Location ID 331001  
 API 05-123-20011  
 Location Type Tank Battery  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 15%  
 What is the % vegetation cover of the reference? 25%  
 What is the percent cover of the reclaim compared to the reference? 60%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? Yes  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? No  
 Most common weed species observed: Kochia  
 Second most common weed species observed: Scotch thistle  
 Third most common weed species observed: Musk thistle

### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

### Other Comments

Reviewed By C. Craveiro  
 Form ID 59bcf4bc-3858-45e4-97ca-411725b1e2b2  
 Event ID 240327-Event0002

Client Unique ID Functional ID: CD2BBFA8C9F843FEA064EC1E2A20FD57, Asset/Well ID: NA  
 Confluence ID Asset ID: PDC046724L2BAT

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240327-Event0002

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240327-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



### Vegetation Progress Evaluation - Photo Log

Date Collected: 3/27/2024

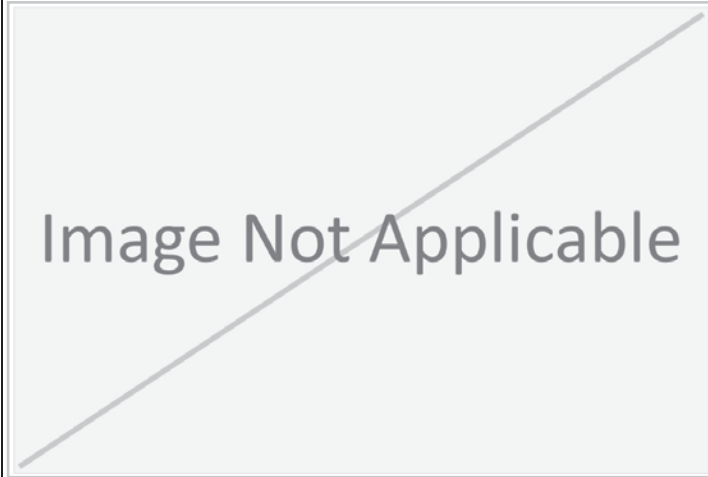
Operator Location Name MATT 1

Location Type Production Facility

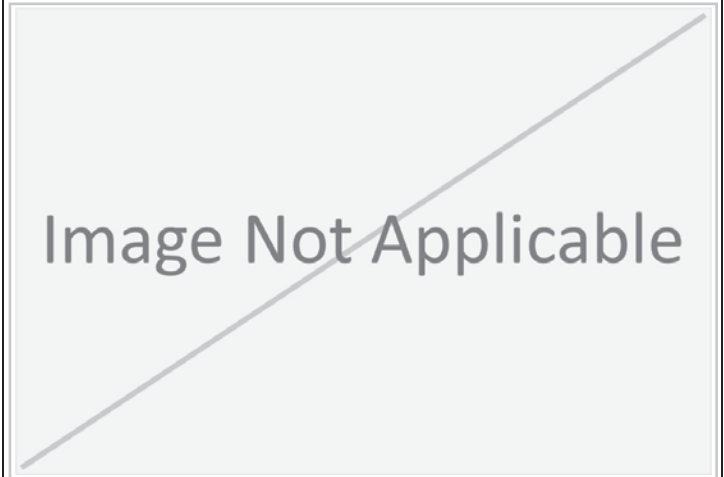
Event ID 240327-Event0002

#### RECLAIMED SURFACE - ACCESS ROAD

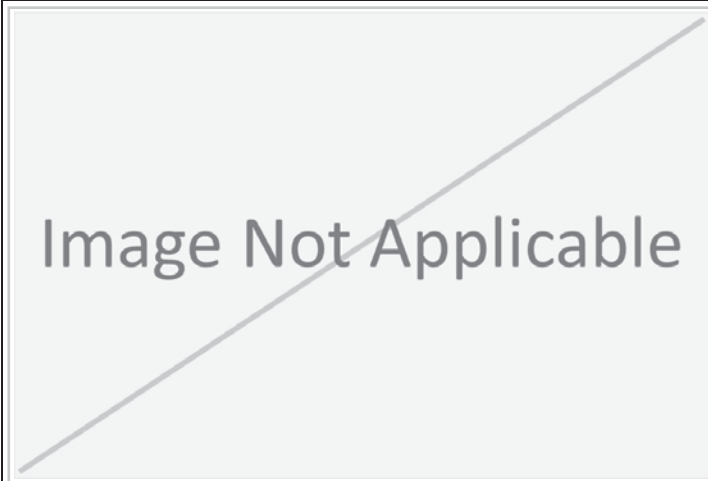
Access Road - Entrance Facing Disturbance



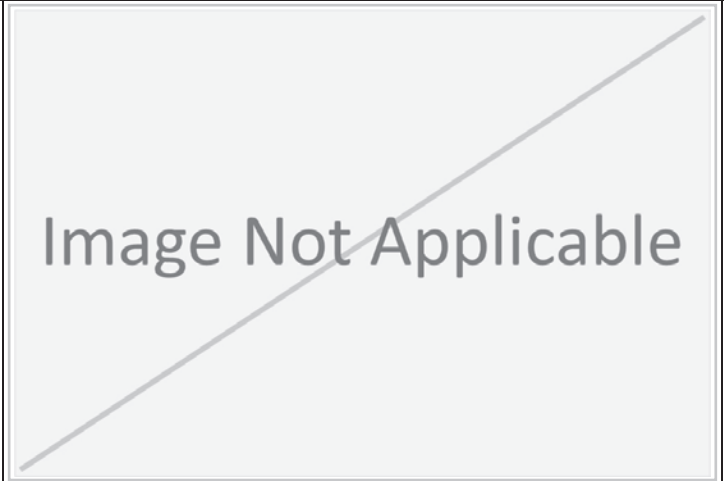
Access Road - Center Facing Entrance



Access Road - Center Facing Disturbance



Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name MATT 1  
 Location Type Production Facility  
 Event ID 240327-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface      Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface      Reference Area - East of Reclaimed Surface



Vegetation Progress Evaluation - Photo Log

Date Collected: 3/27/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240327-Event0002

PRIMARY SITE RECOMMENDATION: Continue Monitoring

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 3/27/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240327-Event0002

**SECONDARY SITE RECOMMENDATION: Maintenance**

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.295627, -104.846841
<b>Inspection Date</b>	4/24/2024
<b>Inspector Name</b>	Miranda Beard
<b>Inspection Coordinates</b>	40.295495, -104.846403

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The matt 1 Well is located within non-crop lands. The reclaim has a vegetative cover that is approximately 60% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. Weeds were observed within the reclaimed surface and are over represented in the plant community when compared to the reference. Weed management is recommended to mitigate undesirable vegetation. The most dominant weeds observed on location include Blue mustard (Chorispora tenella) - Undesirable, Kochia (Kochia scoparia) - Undesirable, and Musk thistle (Carduus nutans) - Noxious List B. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event that regions are left intentionally bare, a surface owner consultation is advised to clarify desired final land use. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Weeds are over-represented within the reclaim when compared to the reference.	Coordination with surface owner is recommended to discuss the preferred approach to managing weeds on Location. Spot treating noxious thistle species is recommended to reduce the potential spread of noxious vegetation within the reclaim.

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Continue Monitoring	Reclaim vegetation establishment approaches but does not yet meet vegetation cover, composition, and/or health of the reference area.	Continued monitoring is recommended to reevaluate reclamation trajectory.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - matt 1

ECMC Location ID 331001  
 API 05-123-20011  
 Location Type Well  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 15%  
 What is the % vegetation cover of the reference? 25%  
 What is the percent cover of the reclaim compared to the reference? afraid  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? No  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes  
 Most common weed species observed: Blue mustard (Chorispora tenella) - Undesirable  
 Second most common weed species observed: Kochia (Kochia scoparia) - Undesirable  
 Third most common weed species observed: Musk thistle (Carduus nutans) - Noxious List B

### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

### Soils

Has the reclaimed surface been disturbed by vehicles? No  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

### Other Comments

Noxious thistles are only prevalent in the southern portion of the former well pad. Several bare patches are present on the pad, including the former well head and do not show signs of vegetation. However, most of the bare patches, show signs of red ants.

FAA Certificate # 4855757  
 Issuance Date 4/17/2023  
 Drone Make/Model DJI Phantom 4 V2 Pro  
 Registration # 0

Reviewed By VS-240426  
 Form ID 317db951-c62e-4bdb-a4a2-b345bc1fe9b9  
 Event ID 240424-Event0001

Functional ID CD2BBFA8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID E456D67075A44CFSAE130B03FC672EB  
 Confluence ID PDC046724L1WEL

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name Matt 1  
Location Type Well Site  
Event ID 240424-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240424-Event0001

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name Matt 1  
Location Type Well Site  
Event ID 240424-Event0001

**RECLAIMED SURFACE - ACCESS ROAD**

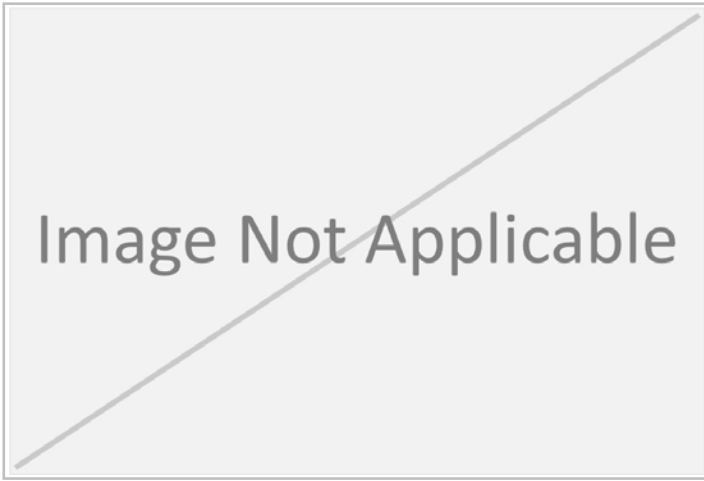
Access Road - Entrance Facing Disturbance



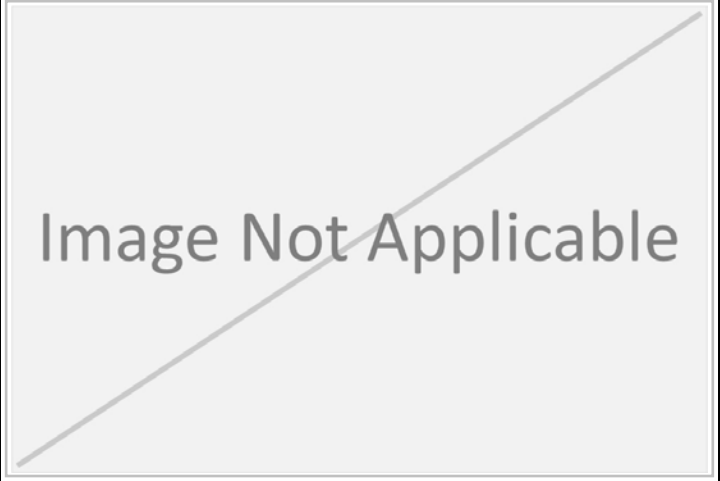
Access Road - Disturbance Facing Entrance



Access Road - Center Facing Disturbance



Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240424-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240424-Event0001

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



Apr 24, 2024 at 9:36:52 AM  
County Road 23  
Milliken, CO 80543  
United States

**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240424-Event0001

**SECONDARY SITE RECOMMENDATION: Continue Monitoring**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	(05-123-20011)
<b>Location Type</b>	Tank Battery
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.294865, -104.848239
<b>Inspection Date</b>	4/24/2024
<b>Inspector Name</b>	Miranda Beard
<b>Inspection Coordinates</b>	40.29537626, -104.84756427

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The matt 1 Tank Battery is located within non-crop lands. The reclaim has a vegetative cover that is approximately 71% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the reference. Weeds were observed within both the reclaimed surface and the reference area and do not represent an immediate compliance concern. The most dominant weeds observed on location include Blue mustard (Chorispora tenella) - Undesirable, Kochia (Kochia scoparia) - Undesirable, and Scotch thistle (Onopordum acanthium) - Noxious List B. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event that regions are left intentionally bare, a surface owner consultation is advised to clarify desired final land use. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 4

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Continue Monitoring	Reclaim vegetation establishment approaches but does not yet meet vegetation cover, composition, and/or health of the reference area.	Annual grasses are growing in the reclaim. However, the portion of the reclaim previously used as a stockpile and the location of the tank battery still remain mostly barren.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Weeds are over-represented within the reclaim when compared to the reference.	Noxious thistles and undesirable vegetation are present along the access road north of the Location. Recommend spot treating thistles to reduce potential encroachment into the reclaim.

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - matt 1

ECMC Location ID 331001  
 API (05-123-20011)  
 Location Type Tank Battery  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 25%  
 What is the % vegetation cover of the reference? 35%  
 What is the percent cover of the reclaim compared to the reference? afraid  
 Is the vegetative cover and composition of the reclaim comparable to the reference? Yes  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? No  
 Most common weed species observed: Blue mustard (Chorispora tenella) - Undesirable  
 Second most common weed species observed: Kochia (Kochia scoparia) - Undesirable  
 Third most common weed species observed: Scotch thistle (Onopordum acanthium) - Noxious List B

### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

### Other Comments

Tire tracks remain present in the southern and norther portion of the reclaim but show early signs of vegetative regrowth.

FAA Certificate # 4855757  
 Issuance Date 4/17/2023  
 Drone Make/Model DJI Phantom 4 V2 Pro  
 Registration # 0

Reviewed By VS-240426  
 Form ID b5d322f3-f805-4ca9-92b1-c1801b943f58  
 Event ID 240424-Event0002

Functional ID CD2BBFA8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID (blank)  
 Confluence ID PDC046724L2BAT

Vegetation Progress Evaluation - Photo Log

Date Collected: 4/24/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240424-Event0002

DISTURBANCE OVERVIEW

Aerial Image – Historical Surface Disturbance



Aerial Image – Current Surface Disturbance



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240424-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



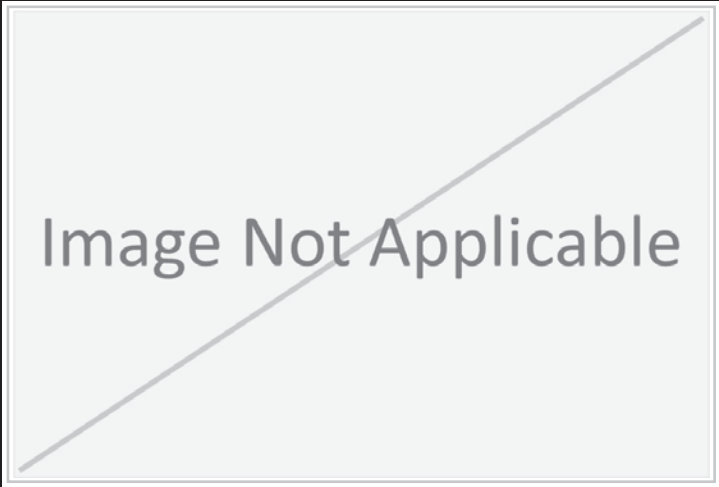
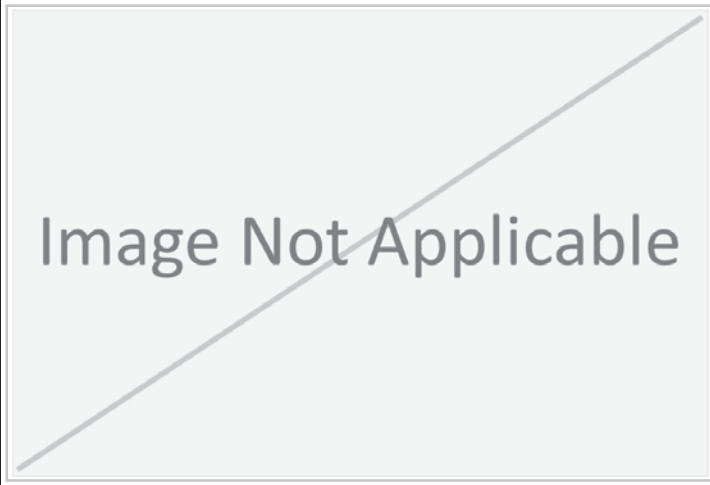
East of Disturbance - Facing West



### Vegetation Progress Evaluation - Photo Log

Date Collected: 4/24/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240424-Event0002

RECLAIMED SURFACE - ACCESS ROAD	
Access Road - Entrance Facing Disturbance	Access Road - Center Facing Entrance
	
Access Road - Center Facing Disturbance	Access Road - End Facing Entrance
	

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name MATT 1  
 Location Type Production Facility  
 Event ID 240424-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240424-Event0002

**PRIMARY SITE RECOMMENDATION: Continue Monitoring**

**Recommendation Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 4/24/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240424-Event0002

**SECONDARY SITE RECOMMENDATION: Maintenance**

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.295627, -104.846841
<b>Inspection Date</b>	5/31/2024
<b>Inspector Name</b>	Vincent Sepe
<b>Inspection Coordinates</b>	40.29618761, -104.84727783

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The matt 1 Well is located within non-crop lands. The reclaim has a vegetative cover that is approximately 68% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. Weeds were observed within both the reclaimed surface and the reference area and do not represent an immediate compliance concern as vegetation community composition is comparable. The most dominant weeds observed on location include Kochia (Kochia scoparia) - Undesirable, Musk thistle (Carduus nutans) - Noxious List B, and Perennial pepperweed (Lepidium latifolium) - Noxious List B. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event that regions are left intentionally bare, a surface owner consultation is advised to clarify desired final land use. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Weeds are over-represented within the reclaim when compared to the reference.	Noxious thistles, kochia, perennial pepperweed, and leafy spurge have colonized throughout the disturbance. Confluence recommends a broad leafed herbicide application to mitigate further establishment of undesirables throughout the location.

