



Interim Reclamation Plan

Date: 5/12/2023

Location: OGDG DP455 / YY18-07 Pad

Legal Description: SWNE Section 18, Township 2 North, Range 63 West, 6th P.M., Weld County, Colorado

Location Information

This document provides site-specific information for the OGDG DP455 YY18-07 Pad. The information in this document relates specifically to the time during the construction, drilling, completion, and production of the eight (8) proposed horizontal wells on this location.

The proposed location is northeast of the intersection of Weld County Road 59 and Weld County Road 20. The Pad will be in the SWNE Section 18, Township 2 North, Range 63 West, 6th P.M. zoned agricultural within the Weld County Near-Urban Planning Area.

The proposed YY18-07 Pad oil and gas location disturbance will be 9.6 acres, reduced to 2.3 acres after interim reclamation. The proposed working pad surface will be 6.4 acres. The YY18-07 Pad will be on Weld County Parcel 130318000012 owned by Guttersen Ranches LLC. The location is currently used for rangeland.

The YY18-07 Pad will produce to the existing Y11-28 Multi (COGCC Location ID: 450627) located to the northwest. Equipment at the YY18-07 Pad will include chemical injection skids, meter buildings, multi-phase flow meters, a communication tower, flowline manifolds, a temporary MLVT, and solar skids.

Phase	Duration (days)	Estimated Start Date
Construction (Daylight Only)	60 days	4th Quarter 2024
Drilling	40 days	1st Quarter 2025
Completion	40 days	4th Quarter 2025
Flowback	N/A	Flowing back directly to permanent facility
Production	30 years	4th Quarter 2025
Interim Reclamation (Daylight Only)	60 days	1st Quarter 2026

Potentially Impacted Parties

The Working Pad Surface of the YY18-07 Pad is within 2,000 feet of zero (0) Residential Building Units, zero (0) High Occupancy Building Units (HOBUs), and zero (0) Designated Outside Activity Areas. The nearest Disproportionately Impacted Community (DIC) is over 1 mile from the location. The location is not within COGCC designated High Priority Habitat (HPH).

The YY18-07 Pad is within 2,000 feet of the municipal boundary of Keenesburg. Noble has submitted a COGCC Rule 302.e. Notice to Proximate Local Government and has consulted with the Town of Keenesburg. The Town of Keenesburg has no objections to the location of the proposed Pad. Noble is in the process of amending an existing Road Maintenance Agreement (RMA) with the Town of Keenesburg to address use of Town roads for this project.

Site Specific Details

Vegetation

The location is in rangeland.

Soils

Total area of soil disturbance in acres including accesses and flowline corridors: approximately 30.7 acres.

Soil details are included in the attached Natural Resources Conservation Service (NRCS) soil report and summarized below.

Pad Soil type(s), 9.6 Disturbed Acres:

- 45 – Olney loamy sand, 3 to 5 percent slopes

Access Road Soil type(s)*, 5.4 Disturbed Acres:

- 35 – Loup-Boel loamy sands, 0 to 3 percent slopes; 45 – Olney loamy sand, 3 to 5 percent slopes; 49 – Osgood sand, 0 to 3 percent slopes; 70 – Valent Sand, 3 to 9 percent slopes

Flowline Corridor Soil type(s)*, 15.7 Disturbed Acres:

- 35 – Loup-Boel loamy sands, 0 to 3 percent slopes; 45 – Olney loamy sand, 3 to 5 percent slopes; 49 – Osgood sand, 0 to 3 percent slopes; 70 – Valent Sand, 3 to 9 percent slopes

**NRCS data is not accurate at scale for access roads and flowline corridor.*

Security

A meeting with the surface owner will occur after completions but before interim reclamation to determine a fencing plan if needed. The location will be adequately secured per 603.h to restrict access by unauthorized persons in accordance with the surface owner's requests.

Access/Pipeline/Flowline/Utility

The access road disturbance area will initially impact 5.4 acres during construction but will be reduced to 4.4 acres for long term usage. Buried intra-facility flowline corridors will require 15.7 acres of disturbance and will be totally reclaimed. Third-party utility and gathering pipelines are not being permitted as part of this OGD P.

Mitigation Measures

1002.a. Fencing

Noble will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any relevant Local Government requirements.

1002.f. Stormwater Management

Temporary seeding, hydro mulching, and/or surface roughening will be performed along all sides of the pad during initial pad construction and maintained until interim reclamation, where additional seeding, hydro mulching, and/or surface roughening will also occur at the areas being reclaimed.

Two proposed channels, which span the north and west sides of the WPS and drain into a detention pond in the northwest corner of the pad, will be constructed during pad construction and maintained until interim reclamation has been complete at the location. See the site-specific Stormwater Management Plan for more details regarding stormwater BMPs.

1003.a. General

After wells are completed for production, disturbed areas no longer required for operations will be restored and revegetated as soon as practicable.

All well sites and surface production facilities shall be maintained in accordance with Rule 603.

Equipment, Weeds, Waste, and Trash: Debris and waste materials other than de minimis amounts, including, but not limited to, concrete, sack bentonite and other drilling mud additives, sand plastic, pipe and cable, as well as equipment associated with the drilling, re-entry, or completion operations will be removed.

All E&P waste shall be handled according to the 900 Series rules.

All guy line anchors shall be brightly marked pursuant to Rule 603.j.

1003.b. Areas no Longer in Use

All disturbed areas affected by drilling or subsequent operations, except areas reasonably needed for production operations or for subsequent drilling operations to be commenced within twelve (12) months, will be reclaimed as early and as nearly as practicable to their original condition or their final land use as designated by the surface owner and will be maintained to control dust and minimize erosion. If subsidence occurs in such areas, additional soil will be added to the depression, and the land will be re-leveled as close to its original contour as practicable.

After the drilling rig is released, all holes unnecessary for further lease operations will be backfilled as soon as possible to conform with surrounding terrain.

1003.c. Compaction Alleviation.

All areas compacted by drilling and subsequent oil and gas operations which are no longer needed following completion of such operations will be cross-ripped. Compaction alleviation operations will be undertaken when the soil moisture at the time of ripping is below thirty-five percent (35%) of field capacity. Ripping will be undertaken to a depth of eighteen (18) inches unless bed rock is

encountered at a shallower depth.

1003.d. Drilling Pit Closure

The location will utilize a closed loop drilling system. There will be no pits on location, so no pit closure will be required.

1003.e. Restoration and Revegetation

All segregated soil horizons removed from non-crop lands shall be replaced to their original relative positions and contoured as near as practicable to achieve erosion control and long-term stability. Soils shall be tilled adequately to establish a proper seedbed. The disturbed area will be returned to rangeland in the first favorable season following rig demobilization.

Noble Energy will be responsible for, backfilling, compacting backfill, reseeding, and re-contouring the surface of any disturbed area to avoid interference with the surface owner's operations. All disturbed areas will be returned to preexisting conditions, as practicable.

1003.f. Weed Control

During drilling, production, and reclamation operations, all disturbed areas shall be kept free of undesirable plant species designated to be noxious weeds, as practicable. Noble Energy or onsite contractors will conduct regular visual inspections for weeds and implement weed control measures as needed.

