

Great Plains Energy Operating, LLC  
Marquis #1  
SWNW Section 23, T7S R52W  
Lincoln County, Colorado

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INTERIM RECLAMATION PLAN

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Great Plains Energy Operating, LLC (Great Plains) has drafted this interim reclamation plan in accordance with Rules 304.c.(16) and 1003.

**1. Site Description**

The Marquis #1 location is located on fee surface and will access fee minerals. It is a re-entry new location. The proposed location is 7.7 acres. The working pad surface is 5.6 acres. The elevation of the area is 5022’.

**2. Soils Description**

The location is primarily on Soil Type 122 – Colby-Weld silt loams.

Drainage Class	Well drained
Available Water Capacity	Very high; ~ 12.6 inches of water
Depth to Restrictive Feature	More than 80 inches

A small portion of the western side and the northeast corner of the location is on Soil Type 213 – Weld Silt loam.

Drainage Class	Well Drained
Available Water Capacity	High; ~ 11.7 inches of water
Depth to Restrictive Feature	More than 80 inches

**3. Oil and Gas Location Pre-Disturbance Vegetation Composition**

This location is within cropland.

**4. Identification of Reference Area and Vegetation Composition (Non-Crop Land)**

The reference area is not applicable, as the proposed location is in cropland.

**5. Known Weed Infestations**

There are currently no known weed infestations on the location or in the adjacent areas.

**6. Gathering Lines**

No gathering lines are proposed for this location.

## **7. Access Road**

The proposed access road is 1,584 feet in length and will have 0.727 acres of disturbance. Once the road is constructed, it will not undergo interim reclamation and will remain in place until the well location undergoes final reclamation.

## **8. Removal of Drilling, Re-entry, Completion Equipment and all Associated Debris and Waste Materials (1003.a)**

Once drilling operations are completed, all debris and non-E&P waste will be removed from location by the rig company and disposed of properly in commercial waste containers.

All cellars, rat holes, and other boreholes unnecessary for production operations will be backfilled as per industry standards.

## **9. Management of Waste Material**

No pits are proposed for this location.

All cuttings will be removed from location and hauled offsite for commercial disposal by a licensed third-party transportation company.

## **10. Identification of Interim Reclamation Areas no Longer in Use (1003.b)**

Once the well proposed for the location has been drilled and is on production, Great Plains will perform interim reclamation on the location. The location will be brought down to 2.5 acres of long-term disturbance. This will allow for continued safe operations around the wellheads and equipment while maximizing the interim reclamation efforts of areas unnecessary to production operations.

## **11. Compaction Alleviation (1003.c)**

Once the location is ready for interim reclamation, the areas unnecessary to production will be ripped to alleviate compaction and allow for successful seeding.

## **12. Recontouring**

The location has an overall elevation change of 5 feet from the middle of the pad to the north and 1 foot from the middle of the pad to the south. The location will be recontoured and sloped gently to match the surrounding topography. Erosion control best management practices will occur along the western edge of the well pad to keep potential soil erosion from leaving location. Topsoil will be reincorporated into the interim reclamation as much as possible to keep the microbial ecosystem viable.

**13. Re-establish and Stabilize Drainage Features**

The location will be recontoured to allow for drainage away from the proposed well location. The soils will be reseeded as quickly as feasible after construction to stabilize the soils, keep stockpiles and construction-exposed soils in place, and keep the microbial ecosystems viable for future reseeding.

**14. Establish Desired Self-Perpetuating Plant Community (1003.e)**

Great Plains will utilize a seed mix dictated by the landowner to insure the viability of the soils for the continued agricultural use of the surface.

**15. Seedbed Preparation and Seeding (1003.e)**

Proper site preparation would be ensured by spreading of stored and salvaged topsoil or topsoil replacement to an adequate depth and by ripping, tilling, disking, harrowing, and dozer track imprinting where appropriate.

**16. Fencing**

No fencing is currently anticipated for this location. If fencing becomes necessary to protect reclamation efforts, Great Plains will install a wildlife-friendly fence that complies with the landowner's request.

