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November 3, 2023

RUH STATE OGDPA ALA NARRATIVE

**Ruh State South Pad: SE ¼ NE ¼ Section 11, Township 6 North, Range 62 West, 6th P.M.
OGDP Docket #230700251, Form 2A Doc # 403049953
Weld County, Colorado**

**Ruh State North Pad: NW ¼ NW ¼ Section 1, Township 6 North, Range 62 West, 6th P.M.
OGDP Docket #230700251, Form 2A Doc # 403049950
Weld County, Colorado**

INTRODUCTION

HERV Oil LLC, ("HERV") is providing this Alternative Location Analysis (ALA) Narrative for the Ruh State North Pad located in the NW¼NW¼ Section 1-6N-62W, and Ruh State South Pad located in the SE¼NE¼ Section 11-6N-62W. The Ruh State Pads are being proposed to develop a single approved drilling spacing unit ("DSU") consisting of approximately 2,500.48 subsurface mineral acres covering Township 6 North, Range 62 West, 6th P.M., Sections 1 and 12: All and Township 6 North, Range 61 West, 6th P.M., Sections 6 and 7: All, by proposed 14 wells among the two surface locations, comprised of a total of approximately 21.7 acres during drilling and completion operations, and reduced to 17.6 acres when the wells enter the production phase and interim reclamation is performed. This alternative location analysis is required because both the Ruh State North Pad and Ruh State South Pad meet the criteria of ECMC Rule 304.b.(2)B.i. and viii. More specifically, as shown on the attached Location Drawing there are 4 Residential Building Units ("RBUs") within 2,000' of the Working Pad Surface ("WPS") of the Ruh State North Pad, 2 RBUs within 2,000' of the WPS of the Ruh State South Pad, and both pads are within Winter Pronghorn Concentration HPH.

HERV began its alternative location analysis by identifying all potential sites within and adjacent to the DSU from which the targeted minerals in the DSU can be accessed. That first step identified the proposed locations and eight alternative sites discussed herein. After analyzing the potential sites from which the targeted minerals can be accessed, HERV determined the proposed locations to be the most viable and preferred as they present fewer potential adverse impacts than the alternatives analyzed. HERV did not identify any preferable technically feasible alternative locations within or adjacent to the DSU that more successfully avoid potential impacts to receptors. As reflected in the analysis that follows, the proposed siting of the Ruh State North and Ruh State South Pads best achieves the development of the targeted minerals as well as the goal of minimizing or avoiding adverse impacts while considering all possible sites that are technically feasible to access the target minerals.

Proposed Location: Ruh State South Pad

Lat: 40.503048
Long: -104.281345
Tier IV-A

The Ruh State South Pad, located in Township 6 North, Range 62 West, 6th P.M., Section 11: SE¼NE¼ will produce minerals located in Township 6 North, Range 62 West, 6th P.M., Sections 1 and 12: All and Township 6 North, Range 61 West, 6th P.M., Sections 6 and 7: All. The location is in unincorporated Weld County. The closest municipality is the Town of Kersey, which is well over a mile away. HERV's analysis identified the following:

Advantages:

- The Ruh State South Pad is situated so as to minimally disturb the surface owner's farming operations. HERV has worked collaboratively with landowner and the relevant local government (Weld County) to minimize impact of oil and gas on agricultural operations. Further, according to the landowner, this land has limited agricultural appeal, and landowner expressly desires to utilize for the purpose of a pad site.
- Location is not within or upgradient of a mapped wetland.
- This location has an approved 1041 WOGLA.
- There is a Surface Use Agreement (SUA) for this location.
- Location is within 700' of gas takeaway pipeline.
- The effected RBU owner (two RBUs, one owner) is a mineral owner that will directly benefit from mineral development.
- HERV will have access to electrical power at this proposed site that will provide power to some portion of the production facility, which will reduce noise and air emission impacts.
- HERV is able to source and deliver fresh water to the location for the completion operations via temporary lay-flat pipelines, which will significantly reduce the emissions and other impacts associated with truck traffic.
- There are no High Occupancy Building Units (HOBUs), School Facilities, or Child Care Centers within 2,000' of the WPS.
- Location will allow for all wells to be located further than 150' from all property lines and will not require obtaining a waiver.
- There is not a DIC within 2,000'.

Disadvantages:

- There are 2 RBUs within 2,000' of the WPS owned by one individual.
- Location is within Winter Pronghorn Concentration HPH; however, through extensive consultation with CPW, HERV has relocated and revised the site to a mutually agreed upon location, size, and shape to minimize impacts to Pronghorn Winter Concentration.

Potential impacts to health, safety, welfare, wildlife, and the environment related to the development of this location:

There are potential impacts to the RBU receptors within 2,000' of this location's WPS, including impacts from light, noise, odor, and air emissions. Each of these impacts, however, will be addressed through Best Management Practices (BMPs) and specific mitigation measures that will avoid or minimize the impacts to these receptors. Wildlife and environmental concerns are anticipated to be minimal as the location is near the edge of the mapped Winter Pronghorn Concentration high priority habitat, has been negotiated with CPW, and HERV has received feedback from property owners indicating extremely limited pronghorn activity in the area. The location is also not upgradient of any wetlands, riparian areas, or waters of the state.