Reclamation Monitoring, Inspection, Maintenance, and Reporting

Regular monitoring of reclaimed areas will be conducted by a qualified consultant to assess the success of reclamation activities and identify any corrective actions required to achieve success. Any corrective actions recommended by the consultant will be communicated with the appropriate Noble Energy personnel who will implement the corrective actions and track the status of completion of such actions. Corrective actions may include, but not be limited to, control of weeds and other undesired vegetation, recommendations for soil amendments or additional seeding, and erosion control. The regular monitoring will include qualitative assessments of revegetation success until such time the consultant believes that revegetation has met the appropriate State and/or Federal standards. At that time, the consultant will utilize an appropriate quantitative method for determining revegetation success.

Interim Reclamation Completion Notice

To evaluate the success of interim reclamation, Noble Energy will submit a Form 4 Sundry Notice to describe reclamation procedures, associated mitigation measures, changes to final land use, and the total cover of live perennial vegetation.

Site-Specific BMPs

The following is a list of site-specific BMPs related to Noble Energy's interim reclamation approach at the YY18-07 Pad, for areas that will be reclaimed and not used for continuing oil and gas operations:

- **Compaction alleviation** – compacted soils and areas of the location impacted by construction will be ripped to a minimum depth of 18 inches. Decompaction will be performed by a parabolic Ag style ripper capable of fracturing the soil ensuring soil layers are not mixed. Proper decompaction will allow for greater water infiltration and promote vegetation growth.
- **Culvert** – culverts are a means of subsurface storm water conveyance where surface transport is not feasible. Culverts are most often used to convey water under a roadway without impeding use of the road.
- **Culvert protection** – culvert protection may be required at the inlet (upstream side) of the culvert and/or the outlet (downstream side) of the culvert. Protection helps to reduce erosion from culverts with concentrated, high velocity flows.
- **Erosion control** – seed/mulch application functions as erosion control during initial reclamation efforts until adequate vegetation has been established on areas not returned to rangeland. Once sufficient vegetation has been confirmed, the reclamation will be deemed complete if COGCC and CDPHE Final Stabilization criteria are met. Final Stabilization criteria are discussed in more detail within Noble Energy's Storm Water Management Plan (SWMP). The interim working pad will be stabilized against potential erosion with surface armoring.
- **Fencing** – Noble Energy may fence reclaimed areas until interim reclamation has been completed to ensure vegetation growth is not overgrazed if such fencing does not interfere with the landowner's rangeland operations. Fence types are to be determined by Noble Energy and the landowner to adequately prevent livestock from entering reclaimed areas. Fencing will be installed after seed/mulch application.
- **Grading** – Grading involves reshaping the ground surface to design elevations. Grading provides more suitable topography for well pads and pipelines and helps to control runoff, soil erosion, and sediment during and after construction in these areas.
- **Mulching** – mulching is a temporary erosion control used to stabilize exposed soils while waiting for vegetation establishment. Mulch protects soils from rain impacts and wind erosion, increases infiltration, and helps regulate soil temperatures. Typically, agricultural straw or hay is mechanically applied and crimped in, or wood splinters/fibers are surface applied by hand or machinery. Tackifiers may be sprayed over the applied mulch to enhance stabilization.
- **Packing of soil layers** – if multiple soil layers are applied during interim reclamation, each soil layer is packed separately and sequentially.
- **Recontouring** – documenting the existing topography and natural drainages of the site prior to disturbance and reestablishing the topography and contours on the reclamation to pre-disturbance conditions.
- **Routine inspections** – Noble Energy, and/or third-party contractors, conduct routine and regularly scheduled inspections during which the reclamation and general site conditions are inspected and monitored.

- Seedbed preparation – after decompaction and recontouring, the top 3-4 inches of soil will be prepared for seed application using a high-speed disk and/or a mulcher as needed. Seedbed will be void of earthen clods and firm enough to keep seed from being applied too deeply. Soil samples will be collected and analyzed prior to seed application to identify any required amendments. Compost and fertilizer will be applied based on current site conditions and on an as needed basis. Portions of the location that will be returned to rangeland operations will be prepared in accordance with the landowner's direction.
- Seeding – to establish perennial vegetative cover following construction, is the best long term stabilization control for areas not stabilized with other permanent controls (pavement, concrete, road base, etc.). Establishing perennial vegetation stabilizes the soil, reduces wind and water erosion, minimizes sheet flow, increases infiltration, and reduces overall runoff volumes. Seeding can be used to establish temporary stabilization when dirt moving activities have ceased and will not resume for an extended period of time, or as a final stabilization technique as part of the reclamation plan for a site. Seeding of portions of the location that will be returned to rangeland operations will be seeded by the landowner at the appropriate time.
- Seed mix – the seed mix for reclaimed areas that will not be returned to rangeland operations will be selected in coordination with the landowner and/or the NRCS.
- Stockpile management – stockpile management is the protection of stockpiled erodible materials through structural and nonstructural practices. There are not any plans to stockpile soil on this location.
- Surface armor – surface armor is a combination of various materials (e.g., clay, concrete, dirt, rock, etc.) used to stabilize a surface on location where erosion could occur. The armor reduces erosion caused by runoff and raindrop impact, and it provides a stable working surface for various construction related activities. Surface armor is often utilized throughout the life of a location and can be incorporated on access roads, tank battery locations, and well head locations.
- Timing of reclamation – seeding of areas not returned to rangeland will occur during interim reclamation, after compaction alleviation, recontouring, and seedbed preparation, and will be conducted during a spring or fall planting window to achieve maximum germination rates. Timing of seeding of areas to be returned to rangeland will be determined by the landowner.
- Training – employee training on spill prevention, stormwater, and associated practices and procedures is essential to ensuring that everyone has the knowledge needed to follow appropriate steps and be able to minimize potential impacts resulting from stormwater related incidents.
- Weed control – invasive plants will be managed by performing a site assessment during the spring and upon completion of the first growing season after interim reclamation. This assessment will identify and inventory any/all invasive plants on the location. The assessment will include GPS coordinates and maps detailing the location of the invasive plants. Management will be performed by either mowing or spraying and in some rare occasions, both methods may be necessary. Any spraying conducted will be coordinated with the landowner. Routine inspections throughout the life of the pad will also aid in identifying when weed mitigation is needed.