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Vehicle damage from recent mowing observed at site entrance. Bare areas present at well head and immediately adjacent to well head. Confluence recommends interseeding throughout bare areas to increase cover of native grasses.

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - matt 1

ECMC Location ID 331001  
 API 05-123-20011  
 Location Type Well  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 65%  
 What is the % vegetation cover of the reference? 95%  
 What is the percent cover of the reclaim compared to the reference? 68%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? No  
 Most common weed species observed: Kochia (Kochia scoparia) - Undesirable  
 Second most common weed species observed: Musk thistle (Carduus nutans) - Noxious List B  
 Third most common weed species observed: Perennial pepperweed (Lepidium latifolium) - Noxious List B

### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

### Other Comments

New prairie dog burrows present within disturbance area.

FAA Certificate # 4634270  
 Issuance Date 3/8/2022  
 Drone Make/Model DJI Mavic Air 2  
 Registration # FA3KFWEK7P

Reviewed By VS-240621  
 Form ID e0fb4edd-4529-4ae3-bd9b-2d2206f3fe4b  
 Event ID 240529-Event0001

Functional ID CD2BBFA8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID E456D67075A44CFSAAEE130B03FC672EB  
 Confluence ID PDC046724L1WEL

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240529-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240529-Event0001

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240529-Event0001

**RECLAIMED SURFACE - ACCESS ROAD**

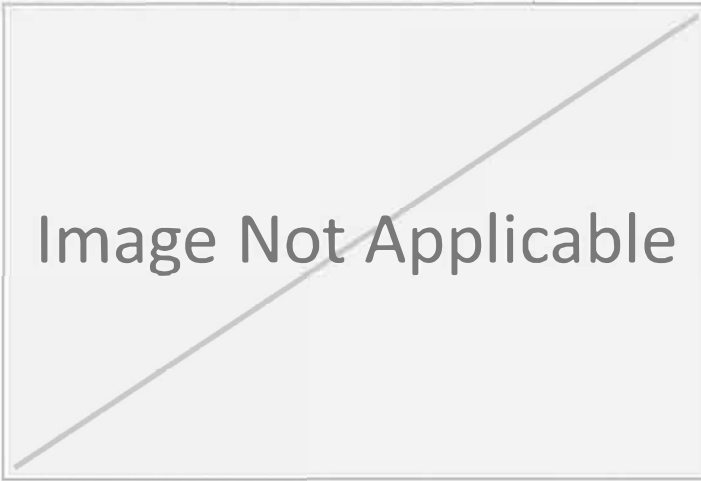
Access Road - Entrance Facing Disturbance



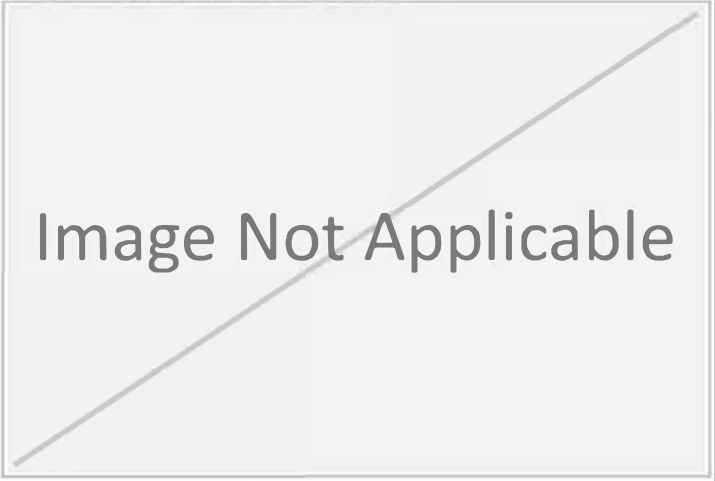
Access Road - Disturbance Facing Entrance



Access Road - Center Facing Disturbance



Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240529-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240529-Event0001

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



*NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.*

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name Matt 1

Location Type Well Site

Event ID 240529-Event0001

**SECONDARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



*NOTE: The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.*

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	MATT 1
<b>ECMC Location ID</b>	331001
<b>API</b>	(05-123-20011)
<b>Location Type</b>	Tank Battery
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.294865, -104.848239
<b>Inspection Date</b>	5/31/2024
<b>Inspector Name</b>	Miranda Beard
<b>Inspection Coordinates</b>	40.29618771, -104.84728952

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The MATT 1 Tank Battery is located within non-crop lands. The reclaim has a vegetative cover that is approximately 100% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the reference. No undesirable or noxious weed species were observed within the reclaimed surface. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event that regions are left intentionally bare, a surface owner consultation is advised to clarify desired final land use. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Quantitative Vegetation Survey	Non-crop, perennial vegetation observed within reclaimed surface appears to be comparable to reference vegetation cover, composition, and vigor.	Reclaim surface appears to have an abundance of desirable grasses compared to the reference. Confluence recommends a QVS to compare vegetation composition between the reclaim and reference.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Tire tracks are present due to recent mowing. Confluence recommends interseeding to alleviate damage from mowing and increase cover of desirable vegetation within the bare patches.

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

## Vegetation Progress Evaluation - MATT 1

ECMC Location ID 331001  
 API (05-123-20011)  
 Location Type Tank Battery  
 Reclamation Phase Final Reclaim

### Site Overview

Is the access road or access point present?	No
Is the access road or access point in use?	No
Is the surface owner using the disturbance area?	No

### Vegetation Assessment

Current Land Use	Non-crop
Crop Type	NA
What is the % vegetation cover of the reclaimed disturbance?	80%
What is the % vegetation cover of the reference?	80%
What is the percent cover of the reclaim compared to the reference?	100%
Is the vegetative cover and composition of the reclaim comparable to the reference?	Yes
Are vegetation health and vigor of the reclaim comparable to the reference?	Yes
Are weeds present within the reclaim?	No
Are weedy species over represented within the reclaimed surface when compared to the reference?	No
Most common weed species observed:	NA
Second most common weed species observed:	NA
Third most common weed species observed:	NA

### Housekeeping

Is oil and gas equipment present on the location?	No
What oil and gas equipment is present?	NA
Are livestock or wildlife disturbances evident?	No
Is there surface owner trash or debris present on the reclaimed surface?	No

### Soils

Has the reclaimed surface been disturbed by vehicles?	Yes
Was subsidence observed within the reclaimed surface?	No
Are cut and fill slopes evident?	No
Are any erosive features present on or adjacent to the reclaimed surface?	No
Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface?	No
Is soil staining and/or discoloration present on or adjacent to the reclaimed surface?	No
Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface?	Yes

### Other Comments

QVS to be completed onsite at time of VPE inspection.

FAA Certificate # 4855757  
 Issuance Date 4/17/2023  
 Drone Make/Model DJI Phantom 4 V2 Pro  
 Registration # FA3NEEPPFH

Reviewed By VS-240621  
 Form ID 52d7c929-a678-4086-b64f-fb0235bd5360  
 Event ID 240529-Event0002

Functional ID CD2BBF8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID (blank)  
 Confluence ID PDC046724L2BAT

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240529-Event0002

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240529-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



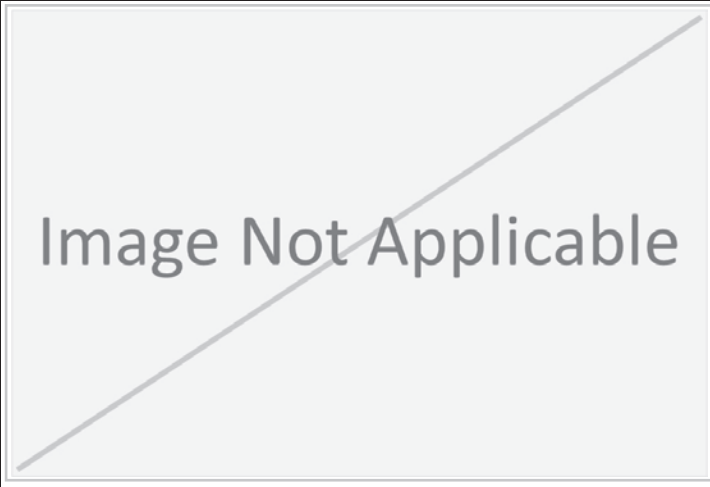
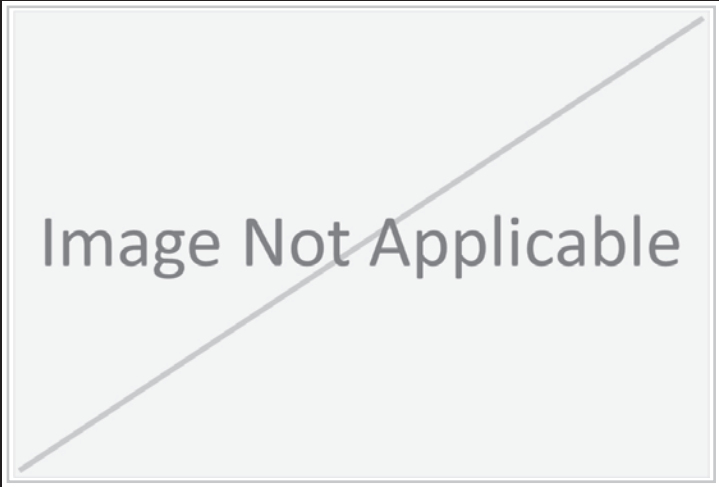
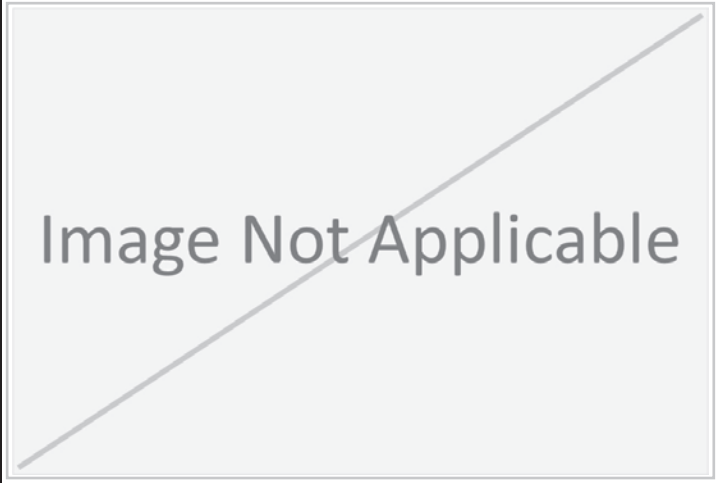
East of Disturbance - Facing West



### Vegetation Progress Evaluation - Photo Log

Date Collected: 5/31/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240529-Event0002

RECLAIMED SURFACE - ACCESS ROAD	
Access Road - Entrance Facing Disturbance	Access Road - Center Facing Entrance
	
Access Road - Center Facing Disturbance	Access Road - End Facing Entrance
	

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240529-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240529-Event0002

**PRIMARY SITE RECOMMENDATION: Quantitative Vegetation Survey**

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 5/31/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240529-Event0002

**SECONDARY SITE RECOMMENDATION: Maintenance**

Recommendation Overview



Recommendation Context



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.295627, -104.846841
<b>Inspection Date</b>	7/31/2024
<b>Inspector Name</b>	Sam Knuth
<b>Inspection Coordinates</b>	40.29624714, -104.84747051

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The matt 1 Well is located within non-crop lands. The reclaim has a vegetative cover that is approximately 68% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. Weeds were observed within the reclaimed surface and are over represented in the plant community when compared to the reference. Weed management is recommended to mitigate undesirable vegetation. The most dominant weeds observed on location include Kochia (Kochia scoparia) - Undesirable, Russian thistle (Salsola tragus L.) - Undesirable, and Musk thistle (Carduus nutans) - Noxious List B. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event that regions are left intentionally bare, a surface owner consultation is advised to clarify desired final land use. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Weeds are over-represented within the reclaim when compared to the reference.	Kochia and several thistle species are present within the reclaim and are overrepresented when compared with the surrounding reference area. Confluence recommends spot treatment of thistles to contain their spread.

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Vehicle tracks are present within the reclaim. In addition, bare spots are present within the reclaim. Confluence recommends interseeding to increase desirable cover in these areas.

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA



**ECMC Location ID** 331001  
**API** 05-123-20011  
**Location Type** Well  
**Reclamation Phase** Final Reclaim

#### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

#### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 65%  
 What is the % vegetation cover of the reference? 95%  
 What is the percent cover of the reclaim compared to the reference? 68%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes  
 Most common weed species observed: Kochia (Kochia scoparia) - Undesirable  
 Second most common weed species observed: Russian thistle (Salsola tragus L.) - Undesirable  
 Third most common weed species observed: Musk thistle (Carduus nutans) - Noxious List B

#### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

#### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

#### Other Comments

Two prairie dog holes are present on site and may present issues in the future. Site was also mowed this year and this appears to have repressed much of the kochia present on site.

**FAA Certificate #** 4931260  
**Issuance Date** 12/8/2023  
**Drone Make/Model** DJI Mavic Air 2  
**Registration #** FA33K9MMKA

**Reviewed By** VS-240801  
**Form ID** 0366523c-7de8-47e8-9e84-2b42599677dc  
**Event ID** 240724-Event0001

**Functional ID** CD2BBFA8C9F843FEA064EC1E2A20FD57  
**Asset/Well ID** E456D67075A44CFSAAEE130B03FC672EB  
**Confluence ID** PDC046724L1WEL



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240724-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240724-Event0001

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East





East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1  
 Location Type Well Site  
 Event ID 240724-Event0001

RECLAIMED SURFACE - ACCESS ROAD	
Access Road - Entrance Facing Disturbance	Access Road - Center Facing Entrance
	
Access Road - Center Facing Disturbance	Access Road - End Facing Entrance
Image Not Applicable	Image Not Applicable

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240724-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240724-Event0001

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240724-Event0001

**SECONDARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240724-Event0001

**ADDITIONAL SITE PHOTOS**

Prairie dog hole



Prairie dog hole



Image Not Applicable

Image Not Applicable

## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	(05-123-20011)
<b>Location Type</b>	Tank Battery
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.294865, -104.848239
<b>Inspection Date</b>	7/31/2024
<b>Inspector Name</b>	Sam Knuth
<b>Inspection Coordinates</b>	40.29618837, -104.84727369

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The matt 1 Tank Battery is located within non-crop lands. The reclaim has a vegetative cover that is approximately 100% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and vigor of the reclaim is comparable to the reference. No undesirable or noxious weed species were observed within the reclaimed surface. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event that regions are left intentionally bare, a surface owner consultation is advised to clarify desired final land use. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Quantitative Vegetation Survey	Non-crop, perennial vegetation observed within reclaimed surface appears to be comparable to reference vegetation cover, composition, and vigor.	Reclaim surface appears to match surrounding reference area. Confluence recommends a QVS to further compare reclaim and reference areas.