ECMC Permitting Considerations:

The Ruh State South Pad is not anticipated to require any variances from ECMC Rules. However, there are 2 RBUs within 2,000' of the WPS. HERV pursued an exception to Rule 604.b. by satisfying the condition in Rule 604.b.(1)., whereby the Residential Building Unit owners and tenants within 2,000' of the Working Pad Surface explicitly agree with informed consent to the proposed Oil and Gas Location. A Request for Informed Consent letter was sent to all building unit owners and occupants within 2,000' of the location. Included with the letter was a Consultation Form along with copies of the COGCC (now ECMC) Fact Sheet: Oil and Gas within 2,000 Feet dated 11/20/2019, the COGA Fact Sheet: CDPHE 2019 Health Study dated 11/27/2019, COGCC (now ECMC) Information on Hydraulic Fracturing, COGCC (now ECMC) Information Sheet: Procedural Steps for the Commission's Review of OGDPs dated 03/09/2021, COGCC (now ECMC) Information Sheet: Public Comments dated 03/09/2021, COGCC (now ECMC) Information Sheet: OGDG Status Information dated 03/09/2021, Information Sheet: Hydraulic Fracturing Treatment dated 04/02/2021, and the Ruh State OGDG Alternative Location Analysis Maps, Ruh State OGDG Map, Ruh State OGDG Related Location & Flowline Map, Ruh State South Pad Cultural Features Map, Ruh State South Pad Location Drawing, and the Ruh State South Pad Notification Zone Drawing. The 2 RBUs are owned and occupied by one individual who declined to sign the Informed Consent citing concerns about potential impacts to property value.

COGCC (now ECMC) staff members Kira Weber, Brian Christopher, Rebecca Treitz, Casey Balthrop, and Doug Andrews attended the 1041 WOGLA pre-application meeting discussed below and did not identify impediments to proposing development at the proposed location. COGCC (now ECMC) staff requested two additional areas to be considered, which have been added to the Alternative Location Analysis Maps and herein below.

Local Permitting Considerations

This location has an approved 1041 WOGLA. Prior to the 1041 WOGLA's approval, this proposed Location and multiple alternatives were reviewed by the Relevant Local Government, Weld County, as well as by COGCC (now ECMC) representatives, and CPW, at the WOGLA Pre-Application Meeting held on 06/29/2022. No participant in the 1041 WOGLA pre-application meeting, including COGCC (now ECMC), identified any impediments to proposing development at the proposed location.

Weld County staff stated the following in its written 1041 WOGLA Pre-Application Meeting notes:

- "COGCC confirmed that both locations as proposed would trigger their Alternative Location Analysis (ALA) process and Doug Andrews further described the COGCC's ALA process and what triggers the process. Rebecca Treitz added that being within that 2,000' buffer zone also triggers the requirement of additional plans such as noise mitigation, odor mitigation, dust mitigation, lighting plan, etc."
- "No one participating in the pre-application meeting identified anything that would prevent HERV from submitting the application for the proposed location, nor did they identify anything that would prohibit such development."

Proposed Location: Ruh State North Pad

Lat: 40.521592

Long: -104.278282

Tier IV-A

The Ruh State South Pad, located in Township 6 North, Range 62 West, 6th P.M., Section 1: NW¼NW¼ will produce minerals located in Township 6 North, Range 62 West, 6th P.M., Section 1: All and Township

6 North, Range 61 West, 6th P.M., Section 6: All. The location is in unincorporated Weld County. The closest municipality is the Town of Kersey, which is well over a mile away. HERV's analysis identified the following:

Advantages:

- The Ruh State North Pad is situated so as to minimally disturb the surface owner's farming operations. HERV has worked collaboratively with landowner and the relevant local government (Weld County) to minimize impact of oil and gas on agricultural operations. Further, according to the landowner, this land has limited agricultural appeal, and landowner expressly desires to utilize for the purpose of a pad site.
- Location is not within or upgradient of a mapped wetland.
- This location has an approved 1041 WOGLA.
- There is a Surface Use Agreement (SUA) for this location.
- Location is within 500' of oil takeaway pipeline.
- All effected RBU owners are mineral owners that will directly benefit from mineral development and are in support of HERV's operations from the current proposed pad.
- HERV will have access to electrical power at this proposed site that will provide power to some portion of the production facility, which will reduce noise and air emission impacts.
- HERV is able to source and deliver fresh water to the location for the completion operations via temporary lay-flat pipelines, which will significantly reduce the emissions and other impacts associated with truck traffic.
- There are no High Occupancy Buildings (HOBUs), School Facilities, or Child Care Centers within 2,000' of the WPS.
- Location will allow for all wells to be located further than 150' from all property lines and will not require obtaining a waiver.
- There is not a DIC within 2,000'.

Disadvantages:

- There are 4 RBUs within 2,000' of the WPS. However, HERV has received written, informed consent from the owners and tenants of all 4 RBUs.
- Location is within Winter Pronghorn Concentration HPH, however, through extensive consultation with CPW, HERV has relocated and revised the site to a mutually agreed upon location, size, and shape to minimize impacts to Pronghorn Winter Concentration.

Potential impacts to health, safety, welfare, wildlife, and the environment related to the development of this location:

There are potential impacts to the RBU receptors within 2,000' of this location's WPS, including impacts from light, noise, odor, and air emissions. Each of these impacts, however, will be addressed through BMPs and specific mitigation measures that will avoid or minimize the impacts to these receptors. Wildlife and environmental concerns are anticipated to be minimal as the location is near the edge of the mapped Winter Pronghorn Concentration high priority habitat, has been negotiated with CPW, and HERV has received feedback from property owners indicating extremely limited pronghorn activity in the area. The location is also not upgradient of any wetlands, riparian areas, or waters of the state.