Supplemental Information

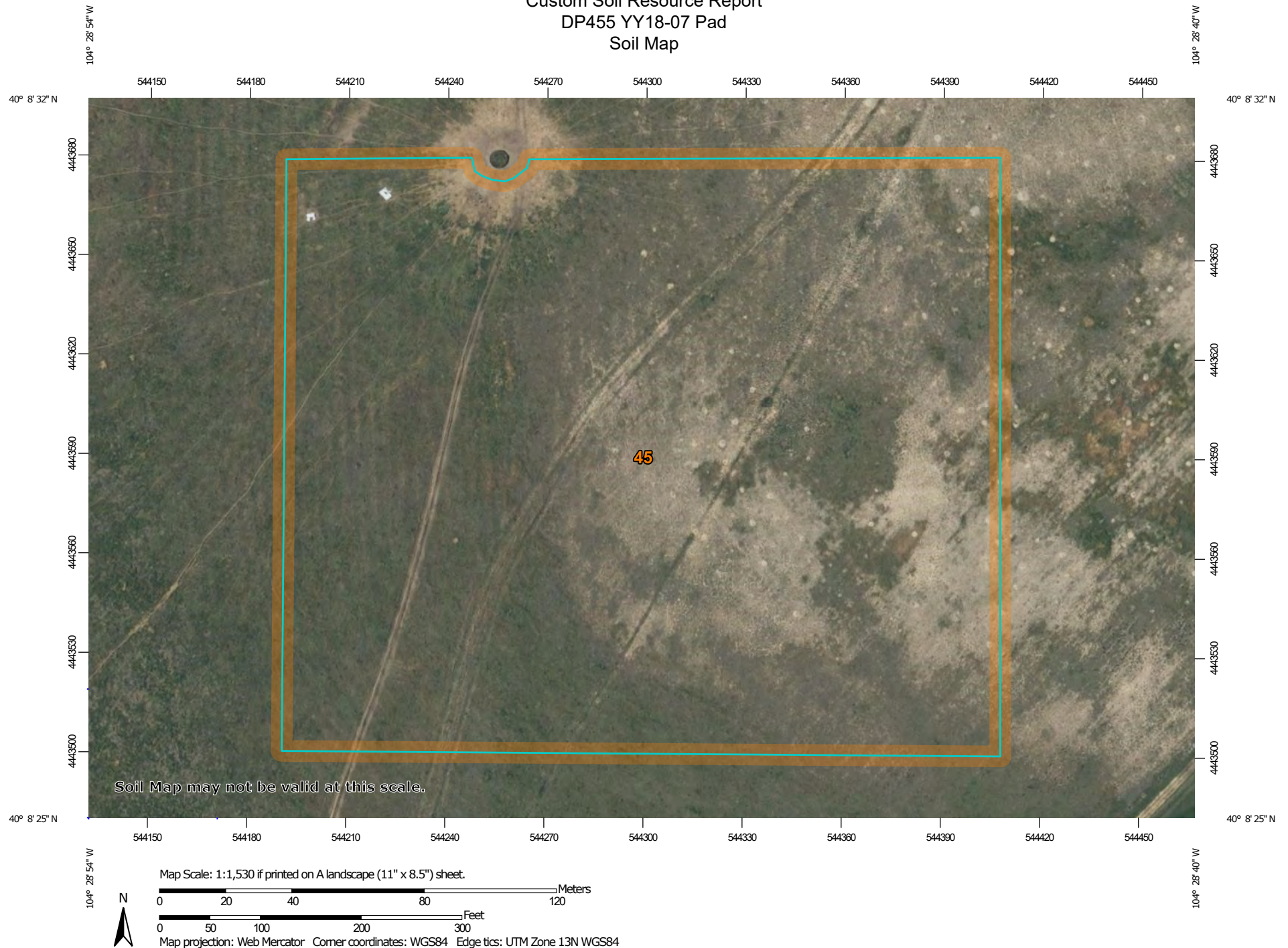
Exhibits/References/Appendices

NRCS Custom Soil Resource Report

Layout Drawings

Location Pictures

Custom Soil Resource Report
DP455 YY18-07 Pad
Soil Map



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
45	Olney loamy sand, 3 to 5 percent slopes	9.6	100.0%
Totals for Area of Interest		9.6	100.0%

Map Unit Descriptions

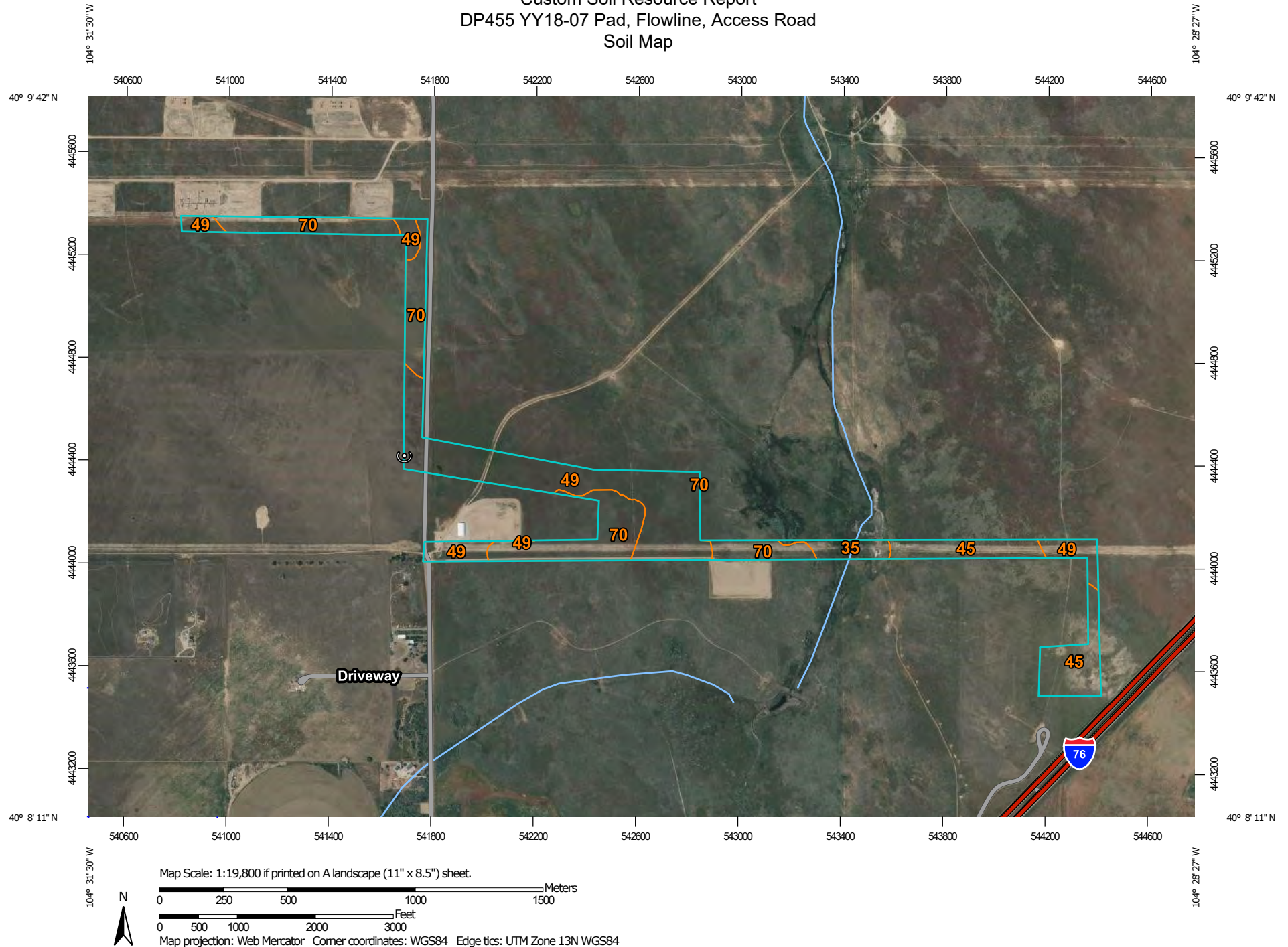
The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report DP455 YY18-07 Pad, Flowline, Access Road Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons


 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot


 Closed Depression

 Gravel Pit


 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Weld County, Colorado, Southern Part

Survey Area Data: Version 21, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 8, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
35	Loup-Boel loamy sands, 0 to 3 percent slopes	5.9	4.1%
45	Olney loamy sand, 3 to 5 percent slopes	24.6	17.0%
49	Osgood sand, 0 to 3 percent slopes	67.1	46.3%
70	Valent sand, 3 to 9 percent slopes	47.1	32.5%
Totals for Area of Interest		144.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

Custom Soil Resource Report

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Weld County, Colorado, Southern Part

35—Loup-Boel loamy sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 362f
Elevation: 4,550 to 4,750 feet
Mean annual precipitation: 11 to 15 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Loup and similar soils: 55 percent
Boel and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Loup

Setting

Landform: Streams, drainageways, swales
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium

Typical profile

H1 - 0 to 16 inches: loamy sand
H2 - 16 to 40 inches: loamy sand
H3 - 40 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): 4w
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: A/D
Ecological site: R067BY029CO - Sandy Meadow
Hydric soil rating: Yes

Description of Boel

Setting

Landform: Drainageways, swales, streams
Down-slope shape: Linear

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Across-slope shape: Linear

Parent material: Stratified sandy alluvium

Typical profile

H1 - 0 to 14 inches: loamy sand

H2 - 14 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 4w

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: A

Ecological site: R067BY029CO - Sandy Meadow

Hydric soil rating: No

Minor Components

Osgood

Percent of map unit: 5 percent

Hydric soil rating: No

Valent

Percent of map unit: 5 percent

Hydric soil rating: No

45—Olney loamy sand, 3 to 5 percent slopes

Map Unit Setting

National map unit symbol: 362s

Elevation: 4,600 to 5,200 feet

Mean annual precipitation: 11 to 15 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 125 to 175 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Olney and similar soils: 85 percent

Minor components: 15 percent

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

Description of Olney

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed deposit outwash

Typical profile

H1 - 0 to 10 inches: loamy sand
H2 - 10 to 20 inches: sandy clay loam
H3 - 20 to 25 inches: sandy clay loam
H4 - 25 to 60 inches: fine sandy loam

Properties and qualities

Slope: 3 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: R067BY024CO - Sandy Plains
Hydric soil rating: No

Minor Components

Zigweid

Percent of map unit: 8 percent
Hydric soil rating: No

Vona

Percent of map unit: 7 percent
Hydric soil rating: No

49—Osgood sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 362x
Elevation: 4,680 to 4,900 feet

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Mean annual precipitation: 13 to 15 inches
Mean annual air temperature: 46 to 55 degrees F
Frost-free period: 140 to 150 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Osgood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Osgood

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian sands

Typical profile

H1 - 0 to 22 inches: sand
H2 - 22 to 34 inches: sandy loam
H3 - 34 to 60 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R067BY015CO - Deep Sand
Hydric soil rating: No

Minor Components

Valent

Percent of map unit: 10 percent
Hydric soil rating: No

Dailey

Percent of map unit: 5 percent
Hydric soil rating: No

70—Valent sand, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: 2tczf
Elevation: 3,050 to 5,150 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 130 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Valent and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Valent

Setting

Landform: Hills, dunes
Landform position (two-dimensional): Shoulder, backslope, footslope, summit
Landform position (three-dimensional): Head slope, nose slope, side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Noncalcareous eolian sands

Typical profile

A - 0 to 5 inches: sand
AC - 5 to 12 inches: sand
C1 - 12 to 30 inches: sand
C2 - 30 to 80 inches: sand

Properties and qualities

Slope: 3 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R067BY015CO - Deep Sand, R072XY109KS - Rolling Sands

Custom Soil Resource Report

Hydric soil rating: No

Minor Components

Dailey

Percent of map unit: 10 percent

Landform: Interdunes

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R067BY015CO - Deep Sand, R072XA021KS - Sands (North) (PE 16-20)

Hydric soil rating: No

Vona

Percent of map unit: 5 percent

Landform: Hills

Landform position (two-dimensional): Shoulder, backslope, footslope

Landform position (three-dimensional): Head slope, nose slope, side slope, base slope

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R067BY024CO - Sandy Plains, R072XA022KS - Sandy (North) Draft (April 2010) (PE 16-20)

Hydric soil rating: No

Haxtun

Percent of map unit: 5 percent

Landform: Interdunes

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R067BY024CO - Sandy Plains, R072XY111KS - Sandy Plains

Hydric soil rating: No

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Custom Soil Resource Report

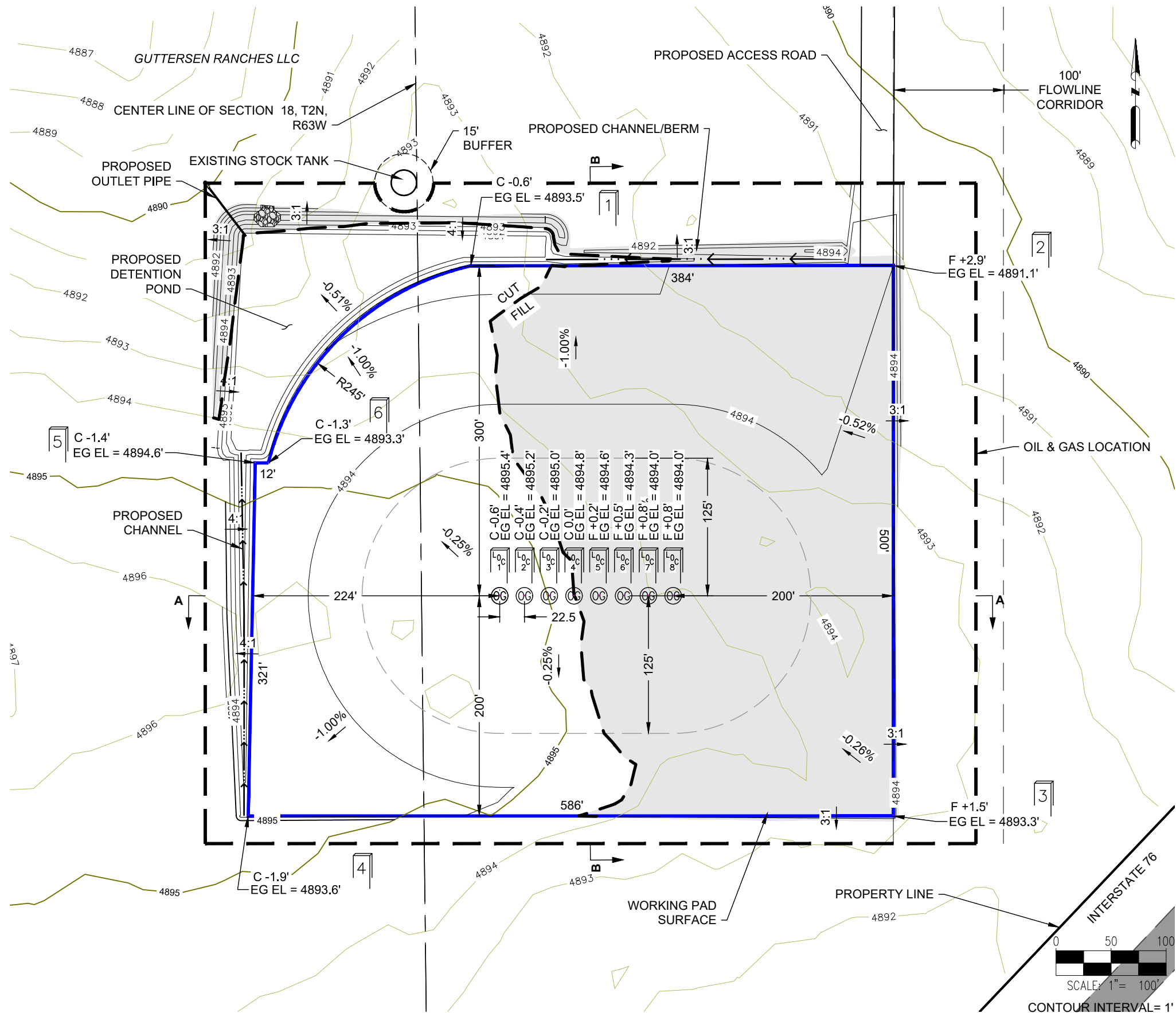
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YY18-07 PAD LAYOUT DRAWINGS