**17. Management of Invasive Plants (1003.f)**

Field personnel will be trained on identifying typical noxious weeds in the area. The location will be inspected monthly at a minimum. If invasive plants are identified during an inspection, Great Plains will consult with the Surface Owner and County Weed Management Specialist(s) based on site specific conditions. Great Plains will monitor and control noxious weeds until achieving reclamation threshold for release within reclaimed disturbance areas, including monitoring to measure success of treatments. Weed control measures employed may include mowing or removal and herbicide treatment during the appropriate growing season. During drilling, production, and reclamation operations, all disturbed areas shall be kept reasonably free of noxious weeds and undesirable species.

**18. Reclamation Monitoring, Inspection, Maintenance, and Reporting**

Once the location has undergone the initial reclamation process, monitoring and inspections will occur monthly. If an issue with the reclamation process is identified during the monthly inspections, Great Plains will assess the concern and modify the practices as necessary. These modifications may include soil additives to assist seed growth if requested by the landowner.

**19. Interim Reclamation Completion Notice, Form 4 (1003.e.(3))**

Great Plains will submit a Sundry Notice Form 4 which describes the interim reclamation procedures and any associated mitigation measures performed, any changes, if applicable in the landowner's designated final land use, and at a minimum four (4) photographs taken during the growing season facing each cardinal direction which document the success of the interim reclamation and one (1) photograph which documents the total cover of live perennial vegetation of adjacent or nearby undisturbed land or the reference area. Each photograph shall be identified by date taken, well name, GPS location, and direction of view.

## **20. Site-Specific Interim Reclamation BMPs**

All surface disturbance would be reclaimed to a condition consistent with ECMC and surface owner requirements. Topsoil will be segregated during construction to be redistributed during interim reclamation. Disturbed areas would be reseeded in accordance with the specific requirements of the landowner. Reseeding would occur as soon as possible after drilling and completion activities have been completed for the well proposed on this location. The objective of interim reclamation is to achieve stability objectives to insure erosion control and continued viability of the soils for the future of the land use. The long-term objective of final reclamation is to return the land to approximately pre-project conditions.

Erosion control would be deemed sufficient when adequate vegetation cover is reestablished, water naturally infiltrates into the soil, the site complies with the approved Stormwater Management Plan (SWMP) and when gullying, head cutting, slumping, and deep or excessive riling is not observed. Proper site preparation would be ensured by spreading of stored and salvaged topsoil or topsoil replacement to an adequate depth and by ripping, tilling, disking, harrowing, and dozer track imprinting where appropriate.

Once the pad has been drilled with the proposed well, interim reclamation would occur. This would consist of minimizing the footprint of disturbance through recontouring and revegetation of all disturbed areas not needed for production operations (including cut/fill slopes). After the topsoil has been returned to these areas and prepared for seeding, a landowner-approved weed-free seed mix would be installed to prevent erosion, preserve soil integrity, and resist weeds. Prior to interim reclamation, Great Plains would meet with the private landowner to inspect the disturbed area, review the reclamation plan, and agree on any revisions.