ECMC Permitting Considerations:

The Ruh State North Pad is not anticipated to require any variances from ECMC Rules. However, there are 2 RBUs within 2,000' of the WPS. HERV pursued an exception to Rule 604.b. by satisfying the

condition in Rule 604.b.(1)., whereby the Residential Building Unit owners and tenants within 2,000' of the Working Pad Surface explicitly agree with informed consent to the proposed Oil and Gas Location. A Request for Informed Consent letter was sent to all building unit owners and occupants within 2,000' of the location. Included with the letter was a Consultation Form along with copies of the COGCC (now ECMC) Fact Sheet: Oil and Gas within 2,000 Feet dated 11/20/2019, the COGA Fact Sheet: CDPHE 2019 Health Study dated 11/27/2019, COGCC (now ECMC) Information on Hydraulic Fracturing, COGCC (now ECMC) Information Sheet: Procedural Steps for the Commission's Review of OGDPs dated 03/09/2021, COGCC (now ECMC) Information Sheet: Public Comments dated 03/09/2021, COGCC (now ECMC) Information Sheet: OGD Status Information dated 03/09/2021, Information Sheet: Hydraulic Fracturing Treatment dated 04/02/2021, and the Ruh State OGD Alternative Location Analysis Maps, Ruh State OGD Map, Ruh State OGD Related Location & Flowline Map, Ruh State South Pad Cultural Features Map, Ruh State South Pad Location Drawing, and the Ruh State South Pad Notification Zone Drawing. All RBU owners and occupants within 2,000' of the WPS have signed Informed Consents.

COGCC (now ECMC) staff members Kira Weber, Brian Christopher, Rebecca Treitz, Casey Balthrop, and Doug Andrews attended the 1041 WOGLA pre-application meeting discussed below and did not identify impediments to proposing development at the proposed location. COGCC (now ECMC) staff requested two additional areas to be considered, which have been added to the Alternative Location Analysis Maps and herein below.

Local Permitting Considerations

This location has an approved 1041 WOGLA. Prior to the 1041 WOGLA's approval, this proposed Location and multiple alternatives were reviewed by the Relevant Local Government, Weld County, as well as by COGCC (now ECMC) representatives, and CPW, at the WOGLA Pre-Application Meeting held on 06/29/2022. No participant in the 1041 WOGLA pre-application meeting, including COGCC (now ECMC), identified any impediments to proposing development at the proposed location.

Weld County staff stated the following in its written 1041 WOGLA Pre-Application Meeting notes:

- "COGCC confirmed that both locations as proposed would trigger their Alternative Location Analysis (ALA) process and Doug Andrews further described the COGCC's ALA process and what triggers the process. Rebecca Treitz added that being within that 2,000' buffer zone also triggers the requirement of additional plans such as noise mitigation, odor mitigation, dust mitigation, lighting plan, etc."
- "No one participating in the pre-application meeting identified anything that would prevent HERV from submitting the application for the proposed location, nor did they identify anything that would prohibit such development."

Alternate Location #1

Lat: 40.493450

Long: -104.269099

Tier III-B

Alternate Location #1 is located in Township 6 North, Range 62 West, 6th P.M., Section 13: NW¼NE¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

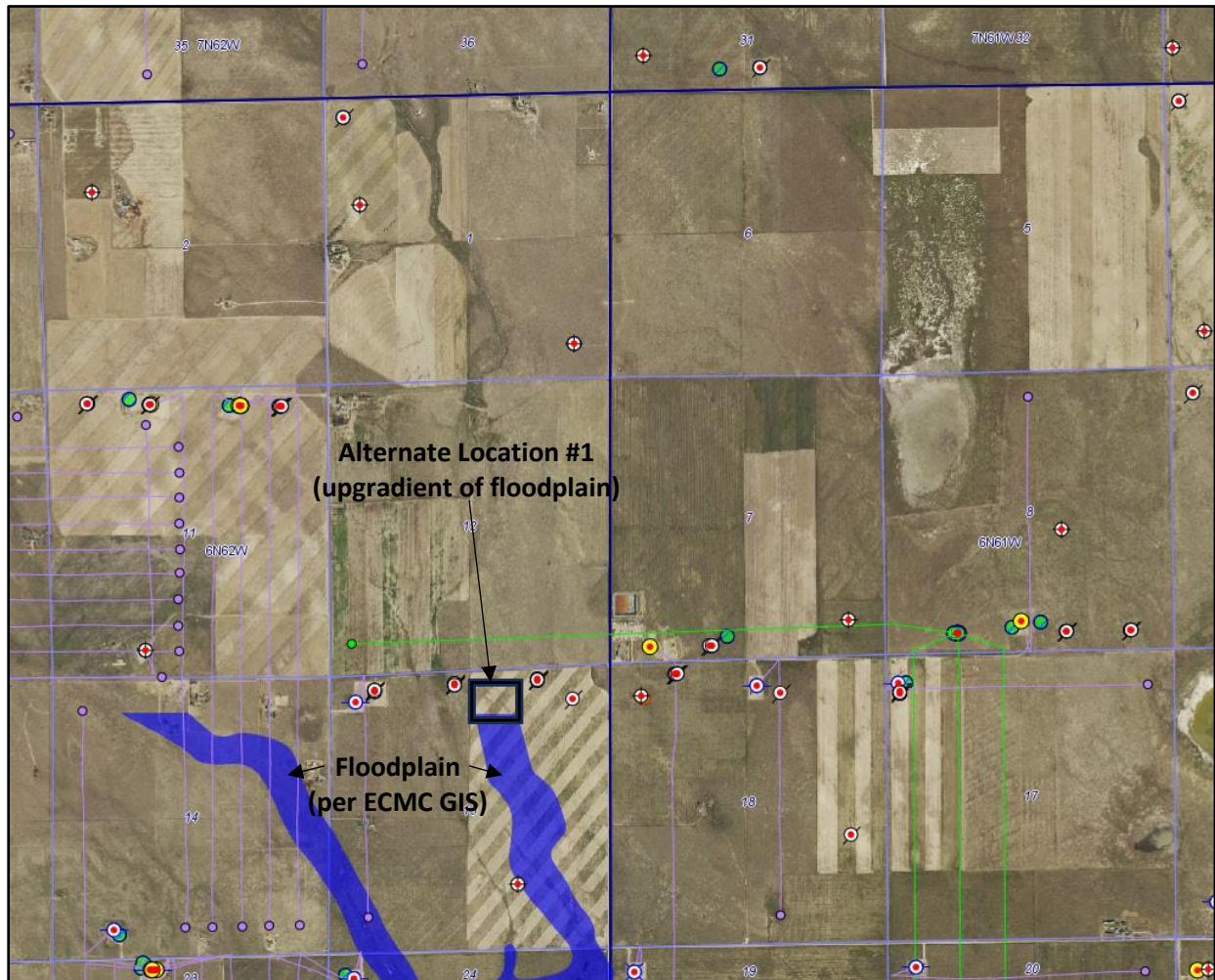
Advantages:

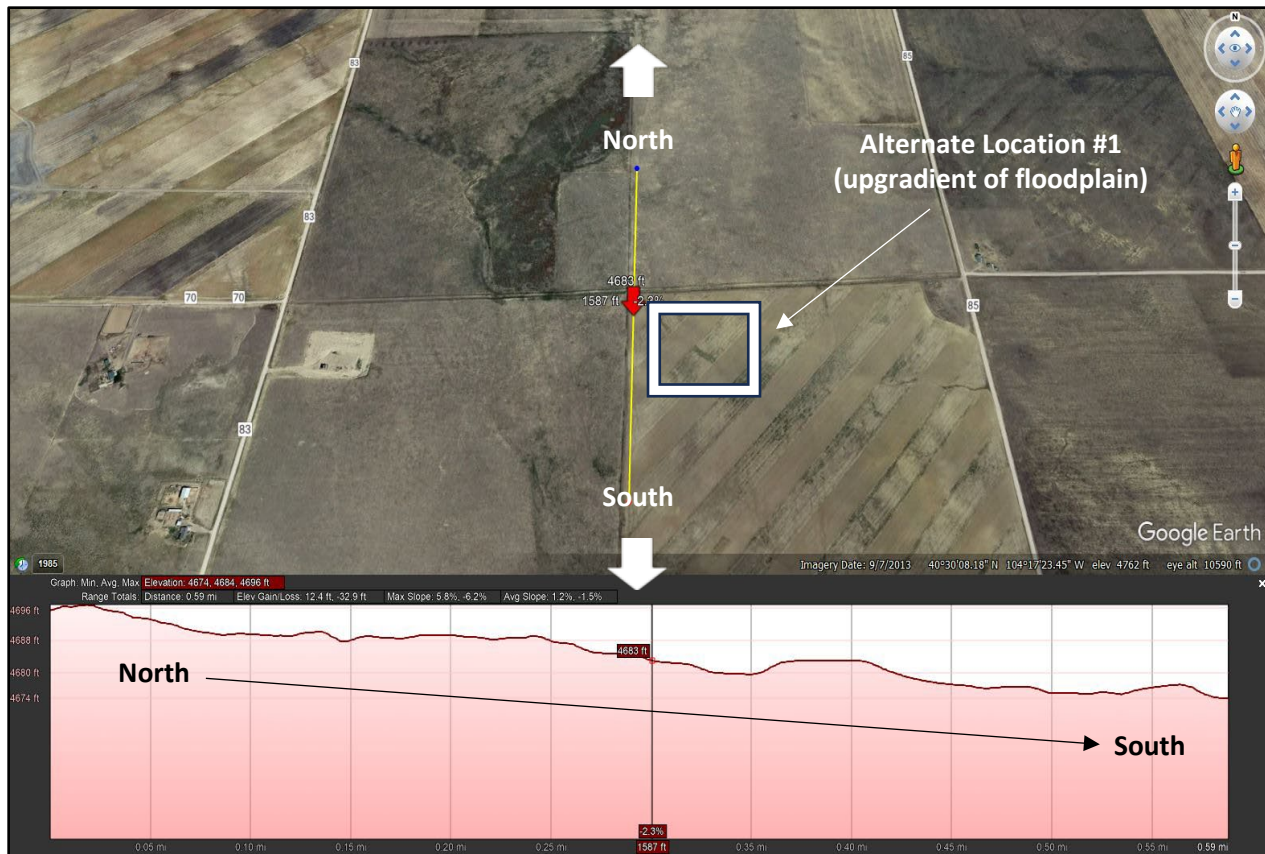
- Location is not within 2,000' of RBUs, HOBUs, School Facilities, or Child Care Centers.
- Location is not within or immediately upgradient of a mapped wetland.

- There is not a DIC within 2,000'.

Disadvantages:

- The location is within Pronghorn Winter Concentration HPH.
- The lands in which the location is encompassed are owned by a conservation group.
- This location is one of the furthest possible options from existing pipeline takeaway. Access disturbance and required infrastructure buildout would be greater from this location compared to selected sites.
- While not within a floodplain, this location is immediately upgradient to one. See maps:





Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #2

Lat: 40.494193

Long: -104.246230

Tier III-A

Alternate Location #2 was identified by Weld County in their pre-application process and was added to this analysis at the County's request. Alternate location #2 is located in Township 6 North, Range 61 West, 6th P.M., Section 18: NE¼NE¼. The location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- Location is not within 2,000' of RBUs, HOBUs, School Facilities, or Child Care Centers.
- Location is not within or immediately upgradient of a mapped wetland.

- Location is not within a floodplain.
- There is not a DIC within 2,000'.

Disadvantages:

- The location is within Pronghorn Winter Concentration HPH.
- This location is the furthest possible option from existing pipeline takeaway.
- The lands in which the location is encompassed are owned by a conservation group.
- Civitas owns lands to the north, has locations nearby, and is not interested in co-locating a site.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #3

Lat: 40.503411

Long: -104.241394

Tier IV-A

Alternate Location #3 was identified by Weld County in their pre-application process and was added to this analysis at the County's request. Alternate Location #3 is located in Township 6 North, Range 61 West, 6th P.M., Section 8: SW¼NW¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- Location is not within 2,000' of RBUs, HOBUs, School Facilities, or Child Care Centers.
- Location is not within a floodplain.
- There is not a DIC within 2,000'.

