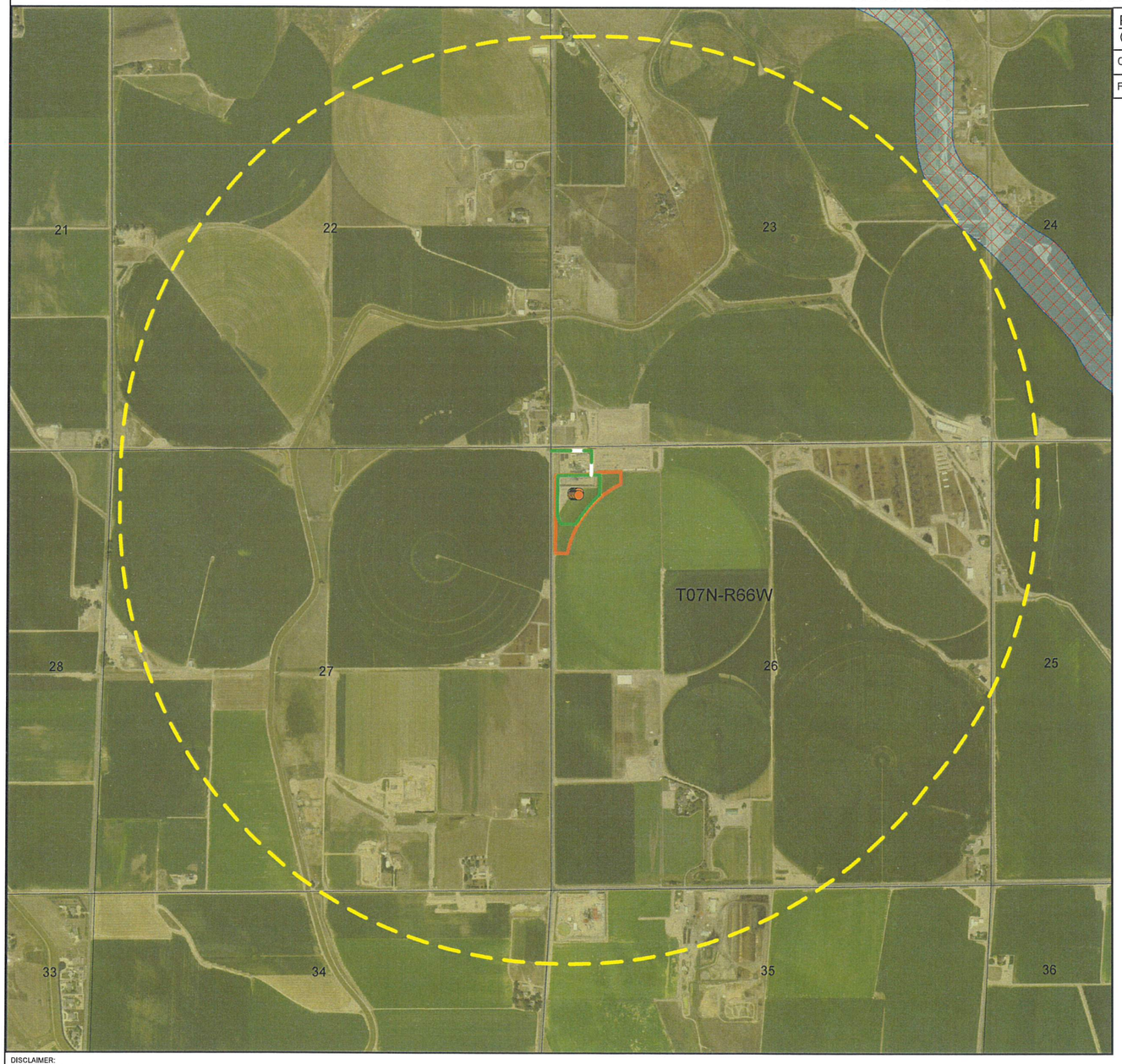
ONYX PAD
GEOLOGIC HAZARD MAP



DISCLAIMER:
THIS PLOT DOES NOT REPRESENT A MONUMENTED LAND SURVEY AND SHOULD NOT BE RELIED UPON TO DETERMINE BOUNDARY LINES, PROPERTY OWNERSHIP OR OTHER PROPERTY INTERESTS. PARCEL LINES, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND MAY BE BASED UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.

POTENTIAL HAZARDS:
(AS MEASURED FROM THE PROPOSED WORKING PAD SURFACE)

COLLAPSIBLE & EXPANDABLE SOILS - DUNE & SHEET SAND DEPOSITS AND EOLIAN (WIND-BLOWN) DEPOSITS	0'
FLOODPLAIN	±5233' NE

IDENTIFIED SOILS ARE EXTENSIVE BEYOND MAP SCOPE LIMITS

HAZARD TYPE	DISTANCE (N/A IF >5280')	SOURCE, DESCRIPTION IF <5280'
AVALANCHES	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
LANDSLIDES	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
ROCK FALLS	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
MUDFLOWS	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
UNSTABLE OR POTENTIALLY UNSTABLE SLOPES	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
SEISMIC EFFECTS	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
RADIOACTIVITY	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
GROUND SUBSIDENCE	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS
MINE EXTENT	N/A	COGCC GIS, WELD COUNTY PROPERTY PORTAL, CO GEOLOGIC SURVEY MAPS

NOTES:

1. COLLAPSIBLE AND EXPANSIVE SOILS AS MAPPED DO NOT CONSTITUTE A GEOLOGIC HAZARD. ANY AREAS OF POTENTIAL OR PREVIOUS SUBSIDENCE DUE TO COLLAPSIBLE AND EXPANSIVE SOILS WILL BE IDENTIFIED AND MAPPED AS A SUBSIDENCE GEOLOGIC HAZARD AS PROVIDED BY GEOLOGIST. EXPANSIVE AND COLLAPSIBLE SOILS ARE EXTENSIVE BEYOND MAP LIMITS. (DATA SOURCE: CGS/CLIENT)
2. PER THE COLORADO GEOLOGIC SURVEY (CGS), EG-14 COLLAPSIBLE SOILS ARE PRESENT IN THE VICINITY OF THE LOCATION. THESE SOIL TYPES ARE PRONE TO BOTH WATER EROSION AND SOIL BLOWING. BAYSWATER, LLC WILL DEPLOY DUST MITIGATION MEASURES PROVIDED IN THE DUST MITIGATION PLAN THAT WILL MITIGATE AND MINIMIZE WIND EROSION. THE GRADING AND DRAINAGE DESIGN OF THE LOCATION, IN ADDITION TO IMPLEMENTATION OF STORMWATER CONTROLS PER BAYSWATER, LLC'S STORMWATER MANAGEMENT PLAN, WILL MITIGATE AND MINIMIZE WATER EROSION. IN ACCORDANCE WITH BAYSWATER, LLC'S STANDARD OPERATING PROCEDURE, AND AS OUTLINED IN THE TOPSOIL PROTECTION PLAN, A GEOTECHNICAL EXPLORATION WILL BE COMPLETED BY A GEOTECHNICAL ENGINEER PRIOR TO THE COMMENCEMENT OF PAD CONSTRUCTION CONSISTING OF MULTIPLE SOIL BORES ACROSS THE LOCATION. DURING PAD CONSTRUCTION, COLLAPSIBLE SOILS (IF PRESENT) WILL BE OVER EXCAVATED AND THROUGHOUT CONSTRUCTION ALL SOIL WILL BE MOISTURE CONDITIONED AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. PROPER SLOPING AND BENCHING TECHNIQUES WILL BE ADHERED TO IN ACCORDANCE WITH OSHA REGULATIONS AND STEEP EMBANKMENTS WILL BE AVOIDED. PERMANENT FACILITY EQUIPMENT WILL BE INSTALLED ON DEEP-FOUNDATION ELEMENTS CONSISTING OF HELICAL PILES. NONE OF THE IDENTIFIED SOILS WITHIN THE AREA SURROUNDING THE ONYX PAD ARE CONSIDERED A SIGNIFICANT HAZARD TO PUBLIC HEALTH, SAFETY, PROPERTY, OR THE ENVIRONMENT.

THE FOLLOWING SOURCES HAVE BEEN CONSULTED TO DETERMINE IF ANY HAZARDS EXIST AND TO ASCERTAIN THE BOUNDARIES OF ANY IDENTIFIED HAZARDS:

COGCC GIS: https://cogccmap.state.co.us/cogcc_gis_online/
Weld County Property Portal: https://www.co.weld.co.us/maps/propertyportal/
Colorado Geological Survey: ON-001 -- Colorado Earthquake and Fault Map
https://cgsarcimage.mines.edu/ON-001/
ON-006-01 -- Statewide Landslide Inventory Map
https://cologeosurvey.maps.arcgis.com/apps/webappviewer/index.html?id=9dd73db7fbc34139abe51599396e2648
ON-006-06 -- Colorado Historic Coal Mines
https://cologeosurvey.maps.arcgis.com/apps/webappviewer/index.html?id=1891e3149eda44af9dc8af81c4dc58a8
ON-B-40M -- Radioactive Mineral Occurrences of Colorado and Bibliography
https://cologeosurvey.maps.arcgis.com/apps/webappviewer/index.html?id=c5381e1335284d63bfa5d4b018b3372f
FEMA FLOODPLAIN: https://www.fema.gov/flood-maps/national-flood-hazard-layer
CLIENT PROVIDED DATA MAY ALSO BE UTILIZED BEYOND THESE SOURCES.

I certify that I am a Professional Geologist, having met the educational requirements and professional work experience required by C.R.S. § 23-41-208(b). I have reviewed information pertaining to this Oil and Gas Location and the surrounding area, and have identified no Geologic Hazards within a one mile radius.

N

0 750 1500
SCALE: 1"=1500'

SIGNATURE

SR. V.P. OF EXPLORATION
TITLE

11-17-22
DATE

ASCENT GEOMATICS SOLUTIONS
8620 Wolff Court
Westminster, CO 80031
(303) 928-7128
www.ascentgeomatics.com

FIELD DATE:	DRAWING DATE:	SITE NAME:
05-19-22	05-22-22	ONYX PAD
DRAWN BY:	CHECKED BY:	SURFACE LOCATION:
HJL	CSG	NW 1/4 NW 1/4 SEC. 26, T7N, R66W, 6TH P.M. WELD COUNTY, COLORADO

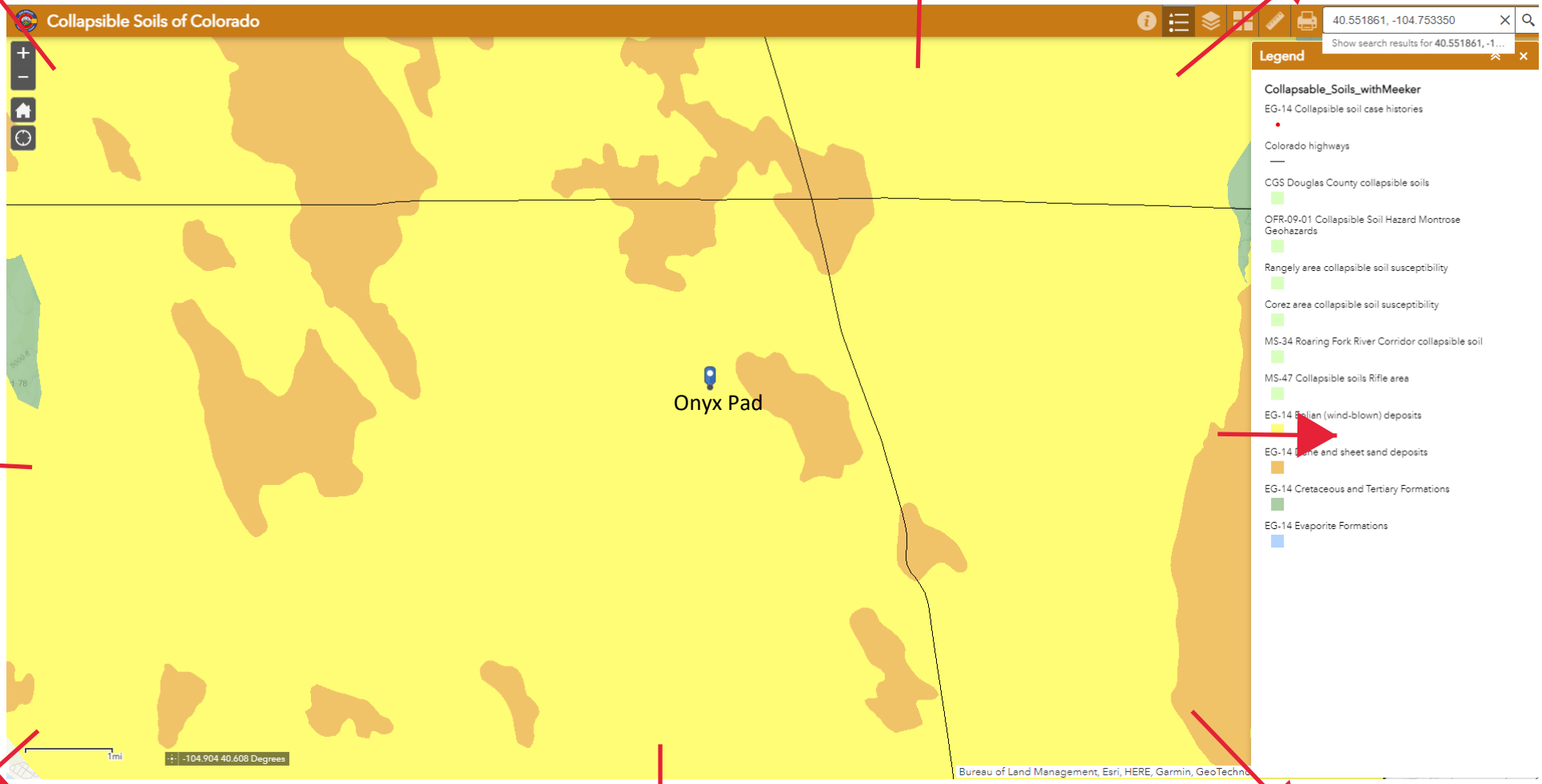
DATA SOURCE:
AERIAL IMAGERY: NAIP 2019
GEOLOGIC HAZARDS: COUNTY GIS, COGIS, USGS GIS
FLOODPLAIN: FEMA GIS DATA, FEMA FLOOD MAPS

PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

LEGEND:
- = PROPOSED WELL
- = EXISTING ACCESS ROAD
- = SECTION LINE
- = TOWNSHIP LINE
- = FLOODPLAIN
- = 5280' BUFFER FROM WPS
- = OIL & GAS LOCATION
- = WORKING PAD SURFACE
- = COLLAPSIBLE & EXPANDABLE SOILS - DUNE & SHEET SAND DEPOSITS AND EOLIAN (WIND-BLOWN) DEPOSITS

PLAT: \\AGSFS\PROJECTS\BEP__B210003\PROD\2A\ONYX PAD 7N66W26 GEOLOGIC HAZARD MAP LAYOUT TAB: Geologic Hazard

Onyx Pad Soils Extent



Geologist's Statement:

The area of the Onyx Pad surface site has been mapped as an area of Collapsible Soils by the Colorado Geologic Survey. Specifically, a large area north of Greeley has been mapped as "Eolian (wind-blown) Deposits" (maps 1 and 2). These eolian deposits are not deemed to be geohazards in regard to the proposed Onyx Pad drilling operation either as 1) a cause of long-term damage to the surface or 2) a hazard to the drilling operations that could result in compromising the environment or safety of individuals in the immediate area.

The primary reasons that the mapped collapsible soils are not considered a hazard to the proposed operations are as follow:

1) Extensive irrigation in the area. The primary reason that eolian deposits can create a hazard is that when a significant amount of water is introduced to the dry and loosely packed grains comprising the eolian deposit, the grains can shift and settle into a more tightly packed and higher density configuration that results in subsidence at the surface. This phenomenon was originally recognized in Colorado when lands first became irrigated starting in the late 1800's. The Onyx surface site is located in an area that has received extensive irrigation for many years and so any potential water related collapse would have already occurred.

2) There are no known cases of subsidence due to eolian soil collapse in the area as a result of drilling operations. There have been numerous drilling operations in greater Wattenberg Field (and specifically in T7N-66W) in areas mapped as eolian deposits that have not encountered nor created any problems related to collapsible soils.

3) The drill site will be constructed and managed using approved practices that preclude fluids from leaving the immediate location:

Operator shall install stormwater controls, constructed in a manner that is consistent with good engineering practices, that will prevent offsite migration of sediment/contaminant into the nearby banks of ditches 50' W, 89' W, 325' N, and 409' S of the location.

Stormwater controls shall be installed prior to construction activities. Gas, oil, and water gathering lines will be co-located to minimize potential of erosion associated with construction of any pipeline(s).

Stormwater Management is coordinated with Weld County via Preliminary Drainage Report to be submitted as part of 1041WOGLA22-0017, and a Grading Permit and Final Drainage Report will be approved by Weld County Public Works prior to site construction.

Berm Construction: Tertiary containment will be installed at the Onyx Pad as required to protect the ditches less than 500 feet and down gradient of the Location.

Per the concurrently submitted WOGLA, Bayswater will comply with the Colorado Water Quality Control Commission regulations by following the active Stormwater Management Plan, which outlines the BMP's, inspection processes and spill prevention that will be implemented during facility construction and post- construction activities for this location. The location will be covered under Bayswater's fieldwide Stormwater permit, COR400369.