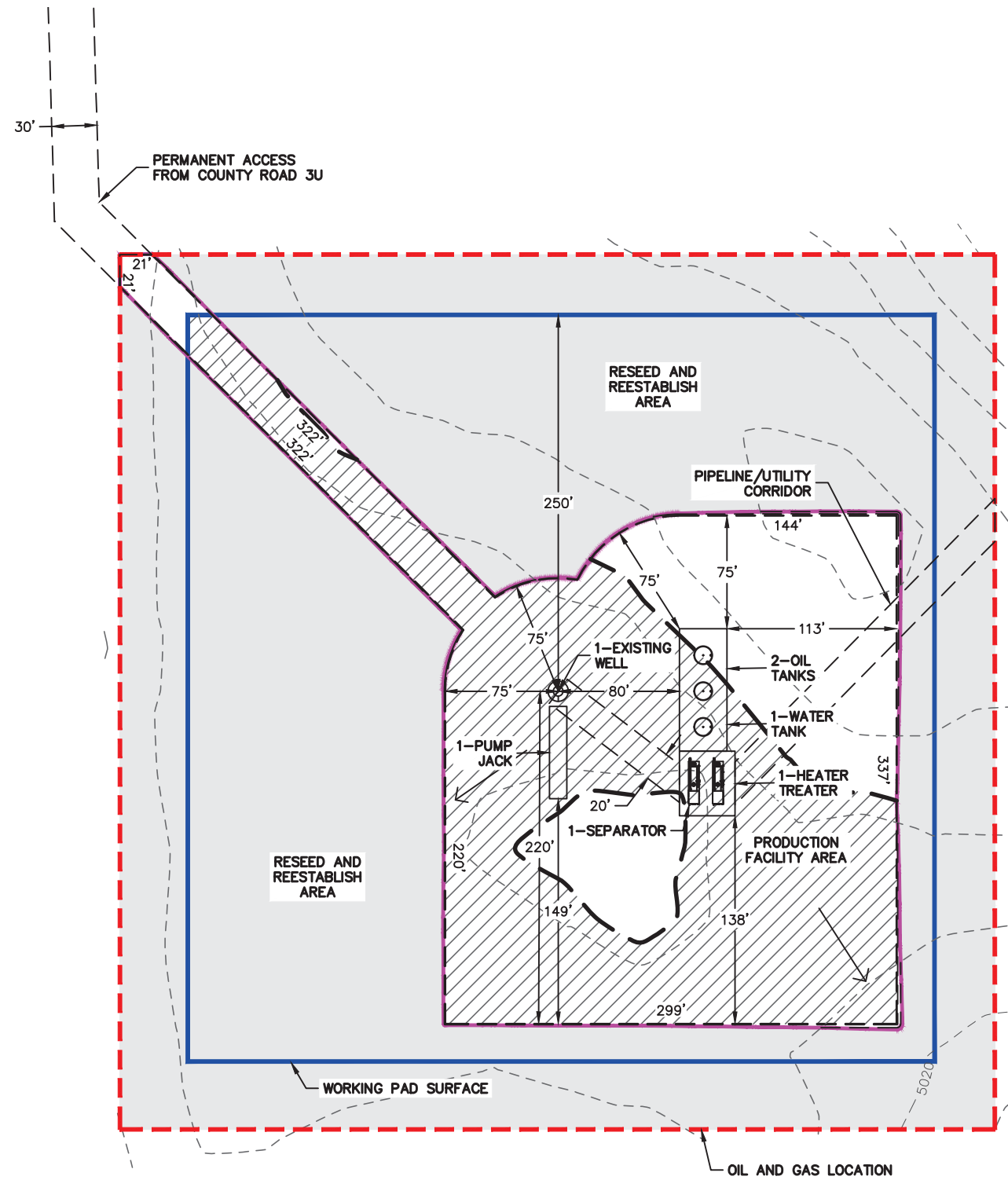
Lat40°, Inc. 6250 W. 10th Street, Unit 2, Greeley, CO 970-515-5294

# OIL AND GAS FACILITIES LAYOUT DRAWING

MARQUIS 1 PAD

GREAT PLAINS ENERGY OPERATING, LLC

Q: NW/4  
SECTION: 23  
TOWNSHIP: 7S  
RANGE: 52W  
6TH. P.M.  
LINCOLN COUNTY, CO



*OIL AND GAS LOCATION: ±7.7 ACRES  
 RECLAIMED AREA: ±5.2 ACRES  
 UNRECLAIMED AREA: ±2.5 ACRES*

### LEGEND

- UNRECLAIMED AREA
- WORKING PAD SURFACE
- OIL AND GAS LOCATION
- FILL
- RECLAIMED AREA - RESEED & REESTABLISH
- PROPOSED EDGE OF GRAVEL
- EXISTING CONTOUR - 1' INTERVAL
- PROPOSED CONTOUR - 1' INTERVAL
- CUT/FILL LINE
- CULVERT PROTECTION
- CULVERT
- FLOW ARROW

NOTE:  
 1. Ground elevations are based on an observed GPS elevation (NAVD 1988 DATUM).  
 2. All equipment is PROPOSED unless otherwise noted.