Disadvantages:

- The location is within Pronghorn Winter Concentration HPH.
- This location would require construction of lengthy access roads.
- This location would require extensive additional disturbance to tie into existing pipeline takeaway.
- The location is within a wetland.
- CPW has requested this area be avoided due to the habitat the wetland provides.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #4

Lat: 40.517875

Long: -104.241400

Tier IV-A

Alternate Location #4 was identified by Weld County in their pre-application process and was added to this analysis at the County's request. Alternate Location #4 is located in Township 6 North, Range 61 West, 6th P.M., Section 5: SW¼NW¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- Location is not within 2,000' of RBUs, HOBUs, School Facilities, or Child Care Centers.
- Location is not within a floodplain.
- There is not a DIC within 2,000'.

Disadvantages:

- The location is within Pronghorn Winter Concentration HPH.
- This location would require construction of lengthy access roads.
- This location would require extensive additional disturbance to tie into existing pipeline takeaway.
- The location is within a wetland.
- CPW has requested this area be avoided due to the habitat the wetland provides.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #5

Lat: 40.525536

Long: -104.253891

Tier IV-A

Alternate Location #5 was identified by Weld County in their pre-application process and was added to this analysis at the County's request. Alternate Location #5 is located in Township 7 North, Range 61

West, 6th P.M., Section 31: SE¼SW¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- There are no School Facilities, Child Care Centers, or High Occupancy Buildings (HOBUs) within 2,000' of the WPS.
- Location is not within or upgradient of a mapped wetland.
- Location is not within a floodplain.
- There is not a DIC within 2,000'.

Disadvantages:

- The location is within Pronghorn Winter Concentration HPH.
- The location is within 2,000' of an RBU.
- This location is further from existing gas pipeline infrastructure compared to selected sites.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #6

Lat: 40.524864

Long: -104.271816

Tier IV-A

Alternate Location #6 is located in Township 7 North, Range 62 West, 6th P.M., Section 36: SE¼SW¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- There are no School Facilities, Child Care Centers, or High Occupancy Buildings (HOBUs) within 2,000' of the WPS.
- Location is not within a floodplain.
- There is not a DIC within 2,000'.

Disadvantages:

- The location is within 500' of an RBU and less than 1,000' from two additional RBUs.
- The location is within a seasonally flooded intermittent riverine wetland.
- The location is within Pronghorn Winter Concentration HPH.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #7

Lat: 40.552411

Long: -104.281655

Tier IV-A

Alternate Location #7 was identified by COGCC (now ECMC) staff as part of the pre-application meeting process with Weld County. Alternate Location #7 is located in Township 6 North, Range 62 West, 6th P.M., Section 2: NE¼NE¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- There are no HOBUs, School Facilities, or Child Care Centers within 2,000' of the WPS.
- There is not a DIC within 2,000'.
- The location is not within a floodplain.
- The location is not within or upgradient of a wetland or riparian area.

Disadvantages:

- There is an RBU within 2,000' of the location.
- This location would have increased drilling step outs that would increase the cost of drilling.
- This location is within Winter Pronghorn Concentration HPH.
- Active cattle operations on lands.
- Water well on location.
- Secondary and unnecessary surface owner impact. Further, surface owner is not a mineral owner within the unit and would not receive any direct benefit other than Surface Use Fee.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions. Landowner has active cattle operations on lands and a water well where alternate location is sited, as currently situated or if moved slightly west, that would be impacted and locating here may necessitate the drilling of another water well, increasing impacts.

ECMC Permitting Considerations:

None.

Local Permitting Considerations:

A 1041 WOGLA would be required.

Alternate Location #8

Lat: 40.500518

Long: -104.281842
Tier III-A

Alternate Location #8 was identified by COGCC (now ECMC) staff as part of the pre-application meeting process with Weld County. Alternate Location #8 is located in Township 6 North, Range 62 West, 6th P.M., Section 11: NE¼SE¼. This location is in unincorporated Weld County. HERV's analysis identified the following:

Advantages:

- There are no HOBUs, RBUs, Child Care Centers or School Facilities located within 2,000' of the location.
- This location is not within or upgradient from a wetland or riparian area.
- This location is not within a floodplain.

Disadvantages:

- This location is within Winter Pronghorn Concentration HPH.
- The location is further from existing oil and gas pipeline infrastructure compared to selected sites.
- Secondary and unnecessary surface owner impact.

Potential impacts to public health, safety, welfare, the environment, and wildlife resources:

There are potential impacts from oil and gas development operations to receptors within 2,000' of the WPS, including impacts from light, noise, odor, and air emissions. The RBU owner impacted by the Ruh State South location testified at the 1041 WOGLA hearing that ALA #8 would not be preferred over the selected location as they are essentially the same as it relates to her concerns about potential impacts to property values.

ECMC Permitting Considerations:

None

Local Permitting Considerations:

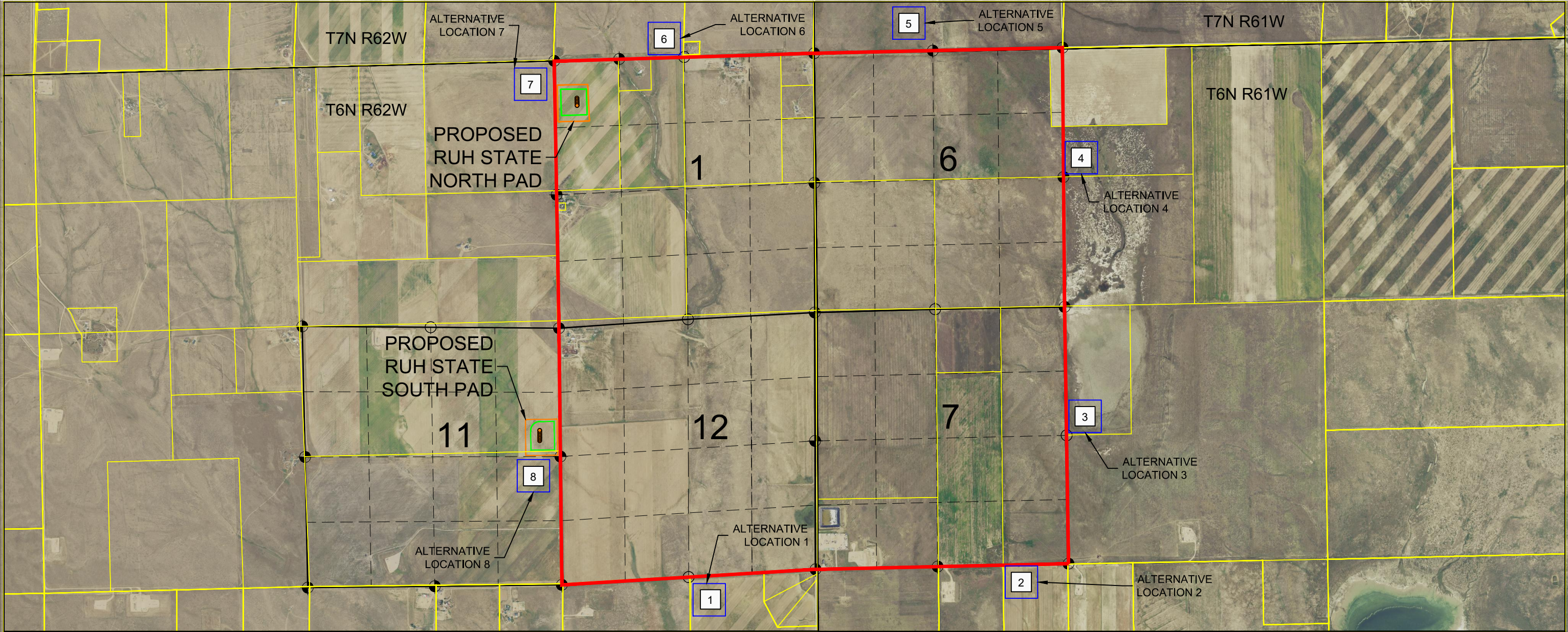
A 1041 WOGLA would be required.

CONCLUSION

HERV has fully analyzed and considered the potential impacts to public health, safety, welfare, the environment, and wildlife resources while evaluating the ten locations identified in this application. Through this analysis, HERV determined the proposed locations to be the most viable and preferred compared to the eight alternate locations.

The proposed Ruh State North and Ruh State South Pad locations minimize impacts to agricultural operations, utilize existing nearby equipment and infrastructure, and are near oil and gas pipeline takeaway with minimal buildout and disturbance required compared to alternatives. Further, subject landowner desires to utilize the lands for pad site use and selected locations are preferred by them.

RUH STATE OGD
ALTERNATIVE LOCATION ANALYSIS
MAP 1



REFERENCE LOCATION

RUH STATE 1-1-6 1HC

LAT: 40.521592° N
LONG: 104.278282° W
ELEVATION: 4751'
774' FNL & 448' FWL
PDOP: 1.3
GPS OPERATOR: GRANT BANNICK

MEASUREMENTS:
(AS MEASURED FROM THE PROPOSED WORKING PAD SURFACE)

MUNICIPAL BOUNDARY	N/A
SUBDIVISION BOUNDARY	N/A



0 1000 2000

SCALE: 1" = 2000'

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, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND MAY BE BASED
UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.



FIELD
DATE:
09-14-22

DRAWN BY:
CSG

DRAWING
DATE:
07-10-23

CHECKED BY:
HJL

SITE NAME:
RUH STATE OGD
SURFACE LOCATION:
SEC. 1 & 11, T6N, R62W, 6TH P.M.
WELD COUNTY, COLORADO

DATA SOURCE:
AERIAL IMAGERY: NAIP 2021
DISPROPORTIONATELY IMPACTED COMMUNITIES:
ECMC

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

LEGEND:

- = EXISTING MONUMENT
- = CALCULATED POSITION
- = PROPOSED WELL

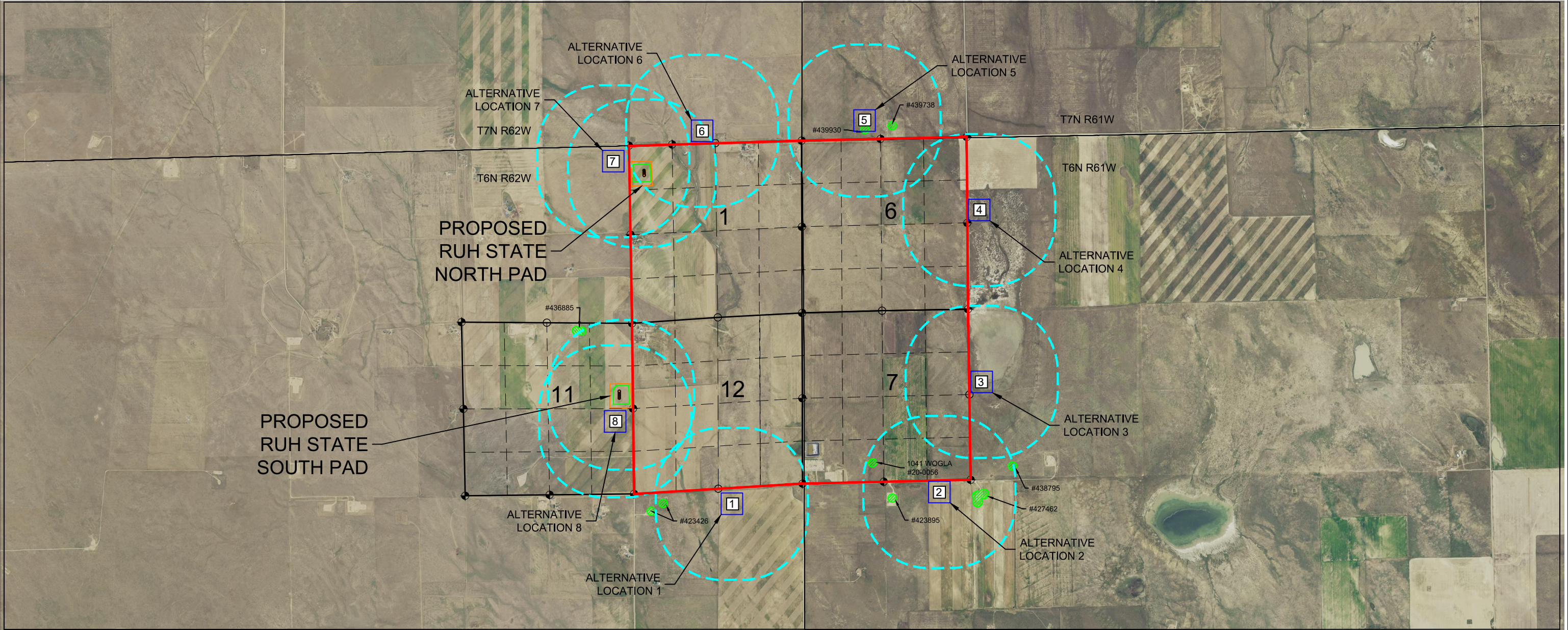
- = OIL & GAS LOCATION
- = WORKING PAD SURFACE
- = PROPERTY LINE
- = DSU BOUNDARY
- = ALTERNATIVE SITE BOUNDARY

= ALTERNATIVE SITE

PREPARED FOR:



RUH STATE OGD
ALTERNATIVE LOCATION ANALYSIS
MAP 2



REFERENCE LOCATION

RUH STATE 1-1-6 1HC

LAT: 40.521592° N
LONG: 104.278282° W
ELEVATION: 4751'
774' FNL & 448' FWL
PDOP: 1.3
GPS OPERATOR: GRANT BANNICK

MEASUREMENTS:

(AS MEASURED FROM THE PROPOSED WORKING PAD SURFACE)

DIC BOUNDARY

THERE ARE NO DISPROPORTIONATELY IMPACTED COMMUNITIES
WITHIN 5280' OF WORKING PAD SURFACES OR ALTERNATIVE
LOCATIONS

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.



FIELD
DATE:
09-14-22

DRAWING
DATE:
07-10-23

DRAWN BY:
CSG

CHECKED BY:
HJL

SITE NAME:
RUH STATE OGD
SURFACE LOCATION:
SEC. 1 & 11, T6N, R62W, 6TH P.M.
WELD COUNTY, COLORADO

DATA SOURCE:
AERIAL IMAGERY: NAIP 2021
DISPROPORTIONATELY IMPACTED COMMUNITIES:
ECMC
PUBLICLY AVAILABLE DATA SOURCES HAVE NOT
BEEN INDEPENDENTLY VERIFIED BY ASCENT.

LEGEND:

● = EXISTING MONUMENT
○ = CALCULATED POSITION
● = PROPOSED WELL

◆ = EXISTING WELL

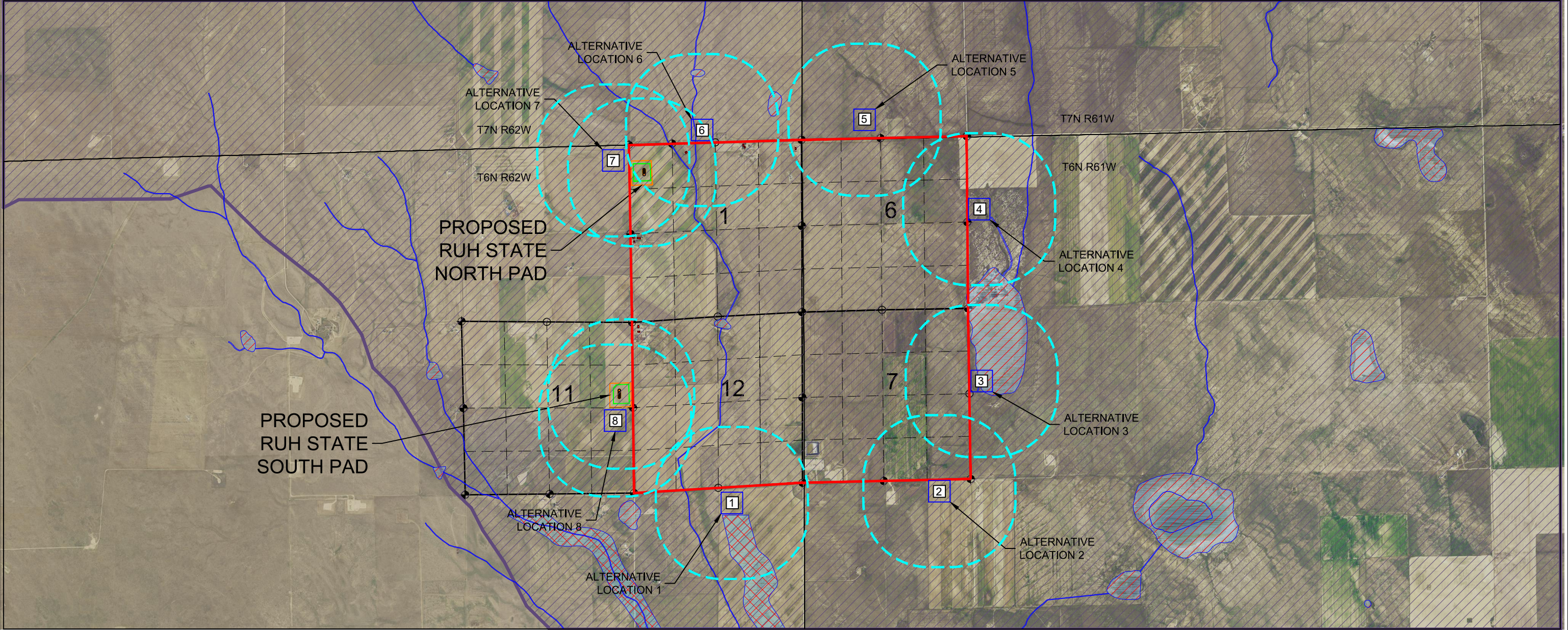
■ = OIL & GAS LOCATION
■ = WORKING PAD SURFACE
■ = DSU BOUNDARY
■ = 2000' BUFFER