SITE QUANTITIES	
FINISHED GRADE ELEVATION	4,893.7' - 4,896.0'
ROUGH GRADE ELEVATION	4,892.7' - 4,895.0'
TOTAL CUT FOR SITE	6,246 CY
TOTAL FILL FOR SITE	5,968 CY
NET EXCESS MATERIAL	278 CY
OIL & GAS LOCATION AREA	9.6 ACRES
WORKING PAD SURFACE AREA	6.4 ACRES
ACCESS ROAD DISTURBANCE AREA	5.4 ACRES
FLOWLINE CORRIDOR AREA	15.7 ACRES

LEGEND:	
	EXISTING PROPERTY LINE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED CHANNEL
	WORKING PAD SURFACE
	FLOWLINE CORRIDOR
	OIL & GAS LOCATION
	CENTER-SECTION LINE
	PROPOSED OIL & GAS WELL
	RIP RAP OR SLOPE PROTECTION
	GUTTERSEN YY18-740
	GUTTERSEN YY18-730
	GUTTERSEN YY18-720
	GUTTERSEN YY18-712
	GUTTERSEN YY18-05
	GUTTERSEN YY18-06
	GUTTERSEN YY18-07
	GUTTERSEN YY18-08

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WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:

NOBLE ENERGY INC.
1625 BROADWAY, SUITE 2200
DENVER, CO 80202
(303) 228-4000

SHEET NAME:

CONSTRUCTION LAYOUT

SURFACE LOCATION

SW 1/4 NE 1/4 SECTION 18
T2N, R63W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR FINAL	DMM	4/25/23
1	ISSUED FOR FINAL	RMC	5/4/23

DRAWING DATE:

4/25/23

DRAFTED BY:

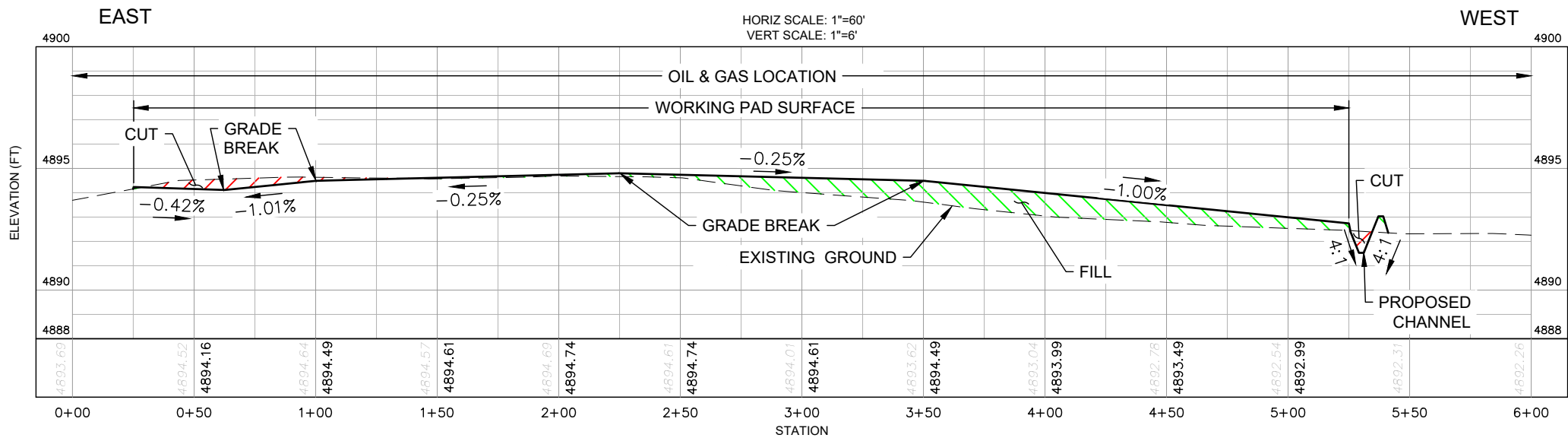
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SHEET NO.

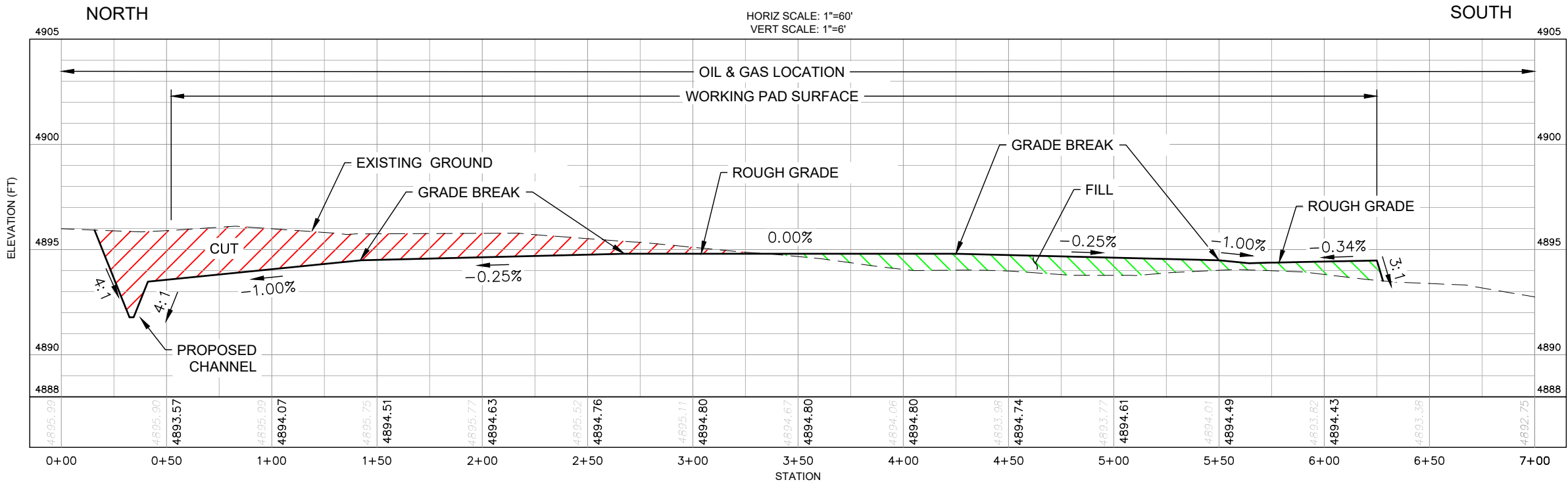
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YY18-07 PAD
LAYOUT DRAWINGS



SECTION A - LOOKING SOUTH



SECTION B - LOOKING EAST

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NOBLE ENERGY INC.
1625 BROADWAY, SUITE2200
DENVER, CO 80202
(303) 228-4000

SHEET NAME:
CROSS SECTIONS
SURFACE LOCATION

SW 1/4 NE 1/4 SECTION 18
T2N, R63W, 6TH P.M.
WELD COUNTY, COLORADO

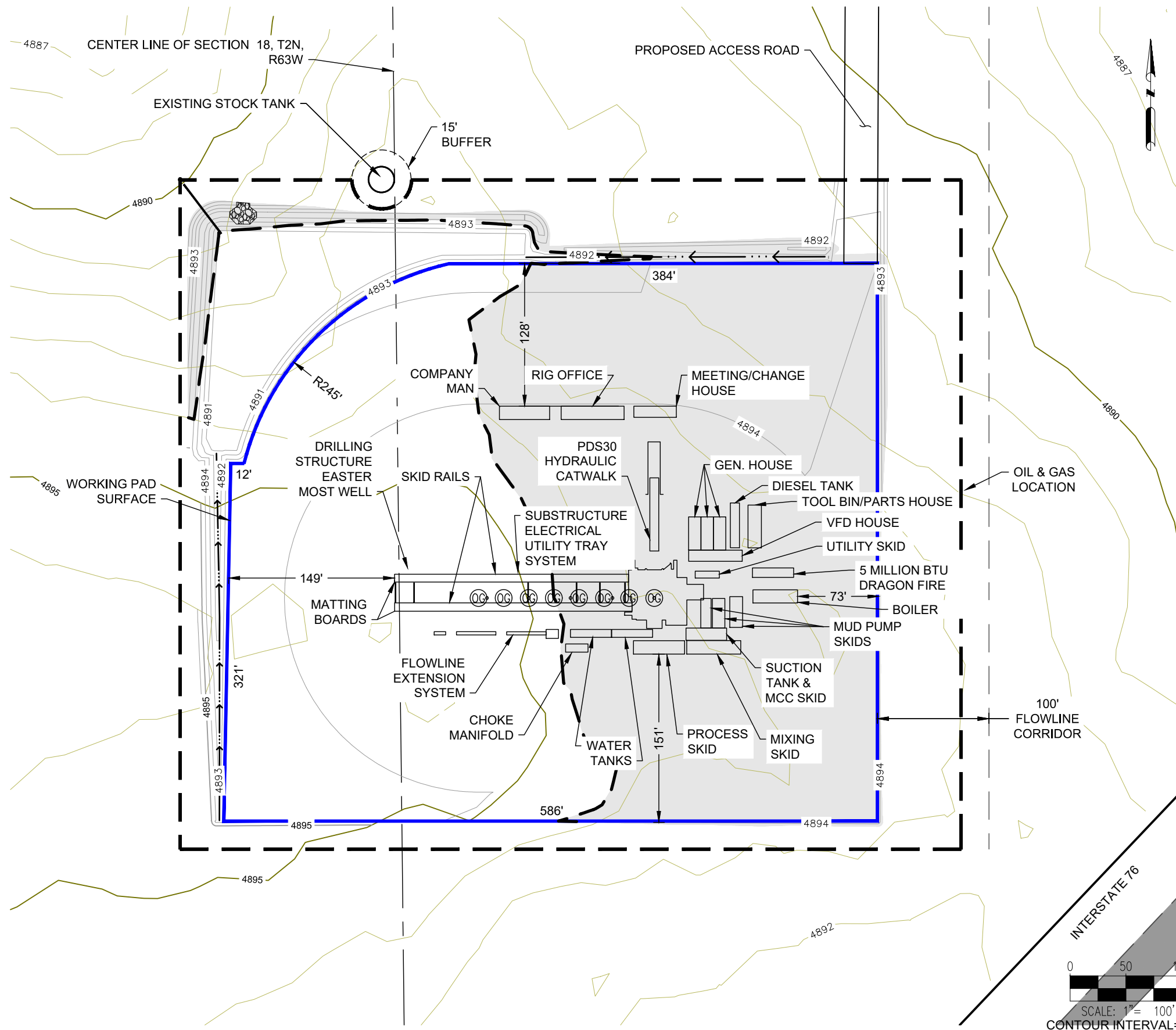
REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR FINAL	DMM	4/25/23

DRAWING DATE:
4/25/23













DRAFTED BY:
DMM

SHEET NO.
2 OF 5

LAYOUT DRAWINGS



LEGEND:

- | | |
|---|-----------------------------|
|  | EXISTING PROPERTY LINE |
|  | EXISTING MAJOR CONTOUR |
|  | EXISTING MINOR CONTOUR |
|  | PROPOSED MAJOR CONTOUR |
|  | PROPOSED MINOR CONTOUR |
|  | PROPOSED CHANNEL |
|  | WORKING PAD SURFACE |
|  | FLOWLINE CORRIDOR |
|  | OIL & GAS LOCATION |
|  | CENTER-SECTION LINE |
|  | PROPOSED OIL & GAS WELL |
|  | RIP RAP OR SLOPE PROTECTION |

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PREPARED FOR:



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DENVER, CO 80202
(303) 228-4000

SHEET NAME:

RIGHT LAYOUT

SURFACE LOCATION

NE 1/4 SECT

CR63W, 61H
COUNTY COI

DATE	DATE	DATE
DATE	DATE	DATE

4/25/23	4/25/23
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A 2x2 grid with diagonal lines in each quadrant. The top-left and bottom-right quadrants have lines sloping down from left to right. The top-right and bottom-left quadrants have lines sloping down from right to left.

REV.	REVISION DESCRIPTION
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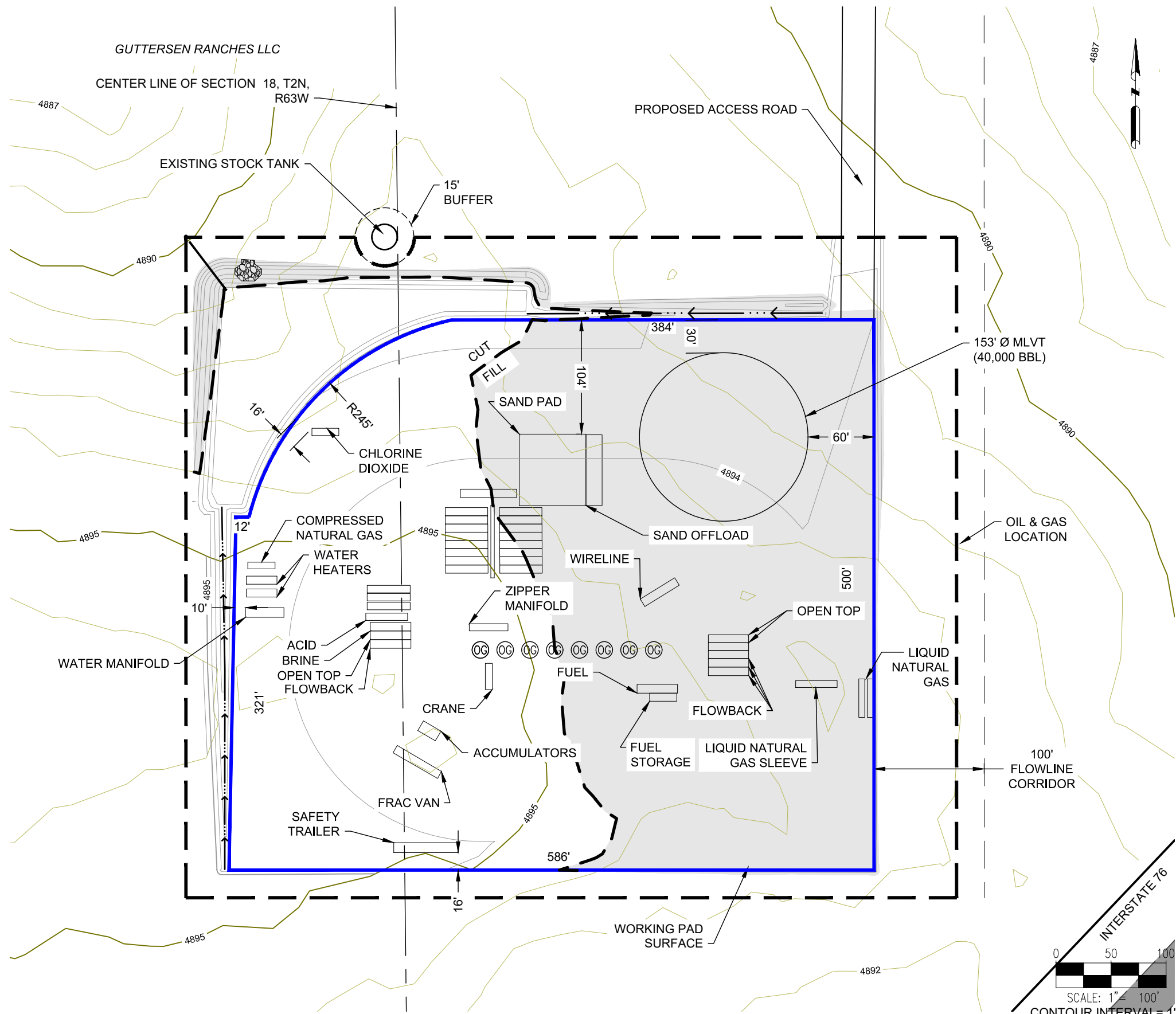
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SHEET NO. 3 OF 5

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YY18-07 PAD
LAYOUT DRAWINGS



LEGEND:

- EXISTING PROPERTY LINE
- 5280 EXISTING MAJOR CONTOUR
- 5280 EXISTING MINOR CONTOUR
- 5280 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CHANNEL
- WORKING PAD SURFACE
- FLOWLINE CORRIDOR
- OIL & GAS LOCATION
- CENTER-SECTION LINE
- PROPOSED OIL & GAS WELL
- RIP RAP OR SLOPE PROTECTION

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PREPARED FOR:

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DENVER, CO 80202
(303) 228-4000

SHEET NAME:

COMPLETIONS & STIMULATION LAYOUT

SURFACE LOCATION

SW 1/4 NE 1/4 SECTION 18
T2N, R63W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	DESCRIPTION	BY	DATE	MA
0	ISSUED FOR FINAL	DMM	4/25/23	

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4/25/23

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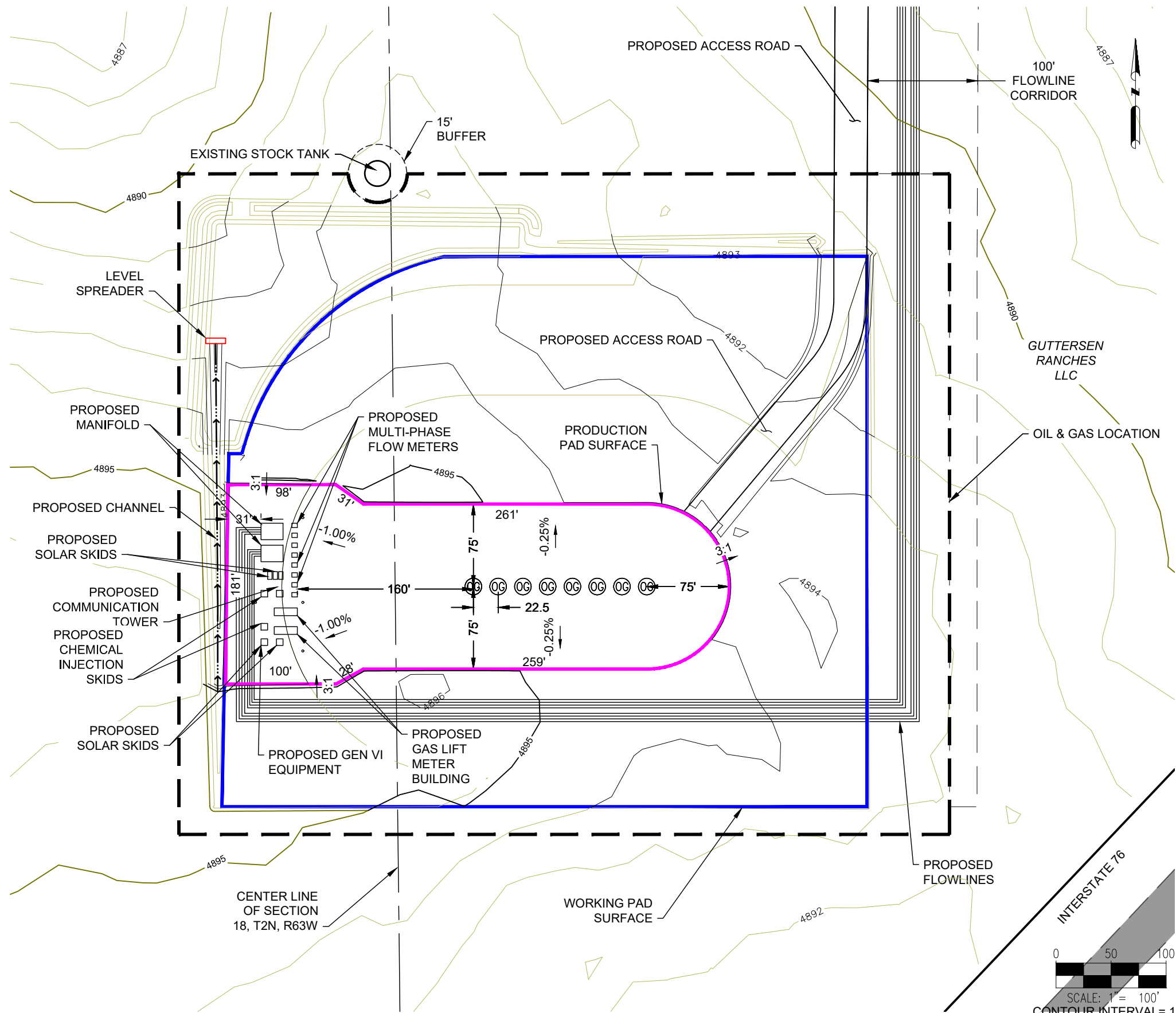
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SHEET NO.

4 OF 5

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YY18-07 PAD
LAYOUT DRAWINGS



SITE QUANTITIES		
TOTAL CUT FOR SITE	4,733	CY
TOTAL FILL FOR SITE	4,627	CY
NET EXCESS MATERIAL	106	CY
RECLAIMED AREA	7.3	ACRES
PERMANENT DISTURBANCE AREA	2.3	ACRES
OIL & GAS LOCATION AREA	9.6	ACRES
RECLAIMED ACCESS ROAD AREA	1.0	ACRES
PERMANENT ACCESS ROAD AREA	4.4	ACRES

LEGEND:	
	EXISTING PROPERTY LINE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED CHANNEL
	WORKING PAD SURFACE
	FLOWLINE CORRIDOR
	PRODUCTION PAD SURFACE
	OIL & GAS LOCATION
	CENTER-SECTION LINE
	PROPOSED OIL & GAS WELL
	RIP RAP OR SLOPE PROTECTION

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DENVER, CO 80202
(303) 228-4000

SHEET NAME:
FACILITY LAYOUT
SURFACE LOCATION
SW 1/4 NE 1/4 SECTION 18
T2N, R63W, 6TH P.M.
WELD COUNTY, COLORADO

DATE	DATE
MM	MA
4/25/23	4/25/23

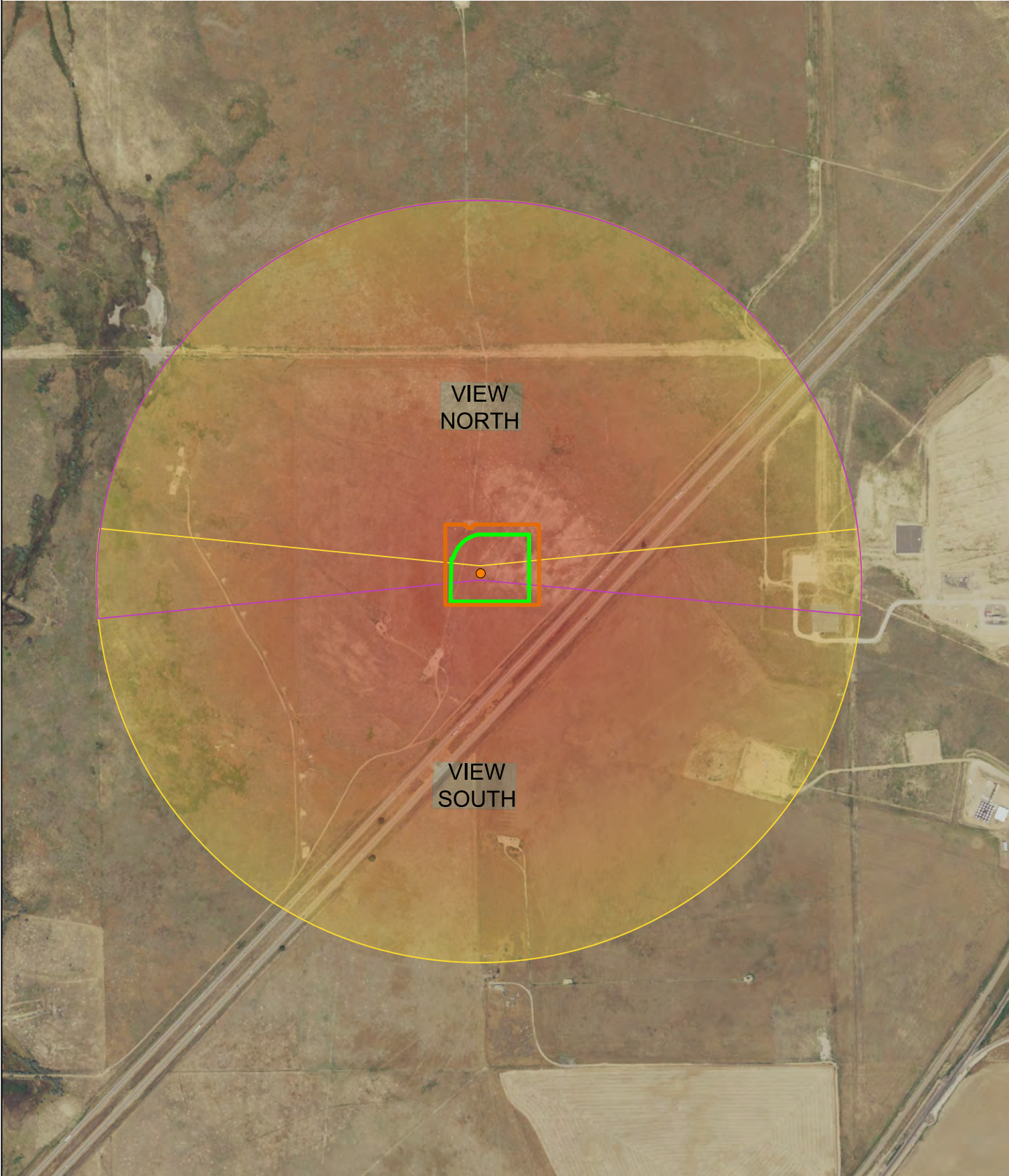
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DRAWING DATE:
4/25/23

DRAFTED BY:
DMM

SHEET NO.
5 OF 5

YY18-07 PAD
LOCATION PICTURES



LOCATION PICTURES:

NORTH VIEW (PANORAMIC)



SOUTH VIEW (PANORAMIC)



ALL PHOTOS WERE TAKEN ON 04/18/23.
REFERENCE POINT PHOTOS WERE TAKEN FROM THE PROPOSED GUTTERSEN YY18-785 WELL LOCATION.

REFERENCE POINT

GUTTERSEN YY18-785

LAT: 40.141256° N
LONG: 104.480165° W
ELEVATION: 4897'
1582' FNL & 2611' FEL
PDOP: 1.0
GPS OPERATOR: RYAN LLOYD

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UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.

LEGEND:



= REFERENCE POINT



= FIELD OF VIEW - NORTH



= FIELD OF VIEW - SOUTH



= OIL & GAS LOCATION



= WORKING PAD SURFACE