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Some bare spots present on site along with two prairie dog burrows and vehicle tracks. Confluence recommends interseeding to enable positive revegetation.

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA



**ECMC Location ID** 331001  
**API** (05-123-20011)  
**Location Type** Tank Battery  
**Reclamation Phase** Final Reclaim

#### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

#### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 65%  
 What is the % vegetation cover of the reference? 65%  
 What is the percent cover of the reclaim compared to the reference? 100%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? Yes  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? No  
 Are weedy species over represented within the reclaimed surface when compared to the reference? No  
 Most common weed species observed: NA  
 Second most common weed species observed: NA  
 Third most common weed species observed: NA

#### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

#### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

#### Other Comments

Prairie dogs observed onsite. Two burrows at this time. May warrant further investigation/maintenance in the future.

FAA Certificate # 4931260  
 Issuance Date 12/8/2023  
 Drone Make/Model DJI Mavic Air 2  
 Registration # FA33K9MMKA

Reviewed By VS-240801  
 Form ID 98ee44b0-54d3-43d7-ad8f-24a1ae04cf72  
 Event ID 240724-Event0002

Functional ID CD2BBF8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID (blank)  
 Confluence ID PDC046724L2BAT



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240724-Event0002

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240724-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West

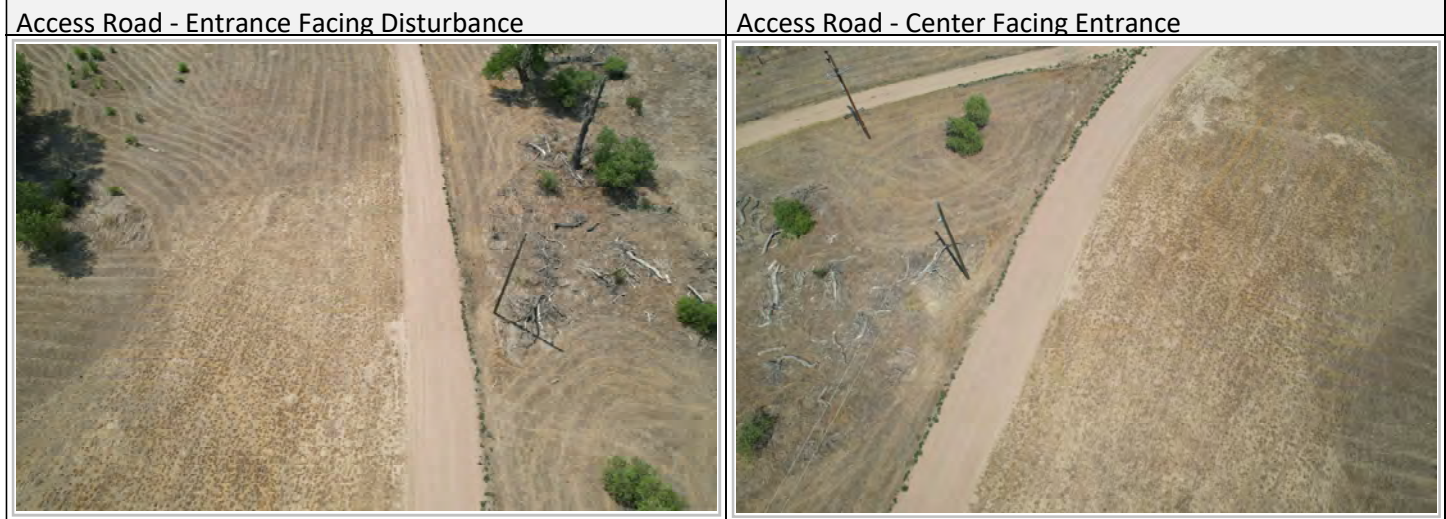


**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name MATT 1  
 Location Type Production Facility  
 Event ID 240724-Event0002

**RECLAIMED SURFACE - ACCESS ROAD**



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240724-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240724-Event0002

**PRIMARY SITE RECOMMENDATION: Quantitative Vegetation Survey**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 7/31/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240724-Event0002

**SECONDARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.



## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.295627, -104.846841
<b>Inspection Date</b>	8/28/2024
<b>Inspector Name</b>	Sam Knuth
<b>Inspection Coordinates</b>	40.29607305, -104.84737664

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The matt 1 Well is located within non-crop lands. The reclaim has a vegetative cover that is approximately 68% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. Weeds were observed within the reclaimed surface and are over represented in the reclaim when compared to the reference. Weed management is recommended to mitigate undesirable vegetation. The most dominant weeds observed on location include Kochia (*Kochia scoparia*) - Undesirable, Russian thistle (*Salsola tragus*) - Undesirable, and Musk thistle (*Carduus nutans*) - Noxious List B. Oil and gas equipment was not observed on Location. No livestock, wildlife, or surface owner debris were observed on Location. The reclaim has been significantly degraded by vehicle traffic and rutting associated with previous mowing efforts. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

<b>Primary Recommendation:</b> Maintenance	<b>Rationale:</b> Weeds are over-represented within the reclaim when compared to the reference.	<b>Description:</b> Kochia and Russian thistle are dominant at the former access point along the western edge of the reclaim. Kochia is also present throughout the reclaim. Confluence recommends hand pulling and properly disposing of mature individuals where available as well as a herbicide treatment targeting remaining individuals. An integrated weed management plan and consistent mechanical and herbicidal treatments will be required to suppress these species.
---	--	--

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

<b>Secondary Recommendation:</b> Maintenance	<b>Rationale:</b> Vehicle damage to reclaim surface observed.	<b>Description:</b> Vehicle tracks from previous mowing operations are present within the reclaim. In addition, bare spots are present within the reclaim. Confluence recommends collecting agronomic focused soil samples in the reclaim and reference to identify soil suitability and nutrient availability. Sample results will guide soil amendment recommendations for a future application that can be combined with an interseeding effort at a seasonally appropriate time.
---	--	---

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

<b>Tertiary Recommendation:</b> NA	<b>Rationale:</b> NA	<b>Description:</b> NA
---------------------------------------	-------------------------	---------------------------

Maintenance Contract Type: NA  
 Square Foot Estimate: NA



ECMC Location ID 331001  
 API 05-123-20011  
 Location Type Well  
 Reclamation Phase Final Reclaim

#### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

#### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 65%  
 What is the % vegetation cover of the reference? 95%  
 What is the percent cover of the reclaim compared to the reference? 68%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes  
 Most common weed species observed: Kochia (*Kochia scoparia*) - Undesirable  
 Second most common weed species observed: Russian thistle (*Salsola tragus L.*) - Undesirable  
 Third most common weed species observed: Musk thistle (*Carduus nutans*) - Noxious List B

#### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? No  
 Is there surface owner trash or debris present on the reclaimed surface? No

#### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

#### Other Comments

- Prairie dog holes are still present on site but do not appear to have expanded in the last month.  
 - Bull thistle appears to have been successfully treated. Two individuals observed and hand-pulled.

FAA Certificate # 4931260  
 Issuance Date 12/8/2023  
 Drone Make/Model DJI Mavic Air 2  
 Registration # FA33K9MMKA

Reviewed By VS-240829  
 Form ID 8afeb0c3-1642-4fac-ac6b-8ac3c2157081  
 Event ID 240828-Event0001

Functional ID CD2BBFA8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID E456D67075A44CFSAAEE130B03FC672EB  
 Confluence ID PDC046724L1WEL



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240828-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

Vegetation Progress Evaluation - Photo Log

Date Collected: 8/28/2024

Operator Location Name matt 1

Location Type Well Site

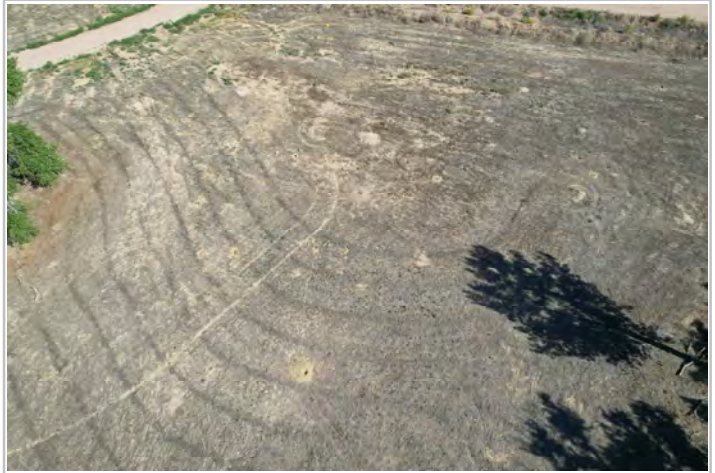
Event ID 240828-Event0001

RECLAIMED SURFACE - DIRECTIONAL PHOTOS

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

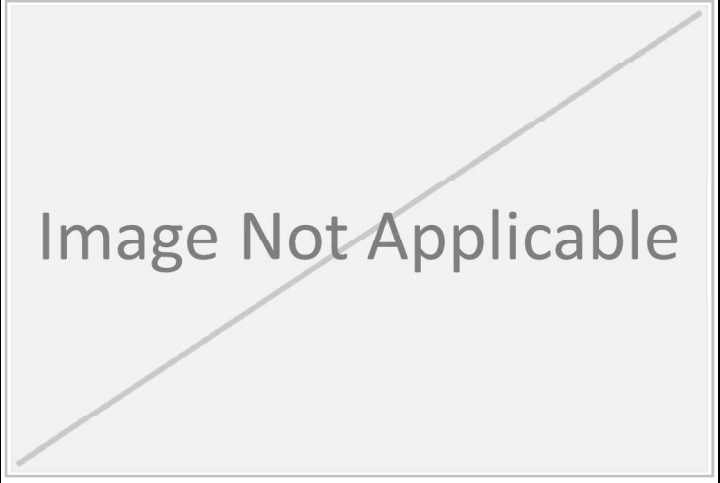
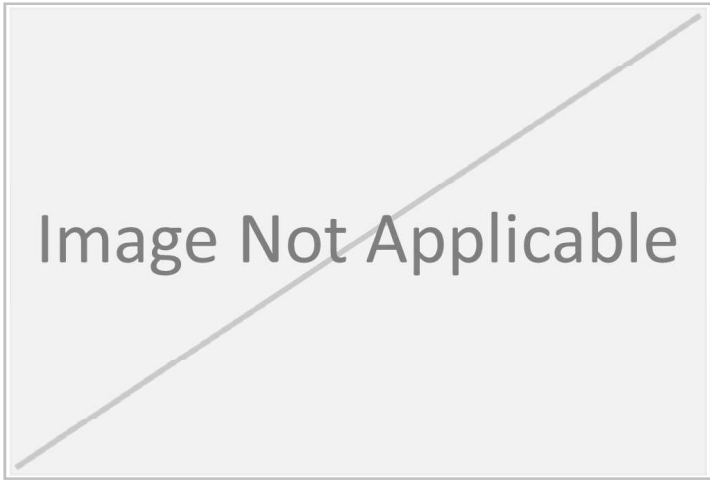
Operator Location Name matt 1  
Location Type Well Site  
Event ID 240828-Event0001

**RECLAIMED SURFACE - ACCESS ROAD**

Access Road - Entrance Facing Disturbance      Access Road - Center Facing Entrance



Access Road - Center Facing Disturbance      Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240828-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240828-Event0001

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240828-Event0001

**SECONDARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240828-Event0001

**ADDITIONAL SITE PHOTOS**

Prairie dog burrow



Prairie dog burrow and vehicle tracks



Vehicle tracks



Vehicle tracks



## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	Matt 1
<b>ECMC Location ID</b>	331001
<b>API</b>	(05-123-20011)
<b>Location Type</b>	Tank Battery
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.294865, -104.848239
<b>Inspection Date</b>	8/28/2024
<b>Inspector Name</b>	Sam Knuth
<b>Inspection Coordinates</b>	40.29623918, -104.84721755

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmanned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The Matt 1 Tank Battery is located within non-crop lands. The reclaim has a vegetative cover that is approximately 77% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. No undesirable or noxious weed species were observed within the reclaimed surface. Oil and gas equipment was not observed on Location. Livestock and/or wildlife impacts were observed within the reclaimed surface. The reclaimed surface has been significantly degraded by vehicle traffic and rutting associated with previous mowing efforts. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Vehicle tracks from previous mowing operations are present within the reclaim. In addition, bare spots are present within the reclaim. Confluence recommends collecting agronomic focused soil samples in the reclaim and reference to identify soil suitability and nutrient availability. Sample results will guide soil amendment recommendations for a future application that can be combined with an Interseeding effort at a seasonally appropriate time.

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA



**ECMC Location ID** 331001  
**API** (05-123-20011)  
**Location Type** Tank Battery  
**Reclamation Phase** Final Reclaim

#### Site Overview

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

#### Vegetation Assessment

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 50%  
 What is the % vegetation cover of the reference? 65%  
 What is the percent cover of the reclaim compared to the reference? 77%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? No  
 Are weedy species over represented within the reclaimed surface when compared to the reference? No  
 Most common weed species observed: NA  
 Second most common weed species observed: NA  
 Third most common weed species observed: NA

#### Housekeeping

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? Yes  
 Is there surface owner trash or debris present on the reclaimed surface? No

#### Soils

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

#### Other Comments

- Prairie dogs are active onsite and in the surrounding areas, two burrows observed at this time. They do not appear to have spread further in the last month.

**FAA Certificate #** 4931260  
**Issuance Date** 12/8/2023  
**Drone Make/Model** DJI Mavic Air 2  
**Registration #** FA33K9MMKA

**Reviewed By** VS-240829  
**Form ID** 2909cb57-d9a7-4899-bd0d-cc52531bf4f0  
**Event ID** 240828-Event0002

**Functional ID** CD2BBF8C9F843FEA064EC1E2A20FD57  
**Asset/Well ID** (blank)  
**Confluence ID** PDC046724L2BAT



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name MATT 1  
Location Type Production Facility  
Event ID 240828-Event0002

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240828-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name MATT 1

Location Type Production Facility

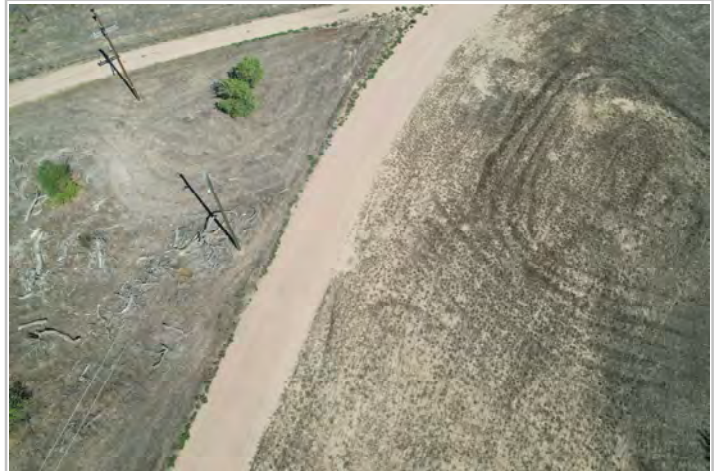
Event ID 240828-Event0002

**RECLAIMED SURFACE - ACCESS ROAD**

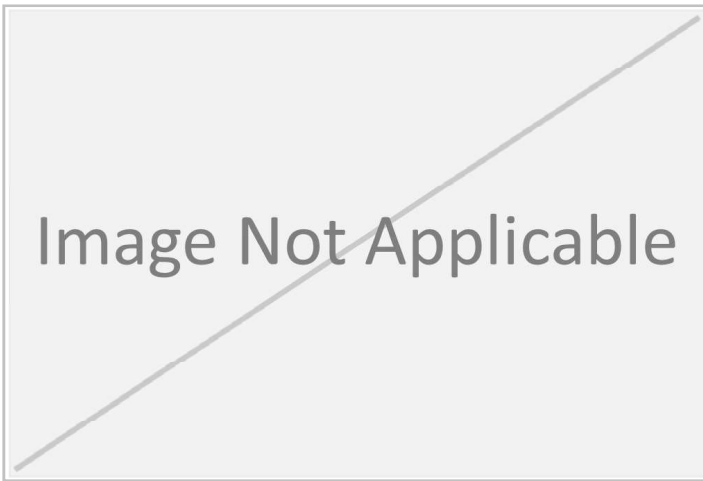
Access Road - Entrance Facing Disturbance



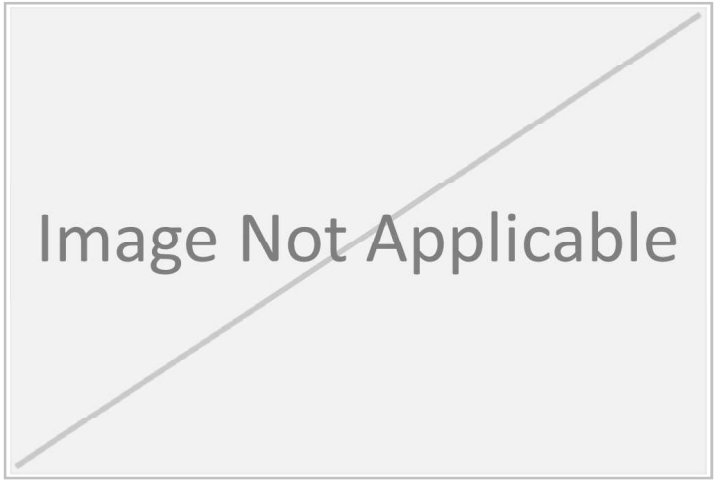
Access Road - Center Facing Entrance



Access Road - Center Facing Disturbance



Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240828-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240828-Event0002

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 8/28/2024

Operator Location Name MATT 1

Location Type Production Facility

Event ID 240828-Event0002

**ADDITIONAL SITE PHOTOS**

Prairie dog burrow



Aerial view of prairie dog burrows



Pedestrian view of reclaim facing south



Pedestrian view of reclaim facing north



## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	MATT 1
<b>ECMC Location ID</b>	331001
<b>API</b>	05-123-20011
<b>Location Type</b>	Well
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.295627, -104.846841
<b>Inspection Date</b>	9/25/2024
<b>Inspector Name</b>	Sam Knuth
<b>Inspection Coordinates</b>	40.29606534, -104.847402

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmaned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The MATT 1 Well is located within non-crop lands. The reclaim has a vegetative cover that is approximately 63% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. Weeds were observed within the reclaimed surface and are over represented in the plant community when compared to the reference. Weed management is recommended to mitigate undesirable vegetation. The most dominant weeds observed on location include Kochia (Kochia scoparia) - Undesirable and Russian thistle (Salsola tragus L.) - Undesirable. Wildlife impacts were observed within the reclaimed surface, new prairie dog burrows observed. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Weeds are over-represented within the reclaim when compared to the reference.	Kochia and Russian thistle are dominant at the former access point along the western edge of the reclaim. Kochia is also present throughout the reclaim. Confluence recommends a herbicide treatment targeting remaining individuals. An integrated weed management plan and consistent mechanical and herbicidal treatments will be required to suppress these species.

Maintenance Contract Type: Level 1 - Limited Authorization. (Use for jobs that cost ~\$500, additional inspection, and/or weed management)  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Vehicle tracks and a small debris pile were observed on the reclaim on the western edge that were not seen in previous inspections. Vehicle tracks from previous mowing operations are also present throughout the reclaim. Confluence recommends collecting agronomic focused soil samples in the reclaim and reference to identify soil suitability and nutrient availability. Sample results will guide soil amendment recommendations for a future application that can be combined with an interseeding effort at a seasonally appropriate time.

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA



**ECMC Location ID** 331001  
**API** 05-123-20011  
**Location Type** Well  
**Reclamation Phase** Final Reclaim

**Site Overview**

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

**Vegetation Assessment**

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 50%  
 What is the % vegetation cover of the reference? 80%  
 What is the percent cover of the reclaim compared to the reference? 63%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? Yes  
 Are weedy species over represented within the reclaimed surface when compared to the reference? Yes  
 Most common weed species observed: Kochia (Kochia scoparia) - Undesirable  
 Second most common weed species observed: Russian thistle (Salsola tragus L.) - Undesirable  
 Third most common weed species observed: NA

**Housekeeping**

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? Yes  
 Is there surface owner trash or debris present on the reclaimed surface? No

**Soils**

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

**Other Comments**

Prairie dogs have spread within the past month. There are now approximately 6 holes within the reclaim.

*FAA Certificate #* 4931260  
*Issuance Date* 12/8/2023  
*Drone Make/Model* DJI Mavic Air 2  
*Registration #* FA33K9MMKA

*Reviewed By* SK-240930  
*Form ID* 8a08897b-1603-447a-a833-373489b512da  
*Event ID* 240925-Event0001

*Functional ID* CD2BBFA8C9F843FEA064EC1E2A20FD57  
*Asset/Well ID* E456D67075A44CF5AEE130B03FC672EB  
*Confluence ID* PDC046724L1WEL



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name matt 1  
Location Type Well Site  
Event ID 240925-Event0001

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240925-Event0001

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

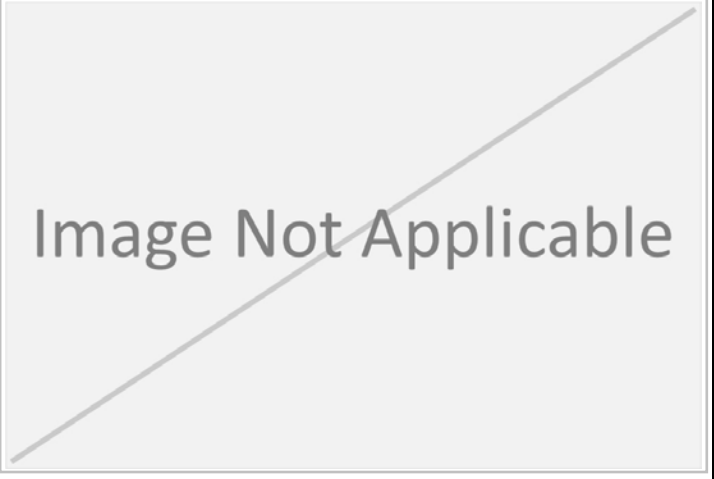
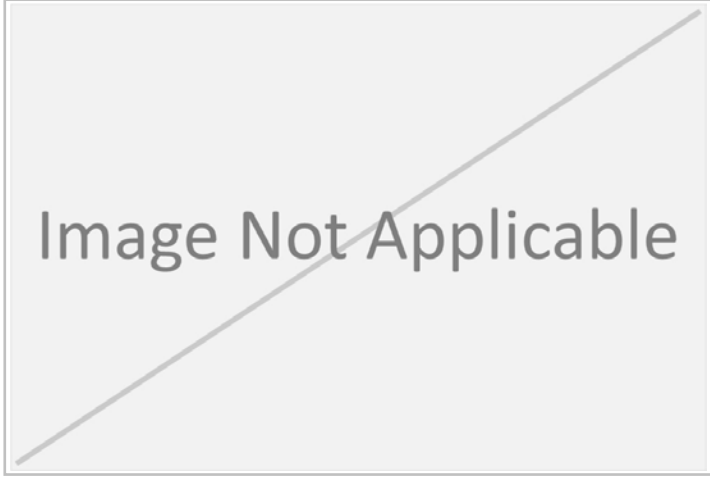
Operator Location Name matt 1  
 Location Type Well Site  
 Event ID 240925-Event0001

**RECLAIMED SURFACE - ACCESS ROAD**

Access Road - Entrance Facing Disturbance      Access Road - Center Facing Entrance



Access Road - Center Facing Disturbance      Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240925-Event0001

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240925-Event0001

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240925-Event0001

**SECONDARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name matt 1

Location Type Well Site

Event ID 240925-Event0001

**ADDITIONAL SITE PHOTOS**

Prairie dog overview



Prairie dog context



Bare spot



Additional context for bare areas



## Vegetation Progress Evaluation

<b>Client</b>	PDC Energy, Inc. (69175)
<b>Operator Location Name</b>	MATT 1
<b>ECMC Location ID</b>	331001
<b>API</b>	(05-123-20011)
<b>Location Type</b>	Tank Battery
<b>Reclamation Phase</b>	Final Reclaim
<b>Location Coordinates</b>	40.294865, -104.848239
<b>Inspection Date</b>	9/25/2024
<b>Inspector Name</b>	Sam Knuth
<b>Inspection Coordinates</b>	40.29622254, -104.8473195

This survey was conducted to evaluate reclamation implementation and/ or compliance with Colorado Energy & Carbon Management Commission (ECMC) rules for reclamation at the surface disturbance of the above referenced location (Location). This qualitative assessment was conducted utilizing an unmaned aerial system (UAS or drone) or pedestrian survey based on site conditions and safety considerations. This report provides a Location site summary, recommendations for the Location, a summary of findings, and a photo log depicting site conditions.

### Site Summary

The MATT 1 Tank Battery is located within non-crop lands. The reclaim has a vegetative cover that is approximately 77% of the equivalent reference area. Based on ocular assessment, vegetative cover, composition, health, and/or vigor of the reclaim is not yet comparable to the reference. No undesirable or noxious weed species were observed within the reclaimed surface. Wildlife impacts were observed within the reclaimed surface, new prairie dog burrows observed on location. The reclaimed surface has been degraded by vehicle traffic and associated rutting. Bare areas greater than or equal to 1 square meter were observed within the reclaimed surface. In the event bare regions are the result of unsuccessful reclamation efforts, a soil analysis may be recommended to determine if compaction and/or if physical, chemical, and/or biological properties of Location soils are insufficient to support plant growth and crop production.

Reclamation Benchmark Phase: 3

### Recommendation Detail

Recommendations identify the highest leverage action steps suggested to move the site to the desired final land use and compliance with ECMC rules for final reclamation. Sites may have up to three recommendations, ranked by priority.

Primary Recommendation:	Rationale:	Description:
Maintenance	Vehicle damage to reclaim surface observed.	Additional vehicle tracks are present that were not seen in previous inspections. Also, vehicle tracks from previous mowing operations are still present. Confluence recommends collecting agronomic focused soil samples in the reclaim and reference to identify soil suitability and nutrient availability. Sample results will guide soil amendment recommendations for a future application that can be combined with an interseeding effort at a seasonally appropriate time.

Maintenance Contract Type: Level 2 - Verbal Authorization. (Use for jobs that cost ~ \$500 - \$1,500, seeding, soil sampling, and/or erosion repair)  
 Square Foot Estimate: NA

Secondary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA

Tertiary Recommendation:	Rationale:	Description:
NA	NA	NA

Maintenance Contract Type: NA  
 Square Foot Estimate: NA



**ECMC Location ID** 331001  
**API** (05-123-20011)  
**Location Type** Tank Battery  
**Reclamation Phase** Final Reclaim

Square Foot Estimate: NA

**Site Overview**

Is the access road or access point present? No  
 Is the access road or access point in use? No  
 Is the surface owner using the disturbance area? No

**Vegetation Assessment**

Current Land Use Non-crop  
 Crop Type NA  
 What is the % vegetation cover of the reclaimed disturbance? 50%  
 What is the % vegetation cover of the reference? 65%  
 What is the percent cover of the reclaim compared to the reference? 77%  
 Is the vegetative cover and composition of the reclaim comparable to the reference? No  
 Are vegetation health and vigor of the reclaim comparable to the reference? Yes  
 Are weeds present within the reclaim? No  
 Are weedy species over represented within the reclaimed surface when compared to the reference? No  
 Most common weed species observed: NA  
 Second most common weed species observed: NA  
 Third most common weed species observed: NA

**Housekeeping**

Is oil and gas equipment present on the location? No  
 What oil and gas equipment is present? NA  
 Are livestock or wildlife disturbances evident? Yes  
 Is there surface owner trash or debris present on the reclaimed surface? No

**Soils**

Has the reclaimed surface been disturbed by vehicles? Yes  
 Was subsidence observed within the reclaimed surface? No  
 Are cut and fill slopes evident? No  
 Are any erosive features present on or adjacent to the reclaimed surface? No  
 Are soil crusts or salt accumulations present on or adjacent to the reclaimed surface? No  
 Is soil staining and/or discoloration present on or adjacent to the reclaimed surface? No  
 Are bare spots greater than or equal to 1 square meter present on or adjacent to the reclaimed surface? Yes

Prairie dogs appear to have spread and now occupy 4 holes within the reclaim.

FAA Certificate # 4931260  
 Issuance Date 12/8/2023  
 Drone Make/Model DJI Mavic Air 2  
 Registration # FA33K9MMKA

Reviewed By SK-240930  
 Form ID 83504c44-4791-4514-ofc0-9a35632771ff  
 Event ID 240925-Event0002

Functional ID CD2BBFA8C9F843FEA064EC1E2A20FD57  
 Asset/Well ID (blank)  
 Confluence ID PDC046724L2BAT



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Production Facility  
Event ID 240925-Event0002

**DISTURBANCE OVERVIEW**

**Aerial Image – Historical Surface Disturbance**



**Aerial Image – Current Surface Disturbance**



**NOTE:** Historical Aerial Image is oriented with cardinal direction north to the top. The current surface disturbance Image is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name Matt 1

Location Type Production Facility

Event ID 240925-Event0002

**RECLAIMED SURFACE - DIRECTIONAL PHOTOS**

North of Disturbance - Facing South



South of Disturbance - Facing North



West of Disturbance - Facing East



East of Disturbance - Facing West



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

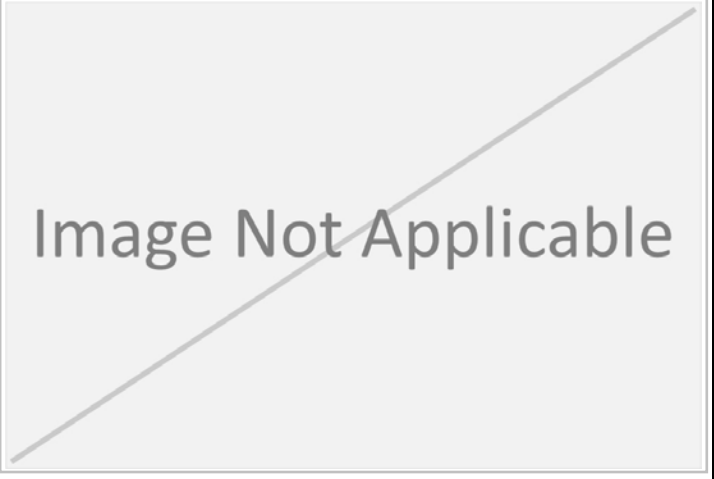
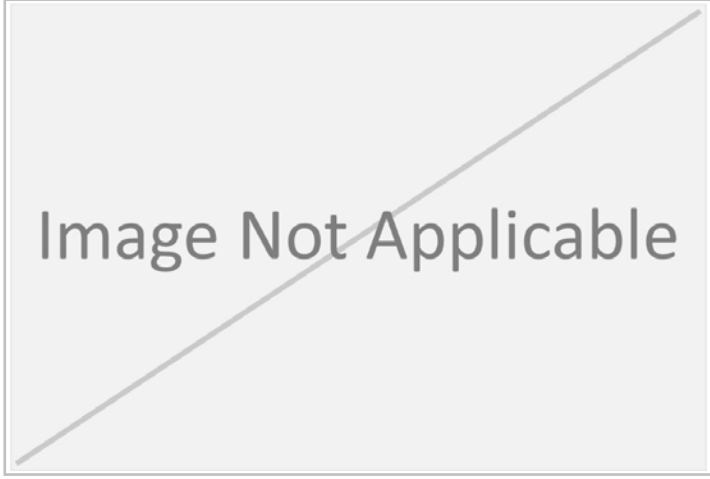
Operator Location Name Matt 1  
Location Type Production Facility  
Event ID 240925-Event0002

**RECLAIMED SURFACE - ACCESS ROAD**

Access Road - Entrance Facing Disturbance      Access Road - Center Facing Entrance



Access Road - Center Facing Disturbance      Access Road - End Facing Entrance



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name Matt 1

Location Type Production Facility

Event ID 240925-Event0002

**REFERENCE AREA - DIRECTIONAL PHOTOS**

Reference Area - North of Reclaimed Surface



Reference Area - South of Reclaimed Surface



Reference Area - West of Reclaimed Surface



Reference Area - East of Reclaimed Surface



**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name Matt 1

Location Type Production Facility

Event ID 240925-Event0002

**PRIMARY SITE RECOMMENDATION: Maintenance**

**Recommendation Aerial Overview**



**Recommendation Context**



**NOTE:** The Aerial Overview is not oriented to a specific cardinal direction. Georeferenced imagery is available upon request.

**Vegetation Progress Evaluation - Photo Log**

Date Collected: 9/25/2024

Operator Location Name Matt 1

Location Type Production Facility

Event ID 240925-Event0002

**ADDITIONAL SITE PHOTOS**

Prairie dog overview



Prairie dog context



Additional vehicle tracks overview



Additional vehicle tracks context



# Quantitative Vegetation Survey Reports



## Quantitative Vegetation Survey - Summary of Field Data

<b>Client</b>	PDC	<b>API(s)</b>	
<b>Operator Location</b>	Matt 1 well pad		05-123-20011
<b>CCC Disturbance ID</b>	PDC046724L1		
<b>ECMC Location ID</b>	331001		
<b>Reclamation Phase</b>	Final		
<b>Latitude/Longitude</b>	40.295617, -104.846833		
<b>Assessment Date</b>	5/31/2024		
<b>Inspector Name</b>	Vincent Sepe		

The survey methodology employed by Confluence is the line-point intercept method with plot-level species inventories conducted in accordance with the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems. Vegetation cover data is collected along each transect. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point. Transects are completed in the reclaim and reference areas. The desirable foliar cover (grasses, forbs, shrubs) in each survey transect area is calculated by summing the total number of foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

### Reclaim Area Vegetation

**Desirable Foliar Cover = 62%**

$$[(62 + 0 + 0) / 100] * 100$$

### Reference Area Vegetation

**Desirable Foliar Cover = 17%**

$$[(16 + 1 + 0) / 100] * 100$$

For the purposes of this assessment, undesirable foliar cover is defined as introduced and non-native to the lower 48 states by the USDA NRCS and is not considered beneficial for reclamation purposes. The undesirable foliar cover (%) in each survey transect area is calculated by summing the total number of undesirable foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

**Noxious Weed/Undesirable Foliar Cover = 18%**

$$[(13 + 5) / 100] * 100$$

**Noxious Weed/Undesirable Foliar Cover = 36%**

$$[(12 + 24) / 100] * 100$$

The percent of reference used to evaluate the reclamation area for compliance with ECMC Rule 1003.e(2) is calculated by dividing the averaged foliar cover (%) in the reclaim area by the averaged foliar cover (%) in the reference area. For this location:

**Percent of Reference = 365%**

$$62\% / 17\%$$

Cover Type	Reclaim Transect(s) x 2		Reference Transect(s) x 2	
	#	Overall Cover	#	Overall Cover
<b>Desirable Foliar Cover</b>	<b>62</b>	<b>62.0%</b>	<b>17</b>	<b>17.0%</b>
Grass	62	62.0%	16	16.0%
Forb	0	0.0%	1	1.0%
Shrub	0	0.0%	0	0.0%
<b>Desirable Basal Cover</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Grass	0	0.0%	0	0.0%
Forb	0	0.0%	0	0.0%
Shrub	0	0.0%	0	0.0%
<b>Undesirable Cover</b>	<b>13</b>	<b>13.0%</b>	<b>12</b>	<b>12.0%</b>
Foliar	13	13.0%	12	12.0%
Basal	0	0.0%	0	0.0%
<b>Unvegetated</b>	<b>20</b>	<b>20.0%</b>	<b>47</b>	<b>47.0%</b>
Bare Ground	16	16.0%	19	19.0%
Litter	4	4.0%	28	28.0%
Rock	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%
<b>Noxious Weeds Cover</b>	<b>5</b>	<b>5.0%</b>	<b>24</b>	<b>24.0%</b>
Foliar	5	5.0%	24	24.0%
Basal	0	0.0%	0	0.0%
<b>Foliar Quality Assurance Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Reclaim Transect Global ID(s):  
5055cb82-d361-4b4b-a268-92818e38026f,  
7d2f91ef-0c85-4ce5-abae-fa0603daec11,

Reference Transect Global ID(s):  
e5f88d16-f719-44cc-a26a-a9cea5376baf,  
632acc2d-15c6-4865-9c21-95c4d56f7d36,

Client PDC  
 Operator Location Matt 1 well pad  
 Assessment Date 5/31/2024  
 Inspector Name Vincent Sepe

**Transect Detail - Reclamation Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	20	20%	0	0%
Perennial	60	60%	0	0%
Unvegetated	20	20%	100	100%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	5	5%	0	0%
Annual	K OSC	<i>Kochia scoparia</i>	Kochia	Undesirable	13	13%	0	0%
Annual	SECE	<i>Secale cereale</i>	Cereal rye	Grass	2	2%	0	0%
NA	NA	NA	Bare Ground	Unvegetated	16	16%	61	61%
NA	NA	NA	Litter	Unvegetated	4	4%	39	39%
Perennial	AGCR	<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	20	20%	0	0%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	17	17%	0	0%
Perennial	NAVI4	<i>Nassella viridula</i>	Green Needlegrass	Grass	2	2%	0	0%
Perennial	PASM	<i>Pascopyrum smithii</i>	Western Wheatgrass	Grass	21	21%	0	0%

**Client** PDC  
**Operator Location** Reference location(s) for Matt 1 well pad  
**Assessment Date** 5/31/2024  
**Inspector Name** Vincent Sepe

**Transect Detail - Reference Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	31	31%	0	0%
Perennial	22	22%	0	0%
Unvegetated	47	47%	100	100%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	20	20%	0	0%
Annual	CHTE2	<i>Chorispora tenella</i>	Blue mustard	Undesirable	10	10%	0	0%
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	1	1%	0	0%
NA	NA	NA	Litter	Unvegetated	28	28%	73	73%
NA	NA	NA	Bare Ground	Unvegetated	19	19%	27	27%
Perennial	ARFR4	<i>Artemisia frigida</i>	Prairie sagewort	Forb	1	1%	0	0%
Perennial	CANU4	<i>Carduus nutans</i>	Musk thistle	Noxious List B	2	2%	0	0%
Perennial	COAR4	<i>Convolvulus arvensis</i>	Field bindweed	Noxious List C	1	1%	0	0%
Perennial	EUES	<i>Euphorbia esula</i>	Leafy spurge	Noxious List B	1	1%	0	0%
Perennial	NAVI4	<i>Nassella viridula</i>	Green Needlegrass	Grass	11	11%	0	0%
Perennial	PASM	<i>Pascopyrum smithii</i>	Western Wheatgrass	Grass	4	4%	0	0%
Perennial	POSE	<i>Poa secunda</i>	Sandberg bluegrass	Grass	1	1%	0	0%
Perennial	RUCR	<i>Rumex crispus</i>	Curly dock	Undesirable	1	1%	0	0%

Client PDC  
 Operator Location Information Matt 1 well pad  
 Assessment Date 5/31/2024  
 Inspector Name Vincent Sepe  
 Transect Length (m) 15

Reclaim Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
2	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
3	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
4	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
5	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
6	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
7	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
8	Unvegetated	Bare Ground	Unvegetated	Bare Ground
9	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
10	Unvegetated	Litter	Unvegetated	Litter
11	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
12	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
13	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
14	Unvegetated	Litter	Unvegetated	Litter
15	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
16	Unvegetated	Bare Ground	Unvegetated	Bare Ground
17	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
18	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
19	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
20	Unvegetated	Bare Ground	Unvegetated	Bare Ground
21	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Litter
22	Grass	Cereal rye (Secale cereale) - SECE	Unvegetated	Litter
23	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
24	Grass	Cereal rye (Secale cereale) - SECE	Unvegetated	Litter
25	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
26	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
27	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
28	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
29	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
30	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
31	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
32	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
33	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
34	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
35	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
36	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
37	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
38	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
39	Unvegetated	Bare Ground	Unvegetated	Bare Ground
40	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
41	Unvegetated	Bare Ground	Unvegetated	Bare Ground
42	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
43	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
44	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
45	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
46	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
47	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
48	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
49	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
50	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter

Client PDC  
 Operator Location Information Matt 1 well pad  
 Assessment Date 5/31/2024  
 Inspector Name Vincent Sepe  
 Transect Length (m) 15

**Reclaim Transect 2**

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
2	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
3	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
4	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Bare Ground
5	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
6	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
7	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
8	Unvegetated	Bare Ground	Unvegetated	Bare Ground
9	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
10	Unvegetated	Litter	Unvegetated	Litter
11	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
12	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
13	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
14	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
15	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
16	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
17	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
18	Unvegetated	Bare Ground	Unvegetated	Bare Ground
19	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Bare Ground
20	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
21	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
22	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
23	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
24	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
25	Unvegetated	Litter	Unvegetated	Litter
26	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
27	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
28	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Bare Ground
29	Unvegetated	Bare Ground	Unvegetated	Bare Ground
30	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
31	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
32	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
33	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
34	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
35	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
36	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
37	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
38	Unvegetated	Bare Ground	Unvegetated	Bare Ground
39	Unvegetated	Bare Ground	Unvegetated	Bare Ground
40	Unvegetated	Bare Ground	Unvegetated	Bare Ground
41	Unvegetated	Bare Ground	Unvegetated	Bare Ground
42	Unvegetated	Bare Ground	Unvegetated	Bare Ground
43	Unvegetated	Bare Ground	Unvegetated	Bare Ground
44	Unvegetated	Bare Ground	Unvegetated	Bare Ground
45	Unvegetated	Bare Ground	Unvegetated	Bare Ground
46	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
47	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
48	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
49	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
50	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground

Client PDC  
 Operator Location Information Matt 1 well pad  
 Assessment Date 5/31/2024  
 Inspector Name Vincent Sepe  
 Transect Length (m) 16

Reference Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Litter	Unvegetated	Litter
2	Unvegetated	Bare Ground	Unvegetated	Bare Ground
3	Unvegetated	Litter	Unvegetated	Litter
4	Unvegetated	Litter	Unvegetated	Litter
5	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
6	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
7	Unvegetated	Bare Ground	Unvegetated	Bare Ground
8	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
9	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
10	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
11	Unvegetated	Bare Ground	Unvegetated	Bare Ground
12	Grass	Sandberg bluegrass (Poa secunda) - POSE	Unvegetated	Litter
13	Noxious List B	Leafy spurge (Euphorbia esula) - EUES	Unvegetated	Litter
14	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
15	Unvegetated	Litter	Unvegetated	Litter
16	Unvegetated	Bare Ground	Unvegetated	Bare Ground
17	Unvegetated	Bare Ground	Unvegetated	Bare Ground
18	Unvegetated	Bare Ground	Unvegetated	Bare Ground
19	Unvegetated	Litter	Unvegetated	Litter
20	Unvegetated	Litter	Unvegetated	Litter
21	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
22	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
23	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
24	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
25	Forb	Prairie sagewort (Artemisia frigida) - ARFR4	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Unvegetated	Litter	Unvegetated	Litter
28	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Bare Ground
29	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
30	Unvegetated	Bare Ground	Unvegetated	Bare Ground
31	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
32	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
33	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
34	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
35	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
36	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
37	Unvegetated	Litter	Unvegetated	Litter
38	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
39	Unvegetated	Litter	Unvegetated	Litter
40	Unvegetated	Bare Ground	Unvegetated	Bare Ground
41	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
42	Unvegetated	Litter	Unvegetated	Litter
43	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
44	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
45	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
46	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
47	Unvegetated	Litter	Unvegetated	Litter
48	Unvegetated	Litter	Unvegetated	Litter
49	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
50	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter

Client PDC  
 Operator Location Information Matt 1 well pad  
 Assessment Date 5/31/2024  
 Inspector Name Vincent Sepe  
 Transect Length (m) 16

Reference Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
2	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
3	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
4	Unvegetated	Litter	Unvegetated	Litter
5	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
6	Unvegetated	Litter	Unvegetated	Litter
7	Unvegetated	Bare Ground	Unvegetated	Bare Ground
8	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
9	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
10	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
11	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
12	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
13	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
14	Unvegetated	Litter	Unvegetated	Litter
15	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
16	Unvegetated	Litter	Unvegetated	Litter
17	Unvegetated	Litter	Unvegetated	Litter
18	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
19	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
20	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
21	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
22	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
23	Unvegetated	Litter	Unvegetated	Litter
24	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
25	Unvegetated	Litter	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Unvegetated	Litter	Unvegetated	Litter
28	Unvegetated	Litter	Unvegetated	Litter
29	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
30	Unvegetated	Litter	Unvegetated	Litter
31	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
32	Unvegetated	Litter	Unvegetated	Litter
33	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
34	Unvegetated	Litter	Unvegetated	Litter
35	Unvegetated	Bare Ground	Unvegetated	Bare Ground
36	Unvegetated	Bare Ground	Unvegetated	Bare Ground
37	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
38	Noxious List C	Field bindweed (Convolvulus arvensis) - COAR4	Unvegetated	Bare Ground
39	Unvegetated	Litter	Unvegetated	Litter
40	Unvegetated	Bare Ground	Unvegetated	Bare Ground
41	Unvegetated	Bare Ground	Unvegetated	Bare Ground
42	Unvegetated	Bare Ground	Unvegetated	Bare Ground
43	Unvegetated	Bare Ground	Unvegetated	Bare Ground
44	Unvegetated	Litter	Unvegetated	Litter
45	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
46	Unvegetated	Bare Ground	Unvegetated	Bare Ground
47	Unvegetated	Bare Ground	Unvegetated	Bare Ground
48	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
49	Unvegetated	Bare Ground	Unvegetated	Bare Ground
50	Unvegetated	Bare Ground	Unvegetated	Bare Ground

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 1



Photo Point 2



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 3



Photo Point 4



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 5



Photo Point 6



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 7



Photo Point 8



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

## Quantitative Vegetation Survey - Summary of Field Data

<b>Client</b>	PDC	<b>API(s)</b>	
<b>Operator Location</b>	Matt 1 facility	<b>Associated well:</b>	05-123-20011
<b>CCC Disturbance ID</b>	PDC046724L2		
<b>ECMC Location ID</b>	331001		
<b>Reclamation Phase</b>	Final		
<b>Latitude/Longitude</b>	40.294917, -104.848208		
<b>Assessment Date</b>	5/31/2024		
<b>Inspector Name</b>	Miranda Beard		

The survey methodology employed by Confluence is the line-point intercept method with plot-level species inventories conducted in accordance with the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems. Vegetation cover data is collected along each transect. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point. Transects are completed in the reclaim and reference areas. The desirable foliar cover (grasses, forbs, shrubs) in each survey transect area is calculated by summing the total number of foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

### Reclaim Area Vegetation

**Desirable Foliar Cover = 58%**  
 $[(58 + 0 + 0) / 100] * 100$

### Reference Area Vegetation

**Desirable Foliar Cover = 17%**  
 $[(16 + 1 + 0) / 100] * 100$

For the purposes of this assessment, undesirable foliar cover is defined as introduced and non-native to the lower 48 states by the USDA NRCS and is not considered beneficial for reclamation purposes. The undesirable foliar cover (%) in each survey transect area is calculated by summing the total number of undesirable foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

**Noxious Weed/Undesirable Foliar Cover = 2%**  
 $[(1 + 1) / 100] * 100$

**Noxious Weed/Undesirable Foliar Cover = 36%**  
 $[(12 + 24) / 100] * 100$

The percent of reference used to evaluate the reclamation area for compliance with ECMC Rule 1003.e(2) is calculated by dividing the averaged foliar cover (%) in the reclaim area by the averaged foliar cover (%) in the reference area. For this location:

**Percent of Reference = 341%**

$58\% / 17\%$

Cover Type	Reclaim Transect(s) x 2		Reference Transect(s) x 2	
	#	Overall Cover	#	Overall Cover
<b>Desirable Foliar Cover</b>	<b>58</b>	<b>58.0%</b>	<b>17</b>	<b>17.0%</b>
Grass	58	58.0%	16	16.0%
Forb	0	0.0%	1	1.0%
Shrub	0	0.0%	0	0.0%
<b>Desirable Basal Cover</b>	<b>5</b>	<b>5.0%</b>	<b>0</b>	<b>0.0%</b>
Grass	5	5.0%	0	0.0%
Forb	0	0.0%	0	0.0%
Shrub	0	0.0%	0	0.0%
<b>Undesirable Cover</b>	<b>1</b>	<b>1.0%</b>	<b>12</b>	<b>12.0%</b>
Foliar	1	1.0%	12	12.0%
Basal	0	0.0%	0	0.0%
<b>Unvegetated</b>	<b>40</b>	<b>40.0%</b>	<b>47</b>	<b>47.0%</b>
Bare Ground	25	25.0%	19	19.0%
Litter	13	13.0%	28	28.0%
Rock	2	2.0%	0	0.0%
Other	0	0.0%	0	0.0%
<b>Noxious Weeds Cover</b>	<b>1</b>	<b>1.0%</b>	<b>24</b>	<b>24.0%</b>
Foliar	1	1.0%	24	24.0%
Basal	0	0.0%	0	0.0%
<b>Foliar Quality Assurance Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Reclaim Transect Global ID(s):  
 36798195-1d74-4495-bb6e-89bb19dfb761,  
 cdf7a73-7309-4fb1-bcdd-85db93e4d50d,

Reference Transect Global ID(s):  
 e5f88d16-f719-44cc-a26a-a9cea5376baf,  
 632acc2d-15c6-4865-9c21-95c4d56f7d36,

Client PDC  
 Operator Location Matt 1 facility  
 Assessment Date 5/31/2024  
 Inspector Name Miranda Beard

**Transect Detail - Reclamation Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	2	2%	0	0%
Perennial	58	58%	5	5%
Unvegetated	40	40%	95	95%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	1	1%	0	0%
Annual	CHTE2	<i>Chorispora tenella</i>	Blue mustard	Undesirable	1	1%	0	0%
NA	NA	NA	Bare Ground	Unvegetated	25	25%	48	48%
NA	NA	NA	Litter	Unvegetated	13	13%	44	44%
NA	NA	NA	Rock	Unvegetated	2	2%	3	3%
Perennial	AGCR	<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	52	52%	5	5%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	2	2%	0	0%
Perennial	PASM	<i>Pascopyrum smithii</i>	Western Wheatgrass	Grass	4	4%	0	0%

Client PDC  
 Operator Location Reference location(s) for Matt 1 facility  
 Assessment Date 5/31/2024  
 Inspector Name Vincent Sepe

**Transect Detail - Reference Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	31	31%	0	0%
Perennial	22	22%	0	0%
Unvegetated	47	47%	100	100%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	B RTE	<i>Bromus tectorum</i>	Downy brome	Noxious List C	20	20%	0	0%
Annual	CHTE2	<i>Chorispora tenella</i>	Blue mustard	Undesirable	10	10%	0	0%
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	1	1%	0	0%
NA	NA	NA	Litter	Unvegetated	28	28%	73	73%
NA	NA	NA	Bare Ground	Unvegetated	19	19%	27	27%
Perennial	ARFR4	<i>Artemisia frigida</i>	Prairie sagewort	Forb	1	1%	0	0%
Perennial	CANU4	<i>Carduus nutans</i>	Musk thistle	Noxious List B	2	2%	0	0%
Perennial	COAR4	<i>Convolvulus arvensis</i>	Field bindweed	Noxious List C	1	1%	0	0%
Perennial	EUES	<i>Euphorbia esula</i>	Leafy spurge	Noxious List B	1	1%	0	0%
Perennial	NAVI4	<i>Nassella viridula</i>	Green Needlegrass	Grass	11	11%	0	0%
Perennial	PASM	<i>Pascopyrum smithii</i>	Western Wheatgrass	Grass	4	4%	0	0%
Perennial	POSE	<i>Poa secunda</i>	Sandberg bluegrass	Grass	1	1%	0	0%
Perennial	RUCR	<i>Rumex crispus</i>	Curly dock	Undesirable	1	1%	0	0%



Client PDC  
 Operator Location Information Matt 1 facility  
 Assessment Date 5/31/2024  
 Inspector Name Miranda Beard  
 Transect Length (m) 16

**Reclaim Transect 2**

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Litter	Unvegetated	Litter
2	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
3	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
4	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
5	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
6	Unvegetated	Litter	Unvegetated	Litter
7	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
8	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
9	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
10	Unvegetated	Litter	Unvegetated	Litter
11	Unvegetated	Litter	Unvegetated	Litter
12	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
13	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
14	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
15	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
16	Unvegetated	Litter	Unvegetated	Litter
17	Unvegetated	Bare Ground	Unvegetated	Bare Ground
18	Unvegetated	Bare Ground	Unvegetated	Bare Ground
19	Unvegetated	Bare Ground	Unvegetated	Bare Ground
20	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
21	Unvegetated	Litter	Unvegetated	Litter
22	Unvegetated	Bare Ground	Unvegetated	Bare Ground
23	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
24	Unvegetated	Litter	Unvegetated	Litter
25	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
26	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
27	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
28	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
29	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
30	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
31	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
32	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
33	Unvegetated	Bare Ground	Unvegetated	Bare Ground
34	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
35	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
36	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
37	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
38	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
39	Unvegetated	Litter	Unvegetated	Litter
40	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
41	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
42	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
43	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
44	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
45	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
46	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
47	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
48	Unvegetated	Bare Ground	Unvegetated	Bare Ground
49	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
50	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground

Client PDC  
 Operator Location Information Matt 1 facility  
 Assessment Date 5/31/2024  
 Inspector Name Miranda Beard  
 Transect Length (m) 16

**Reference Transect 1**

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Litter	Unvegetated	Litter
2	Unvegetated	Bare Ground	Unvegetated	Bare Ground
3	Unvegetated	Litter	Unvegetated	Litter
4	Unvegetated	Litter	Unvegetated	Litter
5	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
6	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
7	Unvegetated	Bare Ground	Unvegetated	Bare Ground
8	Undesirable	Kochia (Kochia scoparia) - KOSC	Unvegetated	Bare Ground
9	Noxious List B	Musk thistle (Carduus nutans) - CANU4	Unvegetated	Litter
10	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
11	Unvegetated	Bare Ground	Unvegetated	Bare Ground
12	Grass	Sandberg bluegrass (Poa secunda) - POSE	Unvegetated	Litter
13	Noxious List B	Leafy spurge (Euphorbia esula) - EUES	Unvegetated	Litter
14	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
15	Unvegetated	Litter	Unvegetated	Litter
16	Unvegetated	Bare Ground	Unvegetated	Bare Ground
17	Unvegetated	Bare Ground	Unvegetated	Bare Ground
18	Unvegetated	Bare Ground	Unvegetated	Bare Ground
19	Unvegetated	Litter	Unvegetated	Litter
20	Unvegetated	Litter	Unvegetated	Litter
21	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
22	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
23	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
24	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
25	Forb	Prairie sagewort (Artemisia frigida) - ARFR4	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Unvegetated	Litter	Unvegetated	Litter
28	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Bare Ground
29	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
30	Unvegetated	Bare Ground	Unvegetated	Bare Ground
31	Undesirable	Curly dock (Rumex crispus) - RUCR	Unvegetated	Litter
32	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
33	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
34	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
35	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
36	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Litter
37	Unvegetated	Litter	Unvegetated	Litter
38	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
39	Unvegetated	Litter	Unvegetated	Litter
40	Unvegetated	Bare Ground	Unvegetated	Bare Ground
41	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
42	Unvegetated	Litter	Unvegetated	Litter
43	Grass	Western Wheatgrass (Pascopyrum smithii) - PASM	Unvegetated	Bare Ground
44	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
45	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
46	Grass	Green Needlegrass (Nassella viridula) - NAVI4	Unvegetated	Litter
47	Unvegetated	Litter	Unvegetated	Litter
48	Unvegetated	Litter	Unvegetated	Litter
49	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
50	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter

Client PDC  
 Operator Location Information Matt 1 facility  
 Assessment Date 5/31/2024  
 Inspector Name Miranda Beard  
 Transect Length (m) 16

Reference Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
2	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
3	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
4	Unvegetated	Litter	Unvegetated	Litter
5	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
6	Unvegetated	Litter	Unvegetated	Litter
7	Unvegetated	Bare Ground	Unvegetated	Bare Ground
8	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
9	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
10	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
11	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
12	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
13	Undesirable	Blue mustard (Chorispora tenella) - CHTE2	Unvegetated	Litter
14	Unvegetated	Litter	Unvegetated	Litter
15	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
16	Unvegetated	Litter	Unvegetated	Litter
17	Unvegetated	Litter	Unvegetated	Litter
18	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
19	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
20	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
21	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
22	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
23	Unvegetated	Litter	Unvegetated	Litter
24	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
25	Unvegetated	Litter	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Unvegetated	Litter	Unvegetated	Litter
28	Unvegetated	Litter	Unvegetated	Litter
29	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
30	Unvegetated	Litter	Unvegetated	Litter
31	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
32	Unvegetated	Litter	Unvegetated	Litter
33	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
34	Unvegetated	Litter	Unvegetated	Litter
35	Unvegetated	Bare Ground	Unvegetated	Bare Ground
36	Unvegetated	Bare Ground	Unvegetated	Bare Ground
37	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
38	Noxious List C	Field bindweed (Convolvulus arvensis) - COAR4	Unvegetated	Bare Ground
39	Unvegetated	Litter	Unvegetated	Litter
40	Unvegetated	Bare Ground	Unvegetated	Bare Ground
41	Unvegetated	Bare Ground	Unvegetated	Bare Ground
42	Unvegetated	Bare Ground	Unvegetated	Bare Ground
43	Unvegetated	Bare Ground	Unvegetated	Bare Ground
44	Unvegetated	Litter	Unvegetated	Litter
45	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Litter
46	Unvegetated	Bare Ground	Unvegetated	Bare Ground
47	Unvegetated	Bare Ground	Unvegetated	Bare Ground
48	Noxious List C	Downy brome (Bromus tectorum) - BRTE	Unvegetated	Bare Ground
49	Unvegetated	Bare Ground	Unvegetated	Bare Ground
50	Unvegetated	Bare Ground	Unvegetated	Bare Ground

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Tank Battery  
Event ID NA

Directional Photos

Photo Point 1



Photo Point 2



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Tank Battery  
Event ID NA

Directional Photos

Photo Point 3



Photo Point 4



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
Location Type Tank Battery  
Event ID NA

Directional Photos

Photo Point 5



Photo Point 6



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 5/31/2024

Operator Location Name matt 1  
 Location Type Tank Battery  
 Event ID NA

Directional Photos

Photo Point 7



Photo Point 8



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

## Quantitative Vegetation Survey - Summary of Field Data

<b>Client</b>	PDC	<b>API(s)</b>	
<b>Operator Location</b>	Matt 1 Well Pad		05-123-20011
<b>CCC Disturbance ID</b>	PDC046724L1		
<b>ECMC Location ID</b>	331001		
<b>Reclamation Phase</b>	Final		
<b>Latitude/Longitude</b>	40.295617, -104.846833		
<b>Assessment Date</b>	9/25/2024		
<b>Inspector Name</b>	Sam Knuth		

The survey methodology employed by Confluence is the line-point intercept method with plot-level species inventories conducted in accordance with the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems. Vegetation cover data is collected along each transect. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point. Transects are completed in the reclaim and reference areas. The desirable foliar cover (grasses, forbs, shrubs) in each survey transect area is calculated by summing the total number of foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

### Reclaim Area Vegetation

**Desirable Foliar Cover = 19%**  
 $[(19 + 0 + 0) / 100] * 100$

### Reference Area Vegetation

**Desirable Foliar Cover = 30%**  
 $[(30 + 0 + 0) / 100] * 100$

For the purposes of this assessment, undesirable foliar cover is defined as introduced and non-native to the lower 48 states by the USDA NRCS and is not considered beneficial for reclamation purposes. The undesirable foliar cover (%) in each survey transect area is calculated by summing the total number of undesirable foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

**Noxious Weed/Undesirable Foliar Cover = 6%**  
 $[(6 + 0) / 100] * 100$

**Noxious Weed/Undesirable Foliar Cover = 0%**  
 $[(0 + 0) / 100] * 100$

The percent of reference used to evaluate the reclamation area for compliance with ECMC Rule 1003.e(2) is calculated by dividing the averaged foliar cover (%) in the reclaim area by the averaged foliar cover (%) in the reference area. For this location:

**Percent of Reference = 63%**  
 $19\% / 30\%$

Cover Type	Reclaim Transect(s) x 2		Reference Transect(s) x 2	
	#	Overall Cover	#	Overall Cover
<b>Desirable Foliar Cover</b>	<b>19</b>	<b>19.0%</b>	<b>30</b>	<b>30.0%</b>
Grass	19	19.0%	30	30.0%
Forb	0	0.0%	0	0.0%
Shrub	0	0.0%	0	0.0%
<b>Desirable Basal Cover</b>	<b>9</b>	<b>9.0%</b>	<b>23</b>	<b>23.0%</b>
Grass	9	9.0%	23	23.0%
Forb	0	0.0%	0	0.0%
Shrub	0	0.0%	0	0.0%
<b>Undesirable Cover</b>	<b>7</b>	<b>7.0%</b>	<b>0</b>	<b>0.0%</b>
Foliar	6	6.0%	0	0.0%
Basal	1	1.0%	0	0.0%
<b>Unvegetated</b>	<b>75</b>	<b>75.0%</b>	<b>70</b>	<b>70.0%</b>
Bare Ground	21	21.0%	5	5.0%
Litter	52	52.0%	65	65.0%
Rock	2	2.0%	0	0.0%
Other	0	0.0%	0	0.0%
<b>Noxious Weeds Cover</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Foliar	0	0.0%	0	0.0%
Basal	0	0.0%	0	0.0%
<b>Foliar Quality Assurance Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Reclaim Transect Global ID(s):  
 63bcaee2-e838-4518-b2f0-8b0b4c507370,  
 c7851832-c51c-4e85-aa0c-5c66a3455c5e,

Reference Transect Global ID(s):  
 2b5aae67-620d-444f-ac39-fb7506926443,  
 fed3061e-e32f-436a-90e1-edf710fc3d83,

**Client** PDC  
**Operator Location** Matt 1 well pad  
**Assessment Date** 9/25/2024  
**Inspector Name** Sam Knuth

**Transect Detail - Reclamation Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	6	6%	1	1%
Perennial	19	19%	9	9%
Unvegetated	74	75%	89	90%
<b>Grand Total</b>	<b>99</b>	<b>100%</b>	<b>99</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	KOSC	<i>Kochia scoparia</i>	Kochia	Undesirable	5	5%	1	1%
Annual	SATR12	<i>Salsola tragus L.</i>	Russian thistle	Undesirable	1	1%	0	0%
NA	NA	NA	Litter	Unvegetated	51	52%	65	66%
NA	NA	NA	Bare Ground	Unvegetated	21	21%	22	22%
NA	NA	NA	Rock	Unvegetated	2	2%	2	2%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	19	19%	9	9%

**Client** PDC  
**Operator Location** Reference location(s) for Matt 1 well pad  
**Assessment Date** 9/25/2024, 9/25/2024  
**Inspector Name** Sam Knuth

**Transect Detail - Reference Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	0	0%	0	0%
Perennial	30	30%	23	23%
Unvegetated	70	70%	77	77%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
NA	NA	NA	Litter	Unvegetated	65	65%	72	72%
NA	NA	NA	Bare Ground	Unvegetated	5	5%	5	5%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	30	30%	23	23%





Client PDC  
 Operator Location Information Matt 1 well pad  
 Assessment Date 9/25/2024  
 Inspector Name Sam Knuth  
 Transect Length (m) 50

Reference Transect 1

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Litter	Unvegetated	Litter
2	Unvegetated	Litter	Unvegetated	Litter
3	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
4	Unvegetated	Litter	Unvegetated	Litter
5	Unvegetated	Litter	Unvegetated	Litter
6	Unvegetated	Litter	Unvegetated	Litter
7	Unvegetated	Litter	Unvegetated	Litter
8	Unvegetated	Litter	Unvegetated	Litter
9	Unvegetated	Litter	Unvegetated	Litter
10	Unvegetated	Litter	Unvegetated	Litter
11	Unvegetated	Litter	Unvegetated	Litter
12	Unvegetated	Litter	Unvegetated	Litter
13	Unvegetated	Litter	Unvegetated	Litter
14	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
15	Unvegetated	Litter	Unvegetated	Litter
16	Unvegetated	Litter	Unvegetated	Litter
17	Unvegetated	Litter	Unvegetated	Litter
18	Unvegetated	Litter	Unvegetated	Litter
19	Unvegetated	Bare Ground	Unvegetated	Bare Ground
20	Unvegetated	Litter	Unvegetated	Litter
21	Unvegetated	Litter	Unvegetated	Litter
22	Unvegetated	Litter	Unvegetated	Litter
23	Unvegetated	Litter	Unvegetated	Litter
24	Unvegetated	Litter	Unvegetated	Litter
25	Unvegetated	Bare Ground	Unvegetated	Bare Ground
26	Unvegetated	Bare Ground	Unvegetated	Bare Ground
27	Unvegetated	Litter	Unvegetated	Litter
28	Unvegetated	Litter	Unvegetated	Litter
29	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
30	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
31	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
32	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
33	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
34	Unvegetated	Litter	Unvegetated	Litter
35	Unvegetated	Litter	Unvegetated	Litter
36	Unvegetated	Litter	Unvegetated	Litter
37	Unvegetated	Litter	Unvegetated	Litter
38	Unvegetated	Litter	Unvegetated	Litter
39	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
40	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
41	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
42	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
43	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
44	Unvegetated	Litter	Unvegetated	Litter
45	Unvegetated	Litter	Unvegetated	Litter
46	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
47	Unvegetated	Litter	Unvegetated	Litter
48	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
49	Unvegetated	Litter	Unvegetated	Litter
50	Unvegetated	Litter	Unvegetated	Litter

Client PDC  
 Operator Location Information Matt 1 well pad  
 Assessment Date 9/25/2024  
 Inspector Name Sam Knuth  
 Transect Length (m) 50

Reference Transect 2

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Litter	Unvegetated	Litter
2	Unvegetated	Litter	Unvegetated	Litter
3	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
4	Unvegetated	Litter	Unvegetated	Litter
5	Unvegetated	Litter	Unvegetated	Litter
6	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
7	Unvegetated	Litter	Unvegetated	Litter
8	Unvegetated	Litter	Unvegetated	Litter
9	Unvegetated	Litter	Unvegetated	Litter
10	Unvegetated	Litter	Unvegetated	Litter
11	Unvegetated	Litter	Unvegetated	Litter
12	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
13	Unvegetated	Litter	Unvegetated	Litter
14	Unvegetated	Litter	Unvegetated	Litter
15	Unvegetated	Litter	Unvegetated	Litter
16	Unvegetated	Litter	Unvegetated	Litter
17	Unvegetated	Litter	Unvegetated	Litter
18	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
19	Unvegetated	Litter	Unvegetated	Litter
20	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
21	Unvegetated	Litter	Unvegetated	Litter
22	Unvegetated	Litter	Unvegetated	Litter
23	Unvegetated	Litter	Unvegetated	Litter
24	Unvegetated	Litter	Unvegetated	Litter
25	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
26	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
27	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
28	Unvegetated	Litter	Unvegetated	Litter
29	Unvegetated	Litter	Unvegetated	Litter
30	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
31	Unvegetated	Litter	Unvegetated	Litter
32	Unvegetated	Litter	Unvegetated	Litter
33	Unvegetated	Litter	Unvegetated	Litter
34	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
35	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
36	Unvegetated	Litter	Unvegetated	Litter
37	Unvegetated	Bare Ground	Unvegetated	Bare Ground
38	Unvegetated	Litter	Unvegetated	Litter
39	Unvegetated	Litter	Unvegetated	Litter
40	Unvegetated	Litter	Unvegetated	Litter
41	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
42	Unvegetated	Bare Ground	Unvegetated	Bare Ground
43	Unvegetated	Litter	Unvegetated	Litter
44	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
45	Unvegetated	Litter	Unvegetated	Litter
46	Grass	Smooth brome (Bromus inermis) - BRIN2	Grass	Smooth brome (Bromus inermis) - BRIN2
47	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
48	Unvegetated	Litter	Unvegetated	Litter
49	Grass	Smooth brome (Bromus inermis) - BRIN2	Unvegetated	Litter
50	Unvegetated	Litter	Unvegetated	Litter

Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 1

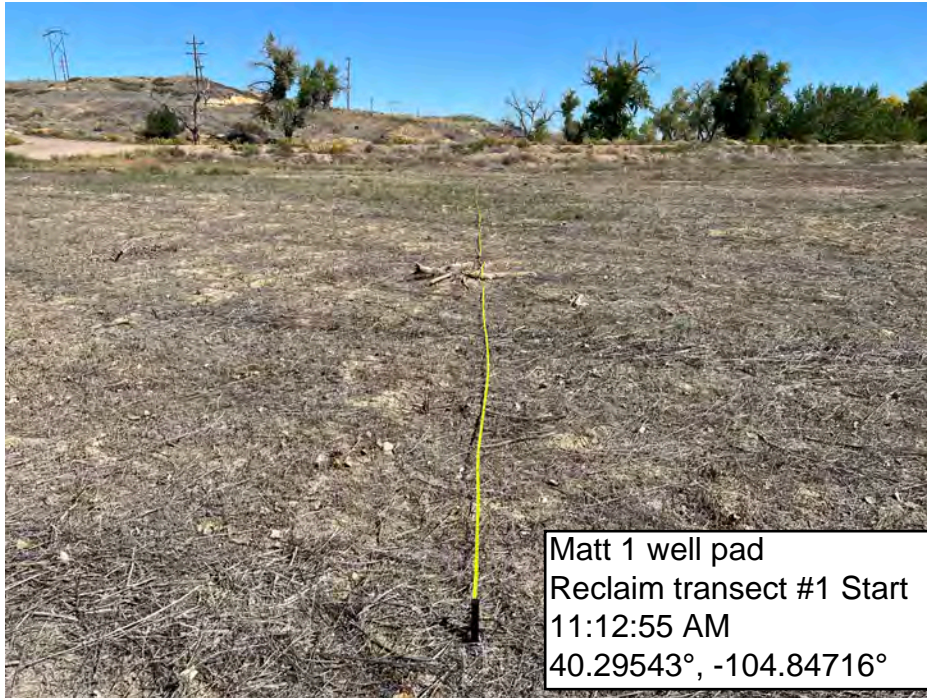
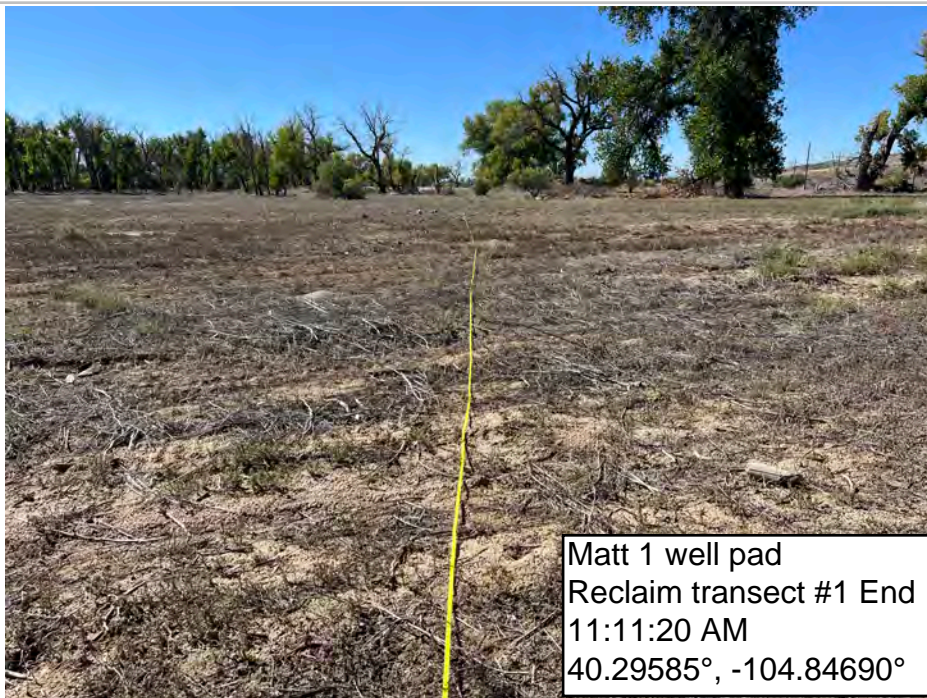


Photo Point 2



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 3



Photo Point 4



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 5

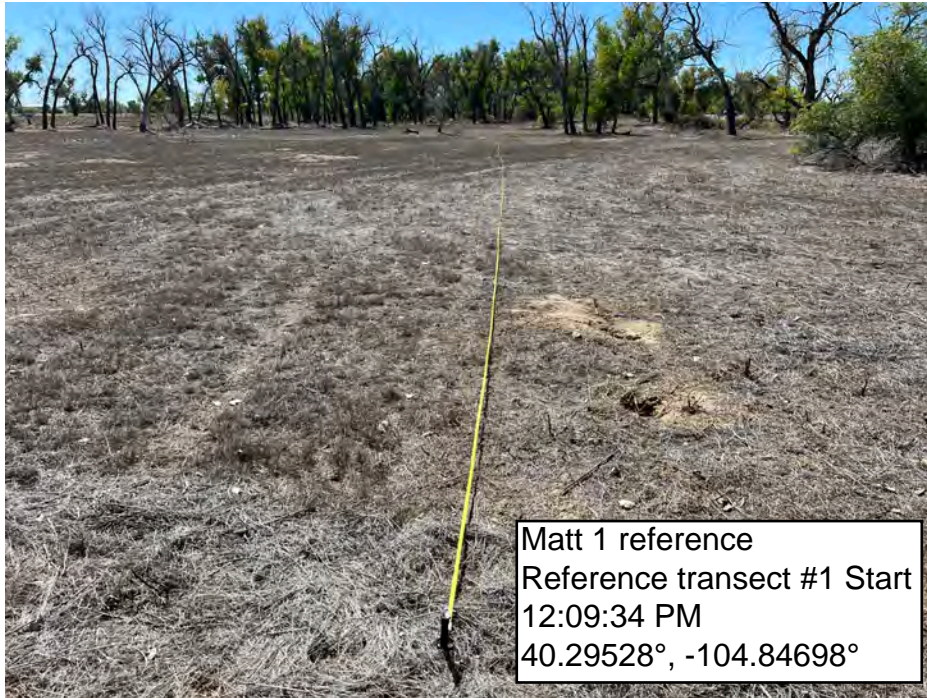
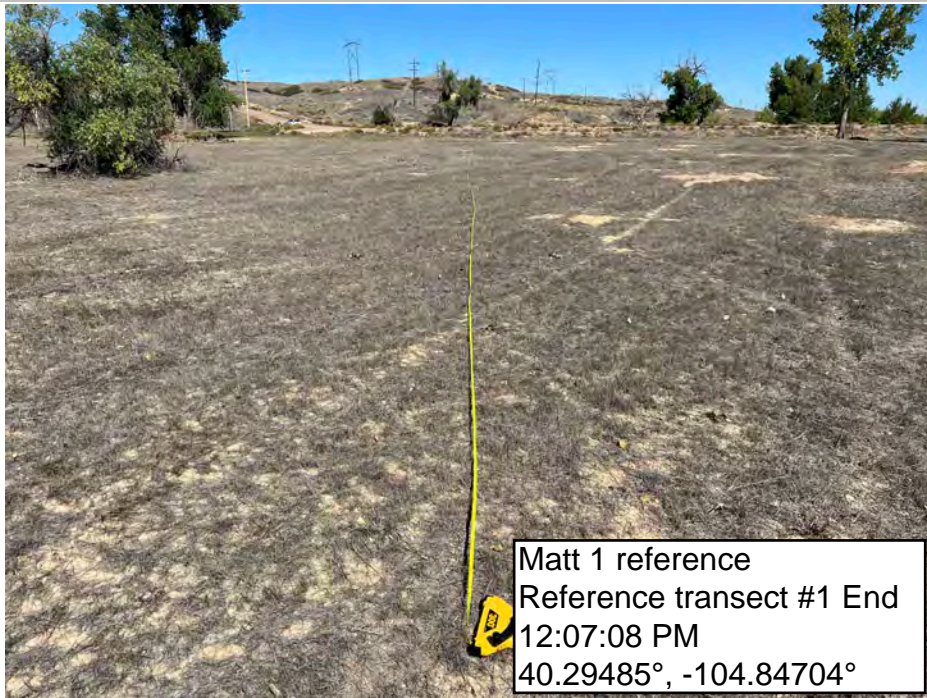


Photo Point 6



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Well Pad  
Event ID NA

Directional Photos

Photo Point 7

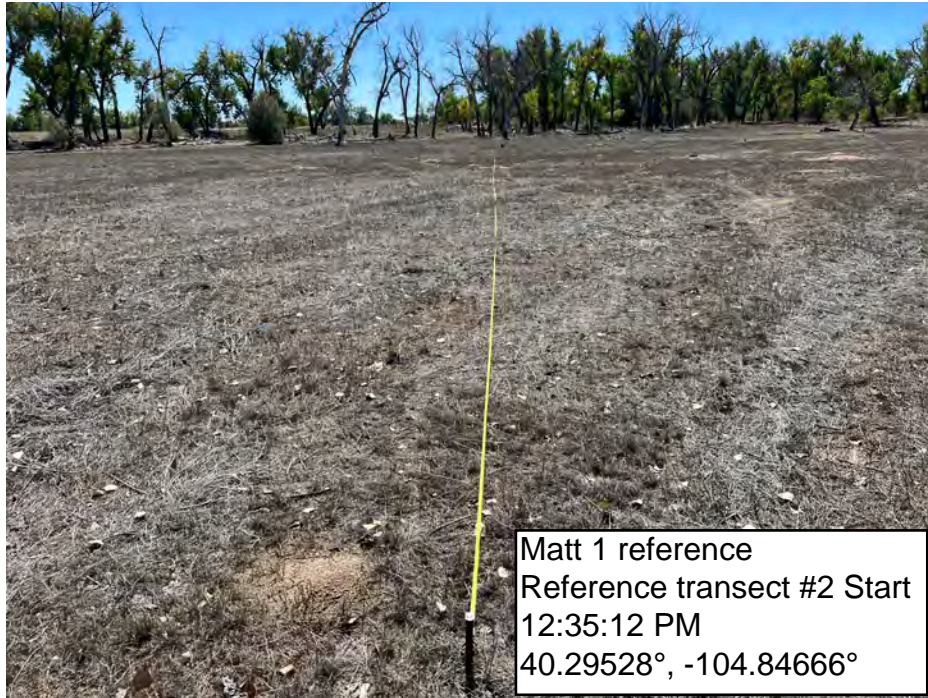


Photo Point 8



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

## Quantitative Vegetation Survey - Summary of Field Data

<b>Client</b>	PDC	<b>API(s)</b>	
<b>Operator Location</b>	Matt 1 Facility	<b>Associated well:</b>	05-123-20011
<b>CCC Disturbance ID</b>	PDC046724L2		
<b>ECMC Location ID</b>	331001		
<b>Reclamation Phase</b>	Final		
<b>Latitude/Longitude</b>	40.294917, -104.848208		
<b>Assessment Date</b>	9/25/2024		
<b>Inspector Name</b>	Sam Knuth		

The survey methodology employed by Confluence is the line-point intercept method with plot-level species inventories conducted in accordance with the Monitoring Manual for Grassland, Shrubland and Savanna Ecosystems. Vegetation cover data is collected along each transect. Foliar and basal cover, along with non-vegetated and noxious weed occurrences, are documented at each survey point. Transects are completed in the reclaim and reference areas. The desirable foliar cover (grasses, forbs, shrubs) in each survey transect area is calculated by summing the total number of foliar occurrences (#), excluding noxious weeds and undesirable species, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

### Reclaim Area Vegetation

**Desirable Foliar Cover = 22%**  
 $[(22 + 0 + 0) / 100] * 100$

### Reference Area Vegetation

**Desirable Foliar Cover = 30%**  
 $[(30 + 0 + 0) / 100] * 100$

For the purposes of this assessment, undesirable foliar cover is defined as introduced and non-native to the lower 48 states by the USDA NRCS and is not considered beneficial for reclamation purposes. The undesirable foliar cover (%) in each survey transect area is calculated by summing the total number of undesirable foliar occurrences (#), excluding noxious weeds, and dividing by the total possible foliar occurrences in the transect. This is completed for both transects in the reclaim area and in the reference area. The resulting values from each transect in the respective areas are then averaged to surmise an overall coverage and/or composition for the location. For this location:

**Noxious Weed/Undesirable Foliar Cover = 0%**  
 $[(0 + 0) / 100] * 100$

**Noxious Weed/Undesirable Foliar Cover = 0%**  
 $[(0 + 0) / 100] * 100$

The percent of reference used to evaluate the reclamation area for compliance with ECMC Rule 1003.e(2) is calculated by dividing the averaged foliar cover (%) in the reclaim area by the averaged foliar cover (%) in the reference area. For this location:

**Percent of Reference = 73%**  
 $22\% / 30\%$

Cover Type	Reclaim Transect(s) x 2		Reference Transect(s) x 2	
	#	Overall Cover	#	Overall Cover
<b>Desirable Foliar Cover</b>	<b>22</b>	<b>22.0%</b>	<b>30</b>	<b>30.0%</b>
Grass	22	22.0%	30	30.0%
Forb	0	0.0%	0	0.0%
Shrub	0	0.0%	0	0.0%
<b>Desirable Basal Cover</b>	<b>16</b>	<b>16.0%</b>	<b>23</b>	<b>23.0%</b>
Grass	16	16.0%	23	23.0%
Forb	0	0.0%	0	0.0%
Shrub	0	0.0%	0	0.0%
<b>Undesirable Cover</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Foliar	0	0.0%	0	0.0%
Basal	0	0.0%	0	0.0%
<b>Unvegetated</b>	<b>78</b>	<b>78.0%</b>	<b>70</b>	<b>70.0%</b>
Bare Ground	29	29.0%	5	5.0%
Litter	47	47.0%	65	65.0%
Rock	2	2.0%	0	0.0%
Other	0	0.0%	0	0.0%
<b>Noxious Weeds Cover</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>
Foliar	0	0.0%	0	0.0%
Basal	0	0.0%	0	0.0%
<b>Foliar Quality Assurance Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Reclaim Transect Global ID(s):  
 184f0601-092f-4dab-b66d-c09d5a063811,  
 954a75f4-6cc3-4a1b-8ada-ad87ed3c7980,

Reference Transect Global ID(s):  
 2b5aae67-620d-444f-ac39-fb7506926443,  
 fed3061e-e32f-436a-90e1-edf710fc3d83,

**Client** PDC  
**Operator Location** Matt 1 facility  
**Assessment Date** 9/25/2024  
**Inspector Name** Sam Knuth

**Transect Detail - Reclamation Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	0	0%	0	0%
Perennial	22	22%	16	16%
Unvegetated	78	78%	84	84%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
NA	NA	NA	Litter	Unvegetated	47	47%	52	52%
NA	NA	NA	Bare Ground	Unvegetated	29	29%	30	30%
NA	NA	NA	Rock	Unvegetated	2	2%	2	2%
Perennial	AGCR	<i>Agropyron cristatum</i>	Crested wheatgrass	Grass	22	22%	16	16%

<b>Client</b>	PDC
<b>Operator Location</b>	Reference location(s) for Matt 1 facility
<b>Assessment Date</b>	9/25/2024, 9/25/2024
<b>Inspector Name</b>	Sam Knuth

**Transect Detail - Reference Area Observation Summary**

Plant species indicated by red text include all State-listed noxious weeds and undesirable species identified as introduced and non-native to the lower 48 states by the USDA NRCS not considered beneficial for reclamation purposes.

Observation Summary				
Life Cycle	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
Annual	0	0%	0	0%
Perennial	30	30%	23	23%
Unvegetated	70	70%	77	77%
<b>Grand Total</b>	<b>100</b>	<b>100%</b>	<b>100</b>	<b>100%</b>

Life Cycle	Species Code	Scientific Name	Common Name	Cover Type	Foliar Occurrence	Foliar Cover	Basal Occurrence	Basal Cover
NA	NA	NA	Litter	Unvegetated	65	65%	72	72%
NA	NA	NA	Bare Ground	Unvegetated	5	5%	5	5%
Perennial	BRIN2	<i>Bromus inermis</i>	Smooth brome	Grass	30	30%	23	23%



Client PDC  
 Operator Location Information Matt 1 facility  
 Assessment Date 9/25/2024  
 Inspector Name Sam Knuth  
 Transect Length (m) 50

**Reclaim Transect 2**

Point #	Cover Type - Foliar	Species - Foliar	Cover Type - Basal	Species - Basal
1	Unvegetated	Bare Ground	Unvegetated	Bare Ground
2	Unvegetated	Bare Ground	Unvegetated	Bare Ground
3	Unvegetated	Bare Ground	Unvegetated	Bare Ground
4	Unvegetated	Bare Ground	Unvegetated	Bare Ground
5	Unvegetated	Bare Ground	Unvegetated	Bare Ground
6	Unvegetated	Rock	Unvegetated	Rock
7	Unvegetated	Rock	Unvegetated	Rock
8	Unvegetated	Litter	Unvegetated	Litter
9	Unvegetated	Litter	Unvegetated	Litter
10	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
11	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
12	Unvegetated	Litter	Unvegetated	Litter
13	Unvegetated	Litter	Unvegetated	Litter
14	Unvegetated	Litter	Unvegetated	Litter
15	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
16	Unvegetated	Litter	Unvegetated	Litter
17	Unvegetated	Litter	Unvegetated	Litter
18	Unvegetated	Litter	Unvegetated	Litter
19	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
20	Unvegetated	Litter	Unvegetated	Litter
21	Unvegetated	Litter	Unvegetated	Litter
22	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
23	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Bare Ground
24	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
25	Unvegetated	Litter	Unvegetated	Litter
26	Unvegetated	Litter	Unvegetated	Litter
27	Unvegetated	Litter	Unvegetated	Litter
28	Unvegetated	Bare Ground	Unvegetated	Bare Ground
29	Unvegetated	Bare Ground	Unvegetated	Bare Ground
30	Unvegetated	Bare Ground	Unvegetated	Bare Ground
31	Unvegetated	Litter	Unvegetated	Litter
32	Unvegetated	Bare Ground	Unvegetated	Bare Ground
33	Unvegetated	Bare Ground	Unvegetated	Bare Ground
34	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
35	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
36	Unvegetated	Litter	Unvegetated	Litter
37	Unvegetated	Litter	Unvegetated	Litter
38	Unvegetated	Bare Ground	Unvegetated	Bare Ground
39	Unvegetated	Bare Ground	Unvegetated	Bare Ground
40	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
41	Unvegetated	Bare Ground	Unvegetated	Bare Ground
42	Unvegetated	Litter	Unvegetated	Litter
43	Unvegetated	Litter	Unvegetated	Litter
44	Unvegetated	Litter	Unvegetated	Litter
45	Unvegetated	Litter	Unvegetated	Litter
46	Unvegetated	Litter	Unvegetated	Litter
47	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR
48	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
49	Grass	Crested wheatgrass (Agropyron cristatum) - AGCR	Unvegetated	Litter
50	Unvegetated	Litter	Unvegetated	Litter





Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Tank Battery  
Event ID NA

Directional Photos

Photo Point 1



Photo Point 2



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
Location Type Tank Battery  
Event ID NA

Directional Photos

Photo Point 3



Photo Point 4



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

Quantitative Vegetation Survey - Photo Log

Date Collected: 9/25/2024

Operator Location Name Matt 1  
 Location Type Tank Battery  
 Event ID NA

Directional Photos

Photo Point 5

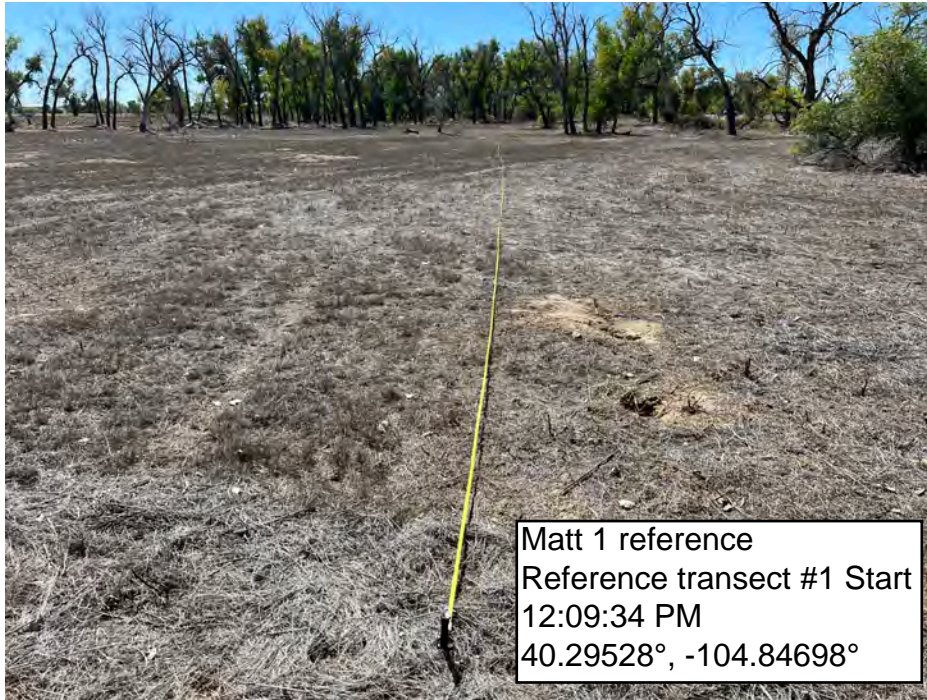
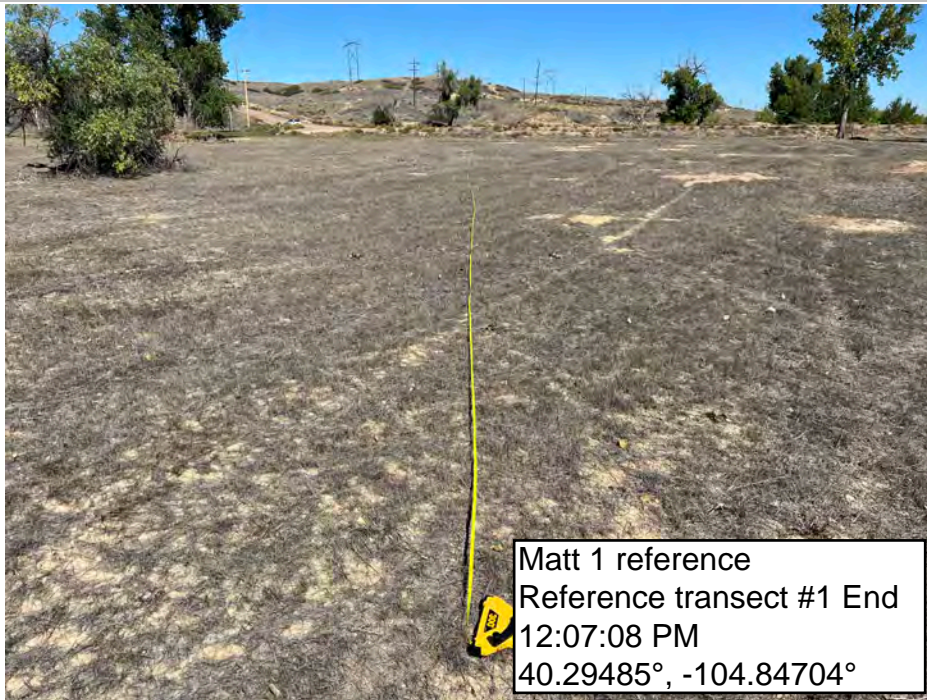


Photo Point 6



NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.

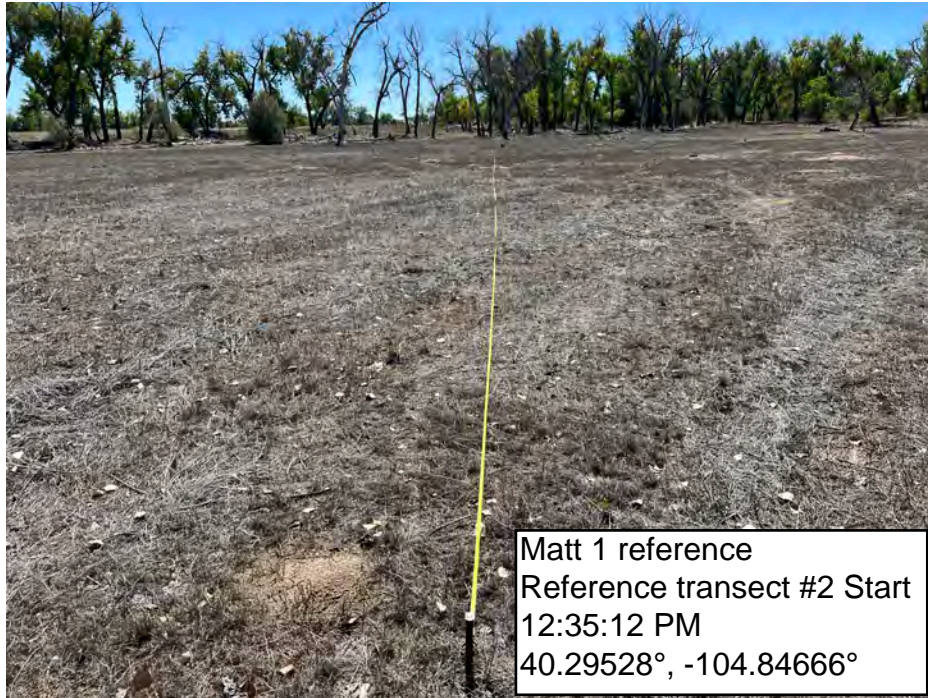
**Quantitative Vegetation Survey - Photo Log**

Date Collected: 9/25/2024

Operator Location Name Matt 1  
 Location Type Tank Battery  
 Event ID NA

**Directional Photos**

**Photo Point 7**



**Photo Point 8**



*NOTE: Geographic coordinates were collected with a sub-meter accurate GPS unit.*