■ = ALTERNATIVE SITE BOUNDARY
■ = ALTERNATIVE SITE
■ = PERMITTED LOCATION

PREPARED FOR:



RUH STATE OGD
ALTERNATIVE LOCATION ANALYSIS
MAP 3



REFERENCE LOCATION

RUH STATE 1-1-6 1HC

LAT: 40.521592° N
LONG: 104.278282° W
ELEVATION: 4751'
774' FNL & 448' FWL
PDOP: 1.3
GPS OPERATOR: GRANT BANNICK

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.

PAGE 01 OF 02

ALA CRITERIA - RUH STATE NORTH PAD
40.521592, -104.278282

i. <2,000' FROM RBU OR HOBUS	YES
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBUS/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - RUH STATE SOUTH PAD
40.503048, -104.281345

i. <2,000' FROM RBU OR HOBUS	YES
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBUS/SCHOOL WITHIN A DIC	NO



FIELD DATE: 09-14-22
DRAWING DATE: 07-10-23
DRAWN BY: CSG
CHECKED BY: HJL

SITE NAME:
RUH STATE OGD
SURFACE LOCATION:
SEC. 1 & 11, T6N, R62W, 6TH P.M.
WELD COUNTY, COLORADO

DATA SOURCE:
AERIAL IMAGERY: NAIP 2021
DISPROPORTIONATELY IMPACTED COMMUNITIES:
ECMC
PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

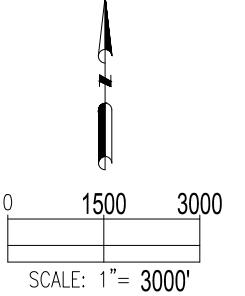
LEGEND:

- EXISTING MONUMENT
- CALCULATED POSITION
- PROPOSED WELL

- OIL & GAS LOCATION
- WORKING PAD SURFACE
- FLOODPLAIN
- DSU BOUNDARY
- WETLAND

- RESIDENTIAL BUILDING UNIT
- 2000' BUFFER
- HIGH PRIORITY HABITAT - PRONGHORN WINTER CONCENTRATION
- ALTERNATIVE SITE BOUNDARY
- ALTERNATIVE SITE

PREPARED FOR:



PLAT: P:\HERV_B210001\PROD\2A\RUH STATE OGD\ALTERNATIVE LOCATION ANALYSIS LAYOUT TAB: ALA 3

RUH STATE OGD
ALTERNATIVE LOCATION ANALYSIS
MAP 3

ALA CRITERIA - LOCATION 1 40.493450, -104.269099	
i. <2,000' FROM RBU OR HOB	NO
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 2 40.494193, -104.246230	
i. <2,000' FROM RBU OR HOB	NO
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 3 40.503411, -104.241394	
i. <2,000' FROM RBU OR HOB	NO
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	YES
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 4 40.517875, -104.241400	
i. <2,000' FROM RBU OR HOB	NO
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	YES
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 5 40.525536, -104.253891	
i. <2,000' FROM RBU OR HOB	YES
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 6 40.524864, -104.271816	
i. <2,000' FROM RBU OR HOB	YES
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	YES
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 7 40.522411 -104.281655	
i. <2,000' FROM RBU OR HOB	YES
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

ALA CRITERIA - LOCATION 8 40.500518, -104.281842	
i. <2,000' FROM RBU OR HOB	NO
ii. <2,000' FROM SCHOOL OR CHILD CARE CENTER	NO
iii. <1,500' FROM DESIGNATED OUTSIDE ACTIVITY AREA	NO
iv. <2,000' FROM JURISDICTIONAL BOUNDARY AND PLG OBJECTS	NO
v. WITHIN FLOODPLAIN	NO
vi. aa. WITHIN A SURFACE WATER SUPPLY AREA	NO
vi. bb. <2,640' FROM TYPE III OR GUDI WELL	NO
vii. WITHIN/IMMEDIATELY UPGRADIENT OF WETLAND OR RIPARIAN	NO
viii. IN HIGH PRIORITY HABITAT AND CPW DID NOT WAIVE	YES
ix. OPERATOR USING SURFACE BOND	NO
x. <2,000' FROM A RBU/HOBU/SCHOOL WITHIN A DIC	NO

REFERENCE LOCATION

RUH STATE 1-1-6 1HC

LAT: 40.521592° N
LONG: 104.278282° W
ELEVATION: 4751'
774' FNL & 448' FWL
PDOP: 1.3
GPS OPERATOR: GRANT BANNICK

DISCLAIMER:
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PAGE 02 OF 02



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

FIELD DATE: 09–14–22	DRAWING DATE: 07–10–23
DRAWN BY: CSG	CHECKED BY: HJL

SITE NAME: RUH STATE OGD SURFACE LOCATION: SEC. 1 & 11, T6N, R62W, 6TH P.M. WELD COUNTY, COLORADO

DATA SOURCE: AERIAL IMAGERY: NAIP 2021 DISPROPORTIONATELY IMPACTED COMMUNITIES: ECMC PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.
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PREPARED FOR:

