Community & Economic Development Department
4430 S. Adams County Pkwy.
1st Floor, Suite W2000B
Brighton, CO 80601
PHONE 720.523.6800
EMAIL epermitcenter@adcogov.org
adcogov.org

Request for Comments

Case Name: Bennett D Pad at Manilla
Case Number: OGF2025-00001

February 21, 2025

The Adams County Community & Economic Development Department is requesting comments on the following application: **Oil and Gas Facility (OGF) Permit to allow 26 wells on 22.96 acres in the Agricultural-3 zone district including in the Airport Influence Zone (AIZ)**. This request is located at 1631 Manilla Road. The Assessor's Parcel Number is 0181700000105. The applicant is Crestone Peak Resources Operating, LLC.

Please forward any written comments on this application to the Community and Economic Development Department at 4430 South Adams County Parkway, Suite W2000A Brighton, CO 80601-8216 or call (720) 523-6891 **by 03/24/2025** in order that your comments may be taken into consideration in the review of this case. If you would like your comments included verbatim, please send your response by way of e-mail to GDean@adcogov.org.

Once comments have been received and the staff report written, the staff report and notice of public hearing dates may be forwarded to you upon request. The full text of the proposed request and additional colored maps can be obtained by contacting this office or by accessing the Adams County web site at www.adcogov.org/current-land-use-cases.

Thank you for your review of this case.

Gregory Dean
Oil & Gas Administrator

OPERATIONS PLAN - OIL AND GAS FACILITY
BENNETT D PAD
SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST OF THE 6TH P.M.
COUNTY OF ADAMS, STATE OF COLORADO

CONTACTS:

PROPERTY OWNER: CRESTONE PEAK RESOURCES WATKINS MIDSTREAM LLC
0181700000105
555 17TH STREET, SUITE 3700
DENVER, CO 80202

APPLICANT/OPERATOR: CRESTONE PEAK RESOURCES OPERATING LLC
A WHOLLY-OWNED SUBSIDIARY OF CIVITAS RESOURCES, INC.
555 17TH STREET, SUITE 3700
DENVER, CO 80202

ENGINEER/CONSULTANT: 609 CONSULTING, LLC
1095 SABERTON AVENUE
SHERIDAN, WY 82801
JAKE EDMUNDS
(307) 674-0609

ADAMS COUNTY: PLANNING & DEVELOPMENT
4430 SOUTH ADAMS COUNTY PARKWAY
BRIGHTON, CO 80601
(702) 523-6800

ADAMS COUNTY SHERIFF'S DEPARTMENT
GENE CLAPS, ADAMS COUNTY SHERIFF
(303) 654-1850

BENNETT-WATKINS FIRE DEPARTMENT
(303) 644-3572

LEGAL DESCRIPTION:

PART OF THE SE1/4 OF SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED ON LAND SURVEY PLAT AND SPECIAL WARRANTY DEED UNDER RECEPTION NO. 2022000032417.

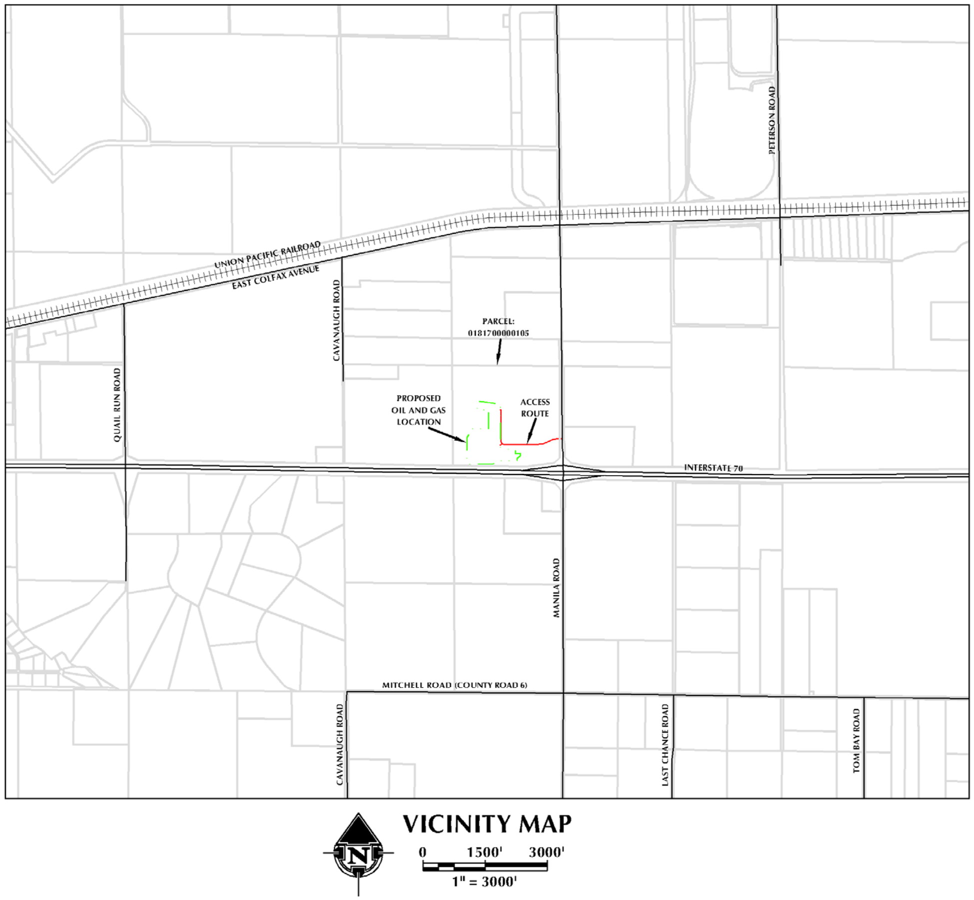
EXISTING ZONING: A-3

CERTIFICATE OF APPROVAL BY THE DEPARTMENT OF PLANNING & DEVELOPMENT

____

DEPARTMENT OF PLANNING & DEVELOPMENT DIRECTOR

ECMC PERMIT NO: ____________



VICINITY MAP

SHEET INDEX

OPERATIONS PLAN	
SHEET NO.	SHEET NAME
SHEET-1	COVER SHEET
SHEET-2	IMPACT AREA MAP
SHEET-3	IMPACT AREA MAP
SHEET-4	CONSTRUCTION LAYOUT SITE PLAN
SHEET-5	DRILLING LAYOUT SITE PLAN
SHEET-6	COMPLETIONS LAYOUT SITE PLAN
SHEET-7	PRODUCTION LAYOUT SITE PLAN
SHEET-8	SIGNAGE PLAN

WELLS

1	TRANSPORT 3-64 34-35-36 1AH
2	TRANSPORT 3-64 34-35-36 1BH
3	TRANSPORT 3-64 34-35-36 2AH
4	TRANSPORT 3-64 34-35-36 2BH
5	TRANSPORT 3-64 34-35-36 3AH
6	TRANSPORT 3-64 34-35-36 3BH
7	TRANSPORT 3-64 34-35-36 4AH
8	TRANSPORT 3-64 34-35-36 4BH
9	BOMHOFF EAST 4-64 10-11-12 1AH
10	BOMHOFF EAST 4-64 10-11-12 1BH
11	BOMHOFF EAST 4-64 10-11-12 2AH
12	BOMHOFF EAST 4-64 10-11-12 2BH
13	BOMHOFF EAST 4-64 10-11-12 3AH
14	FRASER FED 3-64 33-32 1BH
15	FRASER FED 3-64 33-32 2BH
16	FRASER FED 3-64 33-32 3BH
17	FRASER FED 3-64 33-32 4BH
18	BD LAND 4-64 5-4 1AH
19	BD LAND 4-64 5-4 1BH
20	BD LAND 4-64 5-4 2AH
21	BD LAND 4-64 5-4 2BH
22	BD LAND 4-64 5-4 3AH
23	BD LAND 4-64 5-4 3BH
24	BD LAND 4-64 5-4 4AH
25	BOMHOFF WEST 4-64 9-8-7 1AH
26	BOMHOFF WEST 4-64 9-8-7 1BH

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:
CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

BENNETT D PAD
COVER SHEET

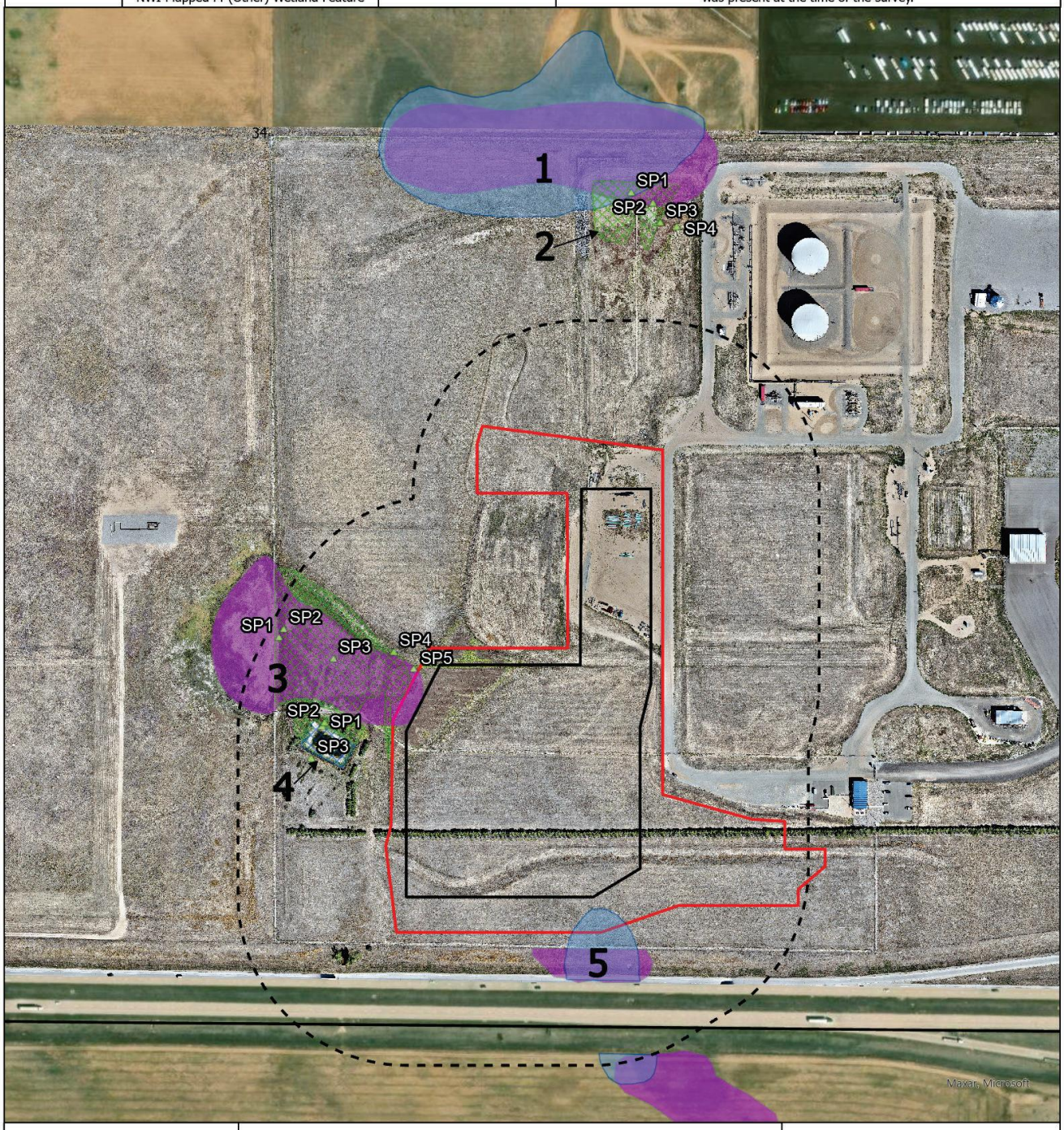
DATE:	12/18/24	SHEET:	1 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

CIVITAS RESOURCES COMPANY, LLC
BENNETT D
SEC34 T3S R64W, R58W, 6th P.M.
ADAMS COUNTY, COLORADO

Produced for: CIVITAS Crestone Peak Resources, LLC

Produced by: RPG RESOURCES a System One company

Feature Number	Feature Classification	Distance and Direction	Observations
1	NHD-Mapped Intermittent Lake/Pond NWI-Mapped Pf (Other) Wetland Feature	Approximately 812-feet north	This feature was field verified NOT present. No hydric vegetation, soils, or hydrology was present at the time of the survey. There was no standing water or topography change within the mapped lake/pond area.
2	Emergent Wetland within Stormwater Basin	Approximately 710-feet north	A field verified wetland within a large depression used for drainage purposes. A concrete flowline passes through the wetland area and a 3-foot tall rock outfall creates a boundary to the west.
3	NWI-Mapped Pf (Other) Wetland Feature	Approximately 54-feet west	A field verified wetland fed by a marsh/pond beyond the Civitas property boundary. Surface water was present within 1 inch.
4	Stormwater Pond with Fringe Wetland	Approximately 150-feet west	A field observed stormwater pond with an OHWM. Fringe wetlands along the bed and bank of the pond were confirmed via wetland delineations.
5	NHD-Mapped Intermittent Lake/Pond NWI-Mapped Pf (Other) Wetland Feature	Approximately 40-feet south	This feature was field verified NOT present. No hydric vegetation, soils, or hydrology was present at the time of the survey.



SURVEY MAP

- Oil & Gas Location (OGL)
- Working Pad Surface (WPS)
- 500-Foot Buffer Around WPS
- NHD-Mapped Lake/Pond
- NWI-Mapped Other Wetland
- Delineated Wetland
- Delineated Lake/Pond
- Wetland Sample Point

Projection: WGS 1984
Date: 9/26/2024
Drafted by: HJL

0 250 500 Feet

N

1 inch equals 300 feet

HAUL ROUTE MAP

BENNETT D PAD

SE1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

NOTE:
PIPELINE ROUTE IS PRELIMINARY AND SUBJECT TO CHANGE

LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- TRAFFIC ROUTE
- PIPELINE ROUTE

TRAVEL PATH:
TAKE EXIT 299 OFF OF INTERSTATE 70 TO MANILA ROAD AND PROCEED IN A NORTHERLY DIRECTION FOR 0.1 MILES TO THE PROPOSED ACCESS ROAD TO THE WEST. EXIT LEFT ONTO THE PROPOSED ACCESS ROAD AND CONTINUE 0.4 MILES TO THE PROPOSED LOCATION.

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/24/24
DATE:	10/4/24
DRAFTER:	JFE
REVISED:	10/18/24

PREPARED FOR: CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\BENNETT D_ALA_SITE_PLANS.dwg, 10/18/2024 9:05:11 AM, kgoles

Adams County

Oil and Gas Facility Application

Bennett D Pad

SE ¼ Section 34, Township 3 South, Range 64 West

Prepared by:

CIVITAS

Crestone Peak Resources Operating LLC

Oil and Gas Facility Permit Submittal Items

Conceptual Review Summary

Refer to Operations Plan and Written Narrative for Alternative Site Analysis

Community & Economic Development Department

Case Number PRE2024-00071 as of 11/2/2024

4430 South Adams County Parkway, Suite W2000A
Brighton CO 80601-8216 (720) 523-6800

Case Information

Case Name:	Bennett D Pad Concept
Received:	10/14/2024
Location:	1631 MANILLA RD
Parcel(s):	0181700000105
Description:	Conceptual Review Request for an Oil and Gas Facility Permit (OGF) for the proposed Bennett D Pad oil and gas location. The application seeks to permit the drilling and completing of up twenty-six (26) horizontal wells and the installation of related surface production equipment on one (1) well pad, that will be serviced by (1) one existing access road.

CASE ASSIGNMENT

Case Manager	Gregory Dean
Primary Engineer	AGAJDYS
Long Range Planner	EGLEASON

EXTERNAL AGENCY REVIEWS

CDOT Review	No
Division of Water Resources Review	No
Geological Survey Review	No
Soil Conservation Review	No
Xcel Energy Review	No
Adams County Fire Review	No
Brighton Fire Review	No
Strasburg Fire Review	No
North Metro Fire Review	No
o Division of Parks and Wildlife Review	No
CDPHE Review	No

GENERAL

New PRE WF	Yes
Type of Project	Oil and Gas Facility
Proposed Land Use	Other
Received	10/14/2024
Internal Review Deadline	10/28/2024
Referral Agency Deadline Date	10/28/2024
Comments Due Date	10/30/2024
Target	11/06/2024
Conceptual Review Time	8:30 - 9:15
Conceptual Review Meeting Duration	90 min
Application Fee	1100

WIZARD

Wizard Session Key	bb92b451e552494483a9a7a5bb6aa031

Workflow Information

Task Name	Task Status	Date
Send Case Manager Introduction	Complete	10/16/2024
Building Safety Review	No Comment	10/29/2024
Plan Distribution	Complete	10/15/2024
Planner Review	Complete	10/29/2024

Alternative Site Analysis:
Applicant Desired Location:
(+) co-located with existing gas processing/midstream facility, likely more compatible with surrounding land uses
(+) shortest haul route and pipeline corridor routes that avoid homes
(+) no high priority wildlife habitats or buffer conservation areas within 2,000-feet
(+) least new surface disturbance with co-location and not requiring additional facilities to access and development minerals in the area.
(-) Wetlands in the immediate vicinity
(-) 5 homes within 2,000-feet, could require informed consent

Alternative Location 1:
(-) Dense residential development NW of alt location 1, could require informed consent
(-) Long haul routes and pipeline corridors (2.5 miles)
(-) proposed haul routes run by residences
(-) closer to surface waters (Box Elder Creek)
(-) near HPH for mule deer and aquatic native species conservation waters
(-) more surface disturbance relative to desire location with co-location of midstream facility

Alternative Location 2:
(+) Less residential uses within 2,000-feet near alt loc 2 than desired location (3 vs. 5)
(+) No HPH corridors within the buffer area
(+) Less wetlands immediately adjacent to alt location compared to desired location, though 3 wetlands occur within the 2,000-foot setback
(-) Longer haul routes and pipeline corridors needed for alt loc 2
(-) more surface disturbance required relative to desire location with co-location of midstream facility
(-) Mineral development not technologically feasible relative to desired location. This could require an additional facility to be built to access minerals fully

Alternative Location 3:
(+) Less residential uses within 2,000-feet near alt loc 3 than desired location (1 vs. 5)
(+) No HPH corridors within the buffer
(-) Longest haul route and pipeline corridor of all alternative sites. 4.2 miles of haul route and 2 miles of pipeline corridor required.
(-) haul routes would run by homes
(-) five potential wetlands within 2,000-feet of alt loc 3
(-) nearest to surface waters (West Sand Creek) of all proposed alternative sites

The applicant's desired location and all 3 of their alternatives each present the potential for adverse impact to public health, safety, welfare, the environment, and wildlife resources. Many of these potential adverse impacts could likely be avoided, minimized, or mitigated with the implementation of BMPs, COAs, and facility design considerations by the applicant. Staff believes the applicant's desired location has the least likelihood of adverse impacts to residents and resources and has the greatest ability to comply with Adams County Development Standards and Regulations of those presented. Of the 3 presented alternatives to the applicant's desired location, Staff feels that alternative location 2 appears least impactful followed by alternative location 3 and then last alternative location 1. While the applicant's desired location appears to be the least impactful overall, there is no guarantee that this location will be successful if a formal OGF application is filed and must demonstrate compliance with AdCo DS&R through the evaluation processes as defined and outlined.

Given the presence of wetlands near this proposed site and within the 2,000-foot setback (designated as environmentally sensitive areas by Adams County) this location will likely require Board of County Commissioner approval rather than being eligible for the administrative approval process, should it comply with the remaining DS&R for OGF applications.

Neighborhood Services Review	Complete	10/30/2024
There are no open violations at this location at this time. No comment.		
Long Range Planner Review	No Comment	10/30/2024
Plan Coordination	Complete	11/01/2024
Development Engineering Review	No Comment	11/01/2024
Closed via script due to Plan Coordination result		
Development Engineering Review	Complete	11/01/2024

--- Items required at the time of application ---

ENG1: Applicant will be required to submit the following items when they apply for the OGF permit:

1. Site plan
2. Drainage letter signed and stamped by a Professional Engineer licensed in the State of Colorado
3. Operations and Maintenance (O&M) plan for the existing pond
4. Proposed haul routes for BOTH the drill and the routine export traffic
5. Sediment and erosion control (SEC) plans
6. A CDPHE storm water discharge permit for construction activities (COR400000).

ENG2: Any new concrete will require expansion of the existing pond and must be accounted for in the site plan, drainage letter, O&M plans, and SEC plans.

ENG3: Applicant may be required to apply for a building permit for the drill itself at the time of construction.

ENG4: All engineering documents must be submitted through and EGR permit. This will run parallel with the OGF permit.

--- Information only, no response required ---

ENG1: According to the Federal Emergency Management Agency's January 20, 2016 Flood Insurance Rate Map (FIRM Panel #08001C0960H), the project site is NOT located within a regulated 100-yr floodplain. A Floodplain Use Permit is NOT required.

ENG2: Property is NOT in Adams County MS4 Stormwater Permit area. An Adams County Stormwater Quality (SWQ) Permit will NOT be required. Since the proposed improvements disturb more than one (1) acre of land AND are part of a larger development that disturbs over one (1) acre, the applicant will be required to obtain a State Permit COR400000. Builder/developer is responsible for adhering to all the regulations of Adams County Ordinance 11 regarding illicit discharge. Applicant is responsible for installation and maintenance of Erosion and Sediment Control BMPs.

ENG3: No new access is requested. Must use existing access to property. Any modifications to the existing driveway or adding additional driveways will require additional permitting. No additional access to be approved for this lot at this time.

ENG4: If the applicant proposes to import greater than 10 CY of soil to this site, additional permitting is required. Per Section 4-04-02-02, of the Adams County Development Standards and Regulations, a Temporary or Special Use Permit is required to ensure that only clean, inert soil is imported into any site within un-incorporated Adams County. A Conditional Use Permit will be required if the importation exceeds 500,000 CY.

ROW Review	Complete	10/31/2024

ROW1: The location as proposed, not an alternative site, is possibly the best scenario due to existing detention, access, etc.
ROW2: Any changes to the detention/storm water quality facilities, or new construction will require the dedication of the detention pond and access to same. Exhibits are required for the access and detention for dedication to the county. PW ROW Agent, David Dittmer, will handle these cases.
ROW3: Alternative locations will require traffic studies to determine if additional ROW is required for access and vehicular load on the ROWs. There will be considerable trucking during and after drilling that will affect county roads.
ROW4: CDOT is studying the feasibility to add an off ramp at Quail Run Road due to growth and traffic impacts. Any location abutting this ROW will need to take this into account and must have a 120' offset to any permanent structures due to section line setback regulations. CDOT will require a 60' half width road at a minimum and the off ramp will match that of Bennett's off ramp.
ROW5: Additional comments will be provided once the site is set and we have a clean site map for review.
ROW6: The lay-flat water line, utilized, may not be located in county ROW. All crossings must be permitted by engineering review. this may require the operator to obtain temporary construction easements along the route.

Environmental Analyst Review Comment 10/31/2024

The following comments apply to Alternative Locations 2 and 3:

BEIR14. A cross-section of the subject parcels is located within the Natural Resource Conservation Overlay (NRCO), corresponding to the 100-year floodplain also transecting the parcels. The NRCO aims to protect important wildlife areas, designated floodplains, riparian corridors, and cultural resources. Refer to Sections 3-43 and 4-14-02 of the Adams County Development Standards and Regulations (ACDSR) for more details.

BEIR15. If disturbance of land not previously developed within the NRCO is greater than one combined (1) acre, then a Resources Review must be completed by a qualified professional consultant prior to application submittal so that it may be taken into consideration. See Adams County Development Standards and Regulations (ACDSR) Section 4-14-02-03 for Resources Review methodology.

BEIR16. All development must comply with the NRCO buffers/setbacks requirements for individual protected resources provided in ACDSR Section 4-14-02-04-02.

BEIR17. Specifically, along rivers and streams, development shall be located out of the riparian plant community, but in no case shall the required setback be less than fifty (50) feet nor more than one hundred-fifty (150) feet.

BEIR18. Specifically, in relation to wetlands, development shall be located out of the hydric zone, but in no case shall the required setback be less than fifty (50) feet (500 feet from the edge of hydric soil perimeter).

Environmental Analyst Review Comment 10/31/2024

The following comments apply to construction and operation:

BEIR5. Natural drainage and water areas are visible across the subject parcels. These drainage areas and wildlife habitat should be developed in an environmentally sensitive manner in order to protect natural features and processes, protect and enhance important wildlife corridors, and generally sustain a high-quality natural environment.

BEIR6. Exposure to air pollution is associated with numerous health problems including asthma, lung cancer, and heart disease. Construction and traffic in unpaved areas may contribute to increased fugitive dust emissions. Adams County recommends the applicant utilize all available methods to minimize fugitive dust during all phases of construction and operation.

BEIR7. An inert fill permit must be obtained prior to importing any volume of fill material onto the parcel as part of site development. Permit type will depend on the duration and total volume of fill to be imported to the site. The fill must meet the definition of clean, inert material.

BEIR8. Per ACDSR 4-11-02-03-03-03 General Provisions, Oil and Gas Facilities shall be at least 2,000 feet from the property line of any existing residences or platted residential lots, schools or future school facilities, state licensed daycares, high occupancy building units, environmentally sensitive areas, and designated parks and open spaces.

BEIR9. Per ACDSR 4-11-02-03-03-03 General Provisions, Oil and Gas Facilities shall be at least 1,000 feet from groundwater under the direct influence of surface water (GUDI) wells and Type III Aquifer wells as defined by Colorado Water Quality Control Commission and ECMC (formerly COGCC) rules.

BEIR10. Setbacks will be measured from the edge of the Oil and Gas Location, as defined by the ECMC, the measurement of setbacks will not include the access road.

BEIR11. Administrative Waiver from setback requirements: an administrative waiver may be obtained from the setback requirements if the Operator receives a written waiver from each primary resident and property owner located within the setback. Staff will evaluate the granting of an Administrative Waiver from setback requirements based on the following criteria: (1) the number of affected residents within the setback (2) location of the facility, (2) size of the facility, (4) compatibility of the facility with surrounding land uses; and (5) conformance with the Adams County Comprehensive Plan.

BEIR12. No Administrative Waivers will be issued from setback requirements for school facilities, future school facilities, state licensed daycares, groundwater wells, environmentally sensitive areas or designated parks and open spaces.

BEIR13. For Oil and Gas Facilities that do not meet the above setback requirements: A waiver may be granted by the Board of County Commissioners that complies with the requirements of ACDSR Section 2-02-14-07-07.

Environmental Analyst Review	Complete	10/31/2024

The following comments apply to permits and plans:

BEIR1. The applicant/operator shall follow all applicable hazardous materials management regulations, including CDPHE and ECMC, to ensure proper management of hazardous materials and wastes such that they do not present a significant actual or potential hazard to public health, safety, or environment.

BEIR2. For projects that require an air permit, the applicant shall contact the CDPHE Air Pollution Control Division (APCD) for information and provide copies of permits for Adams County review. Additional information is available at: https://www.colorado.gov/pacific/cdphe/categories/services-and-information/environment/air-quality/air-emissions-business-and-industry.

BEIR3. The determination of the risks of a release of hazardous materials from the proposed project may include but is not limited to the following considerations:

a. Plans for compliance with federal and State handling, storage, disposal, and transportation requirements.
b. Use of waste minimization techniques.
c. Adequacy of spill prevention and countermeasures, and emergency response plans.

BEIR4. All plans shall be reviewed and approved by the applicable fire district prior to approval in order to determine existing services provide adequate protection. This information will be provided to Adams County for review.

Economic Development Review	No Comment	10/31/2024
Parks Review	No Comment	10/22/2024
Application Intake	Complete	10/14/2024

EMAIL SENT TO: jpiekara@civiresources.com

Thank you for your application.

PRE2024-00071 – Bennett D Pad — The Conceptual Review meeting is scheduled for Wednesday, November 06, 2024, from 8:30am – 10:00am. You will receive more details from the Planner assigned to your case.

Have a good day.

Planner Review	Complete	10/31/2024

OGA 1: Alternative Site Analysis:
Applicant Desired Location:
(+) co-located with gas processing/midstream facility, likely more compatible with surrounding land uses
(+) shortest haul route and pipeline corridor routes
(+) no high priority wildlife habitats or buffer conservation areas within 2,000-feet
(+) least new surface disturbance with co-location and not requiring additional facilities to access and development minerals in the area.
(-) Wetlands in the immediate vicinity
(-) 5 homes within 2,000-feet

Alternative Location 1:
(-) Dense residential development NW of alt location 1
(-) Residential development is classified as a Disproportionately Impacted Community
(-) Long haul routes and pipeline corridors (2.5 miles)
(-) proposed haul routes run by residences
(-) closer to surface waters (Box Elder Creek)
(-) near HPH for mule deer and aquatic native species conservation waters
(-) more surface disturbance relative to desire location with co-location of midstream facility

Alternative Location 2:
(+) Less residential uses within 2,000-feet near alt loc 2 than desired location (3 vs. 5)
(+) No HPH corridors within the buffer
(+) Less wetlands immediately adjacent to alt location compared to desired location, though 3 wetlands occur within the 2,000-foot setback
(-) Longer haul routes and pipeline corridors needed
(-) more surface disturbance relative to desire location with co-location of midstream facility
(-) Mineral development not technologically feasible relative to desired location. This would require an additional facility to be built to access minerals fully

Alternative Location 3:
(+) Less residential uses within 2,000-feet near alt loc 3 than desired location (1 vs. 5)
(+) No HPH corridors within the buffer
(-) Longest haul route and pipeline corridor of all alternative sites. 4.2 miles of haul route and 2 miles of pipeline corridor required.
(-) haul routes would run by homes
(-) five potential wetlands within 2,000-feet of alt loc 3
(-) nearest to surface waters (West Sand Creek) of all proposed alternative sites

OGA2: The applicant's desired location and all 3 of their alternatives each present the potential for adverse impact to public health, safety, welfare, the environment, and wildlife resources. Many of these potential adverse impacts could likely be mitigated with the implementation of BMPs, COAs, and facility design considerations by the applicant. Staff believes the applicant's desired location has the least likelihood of adverse impacts to residents and resources and has the greatest ability to comply with Adams County Development Standards and Regulations. Of the 3 presented alternatives to the applicant's desired location, Staff feels that alternative location 2 appears least impactful followed by alternative location 3 and then last alternative location 1. While the applicant's desired location appears to be the least impactful overall, there is no guarantee that this location will be successful if a formal OGF application is filed and must demonstrate compliance with DS&R through the evaluation processes as defined and outlined.

OGA3: Given the presence of wetlands near this proposed site and within the 2,000-foot setback (designated as environmentally sensitive areas by Adams County) this location will likely require Board of County Commissioner approval rather than being eligible for the administrative approval process, should it comply with the remaining DS&R for OGF applications.

OGA4: Off-location "well connects" or pipelines will require separate land use approvals.

OGA5: Proposed lay-flat temporary pipeline for bring water to location could require additional land use, access, or ROW approvals. A map of the lay-flat placement including ROWs, landowners, road crossings, ditch placement, etc. will be required.

OGA6: Discussion of source of fresh water and the exact path from source will be required.

Community & Economic Development Department
Environmental Programs
4430 S. Adams County Pkwy.
1st Floor, Suite W2000B
Brighton, CO 80601-8218
PHONE 720.523.6800 | FAX 720.523.6967
adcogov.org

John Piekara
Civitas Resources
555 17th Street, Suite 3700
Denver, CO 80202

December 31, 2024

Subject: PRE2024-00071 Bennett D Pad – Conceptual Review Letter

This letter serves as confirmation that the applicant, Crestone Peak Resources / Civitas Resources has successfully completed the Conceptual Review meeting for the Subject project on November 6, 2024. This preapplication meeting satisfies the requirements in Adams County Development Standard and Regulations (ACDS&R) Section 2-02-14-04.1, including the Alterative Site Analysis. The applicant therefore may proceed with a Development Application Submittal for the associated Oil and Gas Facility (OGF) permit that complies with all other requirements of the applicable ACDS&R.

If you have any questions about the permitting process, please do not hesitate to contact me at gdean@adcogov.org or (720)523-6891.

Gregory Dean
Adams County, Oil & Gas Administrator

Neighborhood Meeting Summary

Bennett D Pad / Oil and Gas Facility

Neighborhood Meeting Summary

November 25, 2024

Meeting Summary

On November 25, 2024, Crestone, a wholly owned subsidiary of Civitas Resources, held a neighborhood meeting for the Bennett D Pad / Oil and Gas Facility at the Bennett Community Center, 1100 E Colfax Ave, Bennett, CO 80102. The meeting was held from 6:00 p.m. to approximately 7:00 p.m. The invitation was sent to forty-nine addresses on November 8, 2024. Four members of the public, a representative from Adams County and six representatives from Crestone were in attendance. Members of the public were given a contact card for Crestone staff. Poster boards were on display detailing drilling, casing / cementing program, and completions. Handouts were available illustrating proposed drilling and completion layouts and the location once wells are in production. The meeting started with a brief presentation followed by questions from the public. Details of the questions, concerns and responses are below.

Questions and Concerns with Crestone's Responses

- Will the oil be trucked or piped?
- Oil will be piped to the oil terminal on the property.

- What is going on with the trucking from other sites [to the Bennett Terminal]? They were told it would be 100% piped at some point.
- Some older sites do not have pipeline takeaway, so these wells are still being trucked. Majority of newer pads have pipeline takeaway. We should see trucking of oil to the terminal decrease in the future.

- Is this project separate from other existing projects?
- Yes, this will be a new well pad and facility with oil piped to the terminal.

- Concerned that trucks are destroying road (Manilla Road). Concerned they will get worse and not fixed if damaged.
- Described how this project will use about 1/10th of a mile of Manilla Road (Adams County Road) from I-70 to the existing access to the oil terminal. Mentioned how we will need to conduct a traffic impact study to ensure our operations address road maintenance, as needed.

- Will the trees on the south end of the property be removed?
- Trees will need to be removed to accommodate the temporary space required for our operations.

- Asked if the project to the east off Manilla Road (2150 Manilla Road; parcel 0181735200001) is one of our projects and related to this project.
- We mentioned this is a midstream operator, and not related to the Bennett D Pad.

- Will the site have cameras?
- The new location will have a camera skid at the entrance. This camera skid is built with AI technology and tracks every vehicle (LPR) that enters the facility. These cameras are live view but not monitored 24/7, they are set to notify security under certain circumstances. There are also cameras around the oil terminal.

- Will the site be fenced?
- Yes, the whole property is fenced, therefore this site will be too.

- There were general comments made about landscaping and maintenance of the property not being up to par and hoping we can address this.
- We acknowledged the concerns, and we would look into it.

- Did we have to work with the FAA because of proximity to the Space Port?
- Yes, filed with FAA and have conditions to satisfy such as lights and flags on the derrick.

- Will there be a lot of dirt work done here? Is there a comparable size site to see?
- Mentioned it will be approximately 23 acres in size during the construction phase with no fill material brought as the site is balanced. Provided the locations of other pads to see which as relatively comparable in size.

- Will you need all of the topsoil that is segregated and could it be given to “me” [a surface owner for their own use]?
- We can look into it.

- Mr. Becker (property owner approximately 3,200’ from proposed site) was curious about the general project and operations timeline as he is a mineral owner in one of the DSUs Bennet D intends to develop. Proponent of the overall project and confirmed other nearby Civitas projects (Fraser and Arkansas oil and gas locations) caused no adverse impacts.

Attendee List

CIVITAS

NAME	PHONE	EMAIL	ADDRESS
Phil Oyer	720-560-0114	oyerphil@gmail.com	3900 Burton St Strasburg CO 80136

CIVITAS

NAME	PHONE	EMAIL	ADDRESS
Jeff Becker	303-929-3199	jlbecker1957@gmail.com	1206 W. Fork Way 80137
Jaime Becker	3/810-9155		" "
Chad Finkenbinder	~~720~~ 720-951-0277	cfinkenbinder@adcogov.org	
Jeff Hopkins	3-905-6135	[illegible]	2121 N. Manila Rd. Bennett,

Crestone Representatives: Jeff Annable, Dan Harrinton, Shayne Heap, Ryan Nance (76 Group), John Piekara and Jeremy Sonnier


CIVITAS
Crestone Peak Resources LLC*
Bennett D Pad
Neighborhood Meeting
Adams County
November 25, 2024


CIVITAS

BENNETT D - ADAMS COUNTY COMMUNITY OPEN HOUSE

Civitas Resources would like to invite you to come and meet Civitas representatives to learn more about the company's development plan for the Bennett D project in Adams County

The Bennett D - Adams County is a new Oil & Gas Facility with 26 wells and a production facility. This will be an opportunity to ask questions from subject matter experts and understand the project scope and timelines.

IN-PERSON PRESENTATION & OPEN HOUSE

November 25th, 2024 at 6:00PM

Bennett Community Center
1100 E Colfax Avenue
Bennett, CO 80102

Contacts:

Civitas Resources

Community Outreach - 720-279 9842
communityrelations@civiresources.com

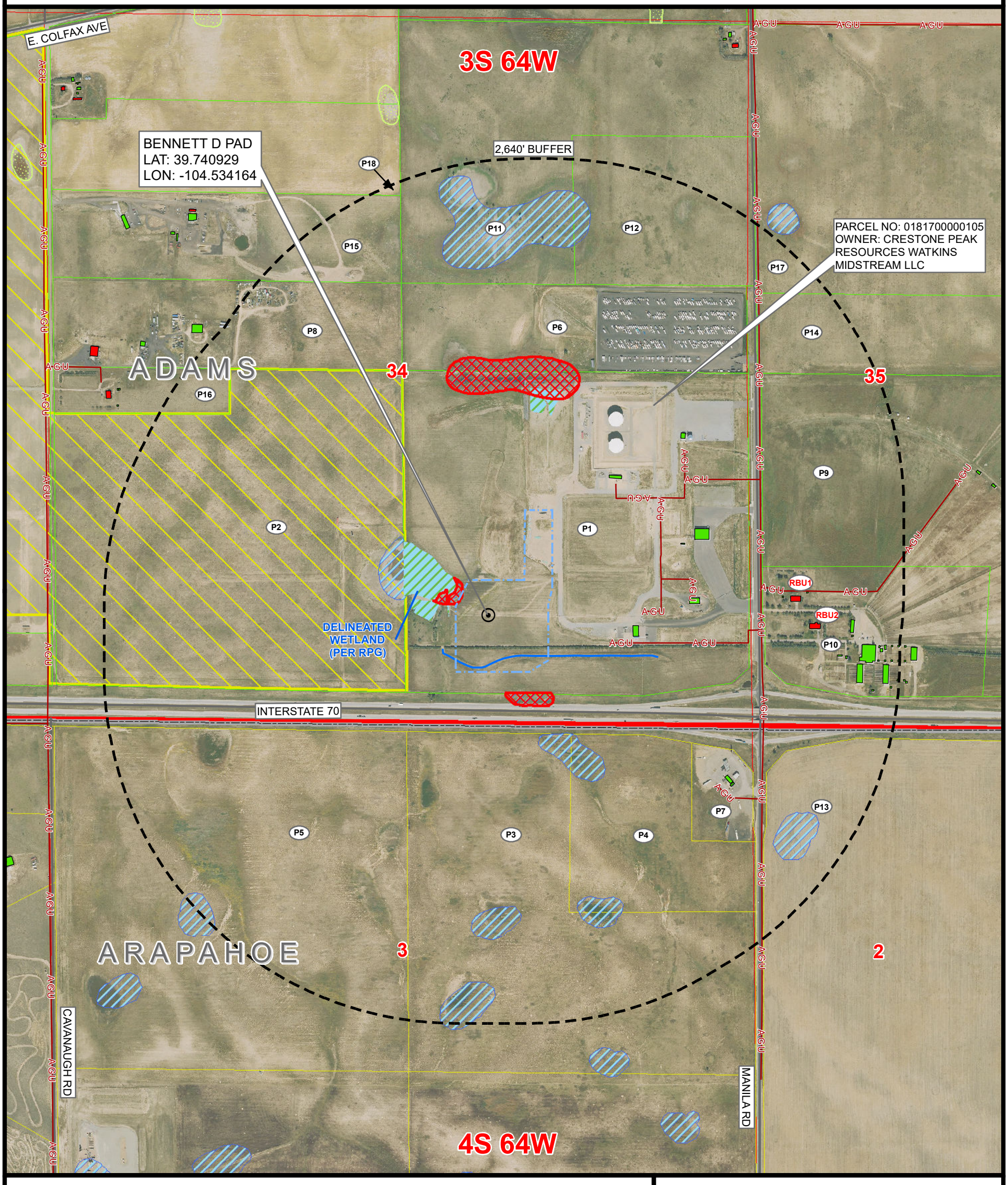
Adams County

Greg Dean
Oil & Gas Administrator
720-523-6891
gdean@adcogov.org

ALTERNATIVE LOCATION ANALYSIS - PROPOSED LOCATION

BENNETT D PAD

SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- PROPOSED REFERENCE POINT
- PROPOSED WORKING PAD SURFACE
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND
- NWI RIVERINE/POND/WETLAND (FIELD VERIFIED TO NOT BE PRESENT)

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 25 Oct 2024

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_PROPOSED_LOCATION_MAP(SHEET 1).mxd 10/24/2024 10:49:44 AM

Development Application

Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000
Brighton, CO 80601-8204
PHONE 720.523.6800
FAX 720.523.6998

DEVELOPMENT APPLICATION FORM

Application Type:

☐ Conceptual Review	☐ Preliminary PUD	☐ Temporary Use
☐ Subdivision, Preliminary	☐ Final PUD	☐ Variance
☐ Subdivision, Final	☐ Rezone	☐ Conditional Use
☐ Plat Correction/ Vacation	☐ Special Use	☒ Other: OGF

PROJECT NAME: Bennett D Pad

APPLICANT

Name(s): Crestone Peak Resources Operating, LLC Phone #: 3032947824

Address: 555 17th St, Suite 3700

City, State, Zip: Denver, CO 80202

2nd Phone #: Email: jpiekara@civiresources.com

OWNER

Name(s): same as above Phone #:

Address:

City, State, Zip:

2nd Phone #: Email:

TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

Name: Jake Edmunds - 609 Consulting Phone #: 3076740609

Address: 1095 Saberton Avenue

City, State, Zip: Sheridan, WY 82801

2nd Phone #: Email: jedmunds@609consulting.com

DESCRIPTION OF SITE

Address:	1631 Manilla Rd
City, State, Zip:	Bennett, CO 80102
Area (acres or square feet):	22.96 acres
Tax Assessor Parcel Number	181700000105
Existing Zoning:	A-3
Existing Land Use:	commercial / industrial
Proposed Land Use:	commercial / industrial

Have you attended a Conceptual Review? YES [X] NO [ ]

If Yes, please list PRE#: 2024-00071

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: John Piekara Date: 1/27/2025

Owner's Printed Name

Name:

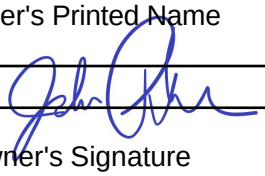
Owner's Signature

The applicant hereby affirms that the Operator and its associated subcontractors and affiliates have complied with applicable worker safety training and certification requirements as outlined in Adams County Development Standards and Regulations Sec. 4-11-02-03-03-03. Records and documentation of compliance are available and will be provided to the County upon request.

Name: John Piekara Date: 1/27/2025

Owner's Printed Name

Name:



Owner's Signature

Operations Plan including:

Cover Sheet

Impact Area Maps

Site Plans

Signage Plan

Written Narrative (Including Alternative Site Analysis)

OPERATIONS PLAN - OIL AND GAS FACILITY

BENNETT D PAD

SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST OF THE 6TH P.M.
COUNTY OF ADAMS, STATE OF COLORADO

CONTACTS:

PROPERTY OWNER: CRESTONE PEAK RESOURCES WATKINS MIDSTREAM LLC
0181700000105
555 17TH STREET, SUITE 3700
DENVER, CO 80202

APPLICANT/OPERATOR: CRESTONE PEAK RESOURCES OPERATING LLC
A WHOLLY-OWNED SUBSIDIARY OF CIVITAS RESOURCES, INC.
555 17TH STREET, SUITE 3700
DENVER, CO 80202

ENGINEER/CONSULTANT: 609 CONSULTING, LLC
1095 SABERTON AVENUE
SHERIDAN, WY 82801
JAKE EDMUNDS
(307) 674-0609

ADAMS COUNTY: PLANNING & DEVELOPMENT
4430 SOUTH ADAMS COUNTY PARKWAY
BRIGHTON, CO 80601
(702) 523-6800

ADAMS COUNTY SHERIFF'S DEPARTMENT
GENE CLAPS, ADAMS COUNTY SHERIFF
(303) 654-1850

BENNETT-WATKINS FIRE DEPARTMENT
(303) 644-3572

LEGAL DESCRIPTION:

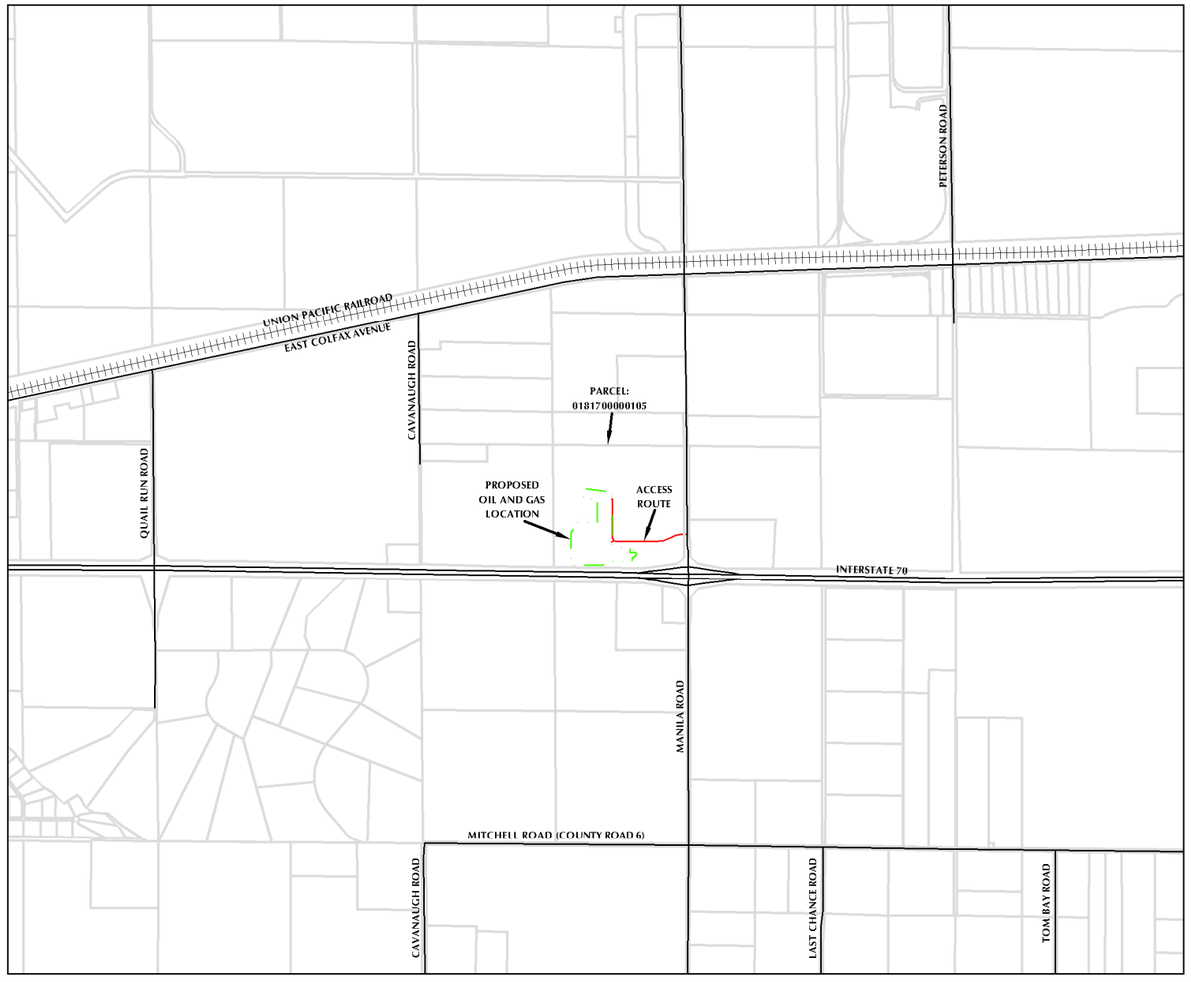
PART OF THE SE1/4 OF SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED ON LAND SURVEY PLAT AND SPECIAL WARRANTY DEED UNDER RECEPTION NO. 2022000032417.

EXISTING ZONING: A-3

CERTIFICATE OF APPROVAL BY THE DEPARTMENT OF PLANNING & DEVELOPMENT

_____
DEPARTMENT OF PLANNING & DEVELOPMENT DIRECTOR

ECMC PERMIT NO: _____



VICINITY MAP

0 1500' 3000'

1" = 3000'

SHEET INDEX

OPERATIONS PLAN	
SHEET NO.	SHEET NAME
SHEET-1	COVER SHEET
SHEET-2	IMPACT AREA MAP
SHEET-3	IMPACT AREA MAP
SHEET-4	CONSTRUCTION LAYOUT SITE PLAN
SHEET-5	DRILLING LAYOUT SITE PLAN
SHEET-6	COMPLETIONS LAYOUT SITE PLAN
SHEET-7	PRODUCTION LAYOUT SITE PLAN
SHEET-8	SIGNAGE PLAN

WELLS

1	TRANSPORT 3-64 34-35-36 1AH
2	TRANSPORT 3-64 34-35-36 1BH
3	TRANSPORT 3-64 34-35-36 2AH
4	TRANSPORT 3-64 34-35-36 2BH
5	TRANSPORT 3-64 34-35-36 3AH
6	TRANSPORT 3-64 34-35-36 3BH
7	TRANSPORT 3-64 34-35-36 4AH
8	TRANSPORT 3-64 34-35-36 4BH
9	BOMHOFF EAST 4-64 10-11-12 1AH
10	BOMHOFF EAST 4-64 10-11-12 1BH
11	BOMHOFF EAST 4-64 10-11-12 2AH
12	BOMHOFF EAST 4-64 10-11-12 2BH
13	BOMHOFF EAST 4-64 10-11-12 3AH
14	FRASER FED 3-64 33-32 1BH
15	FRASER FED 3-64 33-32 2BH
16	FRASER FED 3-64 33-32 3BH
17	FRASER FED 3-64 33-32 4BH
18	BD LAND 4-64 5-4 1AH
19	BD LAND 4-64 5-4 1BH
20	BD LAND 4-64 5-4 2AH
21	BD LAND 4-64 5-4 2BH
22	BD LAND 4-64 5-4 3AH
23	BD LAND 4-64 5-4 3BH
24	BD LAND 4-64 5-4 4AH
25	BOMHOFF WEST 4-64 9-8-7 1AH
26	BOMHOFF WEST 4-64 9-8-7 1BH

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:
CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

BENNETT D PAD
COVER SHEET

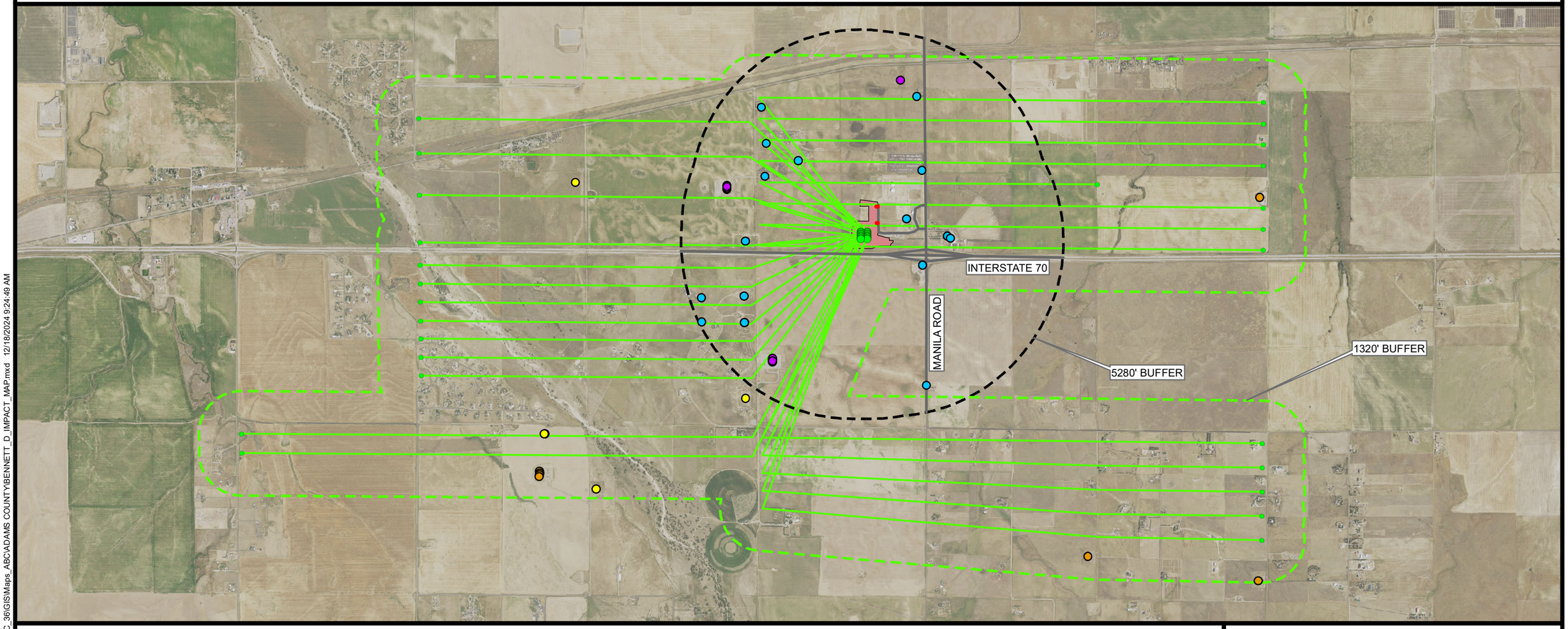
DATE:	12/18/24	SHEET:	1 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

K:\CIVITAS RESOURCES\2023\20230223_182_SOP36_T3S_R64W_SEC_34\DWG\SOP36_BENNETT.dwg, 12/19/2024 3:47:58 PM, jjetmundis

IMPACT MAP

BENNETT D PAD

SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- WELL - PROPOSED
- BOTTOM HOLE - PROPOSED
- WELL PATH - PROPOSED
- PROPOSED OIL AND GAS LOCATION
- PROPOSED OIL AND GAS LOCATION BUFFER
- WELL BORE BUFFER
- EXISTING WATER WELL
- ECMC OIL AND GAS WELL
- ABANDONED OIL AND GAS WELL
- SHUT-IN OIL AND GAS WELL
- PROPOSED ACCESS ROAD
- EXISTING ROAD

NOTE:
WELL LOCATIONS DERIVED FROM ENERGY AND CARBON MANAGEMENT COMMISSION (ECMC)(cogcc.state.co.us).
THE ESTIMATED DISTANCES FROM PROPOSED BORE LOCATIONS TO THE NEAREST EXISTING WELL SURFACE LOCATIONS ARE BASED ON ECMC DATA.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 3,000ft

SHEET 2 OF 8

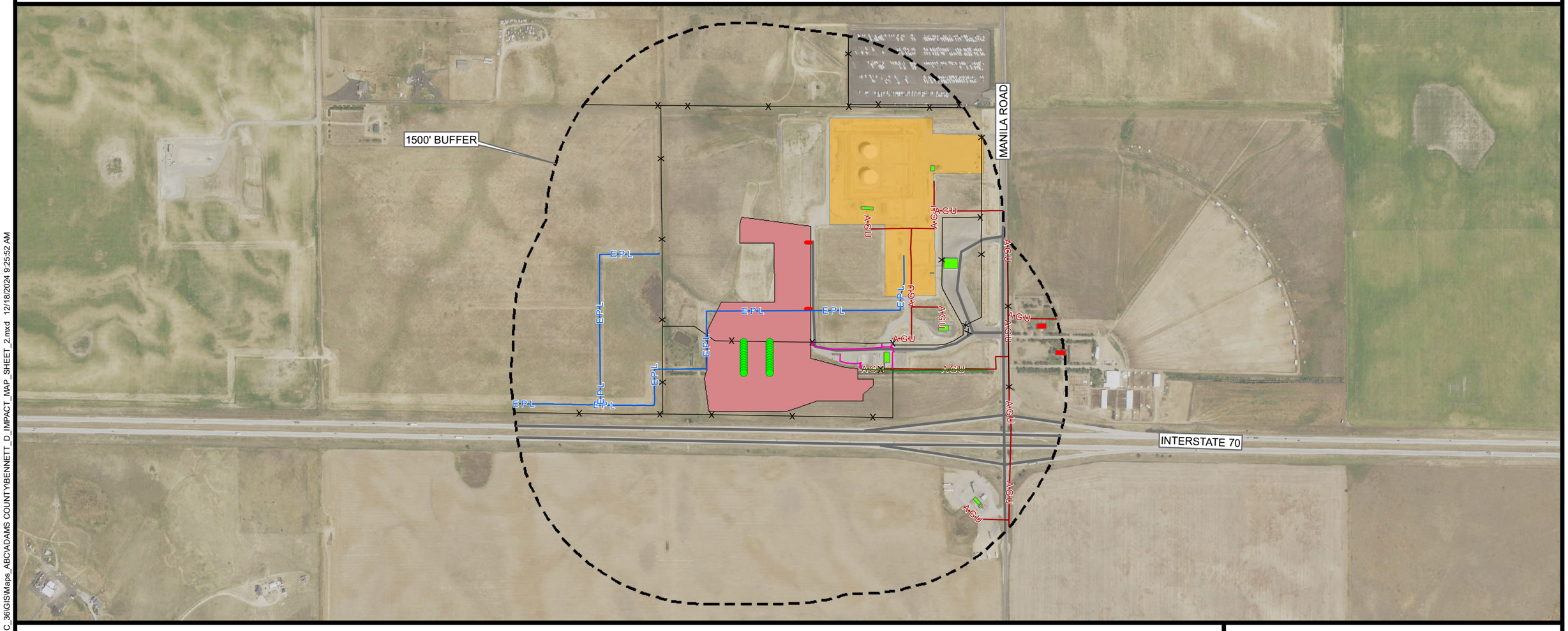
Drawn by: KMG Date: 18 Dec 2024
Revised: Date:

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\Maps_ABC\ADAMS COUNTY\BENNETT_D_IMPACT_MAP.mxd 12/18/2024 9:24:49 AM

IMPACT MAP

BENNETT D PAD

SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- WELL - PROPOSED
- PROPOSED OIL AND GAS LOCATION
- PROPOSED OIL AND GAS LOCATION BUFFER
- BUILDING
- RESIDENTIAL BUILDING UNIT
- FACILITY
- PROPOSED ACCESS ROAD
- EXISTING ROAD
- EXISTING FENCE
- EXISTING ABOVE GROUND UTILITY
- EXISTING BURIED POWERLINE
- EXISTING PIPELINE
- EXISTING BURIED FIBER OPTIC LINE

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

SHEET 3 OF 8

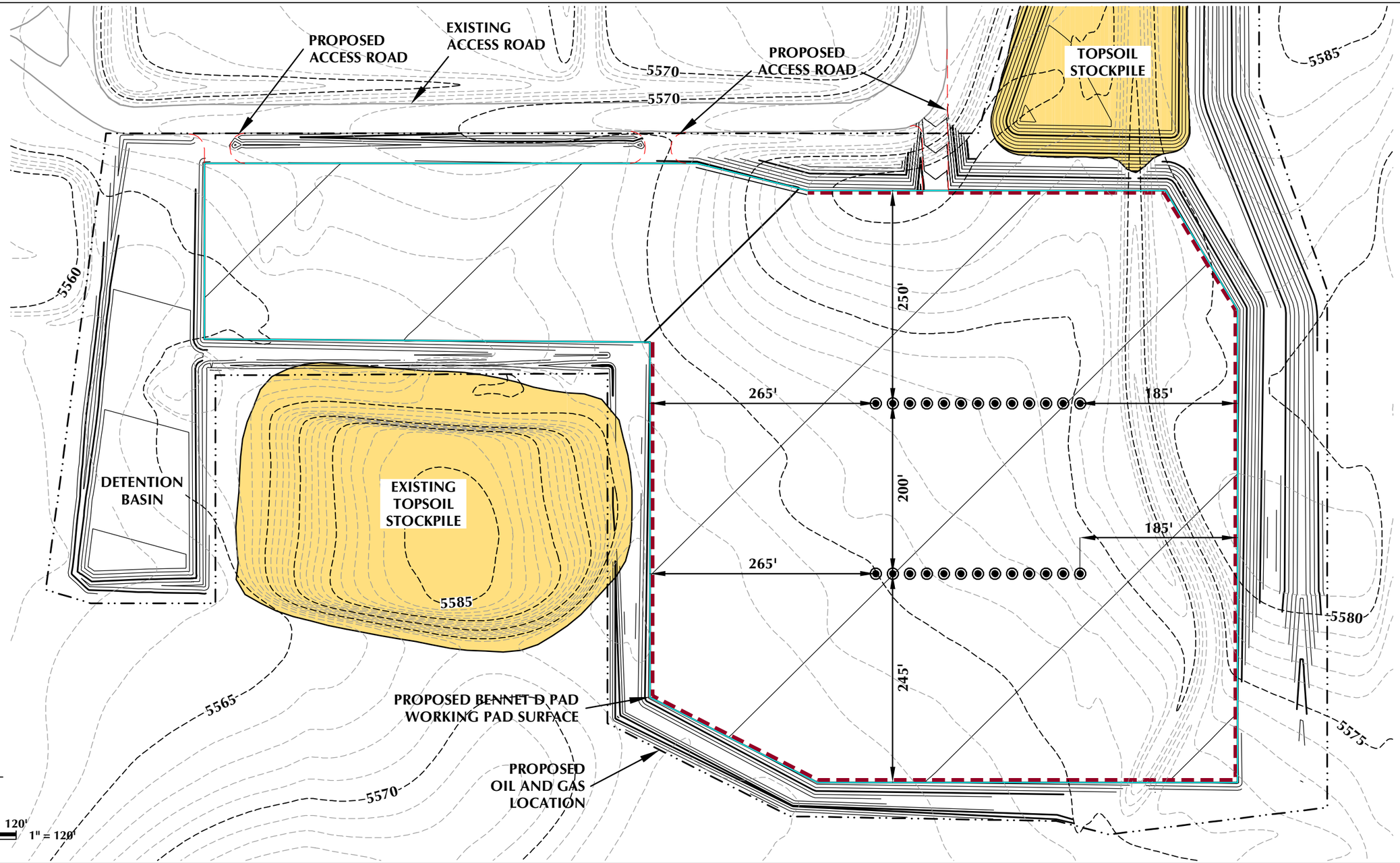
Drawn by: KMG Date: 18 Dec 2024
Revised: Date:

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\Maps_ABC\ADAMS COUNTY\BENNETT_D_IMPACT_MAP_SHEET_2.mxd 12/18/2024 9:25:52 AM

CONSTRUCTION LAYOUT SITE PLAN

BENNETT D PAD

SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



LEGEND

- PROPOSED WELL
- EXISTING WELL
- PROPOSED OIL AND GAS LOCATION (22.96 ACRES)
- PROPOSED WORKING PAD SURFACE (13.24 ACRES)
- SOUND WALLS
- EXISTING 1' CONTOUR
- PROPOSED 1' CONTOUR

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:

CIVITAS

CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

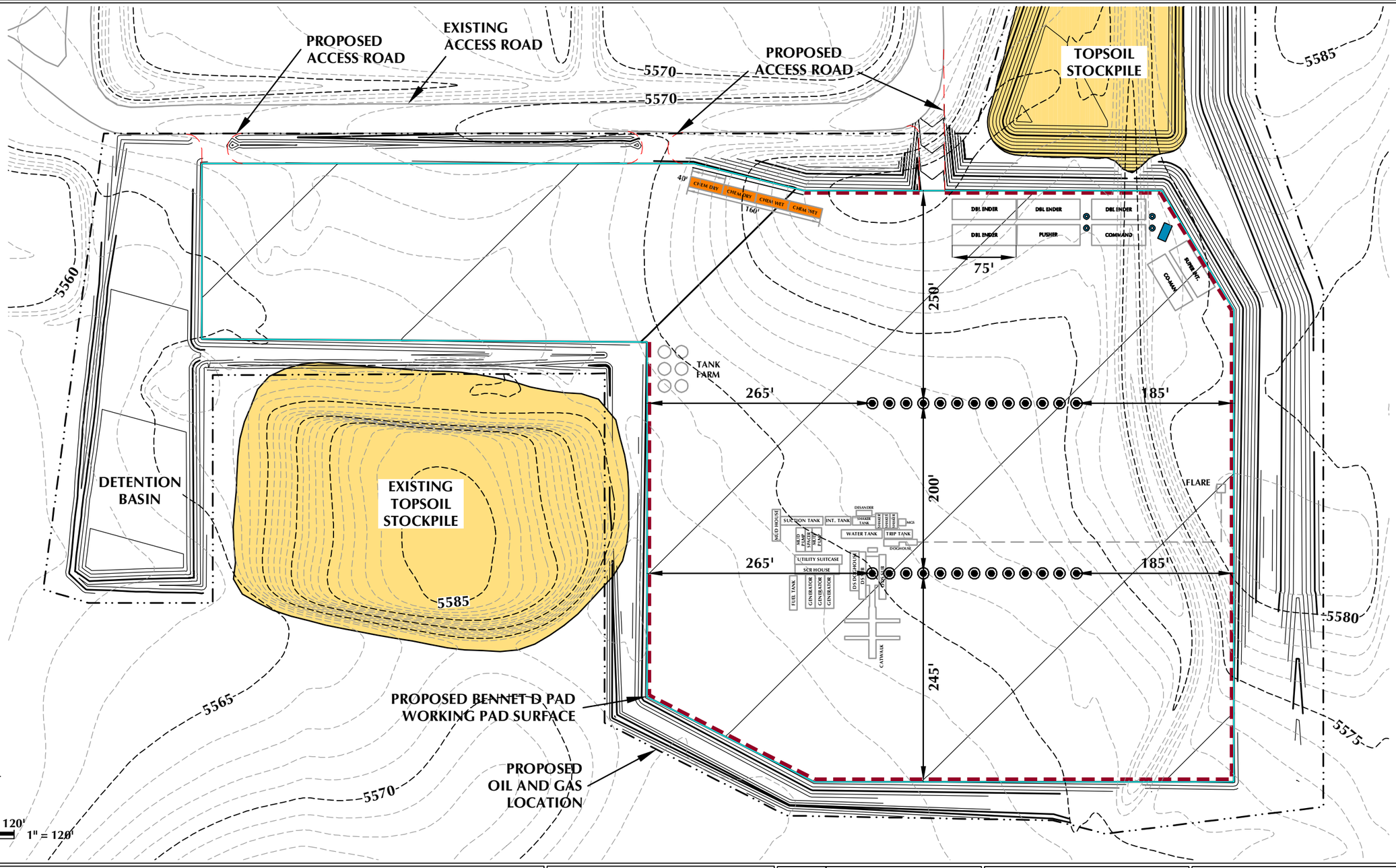
BENNETT D PAD
CONSTRUCTION LAYOUT SITE PLAN

DATE:	12/18/24	SHEET:	4 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

DRILLING LAYOUT SITE PLAN

BENNETT D PAD

SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



LEGEND

- PROPOSED WELL
- EXISTING WELL
- PROPOSED OIL AND GAS LOCATION
- PROPOSED WORKING PAD SURFACE
- SOUND WALLS
- EXISTING 1' CONTOUR
- PROPOSED 1' CONTOUR

NOTE:

- RIG PROFILE IS APPROXIMATE AND SUBJECT TO MODIFICATION DUE TO SPECIFIC CIRCUMSTANCES.

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:

CIVITAS

CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

BENNETT D PAD
DRILLING LAYOUT SITE PLAN

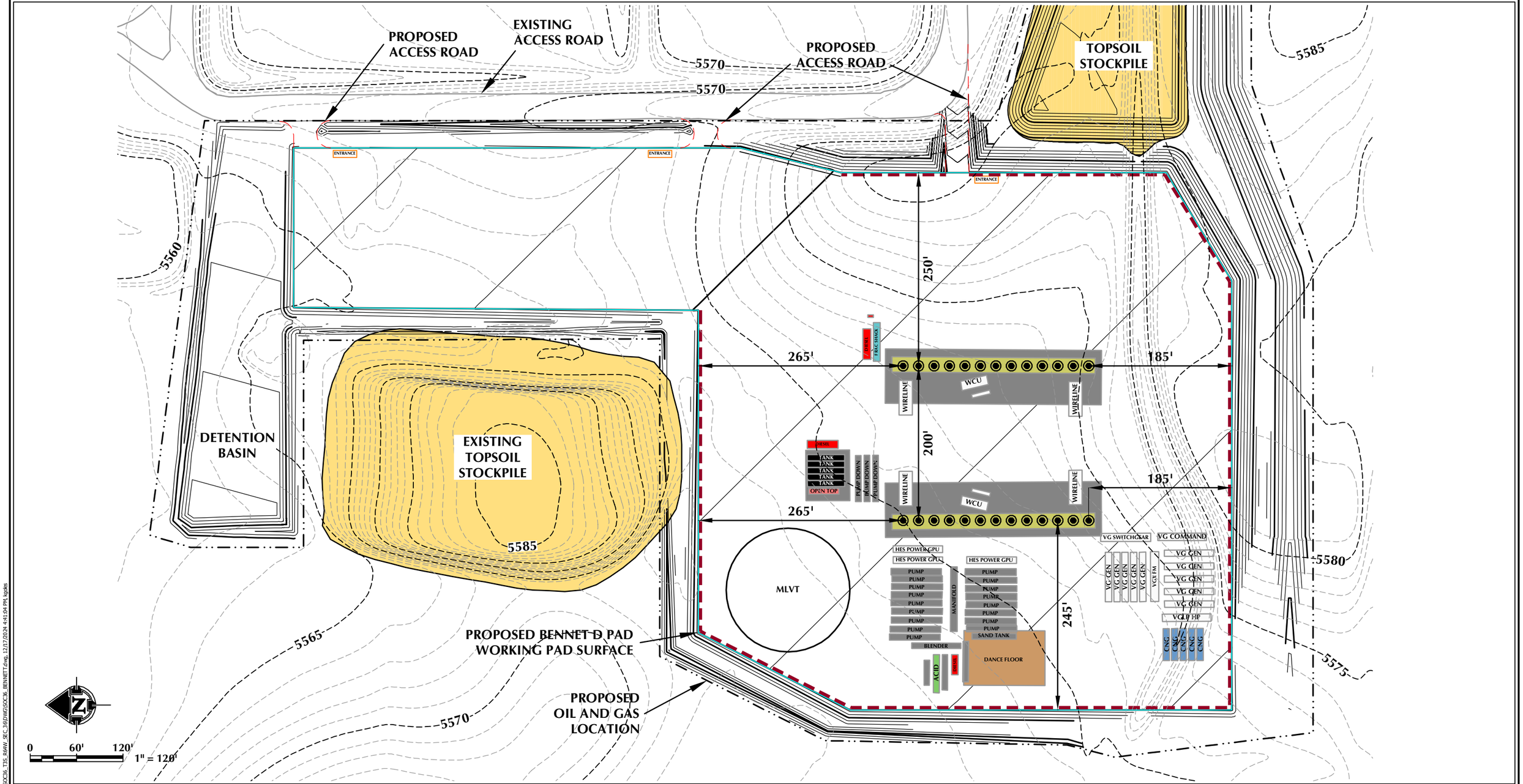
DATE:	12/18/24	SHEET:	5 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

K:\CIVIT\26 RESOURCES\2023\0023_182_SOC36_T3S_R64W_SEC_34\DWGS\SOC36_BENNETT.dwg, 12/17/2024 4:46:52 PM, tgates

COMPLETIONS LAYOUT SITE PLAN

BENNETT D PAD

SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_34\0\WG\SOC36_BENNETT.dwg, 12/17/2024 4:41:04 PM, kgoles

LEGEND

- PROPOSED WELL
- EXISTING WELL
- PROPOSED OIL AND GAS LOCATION
- PROPOSED WORKING PAD SURFACE
- EXISTING 1' CONTOUR
- PROPOSED 1' CONTOUR
- CNG
- DIESEL
- DANCE FLOOR
- OPEN TOP
- PRS
- FRAC SHACK
- EQUIPMENT - OTHER
- EQUIPMENT - UN
- DESIGNATED AREA
- AMP UP
- ACID
- VG GEN
- ENTRANCE
- SOUND WALLS

NOTE:

- COMPLETIONS LAYOUT IS APPROXIMATE AND SUBJECT TO MODIFICATION DUE TO SPECIFIC CIRCUMSTANCES.

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:

CIVITAS

CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

BENNETT D PAD

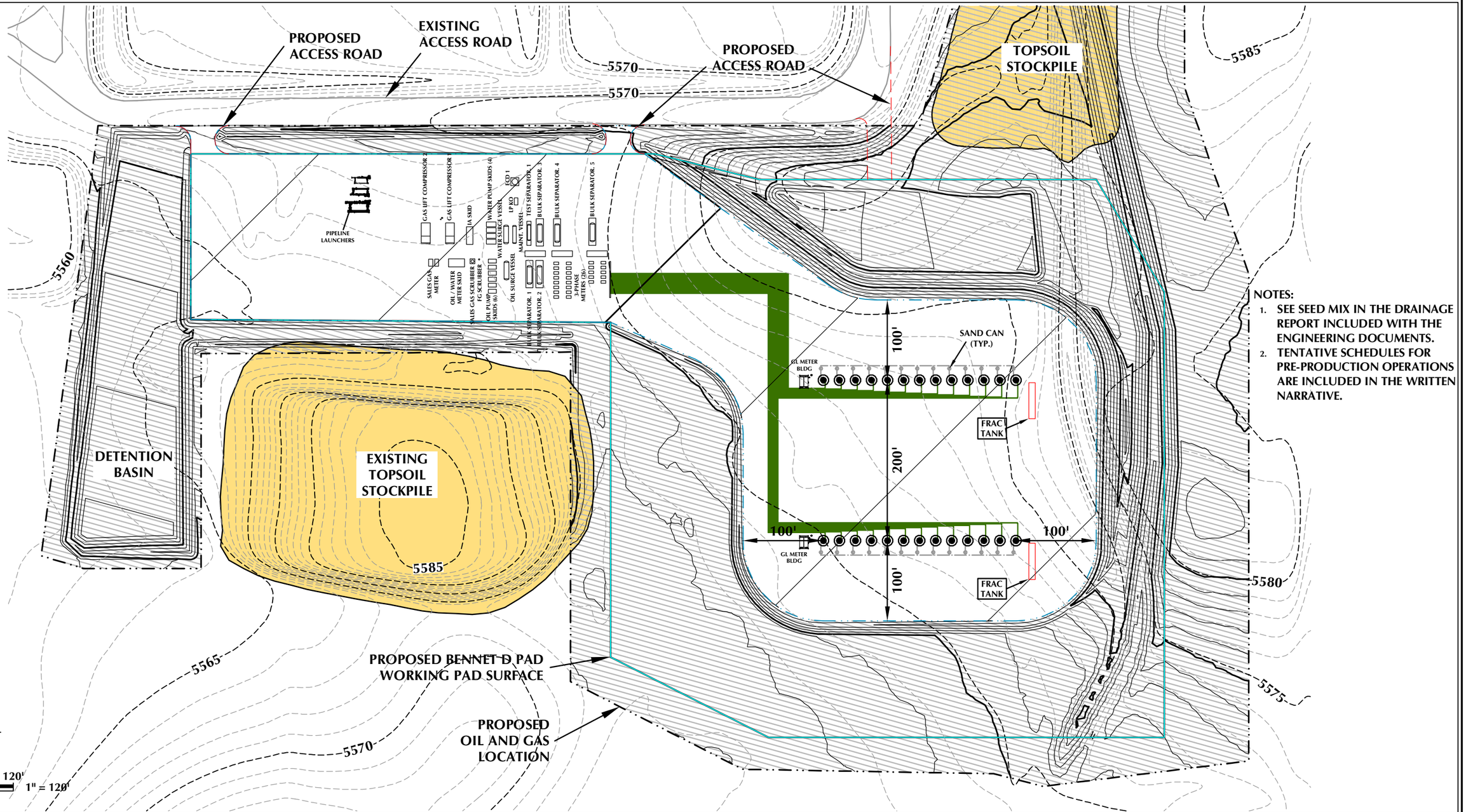
COMPLETIONS LAYOUT SITE PLAN

DATE:	12/18/24	SHEET:	6 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

PRODUCTION LAYOUT SITE PLAN

BENNETT D PAD

SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



NOTES:

1. SEE SEED MIX IN THE DRAINAGE REPORT INCLUDED WITH THE ENGINEERING DOCUMENTS.
2. TENTATIVE SCHEDULES FOR PRE-PRODUCTION OPERATIONS ARE INCLUDED IN THE WRITTEN NARRATIVE.

LEGEND

- PROPOSED WELL
- EXISTING WELL
- PROPOSED OIL AND GAS LOCATION (22.96 ACRES)
- PROPOSED WORKING PAD SURFACE (13.24 ACRES)
- RECLAMATION AREA (15.54 ACRES)
- UNRECLAIMED AREA (7.42 ACRES)
- PROPOSED FLOWLINE
- PROPOSED PIPELINE
- EXISTING 1' CONTOUR
- PROPOSED 1' CONTOUR

NOTE:

- WELLHEADS AND FACILITY EQUIPMENT WILL REMAIN PERMANENT AFTER FLOWBACK IS COMPLETE. SAND CANS AND FRAC TANKS ARE TEMPORARY AND WILL BE REMOVED FOLLOWING FLOWBACK OPERATIONS

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:

CIVITAS

CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

BENNETT D PAD

PRODUCTION LAYOUT SITE PLAN

DATE:	12/18/24	SHEET:	7 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\DWG\SOC36_BENNETT.dwg, 12/19/2024 10:02:11 AM, jedmunds

SIGNAGE PLAN
BENNETT D PAD
SE 1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

96"

48"

EMERGENCY NUMBER: (720) 370-5540 OR 911
COMMUNITY RESPONSE LINE: (720) 279-9842
COMMUNITYRELATIONS@CIVIRESOURCES.COM

CRESTONE PEAK
RESOURCES
303-659-7740

DANGER
NO SMOKING OR OPEN FLAME

BENNETT D PAD
MULTI-WELL PAD
BATTERY ID ####

TRANSPORT 3-64 34-35-36 1AH	BOMHOFF EAST 4-64 10-11-12 2AH	BD LAND 4-64 5-4 2BH
TRANSPORT 3-64 34-35-36 1BH	BOMHOFF EAST 4-64 10-11-12 2BH	BD LAND 4-64 5-4 3AH
TRANSPORT 3-64 34-35-36 2AH	BOMHOFF EAST 4-64 10-11-12 3AH	BD LAND 4-64 5-4 3BH
TRANSPORT 3-64 34-35-36 2BH	FRASER FED 3-64 33-32 1BH	BD LAND 4-64 5-4 4AH
TRANSPORT 3-64 34-35-36 3AH	FRASER FED 3-64 33-32 2BH	BOMHOFF WEST 4-64 9-8-7 1AH
TRANSPORT 3-64 34-35-36 3BH	FRASER FED 3-64 33-32 3BH	BOMHOFF WEST 4-64 9-8-7 1BH
TRANSPORT 3-64 34-35-36 4AH	FRASER FED 3-64 33-32 4BH	
TRANSPORT 3-64 34-35-36 4BH	BD LAND 4-64 5-4 1AH	
BOMHOFF EAST 4-64 10-11-12 1AH	BD LAND 4-64 5-4 1BH	
BOMHOFF EAST 4-64 10-11-12 1BH	BD LAND 4-64 5-4 2AH	

CAUTION
AUTHORIZED PERSONNEL ONLY

HARD HATS, STEEL TOED BOOTS, SAFETY GLASSES, EAR PROTECTION, AND FR CLOTHING REQUIRED BEYOND THIS POINT

SCALE: NTS
SIZE : 96" X 48"
MATERIAL: WHITE MAX METAL W/ UV LAMINATE AND CONSTRUCTED ANGLE IRON FRAMES
LOCATION: PLACED AT FACILITY ENTRANCE

36"

24"

CRESTONE PEAK
RESOURCES
303-659-7740

BENNETT D PAD
MULTI-WELL PAD
BATTERY ID ####
SE 1/4 SEC 34 T3S R64W
ADAMS COUNTY, CO

SCALE: NTS
SIZE : 36" X 24"
MATERIAL: WHITE MAX METAL W/ UV LAMINATE AND CONSTRUCTED ANGLE IRON FRAMES
LOCATION: PLACED AT EACH BATTERY

24"

18"

CRESTONE PEAK
RESOURCES
303-659-7740

SCALE: NTS
SIZE : 24" X 18"
MATERIAL: WHITE MAX METAL W/ UV LAMINATE AND CONSTRUCTED ANGLE IRON FRAMES
LOCATION: PLACED AT EACH WELL HEAD

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:
CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

BENNETT D PAD
SIGNAGE PLAN

DATE:	12/18/24	SHEET:	8 OF 8
SURVEY DATE:	9/24/24	DRAFTED BY:	KMG

Adams County Oil and Gas Facility Application

Written Explanation

Bennett D Pad
SE/4 Section 34
Township 3 South Range 64 West

Prepared By: Crestone Peak Resources Operating, LLC
January 2025

Introduction

Crestone Peak Resources Operating, LLC (Crestone) is applying for an Oil and Gas Facility Permit (OGF) for the proposed Bennett D Pad Oil and Gas location. The application seeks to permit the drilling and completing of up twenty-six (26) horizontal wells and the installation of related surface production equipment on one (1) well pad, that will be serviced by (1) one existing access road in Adams County, Colorado.

These wells and associated production facilities have been proposed on a single pad in the southeast quarter of Section 34 Township 3S Range 64W, on parcel number 0181700000105. The horizontal drilling technique eliminates the need for multiple well pads, thus reducing the overall footprint on the surface if otherwise developed with vertical and or directional wells. This well pad and the subsequent 26 wells will develop and produce approximately 6,400 mineral acres across five drilling and spacing units (DSUs) in the Niobrara and Codell formations of the Denver-Julesburg (DJ) Basin.

The OGF, pursuant to Section 4-11-02-03-03 of the Adams County Development Standards and Regulations, will include a full Written Narrative of the site preparation, drilling, completion, production, maintenance and final abandonment processes. Additionally, the following plans and documents are included with the OGF permit application: conceptual review summary, neighborhood meeting summary, operations plan which includes the alternative site analysis, emergency preparedness and response plan, transportation plan, mitigation plans (i.e. – noise, light, odor, dust), visual aesthetics plan, community outreach plan, cumulative impacts plan, water and wildlife plans, engineering documents and surface owner documentation. A number of these plans are substantially equivalent to those prepared for Colorado Energy and Carbon Management Commission ("ECMC") and have been submitted with this application with little to no modifications. Additionally, Crestone will seek approval for an Air Quality Monitoring Plan with Colorado Department of Health & Environment ("CDPHE") prior to conducting operations.

Operations Introduction

The Written Narrative is divided into the site preparation, drilling phase, protection of fresh water, completion phase, production phase, and the abandonment and reclamation of wells and the site. All operations will be consistent with Adams County code and ECMC rules and regulations.

The following are anticipated commencement of operations (subject to change):
Construction: 2Q 2026; **Drilling**: 3Q 2026; **Completions**: 1Q 2027; **Production**: 3Q 2027

Site Preparation (60 days+)

The proposed oil and gas location will be 22.96 acres in size during construction, drilling and completions operations. Site preparation will include removal of current vegetation and stockpiling of topsoil, earthwork operations to grade the pad level for drilling operations, platting the pad with road base material, and improvements to the access road where necessary. No soil will be brought in for fill, as cut / fill will be balanced on the pad. Additionally, storm water controls and mitigation BMPs will be installed during construction of the pad.

Drilling Phase

A drilling prognosis will be prepared prior to drilling which details the landing points, formation tops, total depths, mud design, and wellbore logging and casing programs for each well.

The drilling phase typically proceeds as follows:

- A conductor rig is moved onto the location to set conductor casing for each well; typically, conductor casing takes one day for every two wells to set. Conductor casing is set at depths of 75-200' and hold back the loose gravels and soil types from falling into the hole. The conductor casing is then cemented to the surface.

- After the conductor casing is set, a surface, or "spudder," rig or drilling rig if the surface rig is unavailable, is moved onto location to set surface casing. It typically takes one day per well to set surface casing.

- For this site, surface casing will be set at least 50 feet below the deepest known aquifer in the area. Surface casing is then run and cemented from this depth to the surface. Typical surface casing designs in this area of the basin are between 2,000 – 2,500 deep.

- Next, the drilling rig is moved onsite and rigged up. Mobilization of the drilling rig typically takes 2 to 4 days, and a 24-hour drilling schedule is utilized. Under normal conditions, drilling is anticipated to take approximately 5 to 6 days per well.

- On multi-well pads, the wellheads are planned at 20 feet on center. The rig is set up on the first well to be drilled, then skids or walks to each subsequent well.

- Once the total depth is reached for a well, the drill string is removed from the hole.

- Prior to running production casing, at least one well per pad has open-hole logs run to meet ECMC requirements if an offset well's logs are not available or are insufficient. Logs are run to determine sufficient cement coverage and the stratigraphy of the formation. The objective target formations for this project are mapped and estimated to be between 7000-7600' vertical depth.

- Production casing is then run, set in the hole, and cemented in place to provide integrity and isolate the deeper hydrocarbon bearing formations.

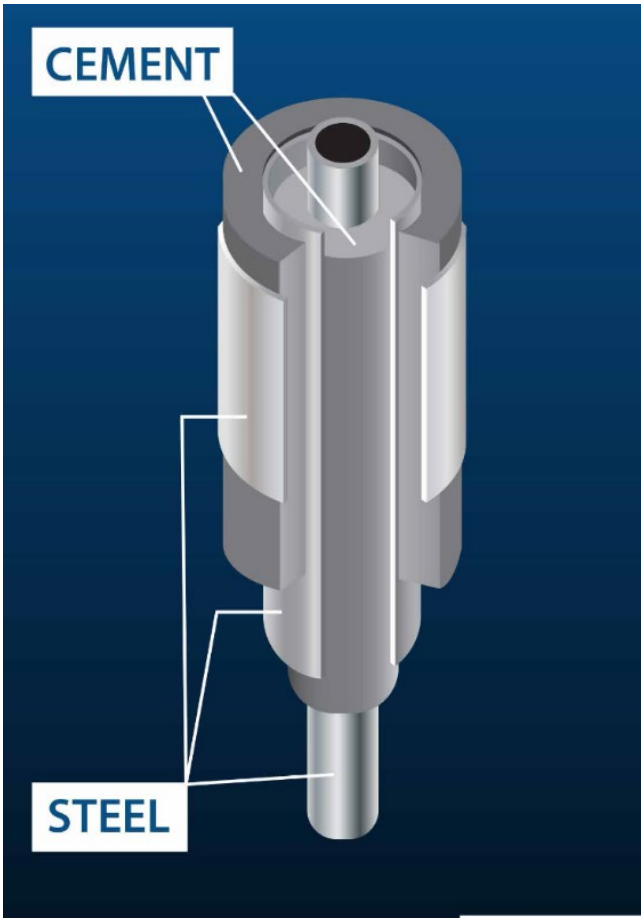
- Next, the blow out preventer is removed, the well is properly capped and secured and then the rig skids to the next well on the pad.

- Once all wells on site are drilled, cased, cemented and the well heads capped and secured, the drilling rig is demobilized and moved offsite.

Protection of Fresh Water

The ECMC sets forth specific requirements for casing setting depths necessary to protect ground water sources, and all drilling permits ensure that those setting depths have been approved. The Fox Hills sands of the late Cretaceous age are important freshwater aquifers in the western portion of the DJ Basin. In addition, there are numerous discontinuous sands of secondary importance that lie directly below the Fox Hills formation. These ground water sands are found from the surface to a depth of approximately five hundred (500) feet in the north and eastern portions of the basin and from the surface to a depth of approximately two thousand (2,000) feet or more in the south and western parts of the basin.

In order to ensure the protection of all freshwater resources, typically .9-5/8" steel surface casing is set to a depth at least fifty (50) feet below the base of the deepest known Fox Hills sands or water well, whichever is deeper, as required by the ECMC and is cemented from the bottom of the pipe up to the surface. The ECMC reviews all drilling permit applications for adequate surface casing setting depths and cementing programs based on subsurface ground water maps prepared by the State Water Engineer, offset well data and all available water well data.



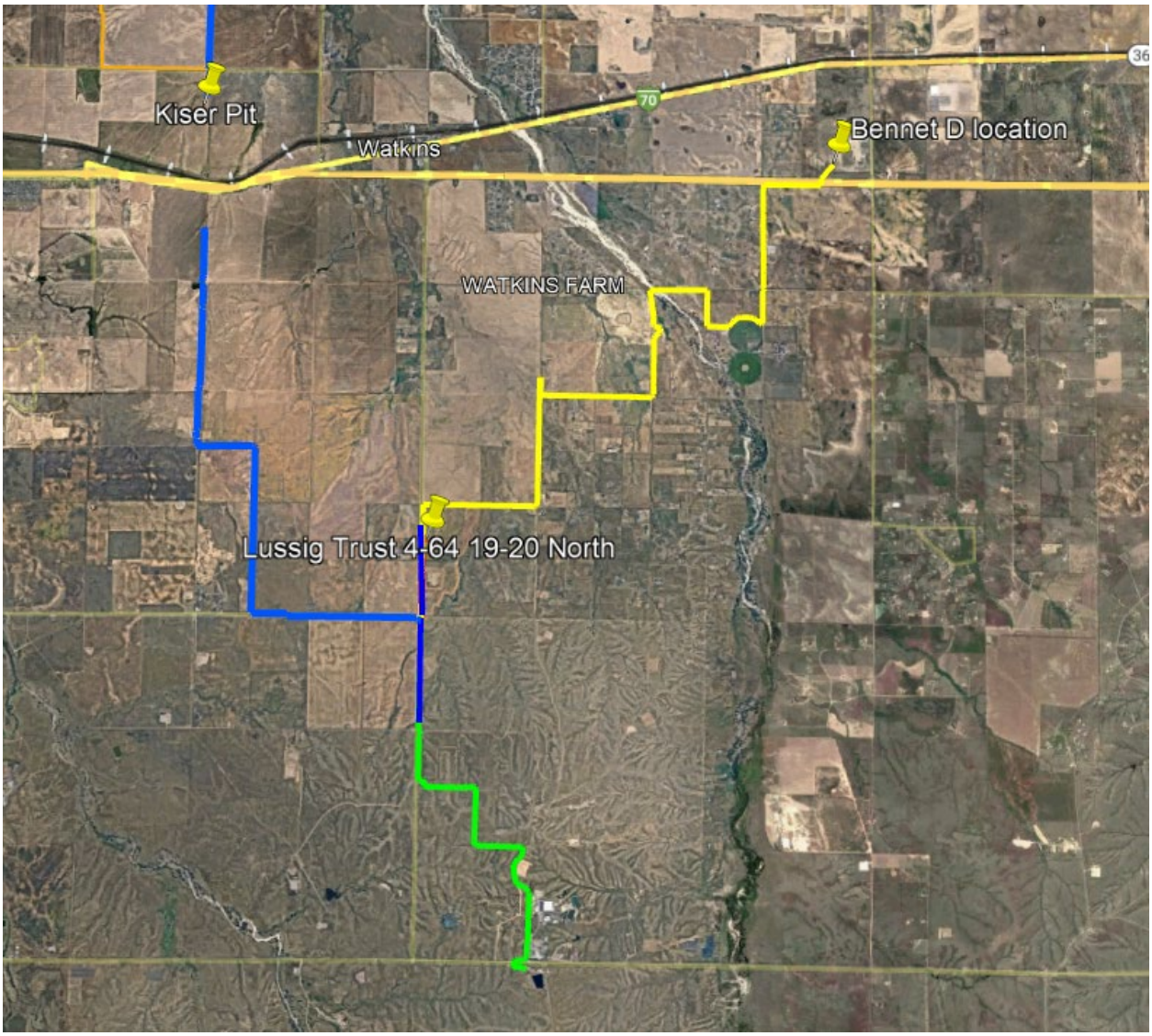
Completion Phase

Completion operations commence once the production casing cement has had sufficient time to cure. Typically, cement will cure to maximum strength within 72 hours. The quality is verified by a cement bond log (CBL).

Typically, the completion phase proceeds as follows:

- The well is perforated based on an open-hole log analysis. Perforation occurs at a specified intervals and pierces the steel casing, the cement and the formation.
- The well is then fractured hydraulically creating hairline cracks in the formation to produce tiny avenues that allow the hydrocarbons to flow from the formation. Sand is used as a propping agent to preserve the hairline cracks opened in the formation. Typically, six to nine fracturing operations or stages can be completed per day per well, at a rate of up to four wells simultaneously, including time to rig up, pump, and rig down. This process requires multiple, high-pressure, truck-mounted pumps and the associated portable equipment. Once the process is complete, all associated equipment is moved offsite.
- If necessary, tubing is run inside the casing to increase production efficiency. This process typically takes 1 to 3 days.
- The well is then flowed back for 1-20 days. The length of this process is dependent on the number of wells and the length of the laterals. These flow back fluids will be piped offsite.

The map on the following page shows the planned layflat route which will be used to transport water for completions. Please refer to the Cumulative Impacts Plan and Water and Wildlife Plan for additional details of water sources. The segment in blue currently has ROW acquired, which accounts for approximately 40% of the ROW. The green is State Land Board and Estates of Aurora and will have reacquire ROW on these properties. The yellow is additional ROW from a mix of landowners and Arapahoe County ROW which also needs to be reacquired. If requested by the Director Crestone will provide copies of ROW/easement documentation.



Proposed layflat route

Production Phase

New production facilities are constructed in accordance with ECMC rules and details are illustrated in the Production Layout Site Plan. The production facility consists of the following surface equipment listed below.

Equipment Type	Description	Height (ft) - includes base where applicable
Twenty-six horizontal wells	Wellhead above surface.	8
Five meter / sale buildings	Building which will house meters.	9.25
Three pigging stations	Area where pipeline pigs are launched and received in order to clean the pipelines.	3
Six separators	Separates production fluid into their constituent components of oil, gas and water.	13
One modular large volume tank (MLVT)	Temporary fresh water tanks for well completion operations will be used in lieu of historic in-ground pits or multiple mobile 500 bbl steel tanks.	15
Two gas compressors	Compressors utilized for gas lift to aid production.	14
One enclosed combustion device (ECD)	To be used only on an as-needed basis to incinerate natural gas that cannot be captured, processed and sold for commercial resale and/or in the event of an unplanned shut-down of the pad.	28
One instrument air skid	Compressed air to control valves.	12.5
One water surge vessel	To provide a control volume of fluid for the water pumps. Ensures adequate suction pressure for pumps.	15
Six oil pump skids	Pumps utilized for sending oil to pipeline.	9.5
One sale gas scrubber	Pressure vessel used to catch any liquids in the gas before it is sent to sales.	14
Twenty-six 3-phase meters	Measures production of gas, oil, and water for each well.	5
Two sales gas meters	Measure the amount of gas sent to sales.	9
One oil surge vessel	To provide a control volume of fluid for the oil pumps. Ensures adequate suction pressure for pumps.	15
One fuel gas (FG) scrubber	Pressure vessel used to catch any liquids in the gas before it is used for fuel gas.	5

Equipment Type	Description	Height (ft) - includes base where applicable
One LP knock out	Pressure vessel used to catch any liquids in the gas before it is sent to compression.	13
One maintenance vessel	Pressure vessel used on an as-needed basis to catch any liquids during maintenance events prior to waste gas being sent to the ECD.	9
Four water pump skids	Pumps utilized for sending water to pipeline.	9.5
Two 500bbl frac tanks (flowback sand management)	Tanks used temporarily for sand storage.	10
Twenty-six sand cans	Temporary equipment to remove sand from the production stream.	25

The wellheads will be connected to the facility via on-location flow lines that will be buried 3 to 4 feet deep. The flow lines are typically 2-inch-diameter schedule 160 welded steel, coated.

Once the production phase of the wells commences, daily monitoring of the wells begins. Daily reports consist of liquid measurements, gas production estimates, pressure readings, and general facility care and maintenance. This information is compiled and recorded in the ECMC monthly report. The production phase continues until a well is no longer productive, or it is no longer financially viable to continue production. It is estimated that the average life of each well at this location will be 20 to 30 years.

Plugging and Abandonment of Wells & Facilities

Crestone will plug the wells, remove production equipment, and reclaim the pad when it becomes uneconomical to continue operating the wells. This will include installation of a series of required cement plugs in the wells to eliminate future flow from the well, in accordance with Section 1000 of ECMC rules and regulations. After the well has been plugged, flow lines will be flushed of all hydrocarbons and capped or removed in accordance with Rule 1103 of ECMC rules and regulations. If the separator and tanks on the property surface are no longer needed for other wells, they will be removed. Surface restoration will include removal of any above-ground casing and installation of regulation markers that will not interfere with future surface use.

Site Reclamation

The Bennett D pad will have an interim reclamation period which includes re-contouring and reseeding around the edges of the pad but such as to allow for daily operations of the oil and gas facility, access to the wells, maintenance of the facility and wells, workovers, and normal production activity. The pad size will be reduced to 7.42 acres once the wells are on production.

All tanks and equipment, lines and roads will be removed from the entire multi well pad location upon permanent cessation of the operator's production and operations at the site. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix. All site reclamation will be in conformance with Adams County regulations as well as the ECMC regulations.

Water Source

Crestone will source water from Farmers Reservoir and Irrigation Company out of Barr Lake which will then be transported by A&W Water Service to the location and will be stored in a temporary modular large volume tank (MLVT) for use during completions at the pad. For drilling, the water source will be from Rangeview Metropolitan District. Transportation of water to the pad will be completed using temporary "lay flat" water lines on the ground surface and removed after use. This technology eliminates the need to truck water to the pad during drilling and completion operations.

Weed Control

All areas, including well heads and production facilities, will be kept free of weeds, rubbish, and other waste material. As much as possible, all areas will be kept free of noxious weeds. If noxious weeds are identified on-site, the area will be treated as soon as possible in an effort to prevent the weed from flowering and spreading. To the greatest extent possible, machinery and equipment will not be parked or staged in weed infested areas.

Drainage & Erosion Control

Proper storm-water controls will be installed around the facility and drilling pad during construction. The wellhead access road will be crowned, ditched and graveled, and culverts for cross drainage will be installed if necessary. Storm-water controls will also be installed around the spoil piles to prevent sediment migration. No changes in the current drainage patterns are anticipated. A Storm Water/Erosion Control Plan has also been filed with the ECMC as part of the Oil and Gas Location Assessment (ECMC Form 2A). Crestone will work with Adams County to provide an easement for drainage and access to the OGF.

Sanitary Facilities

Crestone personnel and contractors will utilize portable sanitary toilets and wash stations. No personnel are on the location for a permanent period of time. No city services or permanent sanitary services of any kind are required. All personnel and contractors who visit the site are responsible for picking up and disposing of any debris.

Alternative Site Analysis

Crestone believes the proposed location is the most suitable site for this proposed activity. The location is collocated with a midstream oil and gas facility, is near I-70, and is sited to maximize mineral development with the least amount of surface disturbance. The proposed location has up to two residences within 2,000' and three additional parcels with up to residences are within 2,000'. Crestone is currently in conversations with surrounding landowners to confirm the number of residences, tenants and if homes are occupied. Additionally, there are isolated wetlands within 2,000' of the location. Crestone is currently seeking a jurisdictional determination from the US Army Corps of Engineers regarding these wetlands.

RPG Resources (RPG), on behalf of Crestone, conducted a wetland and waters survey of the proposed Bennett D Pad location to identify any wetland or waterway constraint(s) present within or surrounding the proposed construction area.

Please see the following page for a map to reference the features described herein. Three wetland and water features are located within the 500-foot survey area. Two of these features, 3 and 4, were verified present. Feature 2, an emergent wetland within a stormwater basin, is located outside of the buffer, approximately 711-feet north of the WPS and Needle spikerush (*Eleocharis acicularis)* dominates the wetland area. The boundaries of feature 3, an NWI-mapped wetland feature, were updated to reflect the current conditions in the field. The wetland is likely fed by a marsh/pond that is beyond the Civitas boundary line. Feature 4, a stormwater pond with fringe wetlands, was delineated and mapped to reflect the current wetland boundary. A drainage feature moves water downslope, from north to south, and into the pond.

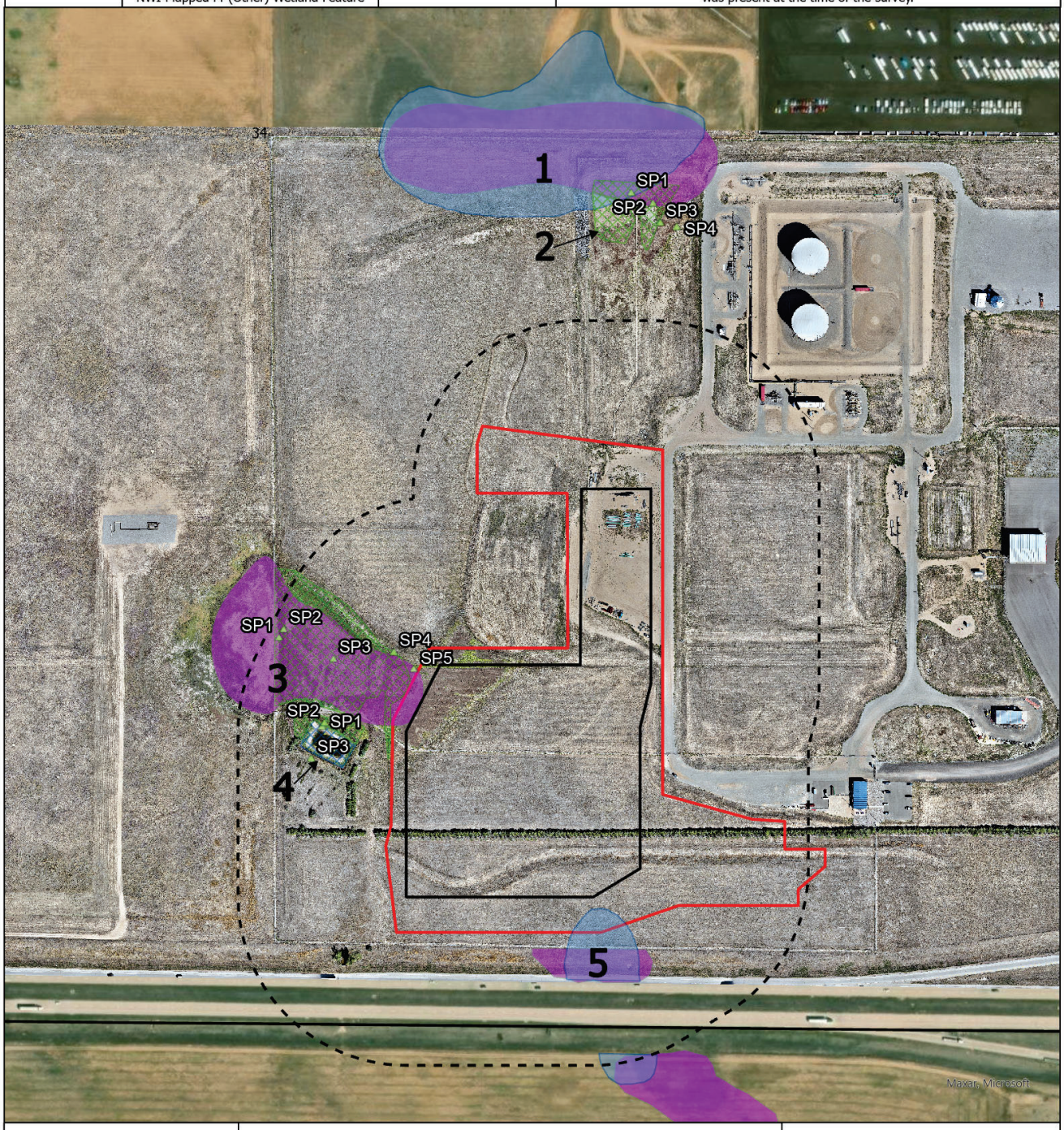
[remainder of the page intentionally left blank]

CIVITAS RESOURCES COMPANY, LLC
BENNETT D
SEC34 T3S R64W, R58W, 6th P.M.
ADAMS COUNTY, COLORADO

Produced for: CIVITAS Crestone Peak Resources, LLC

Produced by: RPG RESOURCES a System One company

Feature Number	Feature Classification	Distance and Direction	Observations
1	NHD-Mapped Intermittent Lake/Pond NWI-Mapped Pf (Other) Wetland Feature	Approximately 812-feet north	This feature was field verified NOT present. No hydric vegetation, soils, or hydrology was present at the time of the survey. There was no standing water or topography change within the mapped lake/pond area.
2	Emergent Wetland within Stormwater Basin	Approximately 710-feet north	A field verified wetland within a large depression used for drainage purposes. A concrete flowline passes through the wetland area and a 3-foot tall rock outfall creates a boundary to the west.
3	NWI-Mapped Pf (Other) Wetland Feature	Approximately 54-feet west	A field verified wetland fed by a marsh/pond beyond the Civitas property boundary. Surface water was present within 1 inch.
4	Stormwater Pond with Fringe Wetland	Approximately 150-feet west	A field observed stormwater pond with an OHWM. Fringe wetlands along the bed and bank of the pond were confirmed via wetland delineations.
5	NHD-Mapped Intermittent Lake/Pond NWI-Mapped Pf (Other) Wetland Feature	Approximately 40-feet south	This feature was field verified NOT present. No hydric vegetation, soils, or hydrology was present at the time of the survey.



SURVEY MAP

- Oil & Gas Location (OGL)
- Working Pad Surface (WPS)
- 500-Foot Buffer Around WPS
- NHD-Mapped Lake/Pond
- NWI-Mapped Other Wetland
- Delineated Wetland
- Delineated Lake/Pond
- Wetland Sample Point

Projection: WGS 1984
Date: 9/26/2024
Drafted by: HJL

0 250 500 Feet

N

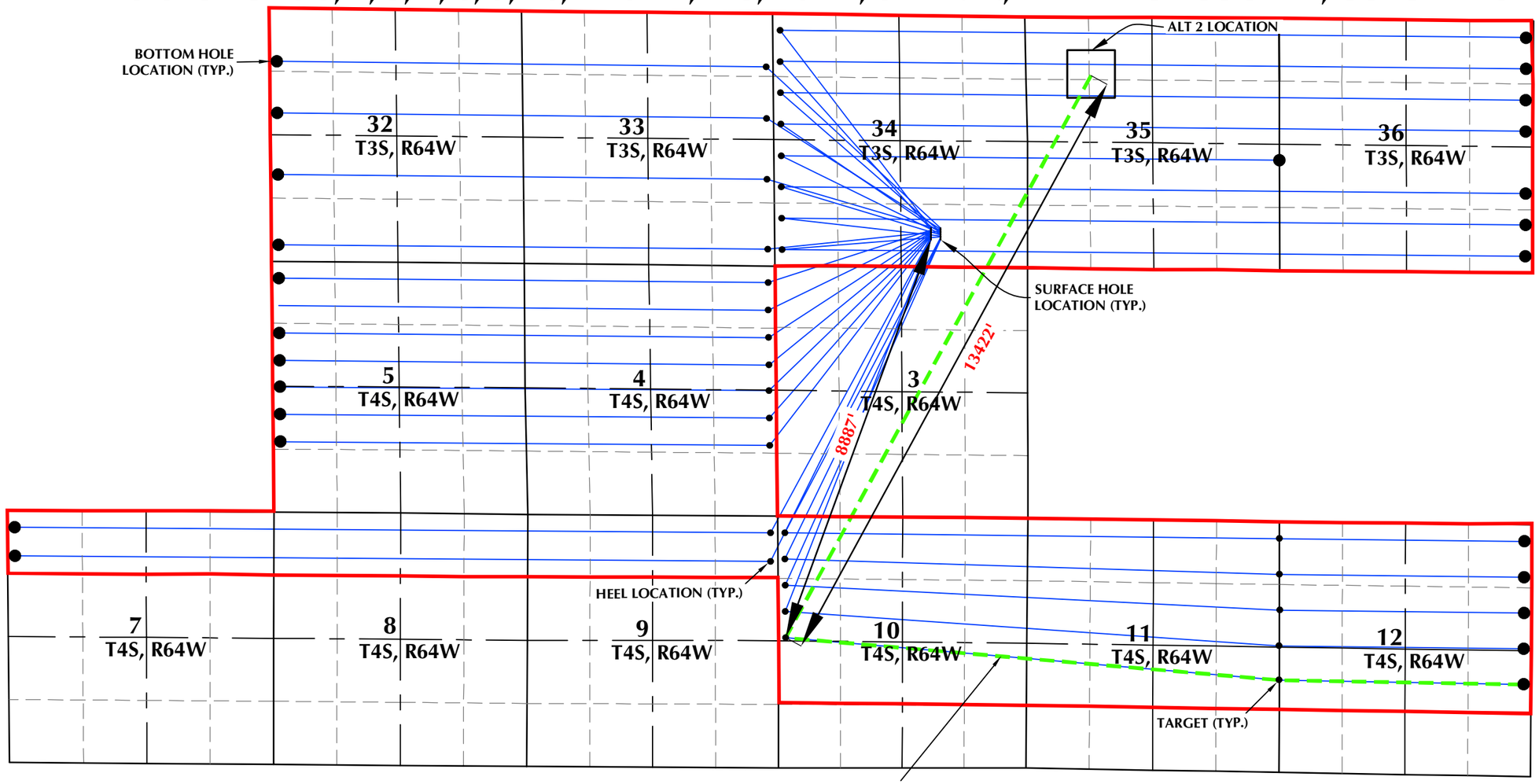
1 inch equals 300 feet

Alternative location 1 has 60 residences within 2,000', and a number of mapped National Wetland Inventory (NWI) wetlands. If Crestone were to utilize this site, another oil and gas location would be necessary to target the same minerals. The surface disturbance would be approximately doubled compared to the proposed location.

Alternative location 2 has two residences and a number of NWI wetlands within 2,000'. The southern most wells would likely not be drilled as this step out is outside of what is technically feasible from a drilling and completions perspective. To reach the same minerals as the proposed Bennett D location the step outs would be an additional 4,500+ feet. The map on the following page illustrates this additional side sail needed to reach the same minerals. Crestone's drilling and completion teams do not support this design as the current plan is approaching the technical limits. With this additional wellbore some potential issues may revolve around risk of hole instability in the vertical section, reaching target depth while successfully pulling out of hole, and effectively cleaning out the wellbore after stimulation. Being all of the wells could not be drilled and minerals would be stranded, this location was not chosen as the preferred.

[remainder of the page intentionally left blank]

DIRECTIONAL WELL PLAT (ECMC) / MULTI-WELL PLAN (OGED)
SECTIONS 32, 33, 34, 35 & 36, T3S, R64W, 6TH P.M., ADAMS COUNTY, COLORADO
& SECTIONS 3, 4, 5, 7, 8, 9, 10, 11 & 12, T4S, R64W, 6TH P.M., ARAPAHOE COUNTY, COLORADO



WELL BORE LENGTH FROM
PROPOSED LOCATION = ±24,400'
ALT 2 LOCATION = ±28,950

LEGEND:
- DSU BOUNDARY
- WELLBORE TRAJECTORY
- HEEL LOCATION/TARGET
- BOTTOM HOLE LOCATION

GRID

0 2500' 3500'

HORIZONTAL SCALE: 1" = 2500'

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:
CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

WELL PAD - BENNET D

DIRECTIONAL WELL PLAT (ECMC) /MULTI-WELL PLAN (OGED)
FRASER FED 3-64 33-32 1BH, FRASER FED 3-64 33-32 2BH,
FRASER FED 3-64 33-32 3BH, FRASER FED 3-64 33-32 4BH,
TRANSPORT 3-64 34-35-36 2AH, TRANSPORT 3-64 34-35-36 2BH,
TRANSPORT 3-64 34-35-36 3AH, TRANSPORT 3-64 34-35-36 3BH,
TRANSPORT 3-64 34-35-36 4AH, TRANSPORT 3-64 34-35-36 4BH,
BOMHOFF EAST 4-64 10-11-12 1AH, BOMHOFF EAST 4-64 10-11-12 1BH,
BOMHOFF EAST 4-64 10-11-12 2AH, BOMHOFF EAST 4-64 10-11-12 3AH,
BOMHOFF EAST 4-64 10-11-12 2BH, BOMHOFF WEST 4-64 9-8-7 1BH,
BOMHOFF WEST 4-64 9-8-7 1AH, BD LAND 4-64 5-4 4AH,
BD LAND 4-64 5-4 3BH, BD LAND 4-64 5-4 3AH,
BD LAND 4-64 5-4 2BH, BD LAND 4-64 5-4 2AH,
BD LAND 4-64 5-4 1BH, BD LAND 4-64 5-4 1AH,
TRANSPORT 3-64 34-35-36 1BH & TRANSPORT 3-64 34-35-36 1AH
LOCATED IN SECTIONS 32, 33, 34, 35 & 36, T3S, R64W, 6TH P.M., ADAMS COUNTY , COLORADO
& SECTIONS 3, 4, 5, 7, 8, 9, 10, 11 & 12, T4S, R64W, 6TH P.M., ARAPAHOE COUNTY, COLORADO

DRAFTED BY:	SJM	CHECKED BY:	RKF
DATE DRAFTED:	10/18/24	DATE SURVEYED:	9/24/24
REVISED:		FILE NAME:	23-182

SHEET NO: 1 (1 OF 1)

K:\CIVIT\96 RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC 36\PLATS\BENNET D\BENNET D.dwg, 10/18/2024 3:56:57 PM, cmiller

Alternative location 3 has one residence and surface waters within 2,000'. If Crestone were to utilize this site, another oil and gas location would be necessary to target the same minerals. The surface disturbance would be approximately doubled compared to the proposed location.

Crestone's preferred location is most suitable to develop the targeted minerals while collocating new development with existing oil and gas infrastructure. The proximity to the interstate ensures minimal amount of County Road will be utilized for ingress / egress at the location. The proximity of the proposed location to the Bennett Station allows Crestone to make the facility oil tankless and have pipeline takeaway for oil and gas. The BMPs to be utilized at this location will ensure our operations will be protective of public health, safety, welfare, the environment and wildlife resources.

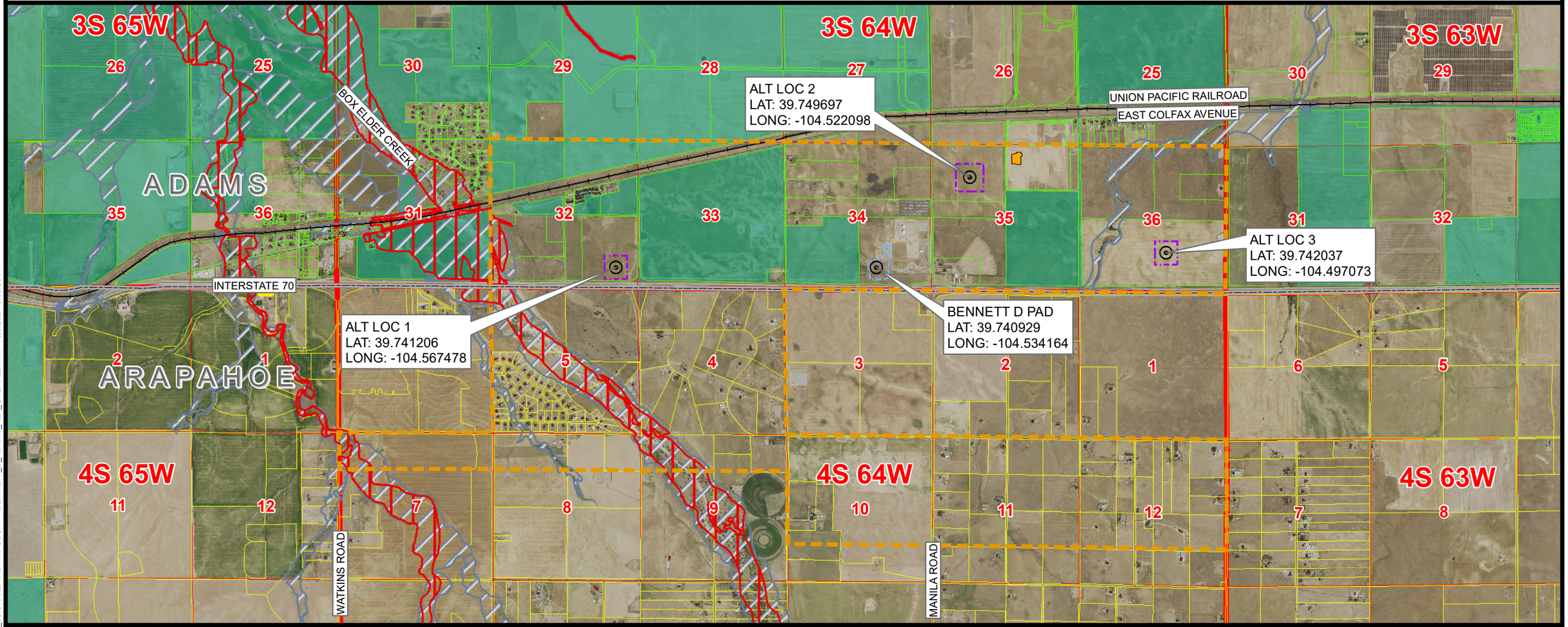
The following pages are site maps utilized for the Alternative Location Analysis

[remainder of the page intentionally left blank]

ALTERNATIVE LOCATION ANALYSIS - OVERVIEW

BENNETT D PAD

SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- PROPOSED REFERENCE POINT
- PROPOSED WORKING PAD SURFACE
- ALTERNATE OIL AND GAS LOCATION
- PROPOSED MINERAL BOUNDARY
- COUNTY BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- RAILROAD
- NON-RESIDENTIAL BUILDING UNIT
- HIGH OCCUPANCY BUILDING UNIT
- RESIDENTIAL BUILDING UNIT

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Drawn by: KG **Date:** 4 Oct 2024
Revised: **Date:**

N

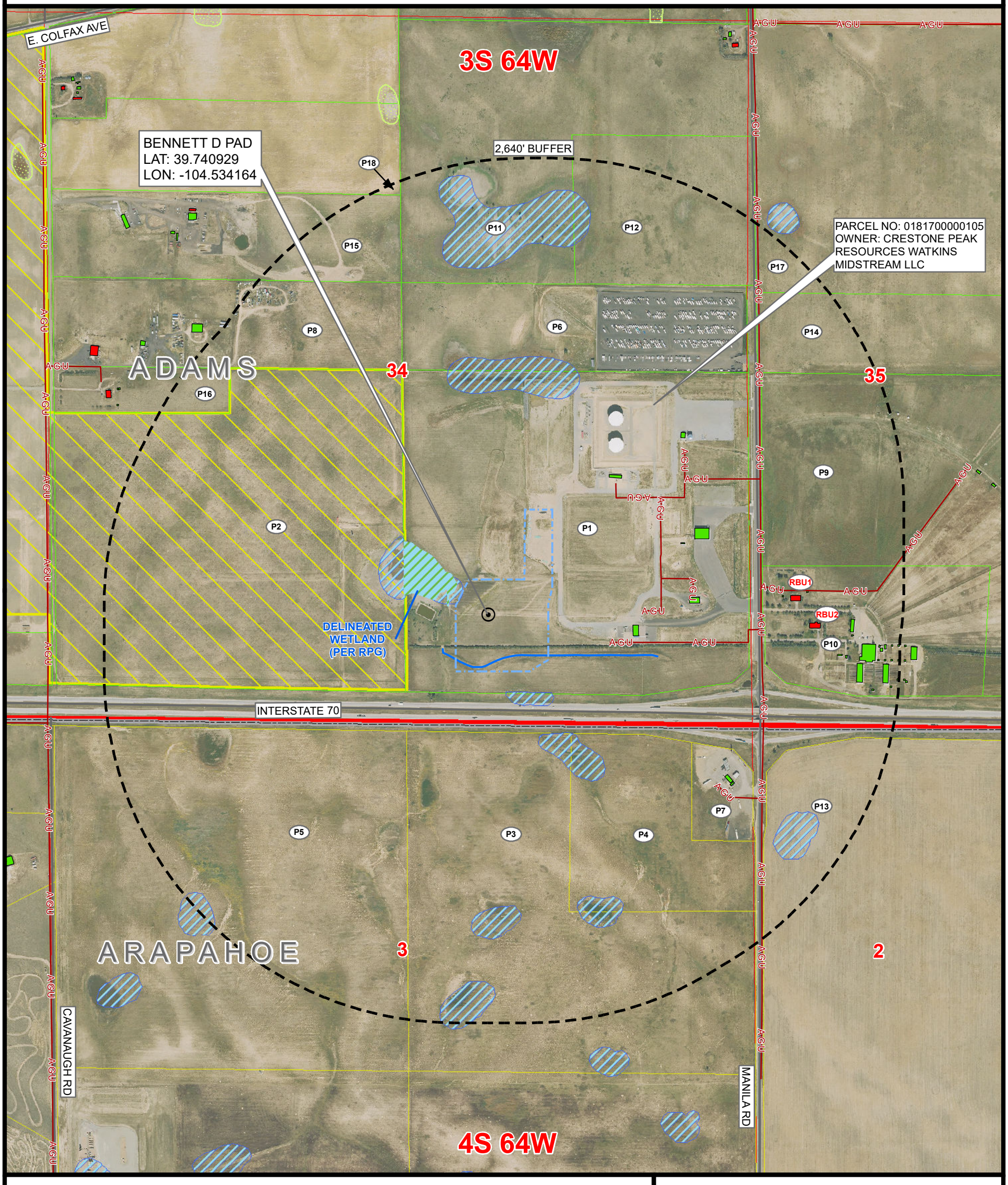
NAD83 CO-Nft
Scale: 1" = 3,500ft

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\ADAMS COUNTY\BENNETT_D_ADAMS_ALA_OVERALL.mxd 10/3/2024 3:30:30 PM

ALTERNATIVE LOCATION ANALYSIS - PROPOSED LOCATION

BENNETT D PAD

SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- PROPOSED REFERENCE POINT
- PROPOSED WORKING PAD SURFACE
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 22 Oct 2024

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_PROPOSED_LOCATION_MAP(SHEET 1).mxd 10/22/2024 5:14:37 PM

ALTERNATIVE LOCATION ANALYSIS - PROPOSED LOCATION

BENNETT D PAD

SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

	PARCEL ID	DISTANCE	PARCEL #	OWNER
PROPERTY LINE	P1	±0'	0181700000105	CRESTONE PEAK RESOURCES WATKINS MIDSTREAM LLC
	P2	±383' W	0181700000149	ELEVATION MIDSTREAM LLC
	P3	±450' S	1979-00-0-00-599	CST METRO LLC
	P4	±556' SE	1979-00-0-29-001	B & D LAND COMPANY 600 LLC
	P5	±578' SW	1979-00-0-00-046	B & D LAND COMPANY 600 LLC
	P6	±1042' N	0181734100001	FRONT RANGE RV STORAGE LLC
	P7	±1237' SE	1979-00-0-29-002	CST METRO LLC
	P8	±1400' NW	0181700000304	JAVIER LOPEZ
	P9	±1569' E	0181700000276	THE LEWIS FAMILY TRUST
	P10	±1570' E	0181700000275	THE LEWIS FAMILY TRUST
	P11	±1698' N	0181734100004	LUBERSKI PROPERTIES LLC
	P12	±1705' N	0181734100003	LUBERSKI PROPERTIES LLC
	P13	±1834' SE	1979-00-0-00-116	SW MANILA LLC
	P14	±1851' NE	0181735200001	ROCKY MOUNTAIN MIDSTREAM LLC
	P15	±1946' NW	0181734200003	RH CHUAPOCO INVESTMENTS LLC
	P16	±2193' NW	0181700000148	THE 1950 CAVANAUGH LAND TRUST
	P17	±2233' NE	0181735200002	ROCKY MOUNTAIN MIDSTREAM LLC C/O AD VALOREM TAX
	P18	±2546' N	0181734200002	D & K LIMITED LIABILITY COMPANY
RESIDENTIAL/NON-RESIDENTIAL BUILDING UNIT	RBU1 ±1791' E, RBU2 ±1951' E			
HIGH OCCUPANCY BUILDING UNIT	N/A			
SCHOOL FACILITY	N/A			
PUBLIC ROAD	±229' S (INTERSTATE 70), ±1500' E (MANILA RD)			
ABOVE GROUND UTILITY	±461' E, ±487' E, ±695' E, ±811' E, ±1019' E, ±1562' E, ±1566' E, ±1567' SE			
RAILROAD	N/A			
DITCH/DRAINAGE/CANAL	±0'			
NWI WETLAND	±0', ±152' S, ±482' S, ±839' N, ±1739' S, ±1757' S, ±1844' N, ±2131' SE, ±2327' S, ±2531' SW			
FLOODPLAIN	N/A			
HIGH PRIORITY HABITAT	N/A			
OTHER	±51' W (DELINEATED WETLAND), ±371' W (AURORA JURISDICTIONAL BOUNDARY)			

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_PROPOSED_LOCATION_TABLE(SHEET 2).mxd 10/22/2024 5:15:49 PM

Legend

- PROPOSED REFERENCE POINT
- PROPOSED WORKING PAD SURFACE
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- AGU ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

Drawn by: CPS **Date:** 22 Oct 2024
Revised: **Date:**

NAD83 CO-Nft
Scale: 1" = 750ft

HAUL ROUTE MAP

BENNETT D PAD

SE1/4 SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

NOTE:
PIPELINE ROUTE IS PRELIMINARY AND SUBJECT TO CHANGE

LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- TRAFFIC ROUTE
- PIPELINE ROUTE

TRAVEL PATH:
TAKE EXIT 299 OFF OF INTERSTATE 70 TO MANILA ROAD AND PROCEED IN A NORTHERLY DIRECTION FOR 0.1 MILES TO THE PROPOSED ACCESS ROAD TO THE WEST. EXIT LEFT ONTO THE PROPOSED ACCESS ROAD AND CONTINUE 0.4 MILES TO THE PROPOSED LOCATION.

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/24/24
DATE:	10/4/24
DRAFTER:	JFE
REVISED:	10/18/24

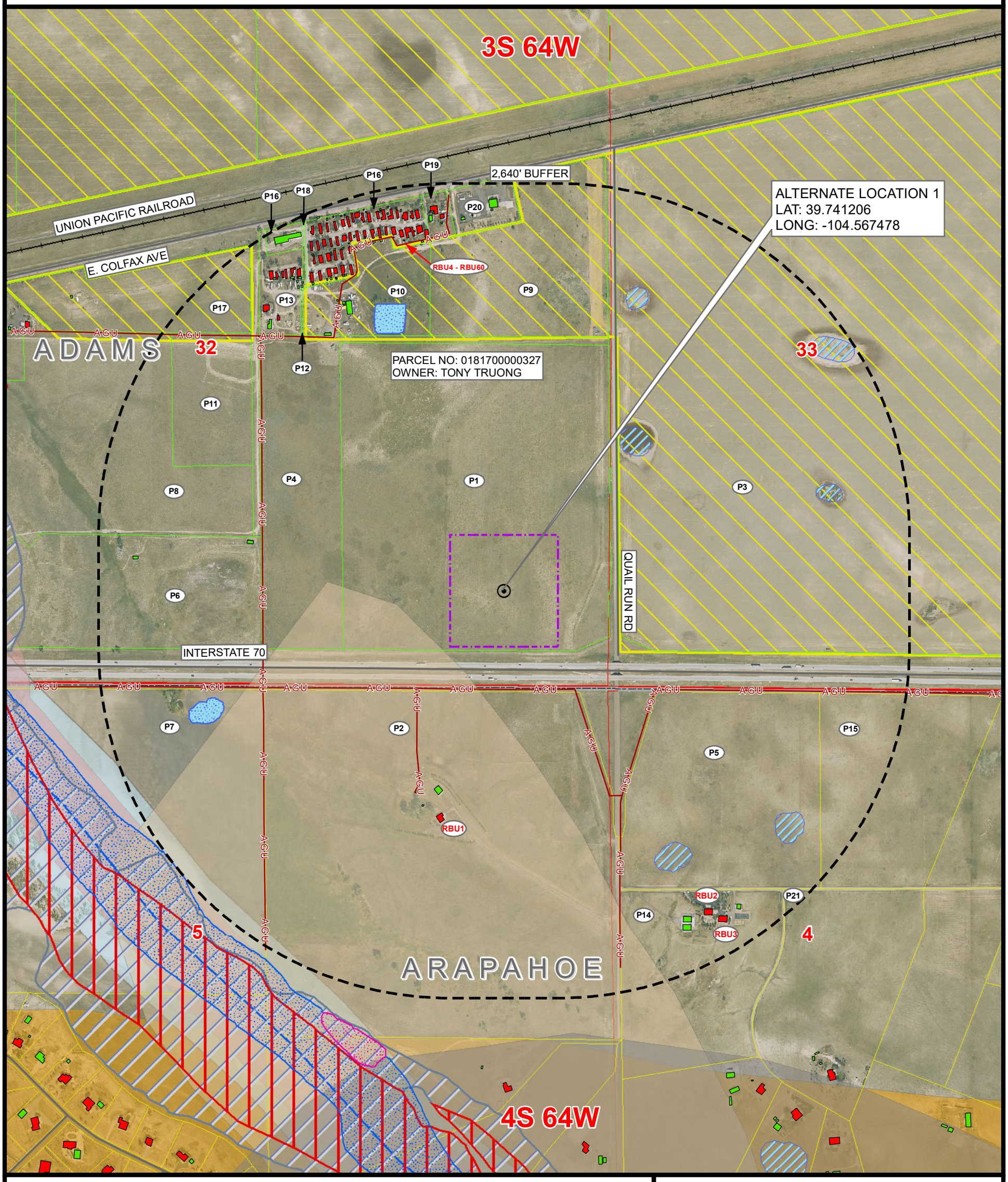
PREPARED FOR: CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

K:\CIVITAS RESOURCES\2023\2023_182_SCC36_T3S_R64W_SEC_36\GIS\ALA\BENNETT D_ALA_SITE_PLANS.dwg, 10/18/2024 9:05:11 AM, kgoles

ALTERNATIVE LOCATION ANALYSIS - ALTERNATE LOCATION 1

BENNETT D PAD

SECTION 32, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- PROPOSED REFERENCE POINT
- ALTERNATE OIL AND GAS LOCATION
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND
- AQUATIC NATIVE SPECIES CONSERVATION WATERS
- MULE DEER WINTER CONCENTRATION AREA
- MULE DEER SEVERE WINTER RANGE
- MULE DEER MIGRATION CORRIDOR
- PRONGHORN WINTER CONCENTRATION AREA

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 18 Oct 2024

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALAIMAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_MAP_ALT_1_MAP(SHEET 1).mxd 10/18/2024 10:55:00 AM

ALTERNATIVE LOCATION ANALYSIS - ALTERNATE LOCATION 1

BENNETT D PAD

SECTION 32, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

	PARCEL ID	DISTANCE	PARCEL #	OWNER
PROPERTY LINE	P1	±0'	0181700000327	TONY TRUONG
	P2	±328' S	1979-00-0-00-025	REVOCABLE TRUST AGREEMENT OF HYLAINE J HEIN
	P3	±450' E	0181700000250	WESTERN TRANSPORT LLC
	P4	±806' W	0181700000326	MORALES-ALEJANDRO HERIBERTO UND 62.5 % AND AYALA ROBERT AKA AYALA-ROSADO ROBERTO UND 37.5%
	P5	±811' SE	1979-04-1-00-017	PROSPER FARMS INVESTMENTS LLC
	P6	±1415' W	0181732300001	ARSIAN PROPERTIES LLC
	P7	±1440' W	1979-06-1-00-381	PROSPER FARMS INVESTMENTS LLC
	P8	±1480' W	0181700000245	GMJ FAMILY TRUST
	P9	±1493' N	0181700000280	WESTERN TRANSPORT LLC
	P10	±1506' N	0181700004001	JOHN B. BARANWAY
	P11	±1577' W	0181732300002	NWP HOLDINGS LLC
	P12	±1864' NW	0181700000253	JOHN B. BARANWAY
	P13	±1875' NW	0181700000091	JOHN B. BARANWAY
	P14	±1877' S	1979-04-1-00-004	1191 SNOW LAKE LLC
	P15	±1991' E	1979-04-1-00-018	MARCU RADU, MARCU FLOARE
	P16	±2063' N	0181700002001	JOHN B. BARANWAY
	P17	±2133' NW	0181700000242	JOHN B. BARANWAY
	P18	±2150' NW	0181700000254	JOHN B. BARANWAY
	P19	±2211' N	0181700000096	JOHN B. BARANWAY
	P20	±2248' N	0181700000097	BENNETT FIRE PROTECTION DISTRICT NO 7
	P21	±2481' SE	1979-04-1-00-008	JAMES M. SIMS, MELODI HANSEN, MERIE PATRICIA
RESIDENTIAL/NON-RESIDENTIAL BUILDING UNIT	RBU1 ±1250' S, RBU2 ±2258' SE, RBU3 ±2355' SE, RBU4 ±2058' NW, RBU5 ±2084' N, RBU6 ±2107' N, RBU7 ±2138' NW, RBU8 ±2138' NW, RBU9 ±2141' NW, RBU10 ±2160' NW, RBU11 ±2165' NW, RBU12 ±2219' N, RBU13 ±2231' N, RBU14 ±2237' N, RBU15 ±2241' N, RBU16 ±2242' NW, RBU17 ±2245' NW, RBU18 ±2252' N, RBU19 ±2256' NW, RBU20 ±2258' N, RBU21 ±2265' N, RBU22 ±2273' NW, RBU23 ±2275' NW, RBU24 ±2275' N, RBU25 ±2280' NW, RBU26 ±2290' N, RBU27 ±2292' N, RBU28 ±2298' NW, RBU29 ±2300' N, RBU30 ±2300' N, RBU31 ±2310' N, RBU32 ±2314' NW, RBU33 ±2325' N, RBU34 ±2327' N, RBU35 ±2328' N, RBU36 ±2336' NW, RBU37 ±2339' N, RBU38 ±2340' N, RBU39 ±2352' NW, RBU40 ±2361' NW, RBU41 ±2370' NW, RBU42 ±2374' N, RBU43 ±2386' N, RBU44 ±2387' N, RBU45 ±2390' N, RBU46 ±2410' N, RBU47 ±2410' N, RBU48 ±2413' N, RBU49 ±2419' N, RBU50 ±2425' N, RBU51 ±2433' N, RBU52 ±2433' N, RBU53 ±2436' N, RBU54 ±2440' N, RBU55 ±2449' N, RBU56 ±2451' N, RBU57 ±2457' N, RBU58 ±2458' NW, RBU59 ±2475' NW, RBU60 ±2481' N			
HIGH OCCUPANCY BUILDING UNIT	N/A			
SCHOOL FACILITY	N/A			
PUBLIC ROAD	±107' S (INTERSTATE 70), ±409' E (QUAIL RUN RD), ±2578' N (E. COLFAX AVE)			
ABOVE GROUND UTILITY	±317' S, ±398' SW, ±798' SE, ±1405' W, ±1720' NW			
RAILROAD	N/A			
DITCH/DRAINAGE/CANAL	N/A			
NWI WETLAND	±807' NE, ±1564' N, ±1691' SE, ±1760' W, ±1782' N, ±1959' E, ±2074' SE, ±2355' NE			
FLOODPLAIN	N/A			
HIGH PRIORITY HABITAT	±54' SW (MULE DEER SEVERE WINTER RANGE)			
	±2499' SW (AQUATIC NATIVE SPECIES CONSERVATION WATERS)			
	±2634' SW (MULE DEER MIGRATION CORRIDOR)			
OTHER	±455' E (AURORA JURISDICTIONAL BOUNDARY)			

Legend

- PROPOSED REFERENCE POINT
- ALTERNATE OIL AND GAS LOCATION
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND
- AQUATIC NATIVE SPECIES CONSERVATION WATERS
- MULE DEER WINTER CONCENTRATION AREA
- MULE DEER SEVERE WINTER RANGE
- MULE DEER MIGRATION CORRIDOR
- PRONGHORN WINTER CONCENTRATION AREA

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

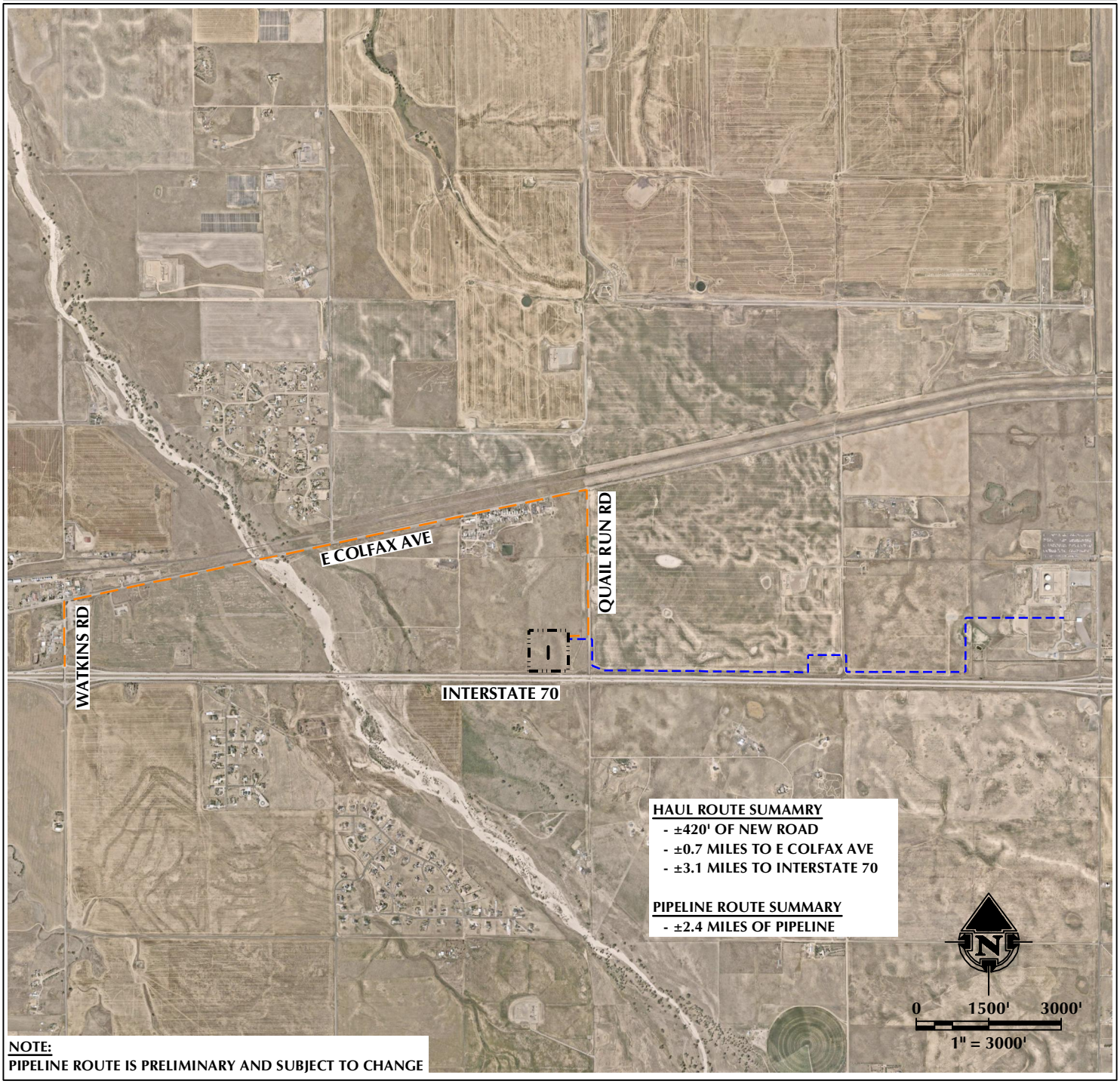
NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 18 Oct 2024

HAUL ROUTE MAP

BENNETT D PAD (ALT LOC 1)

SESE SECTION 32, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



NOTE:
PIPELINE ROUTE IS PRELIMINARY AND SUBJECT TO CHANGE

LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- TRAFFIC ROUTE
- PIPELINE ROUTE

TRAVEL PATH:
TAKE EXIT 295 OFF OF INTERSTATE 70 TO WATKINS ROAD AND PROCEED IN A NORTHERLY DIRECTION FOR 0.3 MILES TO EAST COLFAX AVENUE TO THE EAST. EXIT RIGHT ONTO EAST COLFAX AVENUE AND PROCEED IN A NORTHEASTERLY DIRECTION FOR 2.1 MILES TO QUAIL RUN ROAD TO THE SOUTH. EXIT RIGHT ONTO QUAIL RUN ROAD AND PROCEED IN A SOUTHERLY DIRECTION FOR 0.6 MILES TO THE PROPOSED ACCESS ROAD TO THE WEST. EXIT RIGHT ONTO THE PROPOSED ACCESS ROAD AND CONTINUE 0.1 MILES TO THE PROPOSED LOCATION.

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/24/24
DATE:	10/4/24
DRAFTER:	JFE
REVISED:	10/18/24

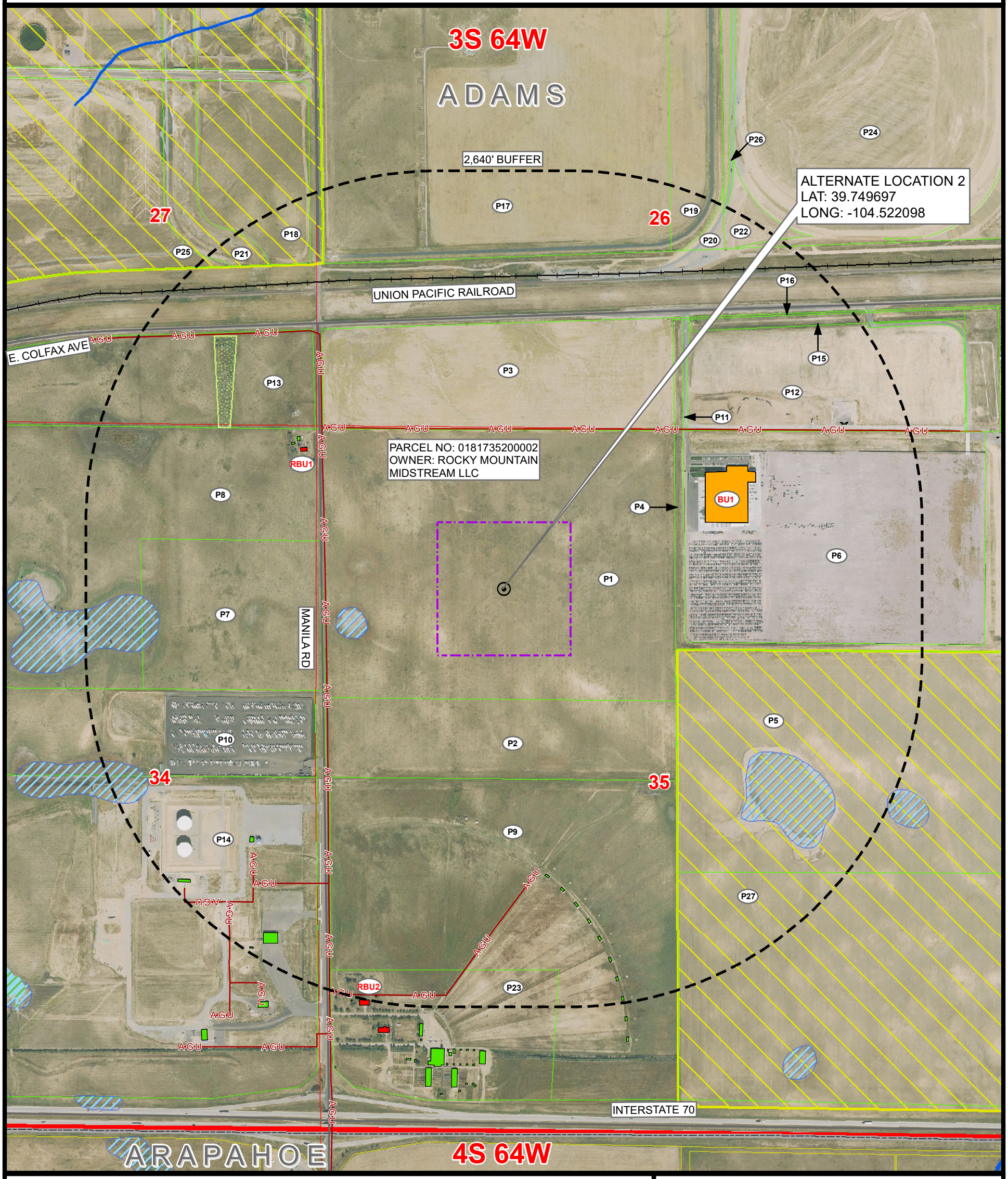
PREPARED FOR: CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

K:\CIVITAS RESOURCES\2023\2023_182_SCC36_T3S_R64W_SEC_36\GIS\ALA\BENNETT D_ALA_SITE_PLANS.dwg, 10/18/2024 9:13:04 AM, kgoles

ALTERNATIVE LOCATION ANALYSIS - ALTERNATE LOCATION 2

BENNETT D PAD

SECTION 35, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



Legend

- PROPOSED REFERENCE POINT
- ALTERNATE OIL AND GAS LOCATION
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (PRELIMINARY, 2020)
- 100-YEAR FLOODPLAIN (PRELIMINARY, 2020)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 18 Oct 2024

N

NAD83 CO-Nft
Scale: 1" = 750ft

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_MAP_ALT_2_MAP(SHEET 1).mxd 10/18/2024 12:11:11 PM

ALTERNATIVE LOCATION ANALYSIS - ALTERNATE LOCATION 2

BENNETT D PAD

SECTION 35, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

	PARCEL ID	DISTANCE	PARCEL #	OWNER
PROPERTY LINE	P1	±0'	0181735200002	ROCKY MOUNTAIN MIDSTREAM LLC
	P2	±320' S	0181735200001	ROCKY MOUNTAIN MIDSTREAM LLC
	P3	±695' N	0181700000264	ADAMS COUNTY
	P4	±779' E	0181735102002	ROCKY MOUNTAIN RAIL PARK METROPOLITAN DISTRICT
	P5	±786' E	0181735100001	PORT COLORADO INDUSTRIAL HOLDINGS LLC
	P6	±847' E	0181735102003	LKQ CENTRAL INC
	P7	±856' W	0181734100003	LUBERSKI PROPERTIES LLC
	P8	±874' W	0181734100004	LUBERSKI PROPERTIES LLC
	P9	±920' S	0181700000276	THE LEWIS FAMILY TRUST
	P10	±958' W	0181734100001	FRONT RANGE RV STORAGE LLC
	P11	±1090' NE	0181726402006	ROCKY MOUNTAIN RAIL PARK METROPOLITAN DISTRICT
	P12	±1114' NE	0181726402007	RAIL LAND COMPANY LLC
	P13	±1159' NW	0181700000065	LUBERSKI PROPERTIES LLC
	P14	±1286' SW	0181700000105	CRESTONE PEAK RESOURCES WATKINS MIDSTREAM LLC
	P15	±1699' NE	0181726402001	ROCKY MOUNTAIN RAIL PARK METROPOLITAN DISTRICT
	P16	±1701' NE	0181726400001	RAIL LAND COMPANY LLC
	P17	±1973' N	0181700000264	ADAMS COUNTY
	P18	±2167' NW	0181727200002	WESTERN TRANSPORT LLC
	P19	±2174' N	0181726100001	ADAMS COUNTY
	P20	±2202' N	0181726400002	RAIL LAND COMPANY LLC
	P21	±2308' NW	0181727400001	CITY OF AURORA
	P22	±2355' NE	0181726401001	ROCKY MOUNTAIN RAIL PARK METROPOLITAN DISTRICT
	P23	±2362' S	0181700000275	THE LEWIS FAMILY TRUST
	P24	±2396' NE	0181726101002	RAIL LAND COMPANY LLC
	P25	±2470' NW	0181727200002	WESTERN TRANSPORT LLC
	P26	±2588' NE	0181723401006	RAIL LAND COMPANY LLC
	P27	±1814' SE	0181735400001	WESTERN TRANSPORT LLC
RESIDENTIAL/NON-RESIDENTIAL BUILDING UNIT	BU1 ±1014' E, RBU1 ±1114' NW, RBU2 ±2638' S			
HIGH OCCUPANCY BUILDING UNIT	N/A			
SCHOOL FACILITY	N/A			
PUBLIC ROAD	±851' W (MANILA RD), ±1512' N (E. COLFAX AVE)			
ABOVE GROUND UTILITY	±700' N, ±832' W, ±1626' S, ±1896' SW, ±2027' SW, ±2419' SW			
RAILROAD	±1775' N (UNION PACIFIC RAILROAD)			
DITCH/DRAINAGE/CANAL	N/A			
NWI WETLAND	±528' W, ±1551' SE, ±1714' NW, ±2095' W, ±2369' SW, ±2606' SE			
FLOODPLAIN	N/A			
HIGH PRIORITY HABITAT	N/A			
OTHER	±798' E (AURORA JURISDICTIONAL BOUNDARY)			

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_MAP_ALT_2_TABLE(SHEET 2).mxd 10/18/2024 12:10:35 PM

Legend

- PROPOSED REFERENCE POINT
- ALTERNATE OIL AND GAS LOCATION
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- A-G-U- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (PRELIMINARY, 2020)
- 100-YEAR FLOODPLAIN (PRELIMINARY, 2020)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 18 Oct 2024

HAUL ROUTE MAP

BENNETT D PAD (ALT LOC 2)

NW 1/4 SECTION 35, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

NOTE:
PIPELINE ROUTE IS PRELIMINARY AND SUBJECT TO CHANGE

LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- TRAFFIC ROUTE
- PIPELINE ROUTE

TRAVEL PATH:
TAKE EXIT 299 OFF OF INTERSTATE 70 TO MANILA ROAD AND PROCEED IN A NORTHERLY DIRECTION FOR 0.5 MILES TO AN EXISTING ACCESS ROAD TO THE EAST. EXIT RIGHT ONTO THE EXISTING ACCESS ROAD AND PROCEED IN AN EASTERLY DIRECTION FOR 0.2 MILES TO THE PROPOSED ACCESS ROAD TO THE NORTH. EXIT LEFT ONTO THE PROPOSED ACCESS ROAD AND CONTINUE 0.2 MILES TO THE PROPOSED LOCATION.

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/24/24
DATE:	10/4/24
DRAFTER:	JFE
REVISED:	10/18/24

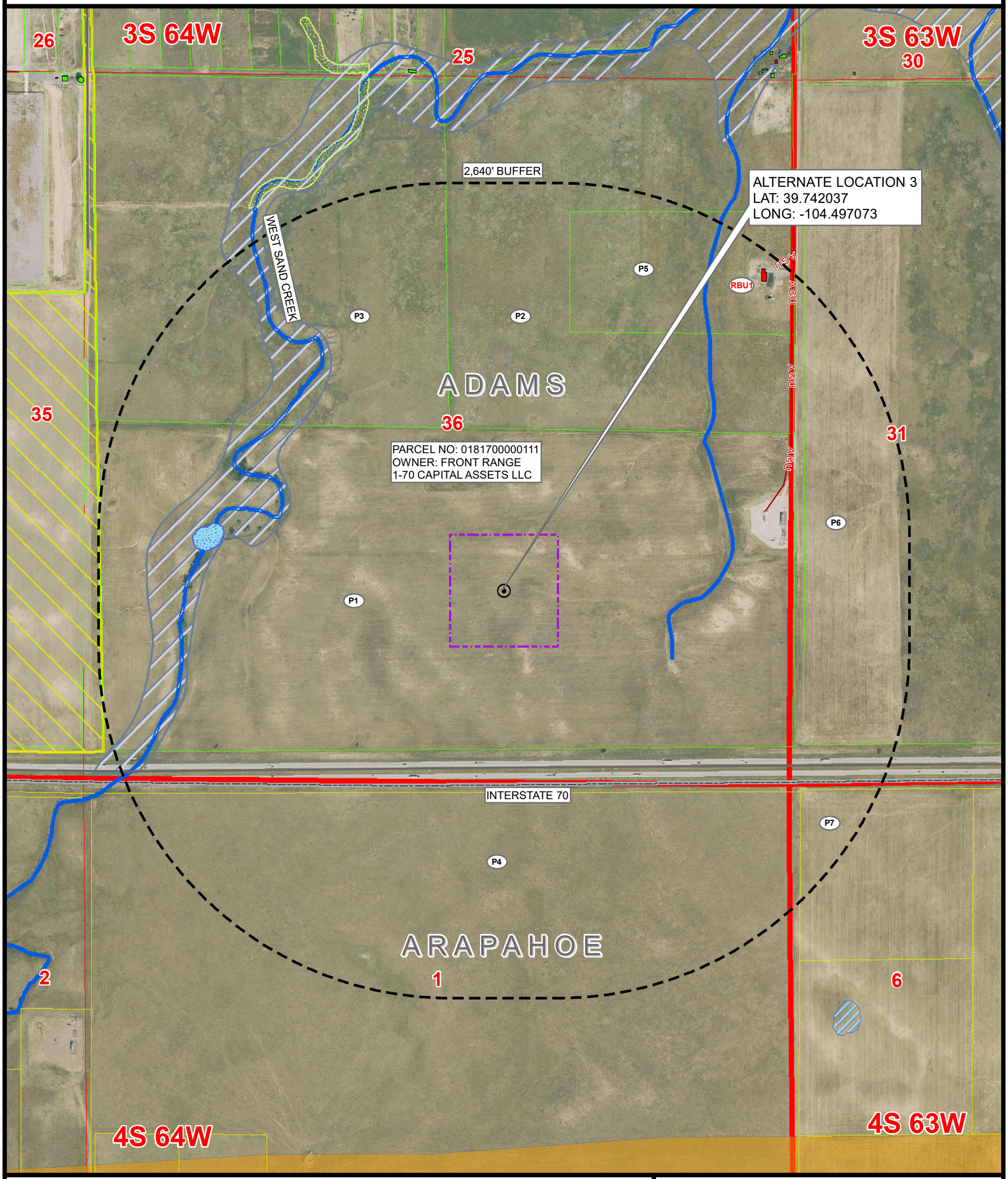
PREPARED FOR: CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\BENNETT D_ALA_SITE_PLANS.dwg, 10/16/2024 10:13:11 PM, jedmunds

ALTERNATIVE LOCATION ANALYSIS - ALTERNATE LOCATION 3

BENNETT D PAD

SECTION 36, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_MAP_ALT_3_MAP(SHEET 1).mxd 10/18/2024 12:18:43 PM

Legend

- PROPOSED REFERENCE POINT
- ALTERNATE OIL AND GAS LOCATION
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- A-G-U- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ADAMS COUNTY PARCEL BOUNDARY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND
- PRONGHORN WINTER CONCENTRATION AREA

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 18 Oct 2024

ALTERNATIVE LOCATION ANALYSIS - ALTERNATE LOCATION 3

BENNETT D PAD

SECTION 36, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

	PARCEL ID	DISTANCE	PARCEL #	OWNER
PROPERTY LINE	P1	±0'	0181700000111	FRONT RANGE 1-70 CAPITAL ASSETS LLC
	P2	±793' N	0181700000295	SIEGMAN THOMAS AND PATRICIA TRUST
	P3	±807' N	0181700000285	TEAGUE ELSBETH L TRUST
	P4	±1090' S	1979-00-0-00-385	PROSPER FARMS INVESTMENTS LLC
	P5	±1524' N	0181700000294	SIEGMAN DAVID W
	P6	±1843' E	0181500000097	SAADATKHAH HAMID
	P7	±2107' SE	1981-00-0-00-243	KRUPA JOHN D KRUPA STEVEN M ADUGALSKI ADAM
RESIDENTIAL/NON-RESIDENTIAL BUILDING UNIT	RBU1 ±2440' NE			
HIGH OCCUPANCY BUILDING UNIT	N/A			
SCHOOL FACILITY	N/A			
PUBLIC ROAD	±853' S (INTERSTATE 70)			
ABOVE GROUND UTILITY	±1573' E			
RAILROAD	N/A			
DITCH/DRAINAGE/CANAL	±831' E, 1281' W			
NWI WETLAND	±821' E, ±1271' W, ±1699' W, ±1844' W, ±1906' W			
FLOODPLAIN	±1229' W			
HIGH PRIORITY HABITAT	N/A			
OTHER	±2620' W (AURORA JURISDICTIONAL BOUNDARY)			

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\GIS\ALA\MAPS\NO TABLE LOCATION ANALYSIS MAPS\BENNETT_D_ALA_MAP_LOCATION_ANALYSIS_MAP_ALT_3_TABLE(SHEET 2).mxd 10/18/2024 12:22:37 PM

Legend

- PROPOSED REFERENCE POINT
- ALTERNATE OIL AND GAS LOCATION
- BUFFER
- BUILDING
- NON-RESIDENTIAL BUILDING UNIT
- RESIDENTIAL BUILDING UNIT
- HEALTH FACILITY
- SCHOOL FACILITY
- CHILD CARE FACILITY
- A-G-U- ABOVE GROUND UTILITY
- PUBLIC ROAD
- RAILROAD
- DITCH/CANAL/DRAINAGE
- DISPROPORTIONATELY IMPACTED COMMUNITY
- ADAMS COUNTY PARCEL BOUNDARY
- ARAPAHOE COUNTY PARCEL BOUNDARY
- AURORA JURISDICTIONAL BOUNDARY
- RULE 411.b 2640' BUFFER
- 100-YEAR FLOODWAY (EFFECTIVE)
- 100-YEAR FLOODPLAIN (EFFECTIVE)
- COUNTY BOUNDARY
- RIPARIAN CORRIDOR
- DELINEATED WETLANDS
- RIVERINE CORRIDOR
- FRESHWATER EMERGENT WETLAND
- FRESHWATER FORESTED/SHRUB WETLAND
- OTHER
- LAKE
- FRESHWATER POND
- PRONGHORN WINTER CONCENTRATION AREA

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

609 Consulting, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

N

NAD83 CO-Nft
Scale: 1" = 750ft

Drawn by: CPS Date: 4 Oct 2024
Revised: CPS Date: 18 Oct 2024

HAUL ROUTE MAP

BENNETT D PAD (ALT LOC 3)

NWSE & SWSE SECTION 36, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO

NOTE:
PIPELINE ROUTE IS PRELIMINARY AND SUBJECT TO CHANGE

LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- TRAFFIC ROUTE
- PIPELINE ROUTE

TRAVEL PATH:
TAKE EXIT 299 OFF OF INTERSTATE 70 TO MANILA ROAD AND PROCEED IN A NORTHERLY DIRECTION FOR 1.1 MILES TO EAST COLFAX AVENUE TO THE EAST. EXIT RIGHT ONTO EAST COLFAX AVENUE AND PROCEED IN AN EASTERLY DIRECTION FOR 2.0 MILES TO COUNTY ROAD 30 TO THE SOUTH. EXIT RIGHT ONTO COUNTY ROAD 30 AND PROCEED IN A SOUTHERLY DIRECTION FOR 0.7 MILES TO THE PROPOSED ACCESS ROAD TO THE WEST. EXIT RIGHT ONTO THE PROPOSED ACCESS ROAD AND CONTINUE 0.4 MILES TO THE PROPOSED LOCATION.

609 CONSULTING, LLC
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/24/24
DATE:	10/4/24
DRAFTER:	JFE
REVISED:	10/18/24

PREPARED FOR: CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

K:\CIVITAS RESOURCES\2023\2023_182_SCC36_T3S_R64W_SEC_36\GIS\ALA\BENNETT D_ALA_SITE_PLANS.dwg, 10/18/2024 9:15:12 AM, kgoles

Mitigation Measures and Best Management Practices

Wildlife & Environmental

The Bennett D pad and its respective production facility are not located within USFWS (United States Fish and Wildlife Service) and CPW (Colorado Parks and Wildlife) mapped layers for sensitive species or High Priority Habitat (HPH). The pad, wells and facilities are outside of the FEMA mapped flood plain area. A three-foot-tall berm shall be constructed on the western side of the well pad, and the pad will be designed to have any surface flow directed to the detention basin to the north. In the event of an incidental release of fluids the well pad is designed to protect adjacent wetlands to the west.

Noise Control

Any operations involving the use of a drilling rig, workover rig, completions and production of a well are subject to and will comply with the noise regulations set forth in Adams County's Development Standards and Regulations Section 4-11-02-03-03-03-14 and in ECMC Rule 423.

Idling Equipment – While idling engine/equipment, maintain at the lowest frequency possible, as well as, in a position/location that will prevent sound from carrying to nearby residents.

Unnecessary Sounds – Unnecessary sounds such as honking the horn, revving vehicle engines, loud music, and unwarranted metal hammering/banging are all examples of sound that can create nuisance; failure to eliminate unnecessary sound from location will be subject to an internal compliance assessment if reported by a landowner.

Noise has been modeled for the pre-production and production phase of operations. Although, it was deemed unnecessary to achieve compliance Crestone will utilize 32' sound walls to further mitigate noise originating from the location during drilling, completions and flowback.

Crestone will utilize utility power to energize the drilling rig and production facilities.

Crestone's contract drilling company will comply with ECMC Rules regarding noise abatement. In addition to following the ECMC Rules and, Crestone, whenever possible, will schedule deliveries and construction traffic to and from the site during daylight hours.

Visual and Light Mitigation

During the drilling and completions phases, temporary light plants will be present and relocated as needed for safe light levels. At move-in, rig-up and regularly during Drilling and Completion phases, operator will routinely walk around the outside of the disturbance area to identify obtrusive lighting leaving the site and reduce where possible. Additionally, for drilling through flowback, Crestone will utilize 2,260 linear feet of 32-foot-tall sound walls to further provide light mitigation and visual screening into the location.

In the event there are complaints from neighbors regarding obtrusive lighting, Operator is committed to adjust fixtures or install shielding on appropriate fixtures to minimize the offensive lighting where possible. In the event the grievance cannot be remedied due to safety concerns, Operator will work with the complainant to find an amenable solution.

There will be no lighting installed for permanent production operations.

All long-term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public. Portable toilets for use on the Oil and Gas Location during the drilling and completion phases shall be screened by equipment, sound walls and/or mobile dwellings that are proposed on-location.

Odor and Air Quality

In an effort to mitigate potential odor impacts, Operator will use a mud filtration system and/or additives to the drilling and fracturing fluids to minimize odors. The Operator will not use fragrance to mask odors. Operator shall implement one or more of the following measures as necessary:

- Operator shall utilize a closed-loop, pit-less mud system for managing drilling fluids.
- Operator shall employ the use of drilling fluids with low to negligible aromatic contact during drilling operations after the surface casing is set and freshwater aquifers are protected.
- Operator shall remove drill cuttings daily and as soon as waste containers are full.
- Operator shall employ pipe cleaning procedures when removing drill pipe from the wellbore.
- Operator may increase concentration of odor-mitigating additives in mud system.

Crestone will comply with all applicable air quality requirements that regulate upstream production facilities. For the Bennett D Pad, these will include at a minimum:

- Colorado ECMC Rules
- Air Quality Control Commission 5 CCR 1001-5 Regulation 3
- Air Quality Control Commission 5 CCR 1001-9 Regulation 7
- NSPS 40 CFR Subpart OOOOa
- 40 CFR Part 98 Subpart W for Greenhouse Gas Reporting
- Have an Air Quality Monitoring Program approved by CDPHE

All gas encountered during post-separation flowback will be routed to a sales line. All flowback fluids will be produced to permanent facility infrastructure and be emissions controlled with a combustor, as necessary.

Equipment design and operation will be the primary path to mitigate emissions during production. Installation of equipment for on-site processing and separation will include instrument-air actuated pneumatic controllers. This location will utilize cutting edge production facilities that utilize utility powered fluid separation and oil tankless facilities which will greatly reduce production operation emissions. Should well maintenance be required, this activity will be sent to a pressurized vessel and controlled with an enclosed combustion device.

Crestone maintains a robust leak detection and repair ("LDAR") program as required by CDPHE using modern leak detection technologies such as infra-red cameras for equipment used on the Well Sites. Crestone will inspect the facility monthly for the first year and will then comply with Colorado Regulation 7. Operator shall conduct continuous pressure monitoring to detect leaks.

Auditory, Visual, and Olfactory (AVO) monitoring will be conducted monthly by trained staff at the site.

Crestone shall respond to Air Quality Action Day advisories posted by the Colorado Department of Public Health and Environment for the Front Range Area by implementing their suggested air emission reduction measures, as feasible. Emission reduction measures shall be implemented for the duration of an air quality Action Day advisory and may include measures such as:

- Minimize vehicle and engine idling
- Reduce truck traffic and worker traffic
- Delay vehicle refueling
- Suspend or delay use of fossil fuel powered ancillary equipment; and Postpone construction activities, if feasible

Signage

Crestone maintains all signage pursuant to Adams County and ECMC Rules and Regulations. Please see the signage plan / signage detail in the Operations Plan section of this OGF Application.

Access Roads & Maintenance

Crestone maintains all access roads in compliance with Adams County Code. Crestone will utilize an existing access road currently being utilized for the Bennett Station oil terminal. Access road will be bladed to minimize wet weather damage. Fugitive dust will be kept to a minimum by utilizing water to control dust when necessary. All lease roads leading to the drilling site, facility and surface equipment will be designated and maintained to support fire vehicles, equipment and apparatus.

Crestone will work with Adams County Road department to ensure any damage caused by Crestone activity is property repaired. Being a traffic impact study has already been conducted for the oil terminal, an Adams County Engineer told Crestone in a phone conversation on November 26, 2024, another traffic study is not required. A trip generation analysis has done by a professional engineer and is included in the Transportation Plan section of this OGF Application. Crestone will enter into a Road Maintenance Agreement for the portion of Manilla Road that will be used for oil and gas operations. Traffic is planned to exit Interstate 70 and drive north on Manilla Road for approximately $1/10^{th}$ of a mile to enter the location at the existing access road on the west. Leaving the location, heavy vehicles will routed to Interstate 70 following the directions in reverse limiting the use of Adams County road usage to only that portion of Manilla Road.

Waste Disposal

Crestone will dispose of all wastes in accordance with ECMC and/or the Colorado Department of Public Health and Environment rules and regulations. Crestone will provide the County copies of all waste management reports upon request.

Fencing

This proposed oil and gas facility will be collocated with a midstream oil terminal. The majority of the property is fenced to protect the critical infrastructure associated with the oil terminal. The Bennett D Pad will be inside the property's fence. No additional fence is being proposed inside the perimeter fence of this property.

Airport Height Overlay

The proposed location lies approximately 7,700 feet southwest from the southern end of existing Runway 35 at the Colorado Air and Space Port.

Crestone has no plans to utilize permanent or temporary equipment that will meet or exceed 200 feet. Crestone has been in communication with the FAA about this project and committed to conditions of approval such as flags and lights on the drill rig derrick, in addition to contacting the Space Port prior to and after moving the rig on and off location.

Emergency Preparedness and Response Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-10

Will Serve Letter (signed copy will be provided once returned)

Crestone Peak Resources Operating, LLC

SITE SAFETY AND EMERGENCY ACTION PLAN

District Office
650 Southgate Drive
Windsor, CO, 80550

Bennett D Pad

ADAMS COUNTY, COLORADO

Table of Contents

SECTION 1
SIGNATURE PAGE

Crestone Peak Resources			
Name	**Signature**	**Title**	**Date**
Lisa David		Director, PSM and Emergency Management	
Fire District			
Name	**Signature**	**Title**	**Date**

SECTION2
SITE SPECIFIC INFORMATION

a) Site Safety Requirements and General Information

The minimum personal protective equipment (PPE) to enter any Crestone Peak Resources production location includes hard hat, safety glasses, safety toe boots, fire resistant clothing (FRC), and a 4-gas monitor. All contractors and visitors are responsible for providing their employees with the appropriate training on and use of PPE while on Crestone Peak Resources locations. In addition, all contract personnel entering a Crestone Peak Resources location to perform work must understand and abide by Crestone Peak Resources' contractor expectations relating to environmental, health, and safety requirements.

The primary hazards that any person must be aware of while on a Crestone Peak Resources production location include, but are not limited to, the potential for release of hydrocarbon gases and/or liquids from production equipment/tanks, heavy truck and equipment traffic, loud noise, high pressures, and the potential for a flash fire. These hazards can vary depending on the work being performed.

b) Emergency Muster/Assembly point(s)

Bennett D Pad

Muster point is at the entrance to location. Muster locations will be identified during all safety briefings.

c) 911 Address and GPS coordinates

API# - Pending

Legal Description – S ½ Section 34, T4S, R64W, 6th P.M.

Address – Pending

Lat/Long: Lat: 39°44'34.80"N Long: 104°31'56.12"W Elevation: 5570ft

d) Site description

The Bennett D **Pad** is a Crestone Peak Resources oil and gas production facility that will have 26 horizontal oil and gas wells. All product will leave location via pipeline as this is a tankless facility.

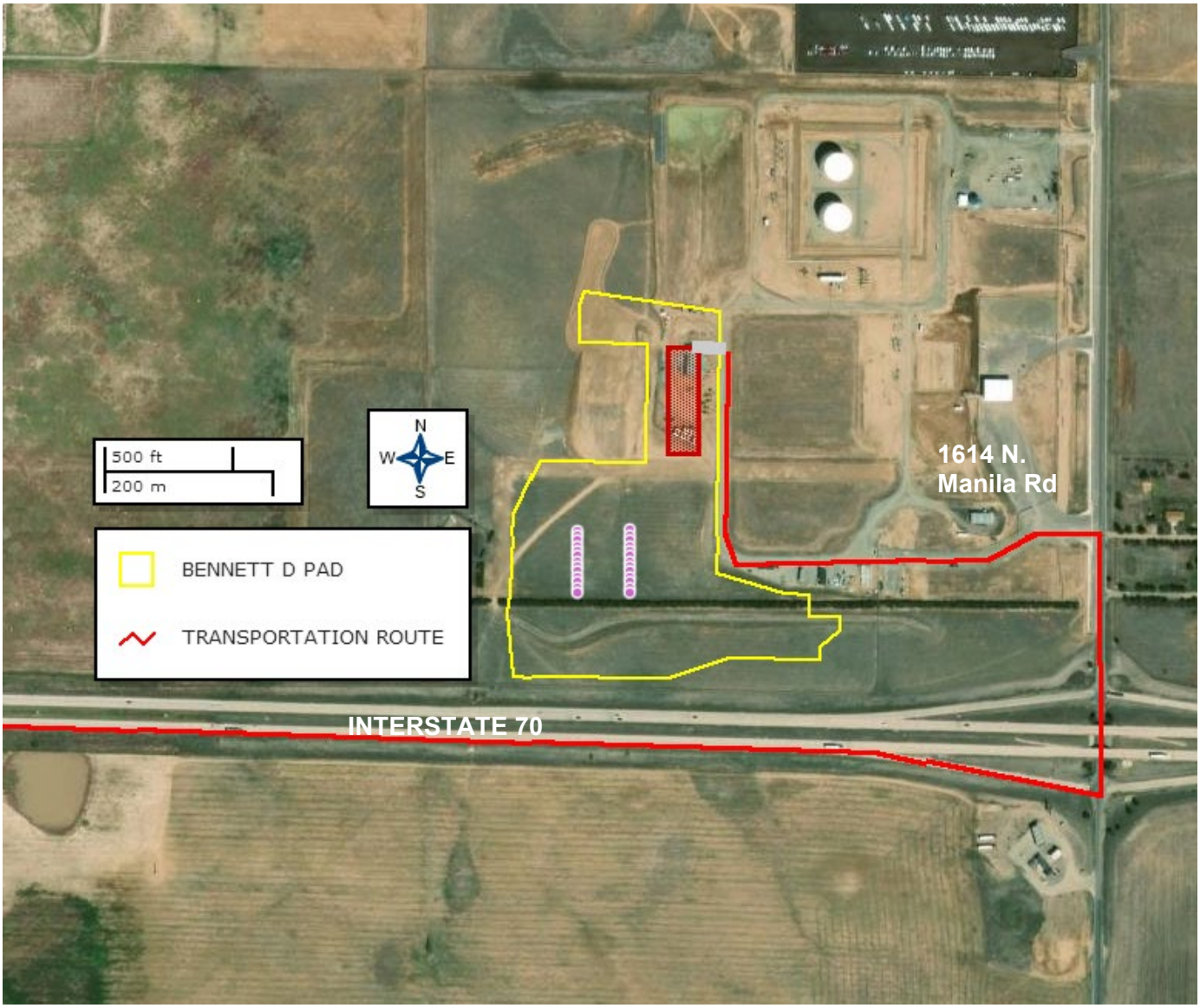
e) Nearby schools and other High Occupancy Buildings

No Schools near this location

No Residence are near this location

f) Directions to Project Locations

Bennett D Pad - Access to the well site will be from 1614 N Manila Rd, Bennett, CO. Proceed West approximately .27 miles, then North approximately .15 miles to the access road.



g) Location of SDS sheets

Depending on the operations taking place on location, the chemicals that may be present will vary. Regardless, hazard communication is a critical safety measure and Safety Data Sheets (SDS's) will be available from the Company Representative present or the contractor performing work on location. All SDS sheets are available through the following link, but can only be accessed by Civitas employees- https://chemmanagement.ehs.com/9/52B6C4F1-9454-4F70-86F1-15370D01243A

h) Sign-In Sheets, JSAs, and Safety Forms

During drilling and completion activities all employees and approved visitors to the **Bennett D Pad** will be required to enter through a manned security checkpoint at the location entrance where they will be required to sign in and will be provided with a detailed safety briefing of current operations and all safety precautions that must be adhered to while on location. In addition, all who enter the location must also sign out upon their departure. Security personnel are required to account for all persons entering or leaving location during active operations and in the event of an incident.

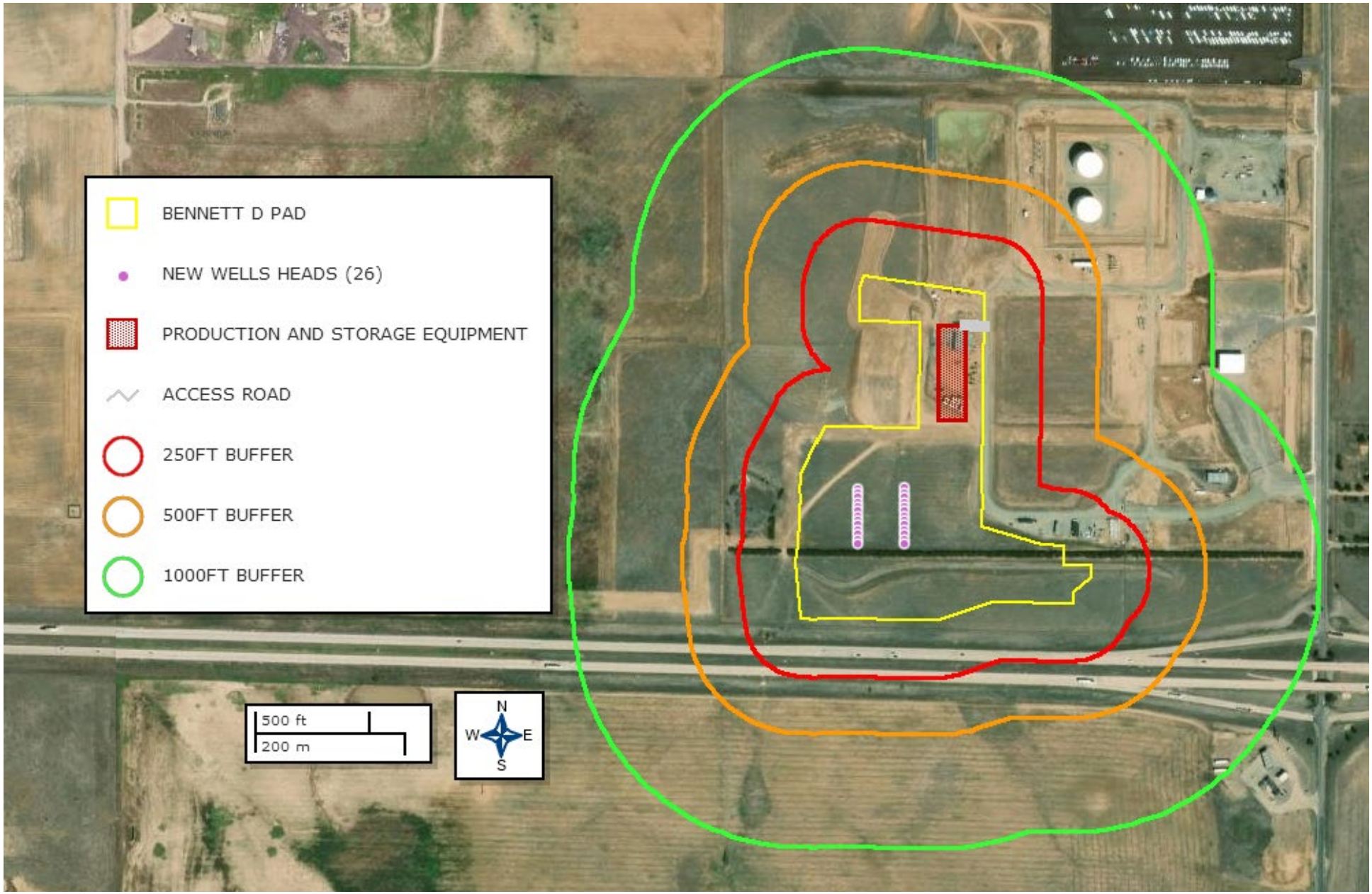
Once drilling and completion activities are finalized, the site will transition to its production phase and no unauthorized personnel will be allowed on location without first contacting a company representative. At this point, the primary chemicals stored on site will be crude oil and produced water.

Job Safety Analysis (JSA'S) are written every day, per task, or per shift if work crews are working 24/7 and can be found on location. This is performed by each contractor and kept in their files for review.

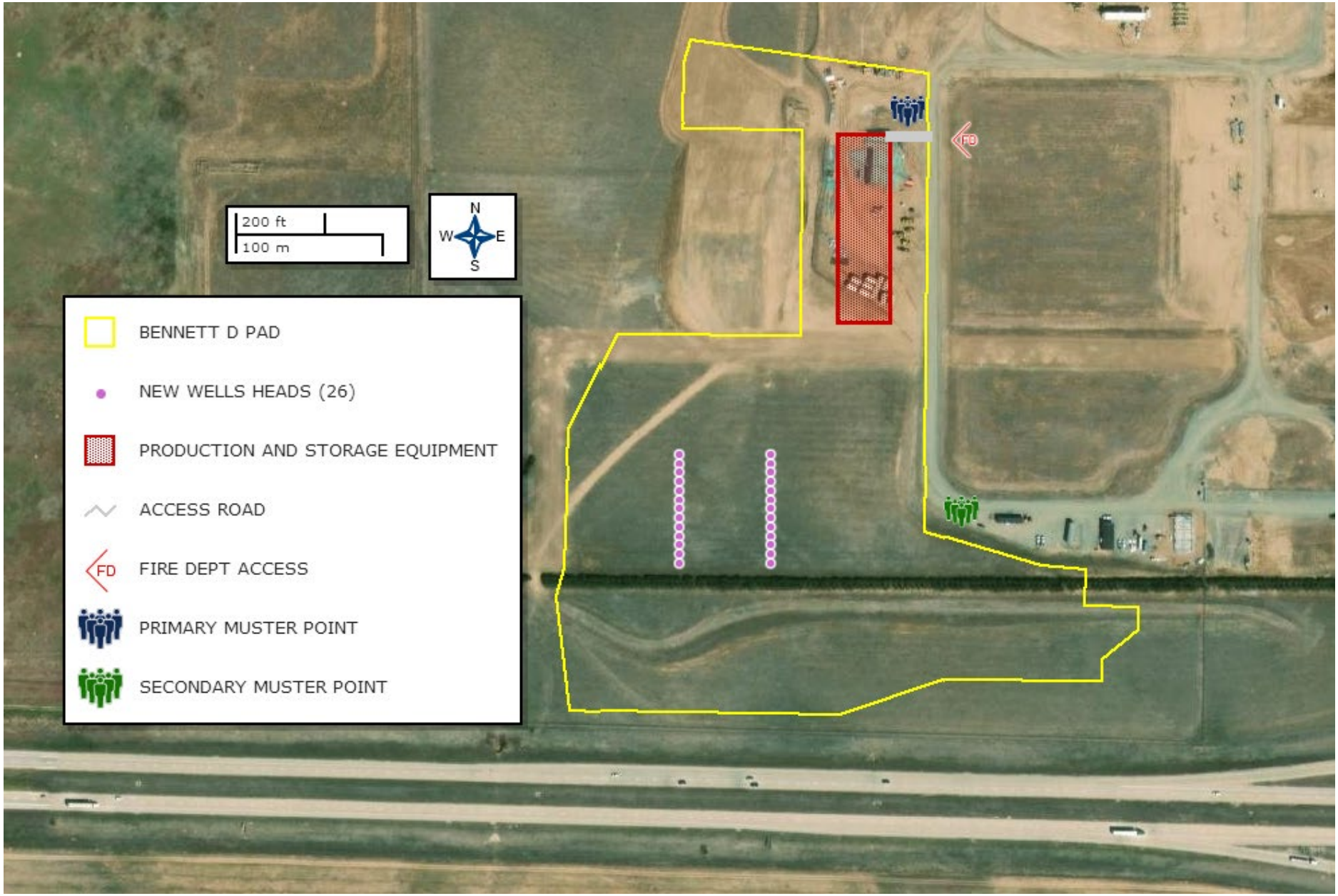
Section 3- Maps

Bennett D

250ft, 500ft, 1000ft, Buffer



Bennett D Pad Access Map and Muster Point



2500ft Buffer Map

Section 4

List of Emergency Contacts

a) Crestone Peak Resources

Name	Office Phone	Emergency/Cell
Field Office 650 Southgate Drive Windsor, Co. 80550	NA	303-659-7740
Crestone Peak Resources EHS on call emergency number	NA	720-927-1813
PSM, Emergency Management Director- Lisa David	NA	Cell 307-689-0000
EHS- Safety: Chris Burton	NA	Cell 720-315-9387
Environmental Luke Kelly	NA	Cell 720-315-8934

b) Crestone Peak Resources community/media relations

Name	Office	Cell Phone
Rich Coolidge	NA	303-312-8561

c) First Responders

Name	Emergency	Non-Emergency Dispatch	Office Number
Bennett Watkins Fire Rescue	911	303-288-1535	303-644-3572
Adams County Sheriff	911	303-288-1535	303-654-1850
Adams County OEM	911	303-288-1535	720-523-6600
Colorado State Patrol	911	303-239-4501	719-775-2964

d) Regulator Contacts

Name	Office Phone	Cell Phone
ECMC	303-894-2100	none
CDPHE	877-518-5608	none
Colorado Parks & Wildlife	303-291-7227	none
National Response Center	800-424-8802	none

e) Medical Facilities

Name	Office Phone	Cell Phone
University of Colorado Hospital	720-848-0000	*NA*
The Medical Center of Aurora	303-695-2600	*NA*

f) Spill Response Organization

Name	24/7 Emergency	Non-Emergency
EnviroServe	800-488-0910	NA

g) **Fire, explosion, associated with loss of well control.**

Name	Office Phone
Bennett Watkins Fire Rescue	911 or 303-644-3572
Wild Well Control, Inc.	281-353-5481
Northern Colorado Medical Facility (Burn Unit)	970-810-4121
Adams County Office of Emergency Management	911 or 720-523-6600

h) Government Agencies

Name	Office Phone
Adams County Sheriff	911 or 303-654-1850
ECMC	303-894-2100
CDPHE	877-518-5608
Adams County OEM	911 or 720-523-6600

i) **Railroad Emergency Response**

Name	Office Phone
Union Pacific Railroad	888-877-7267

Section 5
Spill Response and Clean Up

a) Spill Response

There are multiple types of hydrocarbons which can be released/spilled during oil and gas production and exploration. Most commonly released are unrefined products such as crude oil and produced water. Refined petroleum products such as diesel, gasoline, and motor oil spills are less common, but still equally important to mitigate. If a spill is found reportable, it will be mitigated in accordance with Colorado Energy and Carbon Management Commission (ECMC) and Colorado Department of Public Health and Environment (CDPHE) guidelines.

Once a release has been identified, it will be immediately stopped and contained if possible and is safe to do so. When containing a spill; pig blankets, snakes, absorbent materials, or earthen berms will be constructed around the release to keep material from spreading. These materials will be provided by APEX and the contract company and kept on-site. Diligent efforts will be made to minimize contact with live vegetation or open water if release is outside of secondary containment structures.

In the event of a large incident requiring outside assistance, Crestone Peak Resources has contracted with Wild Well Control who possesses a working knowledge of oil and gas operations, emergency response and Incident Command. Once notified Wild Well Control personnel can be on location from 6 to 12 hours.

b) Spill Reporting

What determines a reportable spill and to whom does the report go?

- Spill and leaks shall be reported to the local fire department by using 911 in accordance with the provisions contained in the adopted International Fire Code.
    - ***IFC § 5704.2.7.10 Leak reporting.*** *A consistent or accidental loss of liquid, or other indication of a leak from a tank or system, shall be reported immediately to the fire department, the fire code official and other authorities having jurisdiction.*
- A spill/release will be reported to the ECMC if released material is property of Crestone Peak Resources and meets the ECMC reporting thresholds (see below), an example would be crude oil released from a separator or produced water from a water vault.
- A spill/release will be reported to the Adams County LEPC if released material is

property of Crestone Peak Resources and meets the ECMC reporting thresholds (see below),

- A spill/release will be reported to the CDPHE if released material is in the custody of a third party for spills that meet CDPHE reporting thresholds, are of any size that impact or threaten to impact waters of the state, a residence or occupied structure, livestock or public byway. An example would be an oil hauler over filling a truck and spills product onto the ground next to a flowing irrigation ditch.

Spills are reportable to the ECMC in the following circumstances:

1. the spill or release impacts or threatens to impact any waters of the state, a residence or occupied structure, livestock, or a public byway.

2. a spill or release in which 1 barrel or more is released outside of berms or other secondary containment; or

3. any spill or release of 5 barrels or more. If the spill impacts or threatens to impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), it must also be reported immediately to CDPHE (25-8-601 CRS).

4. Petroleum releases of 25 gallons or more

Once a spill is determined reportable, there is a 24-hour deadline to make initial notification to the ECMC or CDPHE depending on product ownership. Spills/releases in the custody of Crestone Peak Resources will be reported by a Company representative. Spills/releases in the custody of a third party will be reported by the responsible company's EHS Department to the appropriate agency and to Crestone Peak Resources.

These regulatory guidelines will be strictly followed by Crestone Peak Resources and any contractors operating under Crestone Peak Resources guidance during all activities.

Section 6
Reportable quantities

a) Reportable quantities

Mandated by Section 312 of the Emergency Planning and Community Right-To-Know Act (EPCRA) - also known as SARA Title III - the Tier II form captures information about the types, quantities, and locations of hazardous chemicals at a given facility. The form also lists contact information for the facility's designated emergency point-of-contact.

Any facility that is required to maintain MSDSs (or SDSs) under the Occupational Safety and Health Administration (OSHA) regulations for hazardous chemicals stored or used in the workplace. Facilities with chemicals in quantities that equal or exceed the lists of lists thresholds must report.

- Propane, benzene, propene, and methane are on the lists and are known to be in crude oil. In addition, diesel is on the lists and may be stored on sites during construction.

b. Reportable requirements

If your facility will meet the requirements under 40 CFR, you must submit your Tier II report to the state every year before March 1ST.

These regulatory guidelines will be strictly followed by Crestone Peak Resources and any contractors operating under Crestone Peak Resources guidance during all activities.

Section 7

Evacuation Information

a. Evacuation Plan Procedures (public)

The procedure to be used in alerting nearby persons in the event of any occurrence that could pose a threat to life or property will be arranged and completed with public officials in detail.

In the event of an actual emergency, the following steps will be immediately taken:

1. The Crestone Peak Resources representative will immediately notify proper authorities, including the fire department, sheriff's office, highway patrol, and any other public officials as described above and will enlist their assistance in warning residents and transients in the calculated radius of exposure.
2. The Crestone Peak Resources will coordinate with local authorities to warn residents' down-wind of the location and within radius of exposure from the well site. Additional evacuation zones may be necessary as the situation warrants.
3. The Crestone Peak Resources representative will coordinate with appropriate emergency personnel to divert traffic in the vicinity away from the potentially dangerous area. No trespassing and warning signs will be posted at the entrance to the well site. The contract company will monitor essential and non-essential traffic on-site.
4. General:
    a. The area included within the radius of exposure is the zone with the maximum potential hazard. When it is determined that conditions exist which create an additional area (beyond the initial zone of maximum potential hazard) vulnerable to possible hazard, public areas in the additional hazardous area will be evacuated.
    b. In the event of a disaster, after the public areas have been evacuated and traffic stopped, it is expected that local civil authorities will have arrived and within a few hours will have assumed direction of and control of the public, including all public areas. Crestone Peak Resources will fully cooperate with these authorities and will exert every effort by careful advice to such authorities to prevent panic or rumors.
    c. Crestone Peak Resources will dispatch appropriate personnel to the disaster site as soon as possible. The company's personnel will cooperate with and provide such information to civil authorities as they might require.

Section 8

Coordination with First Responder Agencies

a) Crestone Peak Resources will communicate site construction, drill spud, completion operations and Production Turn-In-Line dates to Bennett Watkins Fire Rescue and the Adams County Office of Emergency Management for coordination/communication with local first responders. These dates will be provided a minimum of 7 business days prior to commencement or change in oil and gas development operations.

b) In the event of an emergency requiring First Responders, Unified Command will be established between the Crestone Peak Resources appointed company man on location and First Responders present. Unified Command post will be established based on conditions present at time of incident.

c) While foam is not currently supplied for oil and gas emergency response, Crestone Peak Resources is an active member of Colorado Preparedness and Response Network (CPRN), and a solution is being sought through a cooperative effort including other operators, First Responders and Adams County. Crestone Peak Resources has an established source of foam sitting at our Hub Facility off WCR -6 and WCR – 7.

d) Crestone Peak Resources EHS representative and first responders identified in this Site Safety and Emergency Action Plan have reviewed this plan and discussed coordination efforts in the event of an emergency requiring first responder assistance.

e) Crestone Peak Resources will provide training or walkthroughs as requested by the local first responders.

December 17, 2023
Battalion Chief Caleb Connor
Bennett - Watkins Fire Rescue
355 4th St. - Command and Administration
Bennett, CO 80102

RE: Service to Civitas Resources Oil & Gas Facility – Bennett D Pad

Dear Captain Connor,

Civitas Resources (Crestone Peak Resources Operating LLC) is submitting an Oil and Gas Facility application to construct a proposed Oil & Gas well facility and associated infrastructure located in Section 34, Township 3 South, Range 64 West in Adams County, Colorado. Your referral package on the site is enclosed. Access to the site will be off Interstate 70 and north along Manilla Rd. for approximately 1/10 of a mile until you reach the access road on the west. Once on the property, follow the private access west about 1,500 feet. There will be a 1,500' long, 30' wide private access road that will lead west to the well pad. There are twenty-six wells planned for this site.

Adams County has asked that we notify Bennet - Watkins Fire Rescue of this facility and access route and gain assurance that requisite EMT and fire protection services can be provided to this site.

Upon review of the enclosed referral package, if said service can be provided, we would appreciate you indicating such by signing and returning a copy of this letter. Please do not hesitate to contact me directly at 303-294-7824, jpiekara@civiresources.com, with any questions or comments.

Emergency services, including EMT and fire protection services can be provided to the Bennett D oil and gas facility site via the access route herein described.

_____

Bennett – Watkins Fire Rescue Date
By:
Its:

Sincerely,

John Piekara

Noise Mitigation Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-14

Adams County Development Standards & Regulations
Noise Management Plan

Bennett D Pad
Adams County, Colorado

Prepared for:

Crestone Peak Resources Operating, LLC
555 17th Street, Suite 3700
Denver, CO 80202

*Crestone Peak Resources Operating, LLC operates as a wholly owned subsidiary of Civitas Resources, Inc.

Prepared by:

Urban Solution Group, LLC
3301 Lawrence Street, Suite 3
Denver, CO 80205

December 10, 2024

REV1

RECORD OF REVISIONS

Rev#	Date	By	Summary of Revisions
0	2024/11/04	GFS	Initial Release
1	2024/12/10	DCH	Updated perimeter wall layout and mitigated results for drilling and completions operations

TABLE OF CONTENTS

URBAN SOLUTION GROUP

Report Submitted to:
Jeff Annable
Civitas Resources, Inc.
(303) 312-8529
jannable@civiresources.com

Report Contact:
Gareth Svanda
Urban Solution Group
(720) 749-2916
gareth.svanda@urbansolutiongroup.com

1 EXECUTIVE SUMMARY

Urban Solution Group, LLC (Urban) was commissioned to prepare a Noise Management Plan (NMP) for the proposed Bennett D Pad to be operated by Crestone Peak Resources Operating, LLC (Crestone), a wholly owned subsidiary of Civitas Resources, Inc. (Civitas). Crestone is proposing to develop oil and natural gas wells at the Bennett D Pad located in Adams County, Colorado. The purpose of this plan is to assess predicted environmental noise impacts from the proposed operations on the surrounding area as compared to the maximum permissible noise level (MPNL) limits described in the Adams County Development Standards and Regulations Section 4-11-02-03-03-03-14 Noise Regulation.

To facilitate this work, the following analyses were completed:

- Pre-operational ambient sound level survey for the surrounding area
- Completion of a full site-specific Noise Impact Assessment (NIA) with individual models for:
  - Drilling operations with the Patterson-UTI APEX 1500 Series Drilling Rig on grid/line power (no gensets)
  - Completions operations with a Liberty Oilfield Services Quiet Fleet
  - Production operations with the equipment and layout proposed by Crestone
- Specification of Best Management Practices (BMPs) that will be implemented at the proposed Bennett D location such that all operations comply with the noise regulation and minimize the environmental noise impact on the surrounding area

The results of the analyses with full implementation of the BMPs for the Bennett D location are summarized as follows:

Analysis Type	Result
Noise points of compliance	• One A- and C-weighted compliance point located at the property line of existing building units within 2,000 feet of the proposed location. One additional receptor point to demonstrate noise levels at the property line of building units beyond 2,000 feet from the proposed location to the northwest.
Pre-Operational Ambient Sound Level Survey	• Ambient sound levels were measured at three locations near the site. • Ambient adjustments apply to all phases of operation as shown in Table 4.
Drilling Operations NIA	• Compliant without mitigation; Crestone to erect partial-perimeter sound wall consisting of 2,260 linear feet of 32-foot-tall, STC32 engineered sound wall due to sensitive nature of the area as part of BMPs.
Completions Operations NIA	• Compliant without mitigation; Crestone to erect partial-perimeter sound wall consisting of 2,260 linear feet of 32-foot-tall, STC32 engineered sound wall due to sensitive nature of the area as part of BMPs.
Flowback Operations	• Flowing back directly to permanent facility; leave perimeter sound walls in place until flows are initiated.
Production Operations NIA	• Compliant without mitigation.

2 REGULATIONS AND NOISE STANDARDS SUMMARY

Noise for energy related facilities located in Adams County, Colorado, is regulated through the Adams County Development Standards and Regulations Section 4-11-02-03-03-03-14 noise regulation (Adams County Regulation). This regulation sets the MPNLs, which limit noise emitted from energy facilities over a specified period, as measured at noise compliance points. These allowable limits are dependent on the land use zoning within the study area as defined in the Colorado Energy and Carbon Management Commission (ECMC) Rule 423 series noise regulation. An overview of the Adams County Regulation is presented below, followed by an overview of the ECMC regulation.

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-14 – Brief Overview

The Operator shall control noise levels as follows:

a. Prior to operations Operator shall obtain a baseline noise study that encompasses at least five (5) days, one of those days being a weekend. The Operator may use the baseline noise study submitted with the Development Application to fulfill this requirement, if that noise study is completed within twelve (12) months of any ground disturbing activities.

b. Beginning with construction and up to production, the County will require continuous noise monitoring for all oil and gas facilities located with one-half mile (1/2), or greater depending on the location, nature, and size of the facility, of the property line of any existing residences, schools, state licensed daycares or high occupancy building units. The County may require continuous noise monitoring be conducted by an approved third-party consultant based on the location, nature, and size of the facility.

c. The Operator shall conform to ECMC Regulations for noise level.

d. The Operator shall post 24-hour, 7 days per week contact information to deal with all noise complaints arising from Operator's oil and gas facility. Such posting shall be visible from the public rights-of-way.

e. For Oil and Gas Facilities located within 2,000 feet of a land use or zoning designation boundary the Operator shall be required to comply with the lower maximum permissible noise level as defined in ECMC regulations for noise of that corresponding land use or zone district. For locations within 2,000 feet of a land use or zoning designation boundary, noise must be attenuated to the maximum permissible noise levels for the corresponding land use or zone district, as specified in ECMC rules, at the land use designation boundary as determined by the Director of Community and Economic Development.

f. The Operator shall update the noise modeling study or noise impact analysis if the planned or actual equipment at the Oil and Gas Facility is expected to produce noise levels that will

exceed those previously presented to the County or if the noise modeling study or noise impact analysis was completed more than twelve (12) months prior to any ground disturbing activities.

g. To ensure the Operator controls noise to the allowable levels set forth above, one or more of the following may be required based on the location, nature, and size of the facility:

a. Acoustically insulated housing or cover enclosing the motor or engine;

ii. Noise management plan identifying hours of maximum noise emissions, type, frequency, and level of noise to be emitted, and proposed mitigation measures;

iii. Obtain all power from utility line power or renewable sources;

iv. Utilize the most current equipment to minimize noise impact during drilling, completions, and all phases of operation including the use of "Quiet Fleet" noise mitigation measures for completions;

v. Sound walls around well drilling and completion activities to mitigate noise impacts;

vi. Restrictions on the unloading of pipe or other tubular goods between 6:00 p.m. and 8:00 a.m.;

vii. Any abatement measures required by ECMC for high-density areas, if applicable.

viii. The use of electric drill rigs.

ix. Tier 4 or better diesel engines, diesel and natural gas co-fired Tier 2 or Tier 3 engines, natural gas fired spark ignition engines, or electric line power for hydraulic fracturing pumps.

x. Use of quiet design mufflers (also referred to as hospital grade or dual dissipative) or equivalent.

xi. The use of liquefied natural gas dual fuel hydraulic fracturing pumps.

h. Professional Consultant(s) Required: The baseline noise study and noise modeling shall be prepared by one (1) or more professionals deemed professionally qualified by the Community and Economic Development Department. Each professional shall be deemed qualified by the Department of Community and Economic Development based on education, professional certifications, experience in the field, and their understanding of the Adams County oil and gas regulations and ECMC rules pertaining to noise. The County shall maintain a list of qualified professional consultants. The applicant for an Oil and Gas Facility shall select one (1) or more individuals from the County's list of qualified consultants to prepare the required baseline noise studies and noise modeling reports.

i. Professional qualifications for review and consideration may be submitted to the County by the sound professional, the applicant, or the Operator.

Colorado ECMC Rule 423 Noise Regulation – Brief Overview

Section 4-11-02-03-03-03-14 of the Adams County noise code states that all Oil and Gas Operations will comply with the maximum permissible noise levels (MPNLs) outlined by the Colorado ECMC. Table 1 below shows the MPNLs unless otherwise required by Rule 423.

Table 1. *Maximum Permissible Noise Levels (Colorado ECMC Table 423-1)*

Zone	Daytime (7:00 a.m. – 7:00 p.m.)	Nighttime (7:00 p.m. – 7:00 a.m.)
Residential/Rural/State Parks & Wildlife Areas	55 dB(A)	50 dB(A)
Commercial/Agricultural	60 dB(A)	55 dB(A)
Light industrial	70 dB(A)	65 dB(A)
Industrial	80 dB(A)	75 dB(A)
All Zones	60 dB(C)	60 dB(C)

Exceptions to these MPNLs for Drilling, Completions and Flowback Operations are outlined in section 423.b (2) as follows:

A. In Residential/Rural or Commercial/Agricultural, MPNLs will be 60 dBA in the hours between 7:00 p.m. to 7:00 a.m. and 65 dBA in the hours between 7:00 a.m. to 7:00 p.m.; and

B. In all zones MPNLs will be 65 dBC in the hours between 7:00 p.m. to 7:00 a.m. and 65 dBC in the hours between 7:00 a.m. to 7:00 p.m.

These MPNLs are applied at "noise points of compliance". These points are chosen as outlined in section 423.a (5) of the Regulation:

(5) For proposed Oil and Gas Locations with a Working Pad Surface within 2,000 feet of one or more Residential Building Units (RBUs), at least one, and no more than six noise points of compliance where monitors will be located. Operators will identify noise points of compliance using the following criteria:

A. Provide one noise point of compliance in each direction in which an RBU is located within 2,000 feet of the proposed Working Pad Surface.

B. Noise points of compliance will be located at least 350 feet from the Working Pad Surface, and no less than 25 feet from the exterior wall of the RBU that is closest to the Working Pad Surface. If a Surface Owner or tenant refuses to provide the Operator with access to install a noise monitor, then the noise point of compliance will be located at either the next-closest RBU or an alternative location approximately the same distance and direction from the Working Pad Surface.

Demonstration of compliance with noise level limits during operation is outlined in section 423.c (2) as follows:

> A. In response to a complaint or at the Director's request, Operators will measure sound levels at 25 feet from the complainant's occupied structure towards the noise source for low frequency (dBC) indicated issues. For high frequency (dBA) measurement will be at the nearest point of compliance. For equipment installed at Oil and Gas Locations subject to a Form 2A approved prior to January 15, 2021, after the Commencement of Production Operations, no single piece of equipment will exceed the MPNLs listed in Table 423-1 as measured at a point 350 feet from the equipment generating the noise in the direction from which the complaint was received.

Finally, adjustments to the MPNLs based on the measured pre-existing ambient noise levels is allowed. However, the new maximum allowable noise levels for permanent facilities such as Production Operations are capped and based on cumulative noise levels. Ambient adjustments and cumulative noise levels are outlined in section 423.d of the Regulation as follows:

d. Cumulative Noise. All noise measurements will be cumulative.

> (1) Noise measurements taken at noise points of compliance designated pursuant to Rule 423.a.(5) will take into account ambient noise, rather than solely the incremental increase of noise from the facility targeted for measurement.
>
> (2) At new or substantially modified Oil and Gas Locations where ambient noise levels at noise points of compliance designated pursuant to Rule 423.a.(5) already exceed the noise thresholds identified in Table 423-1, then Operators will be considered in compliance with Rule 423, unless at any time their individual noise contribution, measured pursuant to Rule 423.c, increases noise above ambient levels by greater than 5 dBC and 5 dBA between 7:00 p.m. and 7:00 a.m. or 7 dBC and 7 dBA between 7:00 a.m. and 7:00 p.m. This Rule 423.d.(2) does not allow Operators to increase noise above the maximum cumulative noise thresholds specified in Table 423-2 after the Commencement of Production Operations.
>
> (3) After the Commencement of Production Operations, if ambient noise levels already exceed the MPNLs identified in Table 423-1, under no circumstances will new Oil and Gas Operations or a significant modification to an existing Oil and Gas Operations raise cumulative ambient noise above the following:

Table 2. *Maximum Cumulative Noise Levels (Colorado ECMC Table 423-2)*

Zone	Daytime (7:00 a.m. – 7:00 p.m.)	Nighttime (7:00 p.m. – 7:00 a.m.)
Residential/Rural/State Parks & Wildlife Areas	65 dB(A)	60 dB(A)
Commercial/Agricultural	70 dB(A)	65 dB(A)
Light industrial	80 dB(A)	75 dB(A)
Industrial	90 dB(A)	85 dB(A)
All Zones	75 dB(C)	70 dB(C)

Compliance Summary (Unadjusted)

The compliance points for both A- and C- weighted compliance are located at property line boundaries of existing building units located within 2,000 feet of the oil and gas location.

The location is zoned with an agricultural land use designation based on information from the Adams County Zoning Department. Adjacent parcels north of the location are zoned with an industrial land use designation; however, the Adams County regulation requires that operators comply with the lower MPNL of that corresponding land use/zoning district. Therefore, the operations at the Bennett D location will comply with the MPNLs for agricultural zoning as defined in the Colorado ECMC regulation for all compliance points included in this NMP. The applicable MPNLs are summarized in Table 3 below.

Table 3. *Compliance Summary, Maximum Permissible Noise Levels (Unadjusted)*

Zone	Operation	Daytime (7:00 a.m. – 7:00 p.m.)	Nighttime (7:00 p.m. – 7:00 a.m.)
Commercial/Agricultural	Drilling, Completions & Flowback	65 dB(A)	60 dB(A)
		65 dB(C)	65 dB(C)
	Production	60 dB(A)	55 dB(A)
		60 dB(C)	60 dB(C)

Maximum Permissible Noise Levels (Adjusted) - Summary

The results of the ambient sound level survey for the Bennett D location are presented in Section 7 of this document.

The Adams County noise regulation defers to the Colorado ECMC Regulation to set MPNLs at oil and gas locations. Section 423.d(2) of the Colorado ECMC Regulation allows for adjustments to the MPNLs if the measured ambient sound levels exceed the MPNLs. Colorado ECMC code allows for an adjustment of 7 dBA/dBC during daytime, and 5 dBA/dBC during nighttime for all operations (though production operations are also constrained by the cumulative maximums in Table 423-2 of Colorado ECMC Rule 423).

All adjusted MPNLs for the corresponding ambient measuring points are presented in Table 4 below. Corresponding receptor point locations are presented in Figure 2 of Section 5.

Table 4. *Adjusted Maximum Permissible Noise Levels for the Bennett D Location*

Phase	Receptor	Ambient Monitor Point #	Maximum Permissible Noise Levels	
			dBA	dBC
Construction, Drilling, and Completions	1	1	65 Day / **66.9** Night	**75.8** Day / **72.2** Night
	--	2	65 Day / **66.9** Night	**74.1** Day / **71.9** Night
	2	3	65 Day / 60 Night	65 Day / 65 Night
Production	1	1	**68.4** Day / **65** Night	**75** Day / **70** Night
	--	2	**67.6** Day / **65** Night	**74.1** Day / **70** Night
	2	3	60 Day / 55 Night	**69.4** Day / **66.4** Night

3 SUMMARY OF BMPS AND MITIGATION TO BE IMPLEMENTED

Best Management Practices (BMPs) are practices that are designed to prevent or reduce impacts caused by oil and gas operations on the environment and wildlife, and to minimize adverse impacts to public health, safety, and welfare.

The BMPs that Crestone plans to implement for the proposed Bennett D site are as follows:

- Crestone conducted a Noise Impact Assessment (NIA) for each phase of operations (drilling, completions, and production) to assess operational noise levels against the maximum permissible dBA and dBC noise levels stated in the regulation. Each phase of operation will comply with the MPNLs as summarized in Table 4 in Section 2 of this document.
- Prior to commencement of drilling and completion activities, a partial-perimeter, engineered sound wall consisting of approximately 2,260 linear feet of 32-foot-tall, STC32 wall will be installed around the edge of the well pad to reduce noise levels at the critical receptor points.
- The drilling rig that will be utilized to drill the wells to total depth will be powered by electric grid power. Thus, the three gensets that normally operate during all drilling operations will be completely shut down and only used for emergency backup in the case that the electric grid is temporarily unavailable.
- Crestone will utilize a low noise completions fleet for all completions operations.
- Flowback operations and equipment were reviewed as part of this Noise Mitigation Plan (NMP). The wells will flow back directly to the permanent facility. Perimeter sound walls will be left in place until drill out is complete and flows are initiated to appropriately manage noise levels for this operation.
- A pre-operational ambient sound level survey was conducted at the three locations outlined in Figure 3 of Section 7 to quantify pre-existing A- and C-weighted sound levels.
- Beginning with construction and up to production, Crestone will conduct continuous noise monitoring at Monitoring Point 1 shown in Figure 3 of Section 7 of this document.
- If the drilling rig or completions fleet is changed prior to commencement of operations, the mitigation measures employed will be equally or more protective.
- Crestone will post contact information to receive and address noise complaints arising from preproduction operations around the clock, 24 hours, 7 days per week. Upon receipt of a complaint, either directly to Crestone, or from Adams County, a Crestone representative will contact the associated stakeholder within 48 hours of receipt.

4 SITE INFORMATION

The proposed Bennett D location will be located north of Interstate 70 and west of Manilla Road, in Adams County, CO. The location is zoned with an Agricultural land use designation based on information from the Adams County online zoning portal. The closest road, Interstate 70, is a major highway that sees a high amount of traffic and is located approximately 250 feet south of the Bennett D Pad.

The Bennett D location is slated for drilling, completions, and production operations. Drilling is planned utilizing the Patterson-UTI APEX 1500 Series Drilling Rig (on grid power), and completions will be carried out with a Quiet Fleet from Liberty Oilfield Services. Planned production equipment is provided in Figure 16 of Appendix 1.

Detailed location information is presented below, and an aerial view of the proposed location is shown in Figure 1 below.

Location:	SE 1/4 SEC. 34, T3S, R64W, 6TH P.M.
Drilling Rig:	Patterson-UTI APEX 1500 Series Drilling Rig (on grid power)
Completions Equipment:	Liberty Oilfield Services Quiet Fleet
Production Equipment:	Details provided in Figure 16 of Appendix 1
Pad Location Coordinates:	39.742277°, -104.532774°
Regulation Noise Target:	Adams County Regulation Section 4-11-02-03-03-03-14

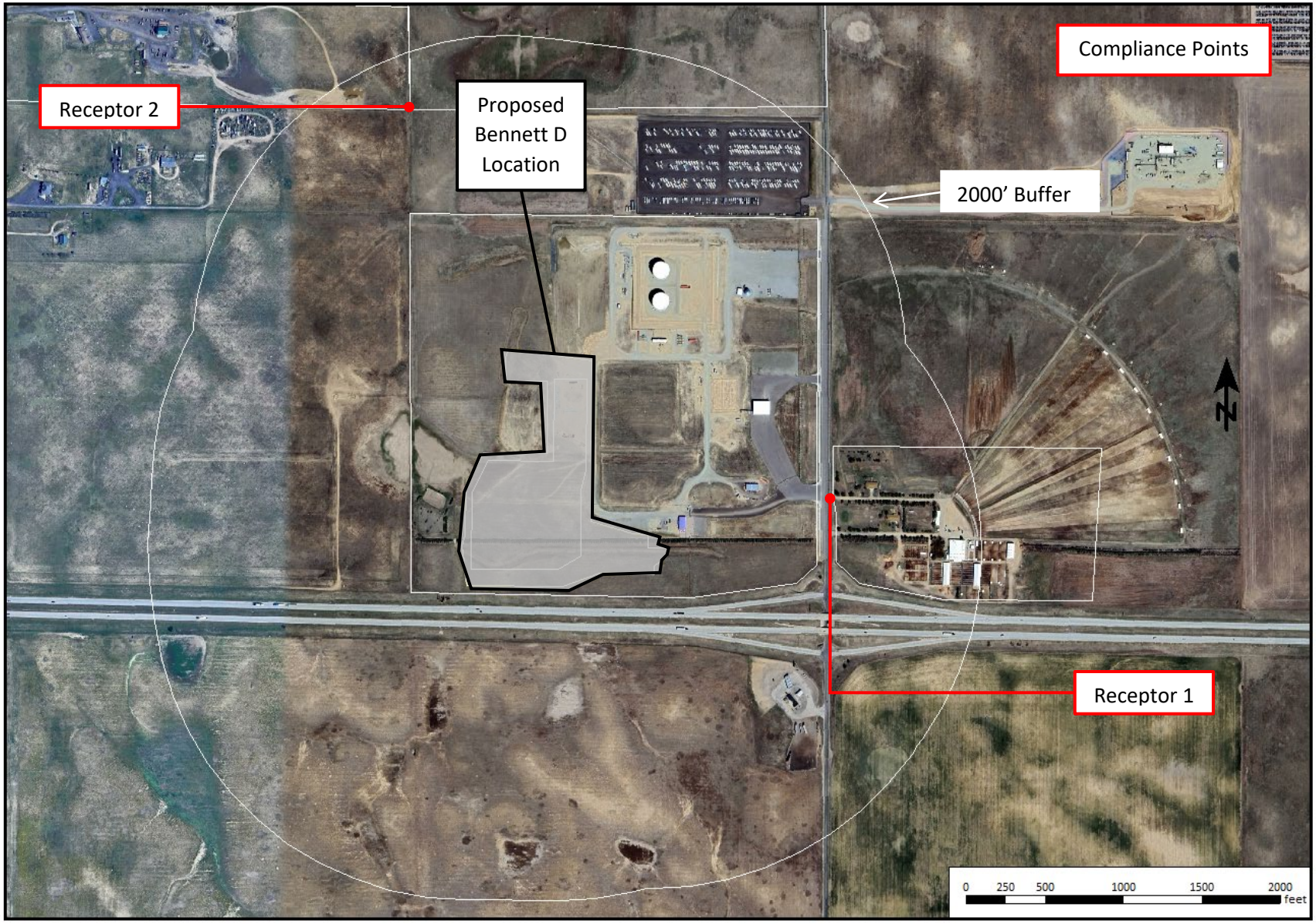
Figure 1. *Aerial View of the Proposed Bennett D Location*

5 COMPLIANCE POINTS

The MPNLs for all operations are applied at noise compliance points. These compliance points are chosen as outlined in the Adams County Regulation. The compliance points for both A- and C-weighted compliance are located at property line boundaries of existing building units located within 2,000 feet of the oil and gas location.

Figure 2 on the following page shows an aerial view of the Bennett D location as well as the noise compliance points. Two points are indicated in red for both A- and C- weighted compliance. One A- and C-weighted compliance point (Receptor 1) is located at the property line of existing building units within 2,000 feet of the proposed location. One additional receptor point (Receptor 2) is included to demonstrate noise levels at the property line of building units beyond 2,000 feet to the northwest of the proposed Bennett D location.

Figure 2. *Compliance Points*



6 ESTIMATED OPERATIONS & DURATION SCHEDULE

The following table reflects Crestone's planned construction and operations schedule for the Bennett D location at the time of this Noise Management Plan. The schedule in Table 5 below includes an estimated duration of each stage of operation, including construction, drilling, completion, flowback, and production.

The wells will flow back directly to the permanent facility instead of being directed to temporary tanks on the well pad. Therefore, there is no flowback operation dates or duration listed in Table 5.

Table 5. *Crestone's Planned Operations Schedule*

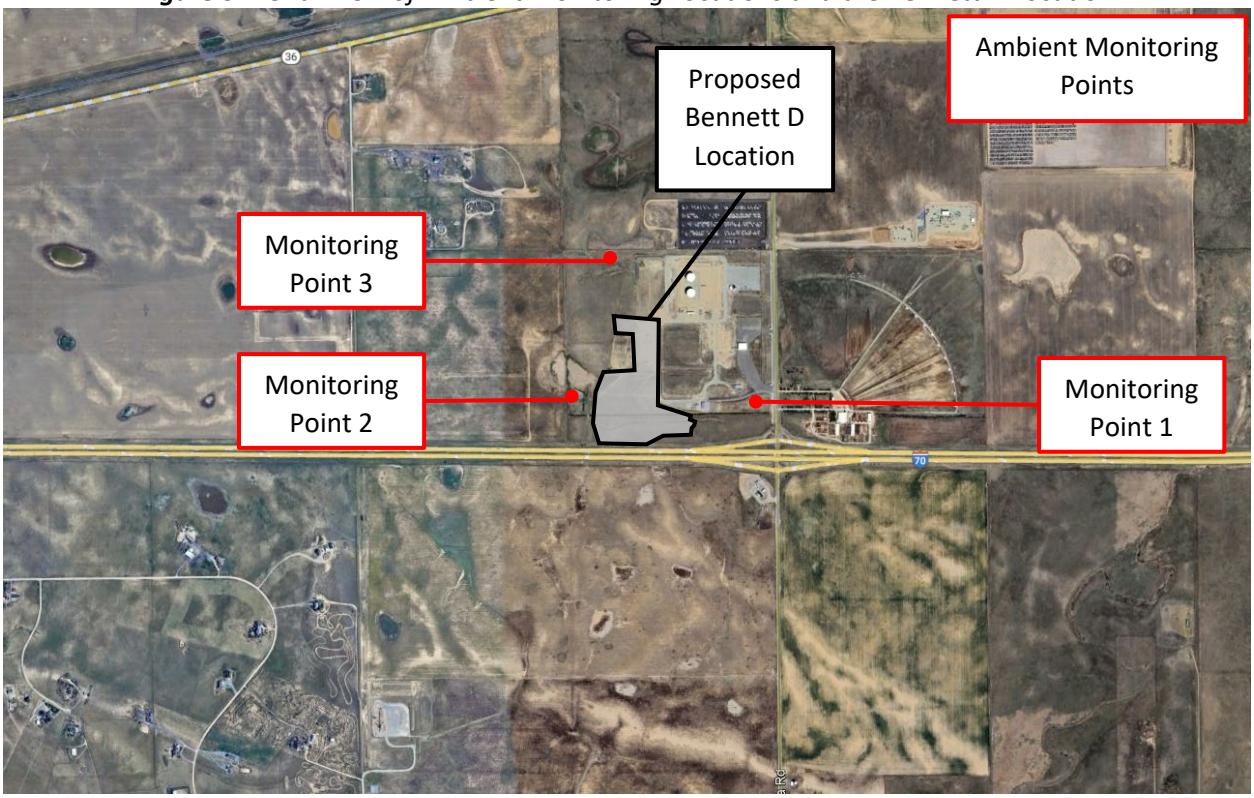
Phase	Duration (Days)	Estimated Start Date
Construction	60	Q2 2026
Drilling	150	Q3 2026
Completion	120	Q1 2027
Flowback	N/A	N/A
Production	9,125 (25 years)	Q3 2027

7 AMBIENT SOUND LEVEL SURVEY

The Adams County Regulation requires that the operator conduct a background ambient noise survey to establish baseline conditions for both A-scale and C-scale noise levels near the site. Urban conducted a 5-day (120-hour) ambient sound monitoring study to monitor and document pre-operational ambient sound levels using Type 1 noise monitoring stations. The sound level meters collect measurements of both A- and C-weighted decibel levels at each monitoring location and are calibrated before and after the measurement period. The Leq average values are calculated by averaging 1-minute Leq noise levels when the wind speed is below 5 miles per hour, per ECMC guidelines and environmental acoustical engineering best practices.

The ambient monitoring locations in relation to the Bennett D location are shown in Figure 3 below. A-weighted and C-weighted sound levels were collected at each of the three locations from Saturday, October 12, 2024, at 12:00 a.m., to Thursday, October 17, 2024, at 12:00 a.m., inclusive. Wind speed, direction, and other environmental data was recorded with a weather station attached to the sound level meter at Monitoring Point 1 situated approximately 800 feet east of the edge of the Bennett D location.

Figure 3. *Aerial View of Ambient Monitoring Locations and the Bennett D Location*



In addition to the ambient noise levels acquired, the sound level meters (SLMs) were set to record audio files when the levels exceed 55 dBA in the daytime (7:00 a.m. – 7:00 p.m.) and 50 dBA in the nighttime (7:00 p.m. – 7:00 a.m.). Based on the recordings, the most common sounds for the monitoring locations include vehicle traffic and aircraft flyovers.

Measured A- and C-weighted sound pressure level averages were not filtered for aircraft flyover events as these sounds can be considered part of the commonly occurring ambient acoustical environment. Because the Bennett D site and the ambient monitoring locations are in close proximity to four airports (Denver International Airport [DIA], Colorado Air and Space Port, Buckley Air Force Base, and Centennial Airport) and there are frequent, audible aircraft flyovers in the area (as observed in the recorded audio files), measurements taken during these flyovers were included in the ambient noise data processing.

Table 6 below presents the overall A- and C-weighted averages (Leq) for the 120-hour monitoring period for all three ambient monitoring locations. The averages shown represent the overall sound levels when the wind speed was below five (5) miles per hour. Data was filtered to remove values when wind speeds exceed five (5) miles per hour (as well as during periods of rain, thunder, etc.), per ECMC guidelines and environmental acoustical engineering best practices.

Table 6. *Overall Leq Background Ambient Noise Levels (Filtered for Wind Speed, Etc.)*

Location	Daytime Averages (L_{eq})		Nighttime Averages (L_{eq})		Overall Averages (L_{eq})	
	dBA	dBC	dBA	dBC	dBA	dBC
Monitoring Point 1	61.4	68.8	61.9	67.2	**61.7**	**67.8**
Monitoring Point 2	60.6	67.1	61.9	66.9	**61.5**	**67.0**
Monitoring Point 3	52.9	62.4	49.5	61.4	**51.1**	**61.8**

Figure 17 to Figure 19 in Appendix 2 contain charts with the unfiltered hourly averages and wind speeds for each of the monitoring points.

8 NOISE IMPACT ASSESSMENT

A Noise Impact Assessment (NIA) was conducted for the proposed Bennett D location using a three-dimensional computer noise modeling software. This is a predictive model to aid in ascertaining the environmental impact of the proposed facility during all planned operations on the surrounding environment. The results of this assessment will compare the predicted levels of the Bennett D location operations to the permissible noise level limits described in the Adams County noise regulation.

A brief explanation of the methodology is presented first, followed by noise model results for drilling, completions, and production.

Methodology

All computer models and predicted noise levels generated for the assessment are developed with the commercial noise modeling software SoundPLAN 9.0. The ISO 9613-1 and 2 international standards are utilized in this software as they are widely accepted both internationally as well as in North America. The algorithms used in the commercial software package are based on methods and theory accepted in the environmental acoustics community. Both detailed equipment technical information and location specific topography, are used to generate comprehensive noise predictions that take into account environmental conditions, buildings, ground cover and barriers (natural, topographical, and otherwise). Note that actual field measurements may differ from modeled noise levels on any given day due to ever changing environmental factors and other noise sources in the study area not explicitly in the computer model. Table 7 below lists the conditions used in the model.

Table 7. *Conditions Used in SoundPLAN 9.0 Software*

Parameter	Modeled Input and Description
Temperature	55°F – Represents typical summer nighttime temperature
Topography	Modeled as is, with proposed location modified per grading plan
Wind Velocity	2.2 - 11.2 mph – ISO 9613 uses a slight downwind condition from each noise source to each receiver
Wind Direction	From the noise source to the receptor points
Relative Humidity	40% - Typical summer nighttime relative humidity
Ground Absorption	Ranges from 0.0 for water bodies & major roadways up to 1.0 for thick grasslands

It is assumed that facility operating conditions do not change significantly between the daytime and nighttime periods. The resulting predicted noise levels are compared to the MPNLs outlined in the regulation to determine if the subject facility is compliant.

The noise levels generated in this predictive model are strictly from oil and gas operations at the proposed facility. Pre-existing sound sources such as those from animals, weather, road traffic, and all other ambient sounds are not included in the noise models.

Receptor points in this assessment are shown in Figure 2 of Section 5. The receptors are located at property line boundaries within 2,000 feet of the Bennett D location where there exists an occupied building unit on the parcel. The closest building unit is the occupied residence on the property near Receptor 1 and is located approximately 1,330 feet east of the edge of the Bennett D location.

Equipment Information and Site Layouts

Drilling operations at the Bennett D Pad are carried out using the Patterson-UTI APEX 1500 Series Drilling Rig (on grid power). The sound power levels used in this NIA are taken from a sound signature report prepared by Urban. The drilling equipment layout for the Bennett D Pad is shown in Figure 14 of Appendix 1.

Completions operations at the Bennett D Pad are carried out using the Liberty Oilfield Services (LOS) Quiet Fleet. The sound power levels used for the LOS Quiet Fleet in this NIA are taken from a sound signature report prepared by Urban. The completions equipment layout for the Bennett D Pad is shown in Figure 15 of Appendix 1.

Production operations at the Bennett D Pad are implemented per the equipment layout supplied by Crestone. The sound power levels used for the production equipment in this NIA are taken from the Urban Solution Group internal database. The production equipment layout for the Bennett D Pad is shown in Figure 16 of Appendix 1.

Sound power levels used in each of the noise models were derived from sound pressure level measurements made for each noise source in the field. For each source, sound pressure levels were measured at specific locations on predefined measurement surfaces surrounding each noise source in accordance with ISO 3744 and ISO 3746. After raw data from the field was collected, it was uploaded to a computer for further analysis and post processing. Calculated sound power levels were entered into SoundPLAN 9.0 where they are adjusted slightly to align theoretical sound pressure levels produced by the model with the actual sound pressure levels collected on site. This additional calibration step was done to ensure potential noise contamination from neighboring equipment during data collection was removed from reported sound power levels for each piece of equipment.

Drilling Noise Model Results

Results for both unmitigated and mitigated drilling operations are presented in Table 8 below. The receptor locations in the table correspond to the locations identified in Figure 2 of Section 5.

The results demonstrate that unmitigated drilling operational noise levels are below both the A- and C- weighted MPNLs (and therefore compliant without mitigation). However, Crestone plans to install noise mitigation consisting of a partial-perimeter, engineered sound wall to reduce the environmental noise impact on the area.

The sound wall layout is shown in Figure 14 of Appendix 1 and consists of approximately 2,260 linear feet of 32-foot-tall, engineered sound wall rated at STC32.

Table 8. *Drilling Operations Noise Model Results*

Receptor	Distance & Direction from the Edge of Location (feet)	Max Permissible Noise Level		Drilling Unmitigated		Drilling Mitigated	
		dBA	dBC	dBA	dBC	dBA	dBC
Receptor 1	1,100 E	65.0	**72.2**	44.9	69.4	43.5	66.1
Receptor 2	1,650 NW	60.0	65.0	41.6	62.1	40.5	62.0

The predicted levels only include sound levels from drilling operations and do not include ambient noise or noise contributions from other sources outside of the planned operations.

Noise contour maps are provided for the area surrounding the Bennett D location. The contours are provided in 5 dB increments with the color scale indicating the sound level of each contour. Unmitigated drilling operations noise contour maps are presented in Figure 4 and Figure 5, whereas mitigated contours are shown in Figure 6 and Figure 7.

Figure 4. *Unmitigated Drilling Noise Contour Map (dBA)*

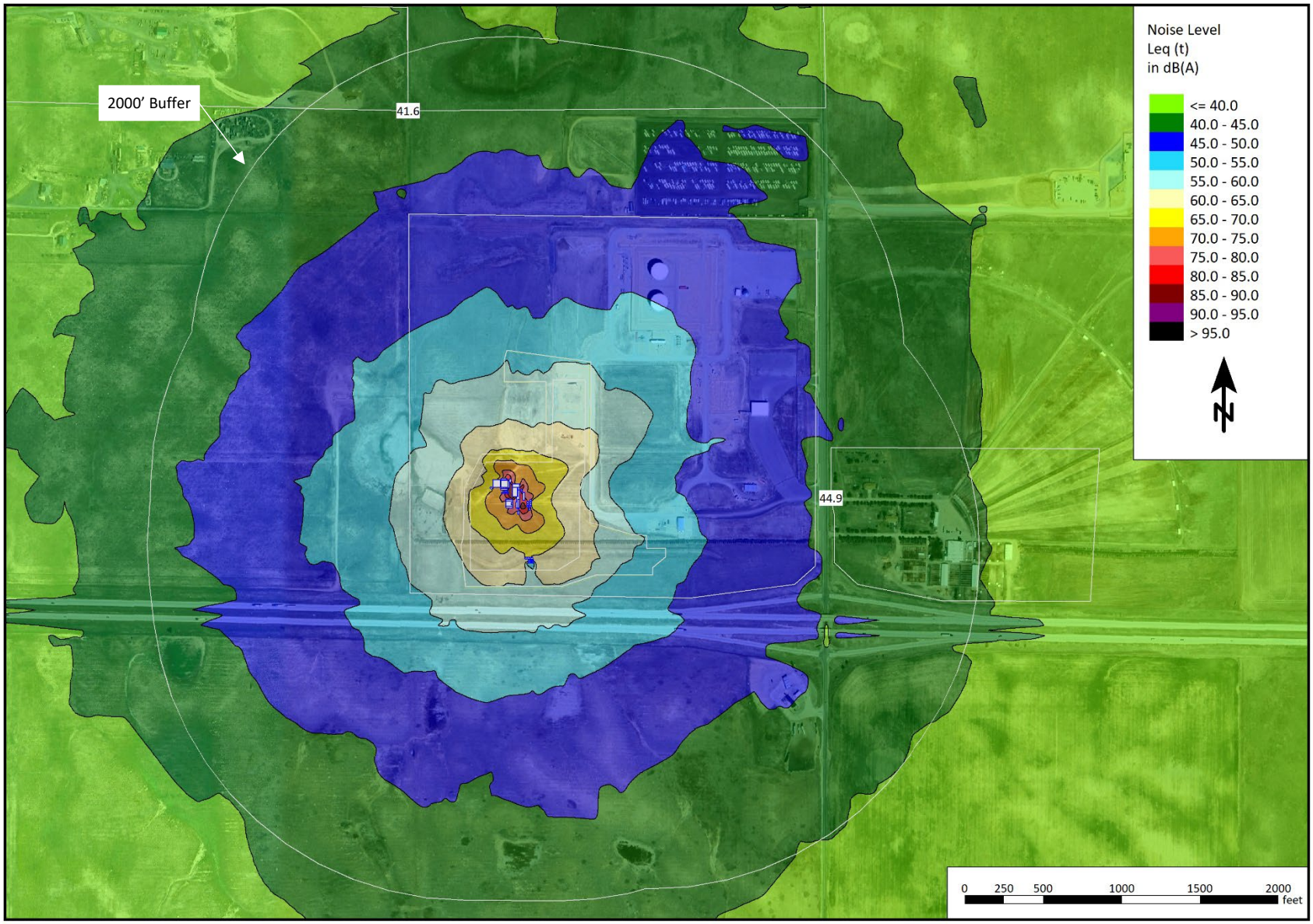


Figure 5. *Unmitigated Drilling Noise Contour Map (dBC)*

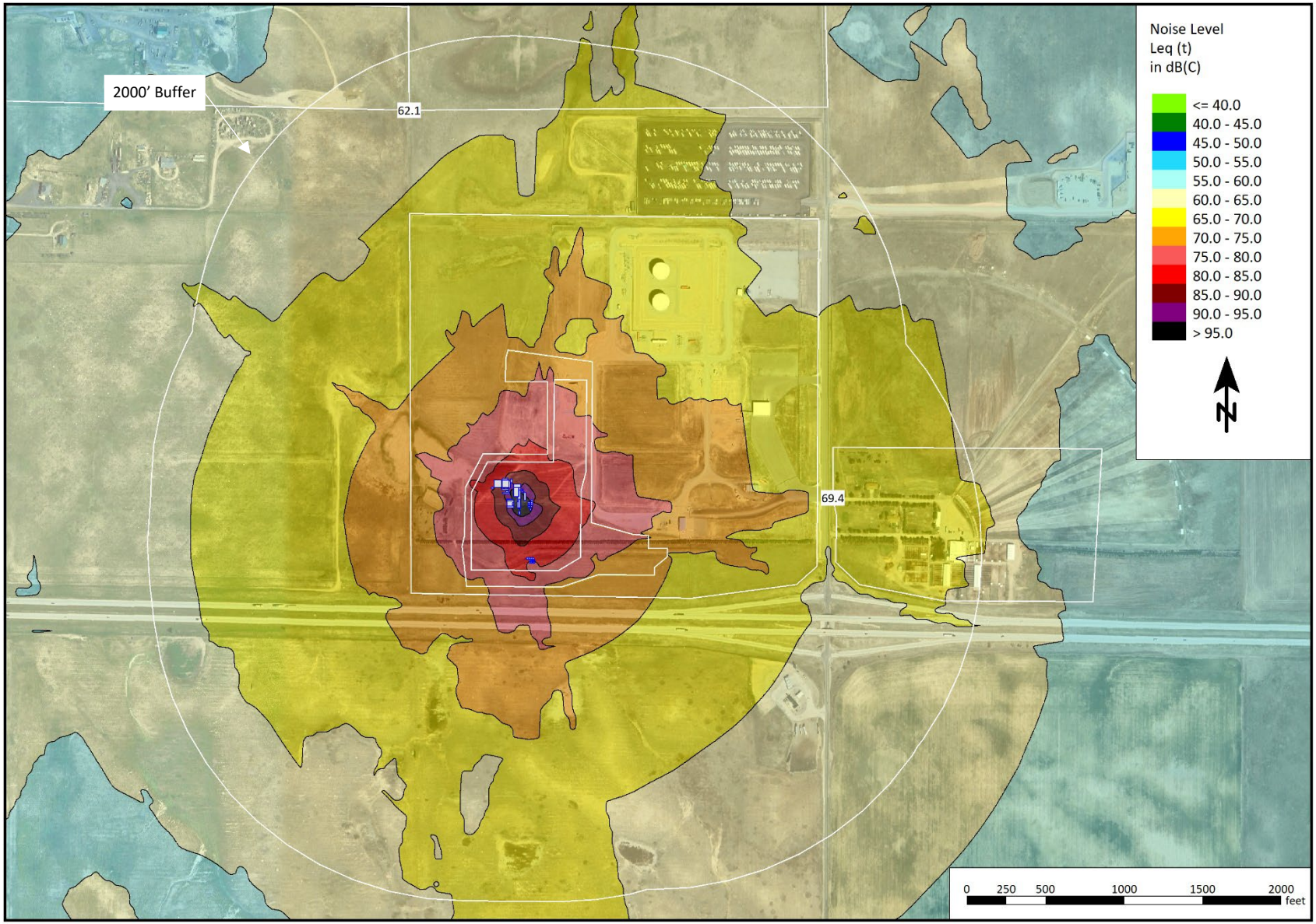


Figure 6. *Mitigated Drilling Noise Contour Map (dBA)*

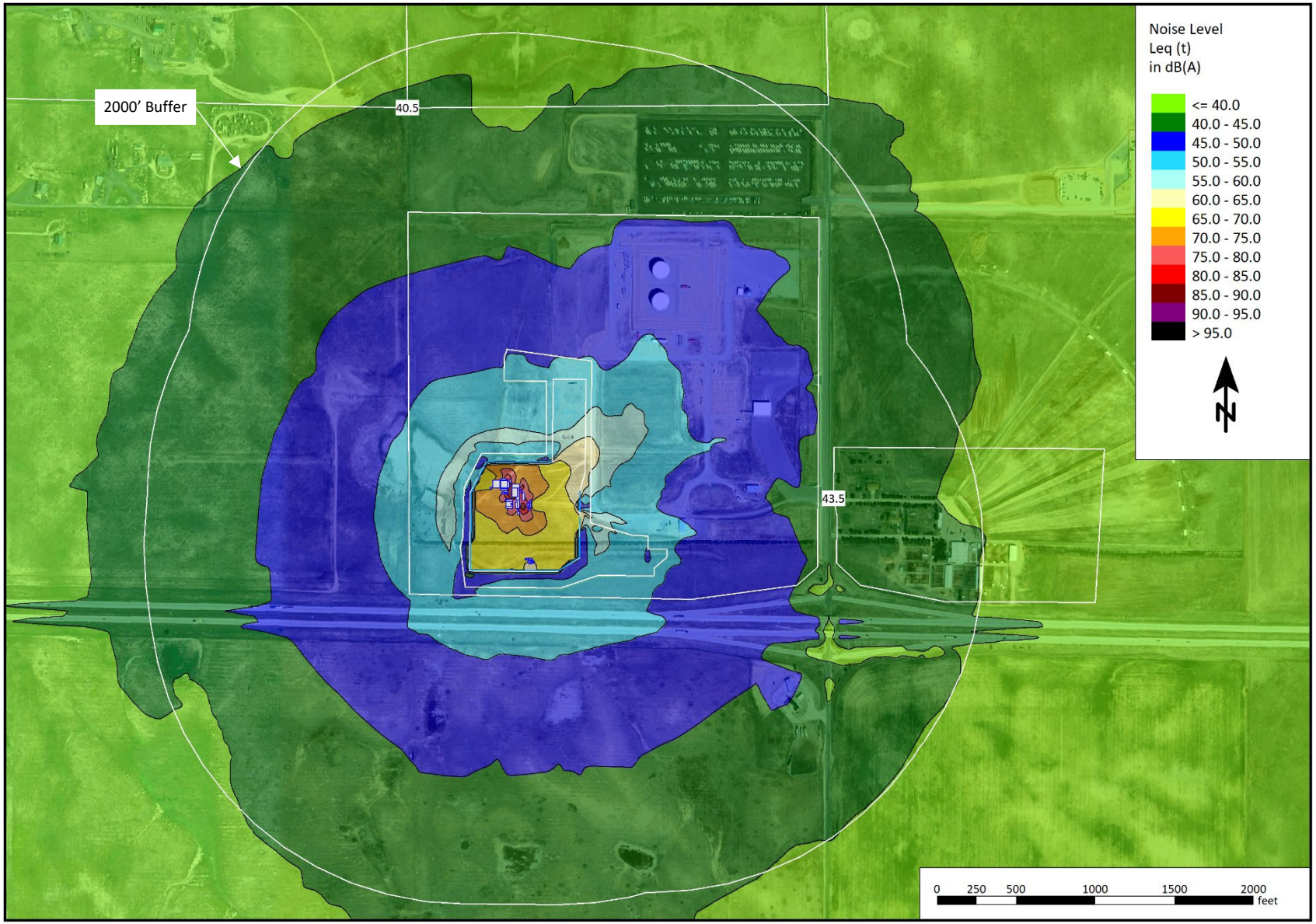
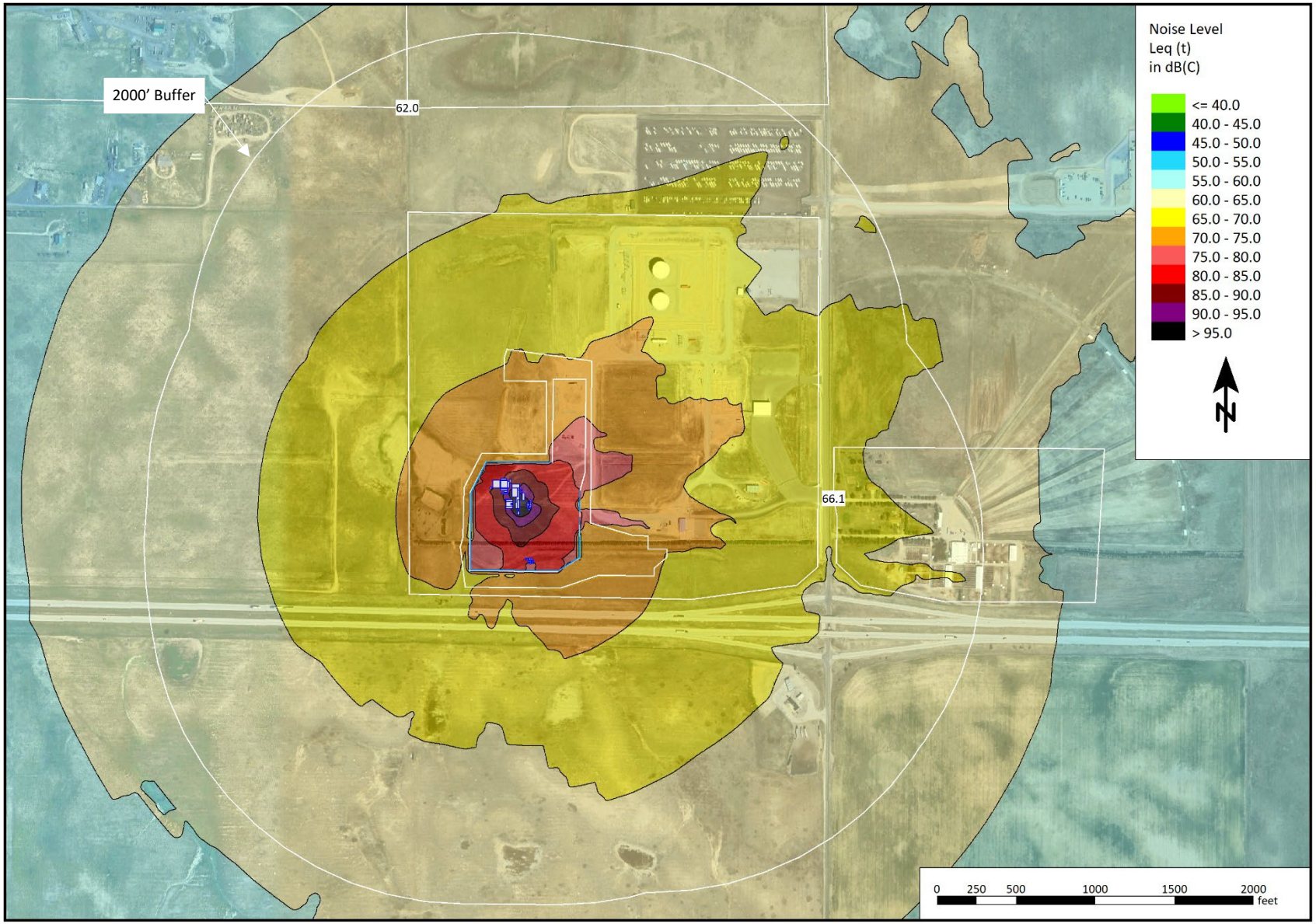


Figure 7. *Mitigated Drilling Noise Contour Map (dBC)*



Completions Noise Model Results

Results for both unmitigated and mitigated completions operations are presented in Table 9 below. The receptor locations in the table correspond to the locations identified in Figure 2 of Section 5.

The results demonstrate that unmitigated completions operational noise levels are below both the A- and C-weighted MPNLs (and therefore compliant without mitigation). However, Crestone plans to install noise mitigation consisting of a partial-perimeter, engineered sound wall to reduce the environmental noise impact on the area.

The sound wall layout is shown in Figure 15 of Appendix 1 and consists of approximately 2,260 linear feet of 32-foot-tall, engineered sound wall rated at STC32.

Table 9. *Completions Operations Noise Model Results*

Receptor	Distance & Direction from the Edge of Location (feet)	Max Permissible Noise Level		Completions Unmitigated		Completions Mitigated	
		dBA	dBC	dBA	dBC	dBA	dBC
Receptor 1	1,100 E	65.0	**72.2**	51.6	64.1	51.6	64.7
Receptor 2	1,650 NW	60.0	65.0	46.3	61.0	45.7	60.8

The predicted levels only include sound levels from completions operations and do not include ambient noise or noise contribution from other sources outside of the planned operations.

Noise contour maps are provided for the area surrounding the Bennett D location. The contours are provided in 5 dB increments with the color scale indicating the sound level of each contour. Unmitigated completions operations noise contour maps are presented in Figure 8 and Figure 9, whereas mitigated contours are shown in Figure 10 and Figure 11.

Figure 8. *Unmitigated Completions Noise Contour Map (dBA)*

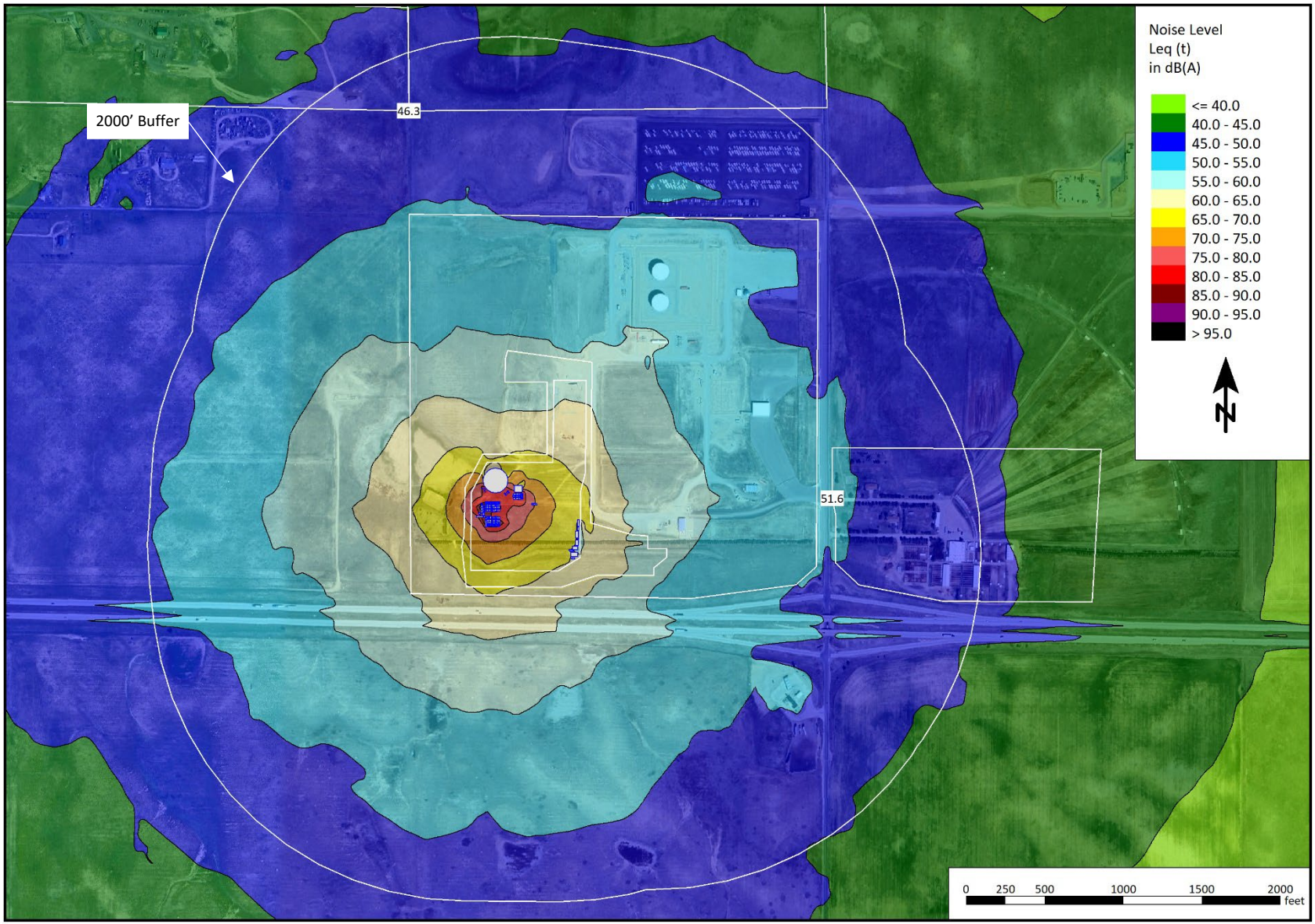


Figure 9. *Unmitigated Completions Noise Contour Map (dBC)*

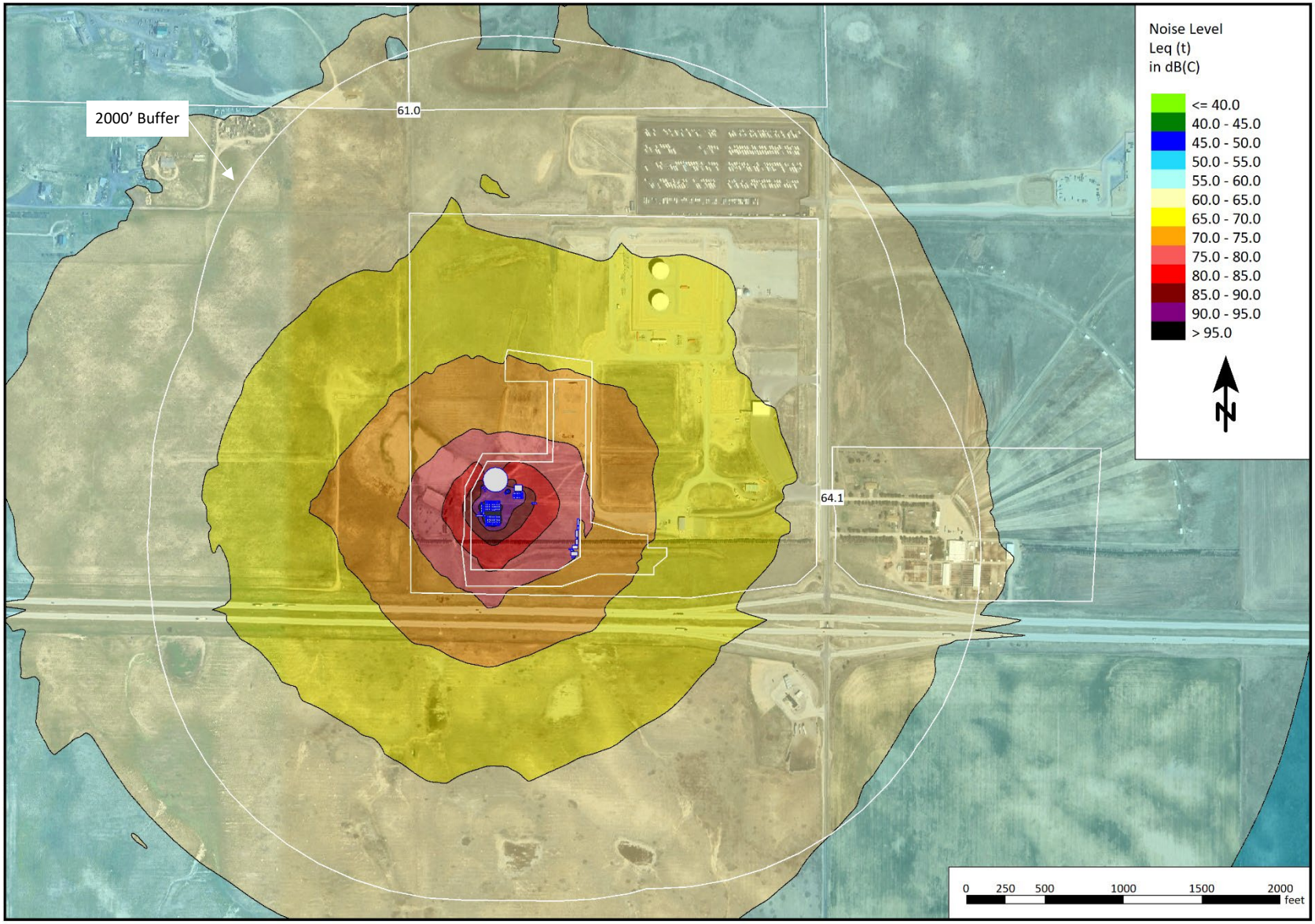


Figure 10. *Mitigated Completions Noise Contour Map (dBA)*

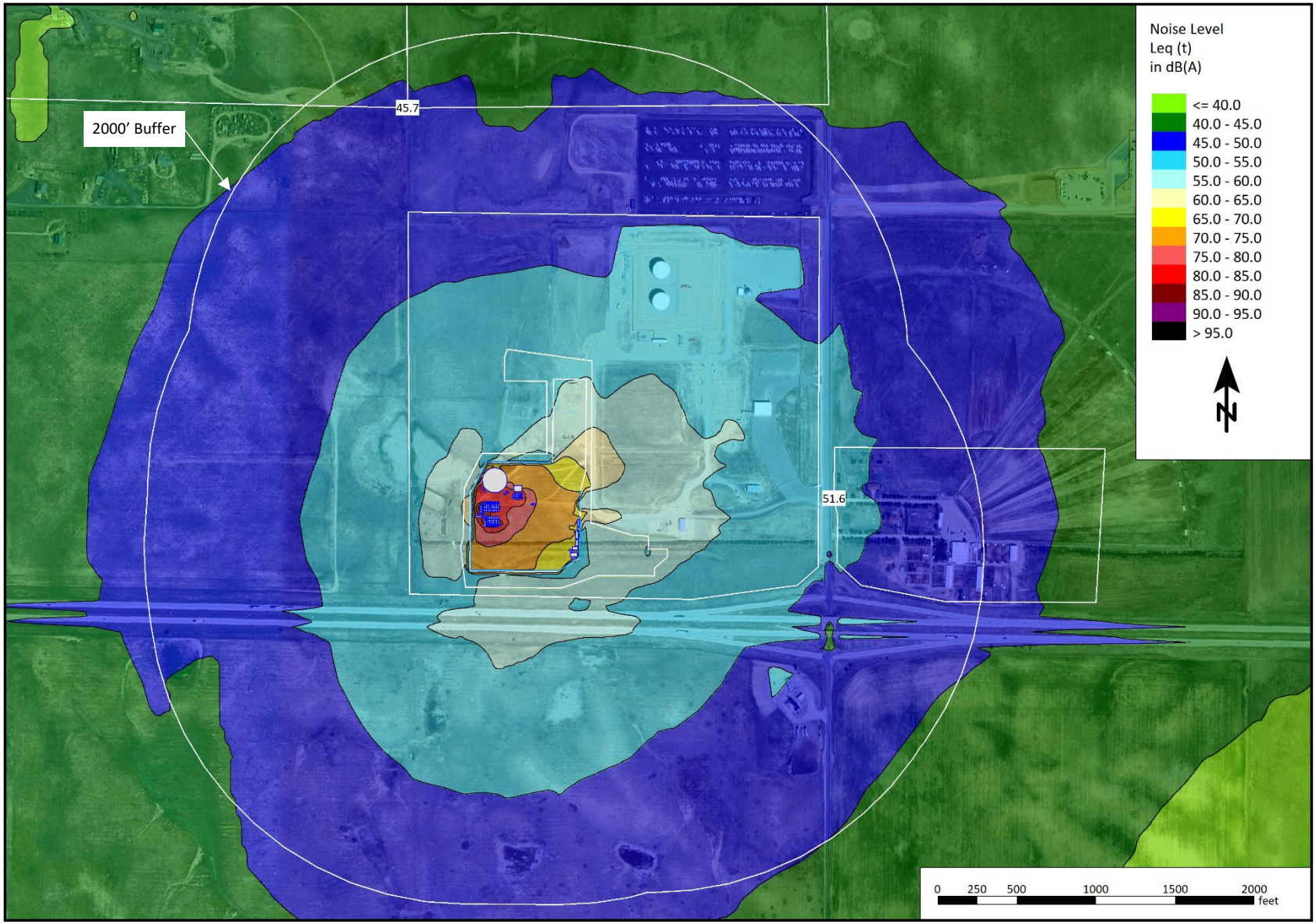
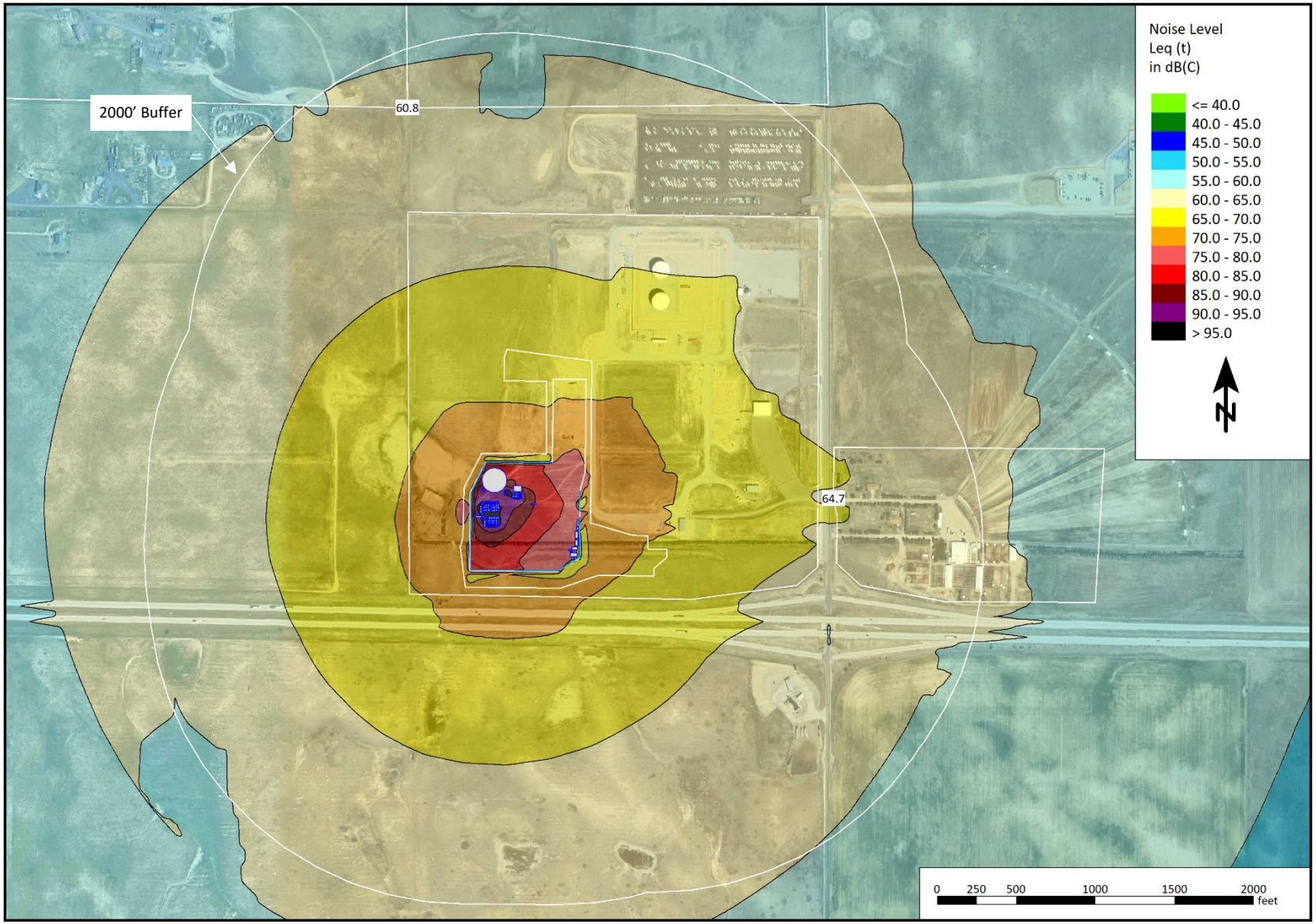


Figure 11. *Mitigated Completions Noise Contour Map (dBC)*



Production Noise Model Results

Results for unmitigated production operations are presented in Table 10 below. The receptor locations in the table correspond to the locations identified in Figure 2 of Section 5.

The results demonstrate that unmitigated production operational noise levels are below the MPNLs and thus do not require mitigation.

Table 10. *Production Operations Noise Model Results*

Receptor	Distance & Direction from the Edge of Location (feet)	Max Permissible Noise Level		Production Unmitigated	
		dBA	dBC	dBA	dBC
Receptor 1	1,100 E	**65.0**	**70.0**	45.1	57.6
Receptor 2	1,650 NW	55.0	**66.4**	42.2	52.9

The predicted levels only include sound levels from production operations and do not include ambient noise or noise contribution from other sources outside of the planned operations.

Noise contour maps are provided for the area surrounding the Bennett D location. The contours are provided in 5 dB increments with the color scale indicating the sound level of each contour. Unmitigated production operations noise contour maps are presented in Figure 12 and Figure 13.

Figure 12. *Unmitigated Production Noise Contour Map (dBA)*

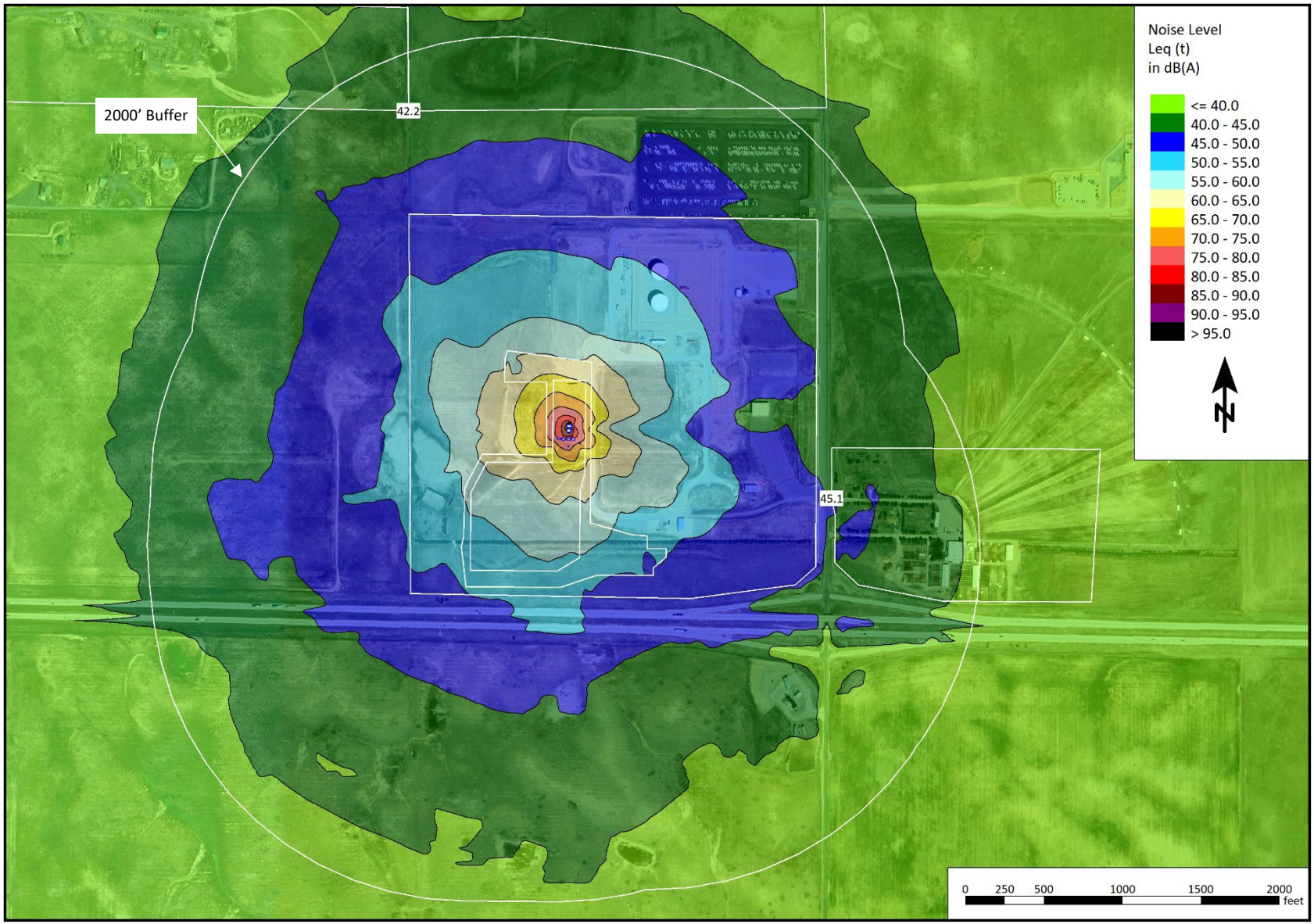
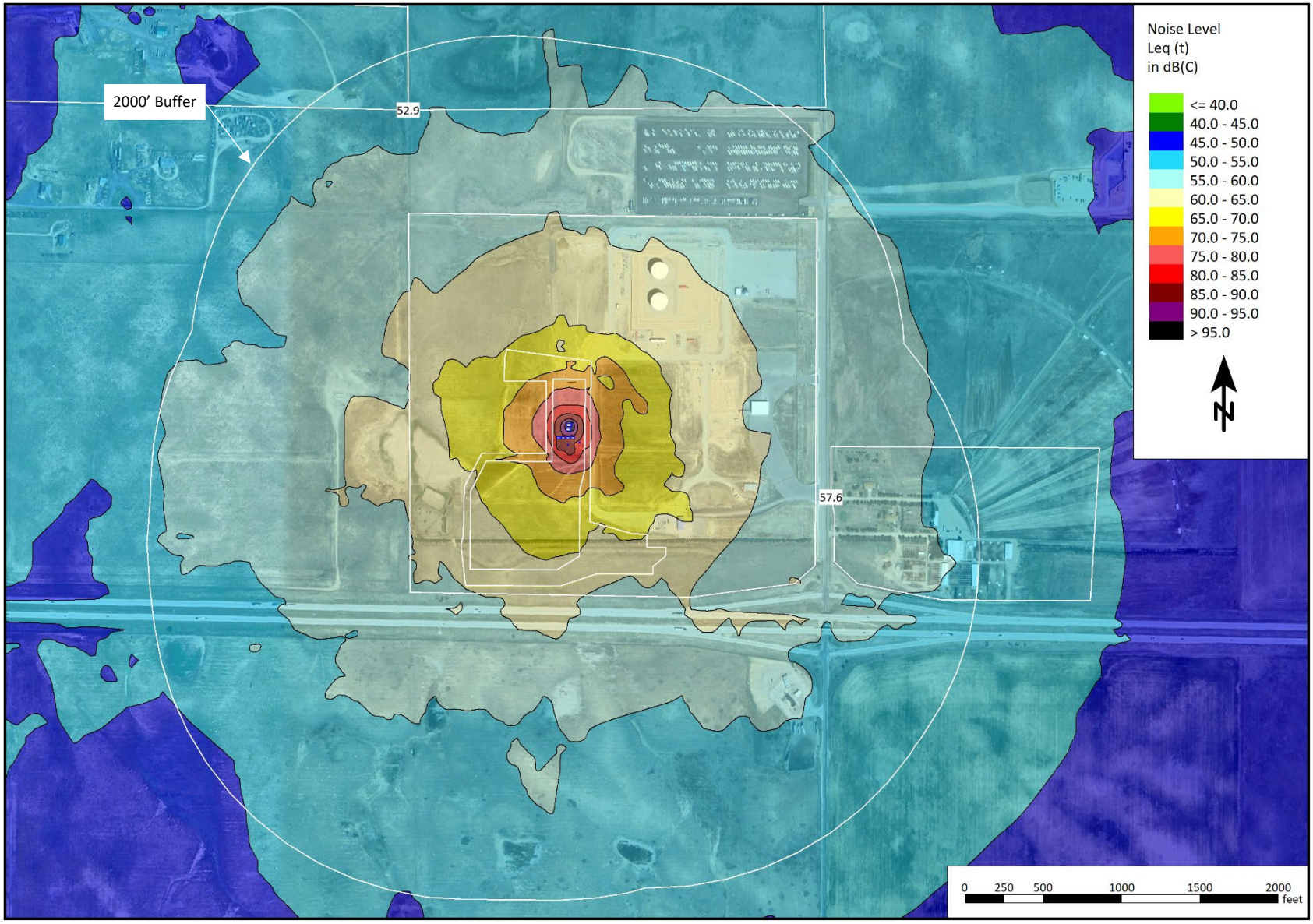


Figure 13. *Unmitigated Production Noise Contour Map (dBC)*



Flowback Operations Review

A review of flowback operations was carried out by Urban based on information supplied by Crestone. It was determined that flowback can be reduced to two simple, successive, operations from a noise perspective; these are “drill out” and “surface flow”. Both flowback operational components were assessed, and it was found that neither warrant noise modeling. The surface flow portion of the flowback operation will not be directed to temporary tanks as is usually done, but instead will flow directly to the newly constructed production facility.

9 CONTINUOUS MONITORING / COMPLAINT RESOLUTION

Beginning with construction up to production, Crestone will conduct Continuous Noise Monitoring at Monitoring Point 1 shown in Figure 3 of Section 7.

Continuous monitoring services are deployed to provide continuous noise level and compliance verification throughout preproduction operations. If a noise complaint is made to either Crestone directly (or to Adams County), and the Operator is notified of the complaint, Crestone is able to reference continuous monitoring data and identify the source of any sound level 'spike(s)' throughout the monitoring period.

The sound level meters collect measurements of A- and C-weighted decibel (dB) levels by continuously sampling sound levels, logging the specified data every minute. The meters are calibrated before and after the measurement period to ensure accuracy. They also have an internal system check function that runs daily and will issue an alert if necessary, so that any issues detected can be attended to promptly. The hourly Leq values shown in Continuous Noise Monitoring reporting are calculated by averaging 1-minute Leq noise levels when the wind is below 5 miles per hour, per ECMC guidelines and best practices.

Crestone will post contact information to receive and address noise complaints arising from preproduction operations around the clock, 24 hours, 7 days per week. Upon receipt of a complaint, either directly to Crestone or from Adams County, Crestone will contact the associated stakeholder within 48 hours of receipt.

10 CONCLUSION

The results of the proactive planning, noise modeling, and implementation of Best Management Practices as discussed in this NMP indicate that noise levels generated by Crestone's proposed oil and gas operations at the Bennett D location are expected to comply with permissible noise levels required by the Adams County noise regulation for all operations proposed (drilling, completions, flowback, and production).

11 NOTATIONS

The services provided for this project were performed in accordance with generally accepted professional consulting services. No warranty, expressed or implied, is made or intended by rendition of these consulting services or by furnishing oral or written reports of the findings made. Urban Solution Group generated this report for the exclusive use of Crestone Peak Resources Operating, LLC.

Appendix 1 – Equipment Layouts

Figure 14. *Drilling Equipment and Soundwall Layout for the Patterson Automated Walking Rig System*

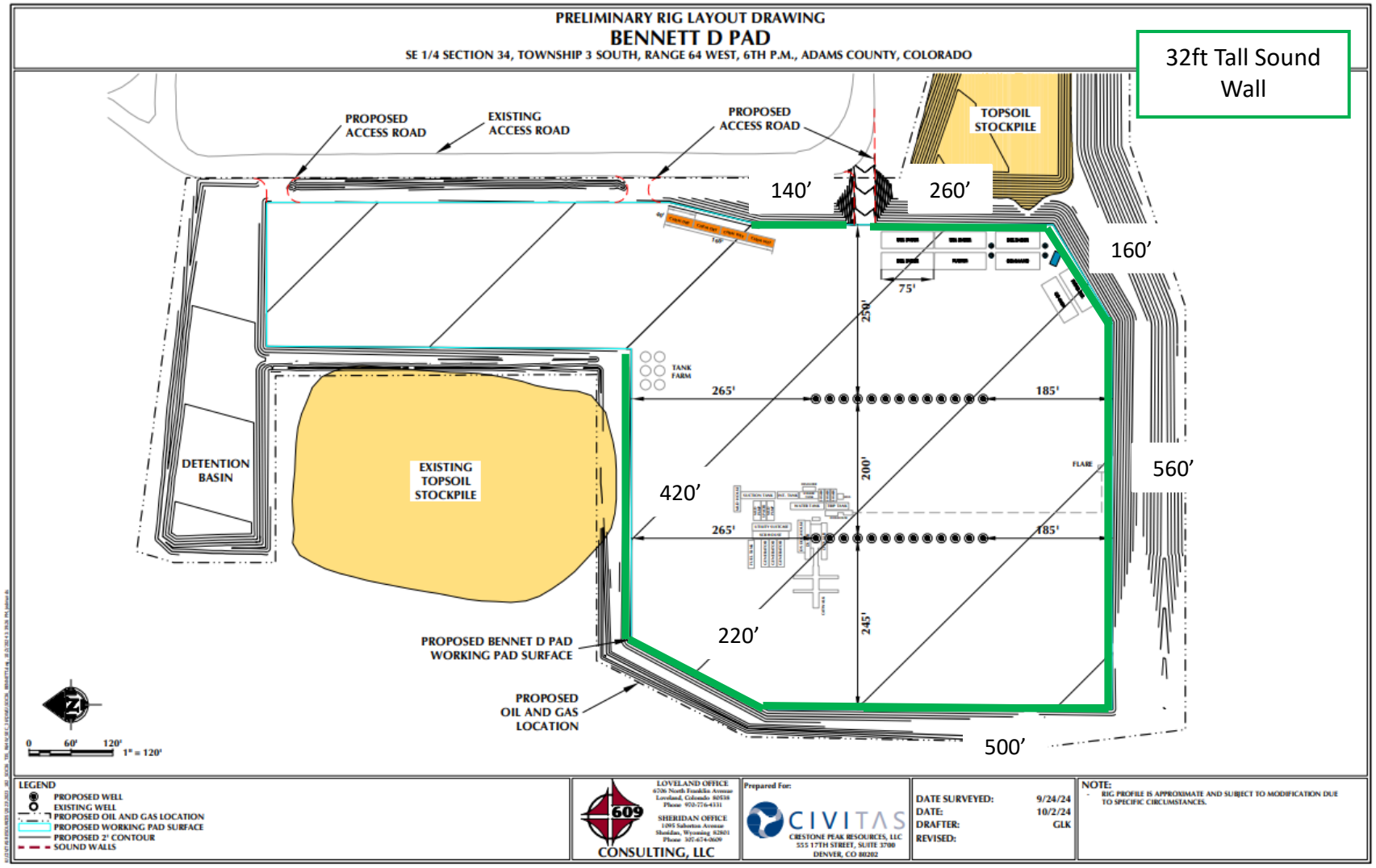


Figure 15. *Completions Equipment and Soundwall Layout for the Liberty Quiet Fleet*

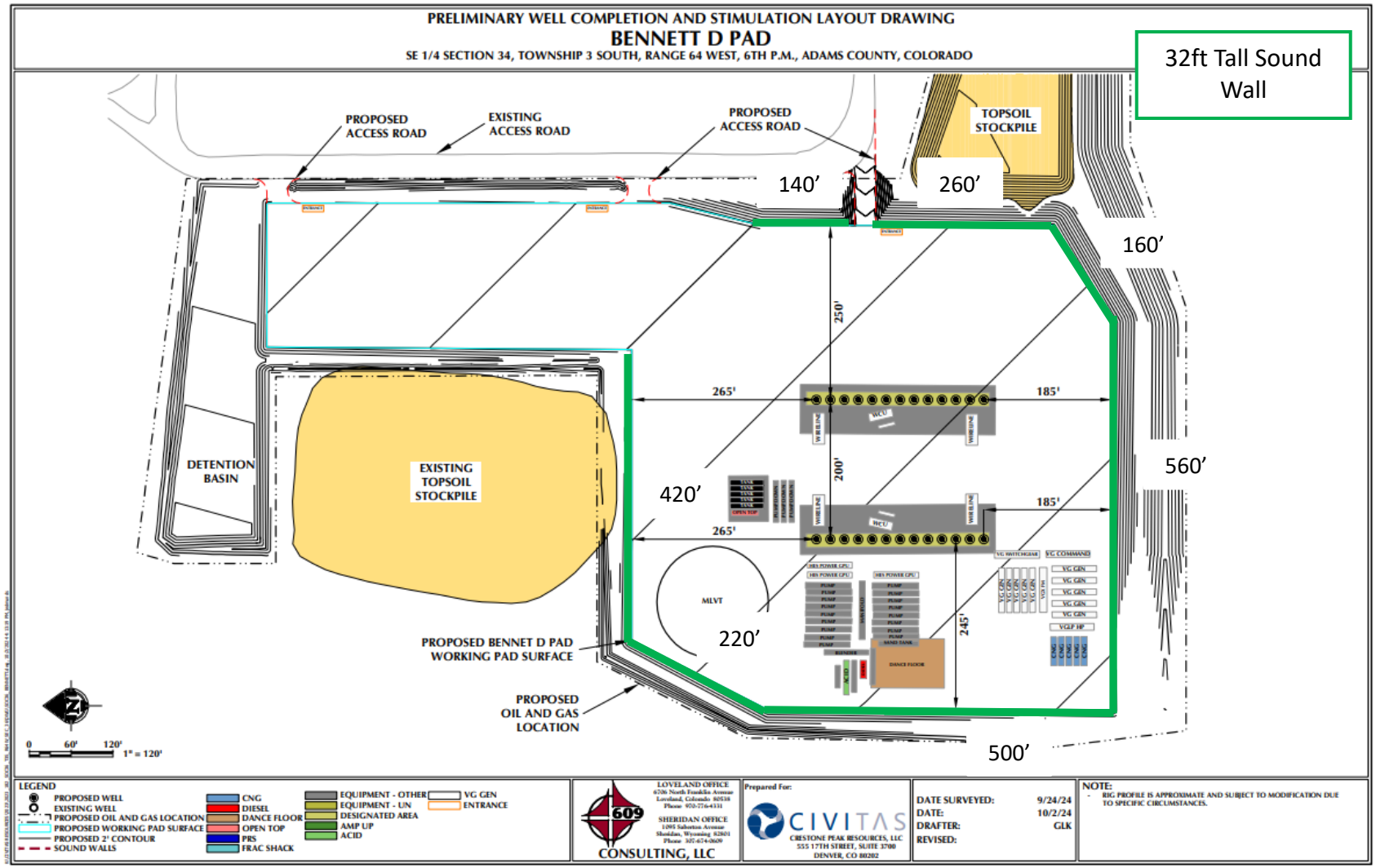
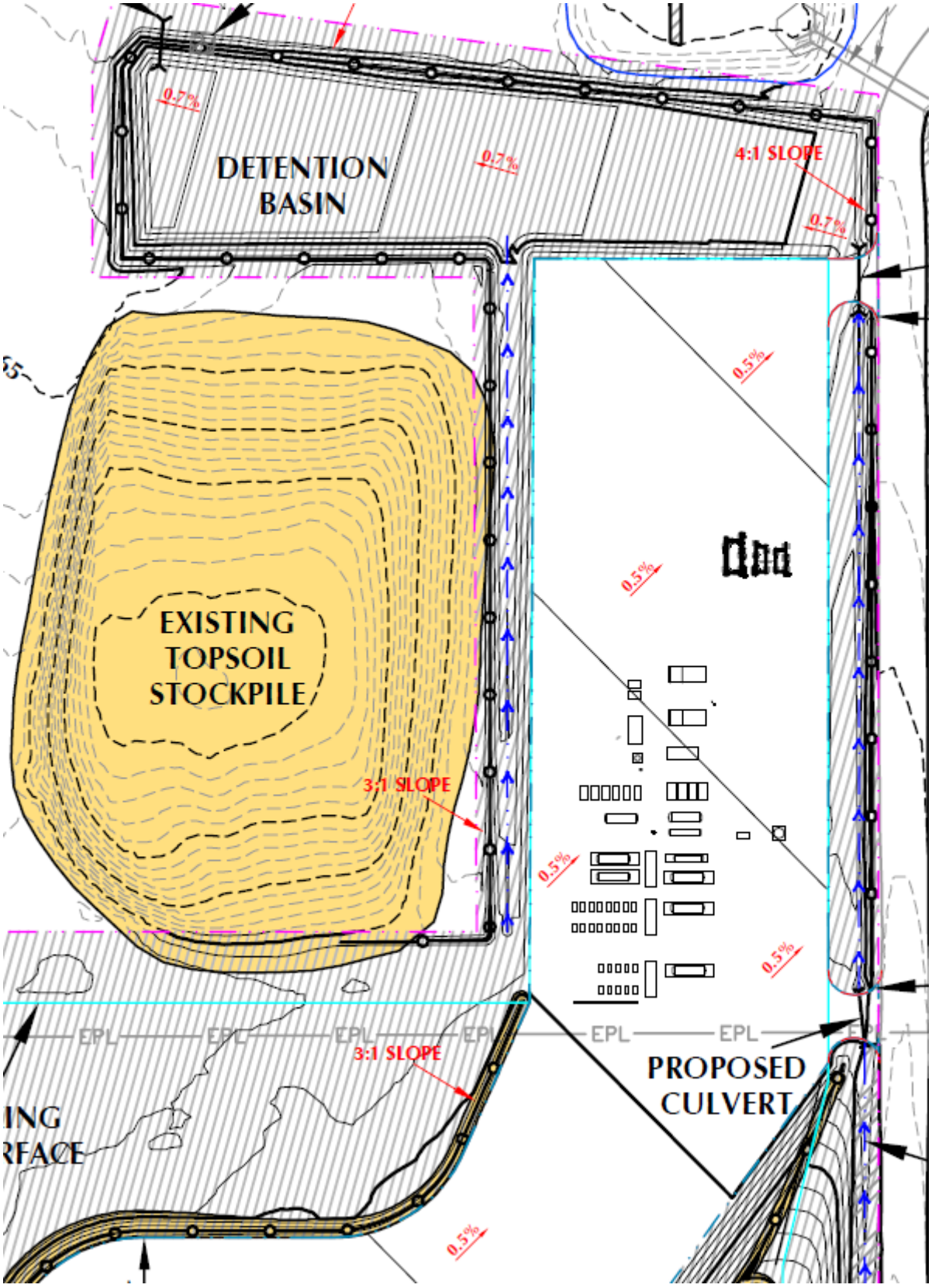


Figure 16. *Production Equipment Layout*



Appendix 2 – Ambient Data and Charts

Figure 17. *Chart of Unfiltered Hourly Averages for Monitoring Point 1*

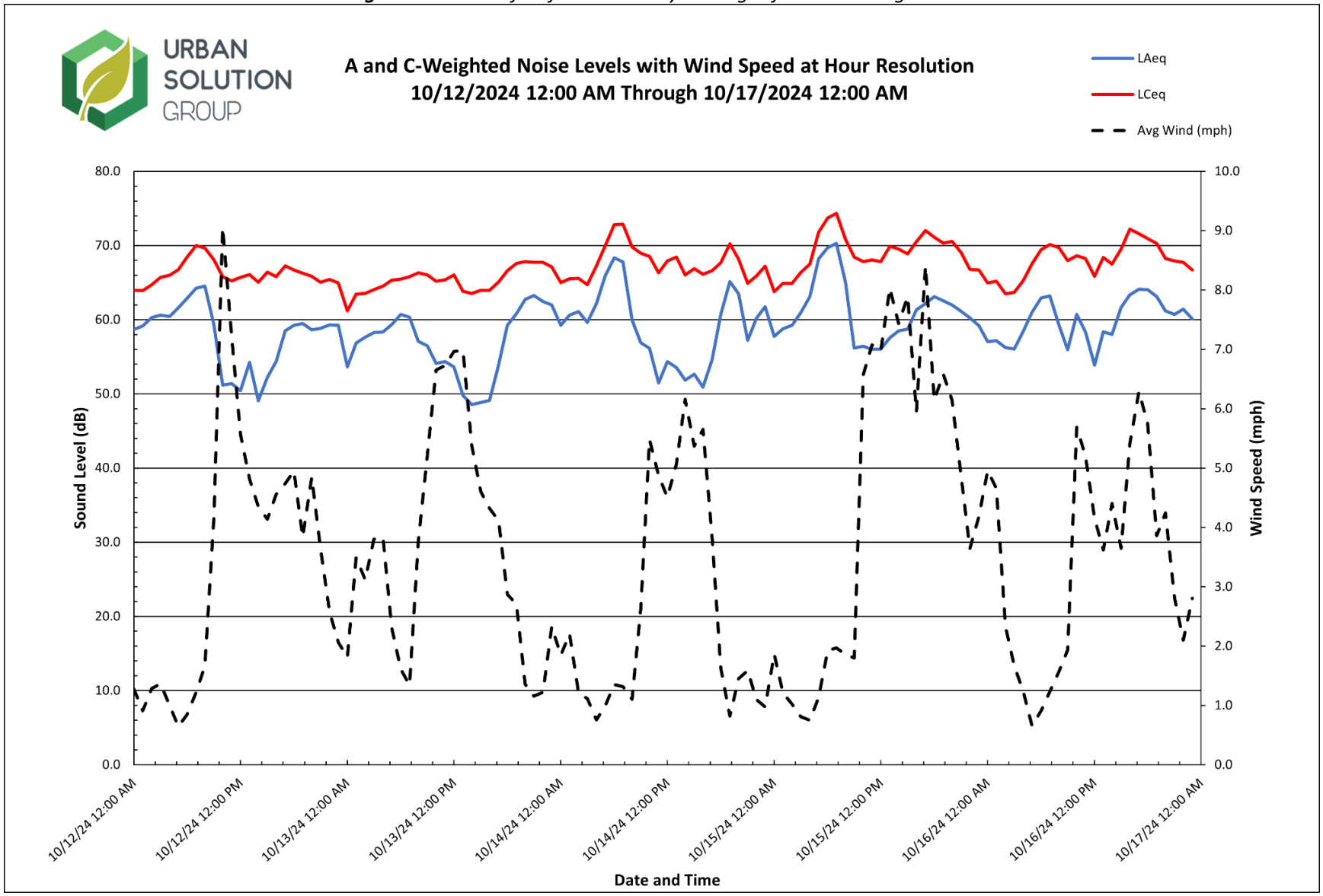


Figure 18. *Chart of Unfiltered Hourly Averages for Monitoring Point 2*

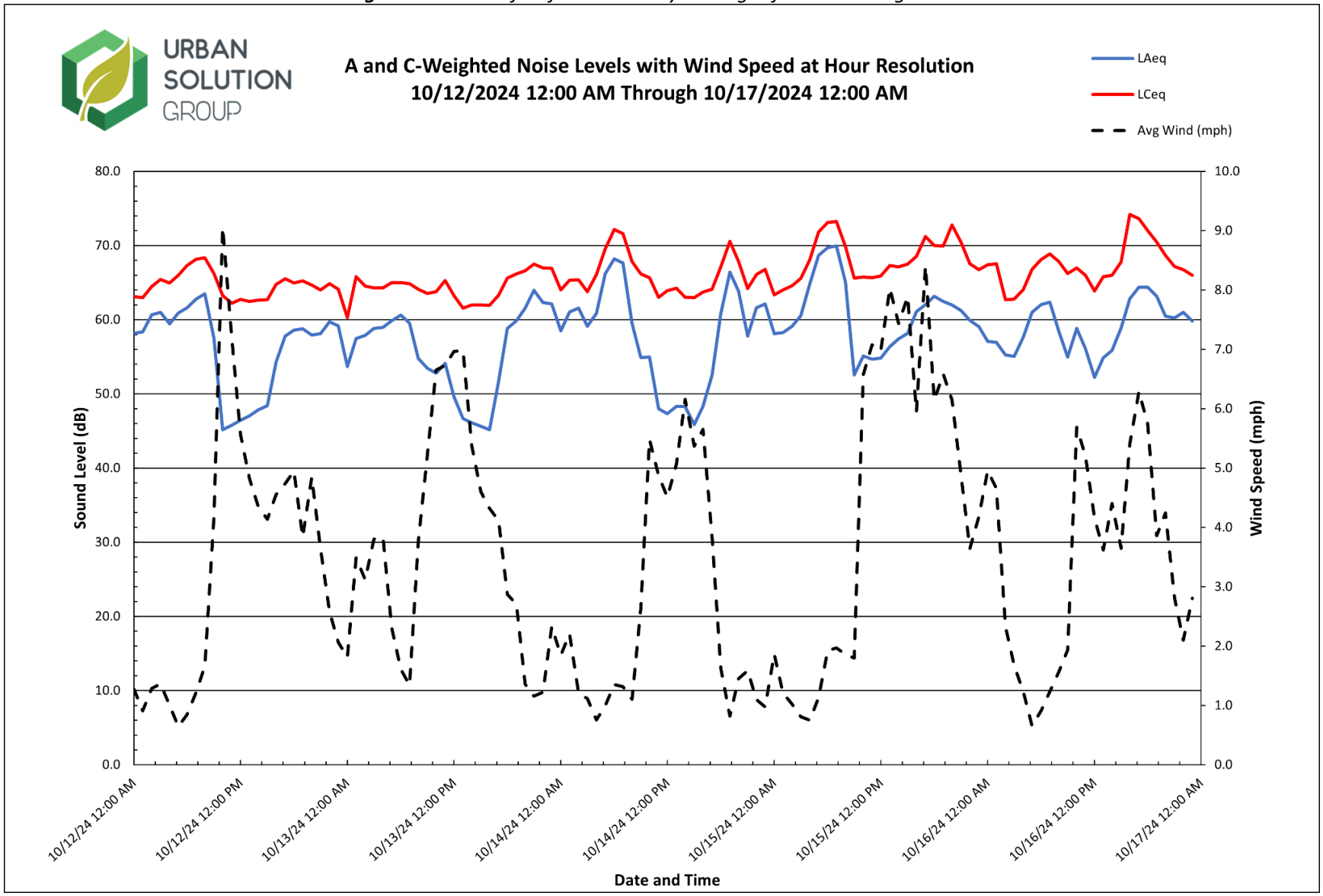
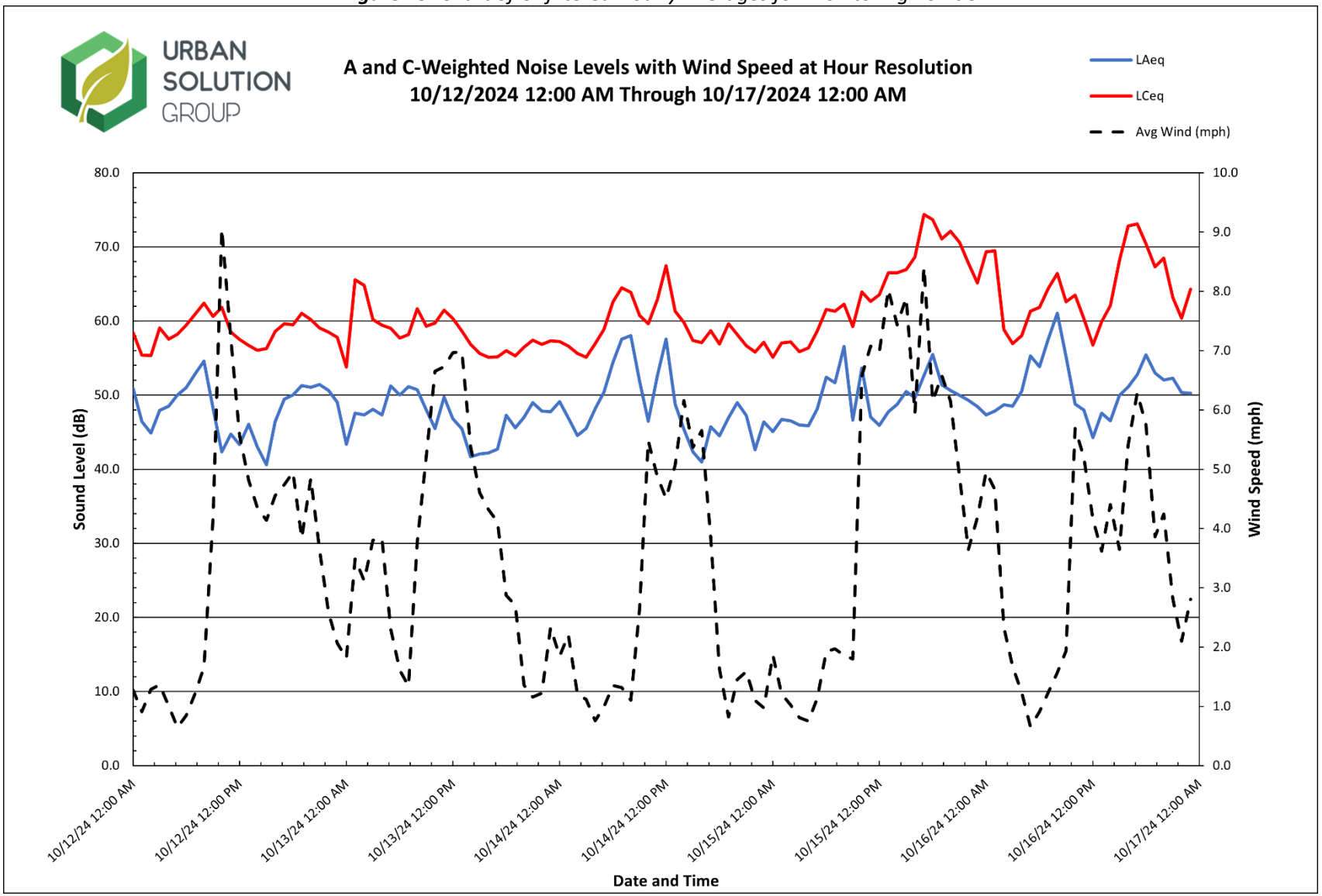


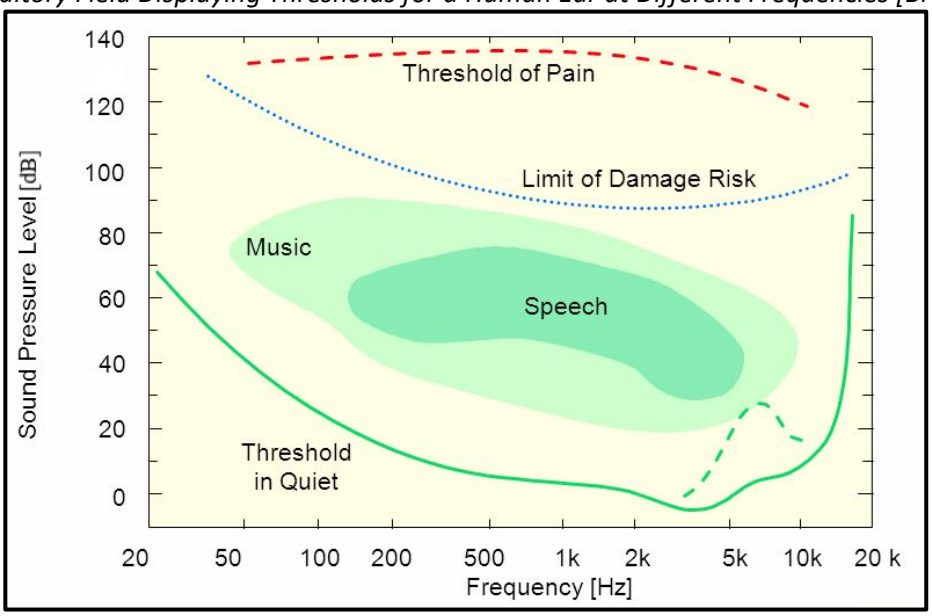
Figure 19. *Chart of Unfiltered Hourly Averages for Monitoring Point 3*



Appendix 3 – Sound Fundamentals

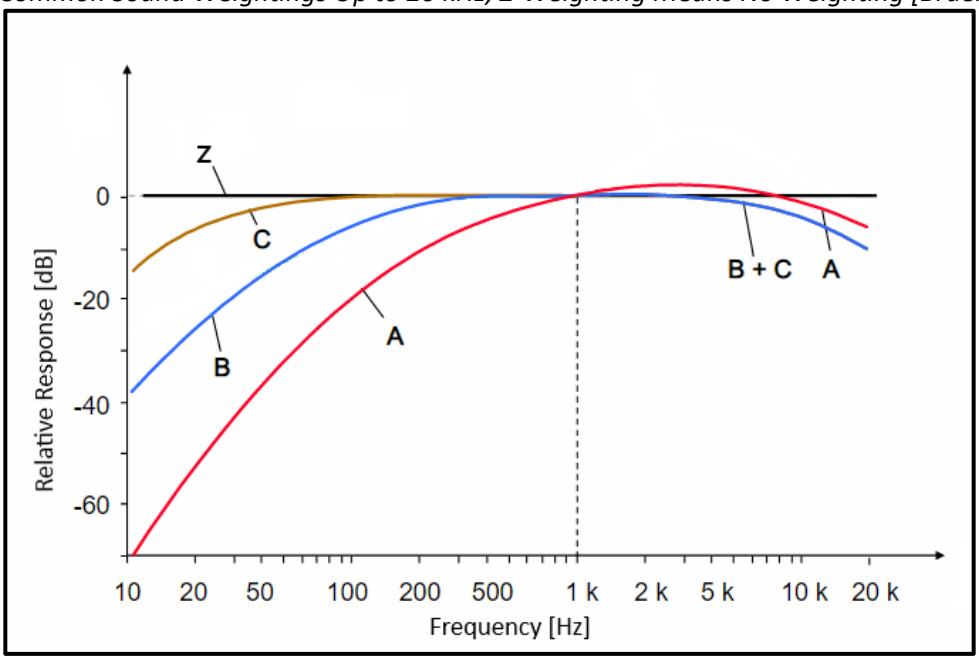
Sound is a series of vibrations transmitted through the air, or other medium, and can be heard when they are processed by the human ear. There are two important properties that describe sound; frequency and amplitude. Frequency is determined by the rate of movement and is measured in cycles per second, which is known as Hertz (Hz). A healthy human ear can hear 20 Hz – 20,000 Hz (Figure A). The sensation associated with frequency is commonly referred to as the pitch of a sound. High frequencies produce a higher pitch and vice versa. The amplitude of a sound is determined by the maximum displacement of air molecules produced by the vibrations. These displacements lead to pressure fluctuations in air, which are expressed in decibels (dB). Decibels are a logarithmic ratio of sound pressure over the standard threshold of hearing. The more energy a sound has, the larger the pressure fluctuations, resulting in a louder sound.

Figure A: *Auditory Field Displaying Thresholds for a Human Ear at Different Frequencies [Bruel and Kjaer]*



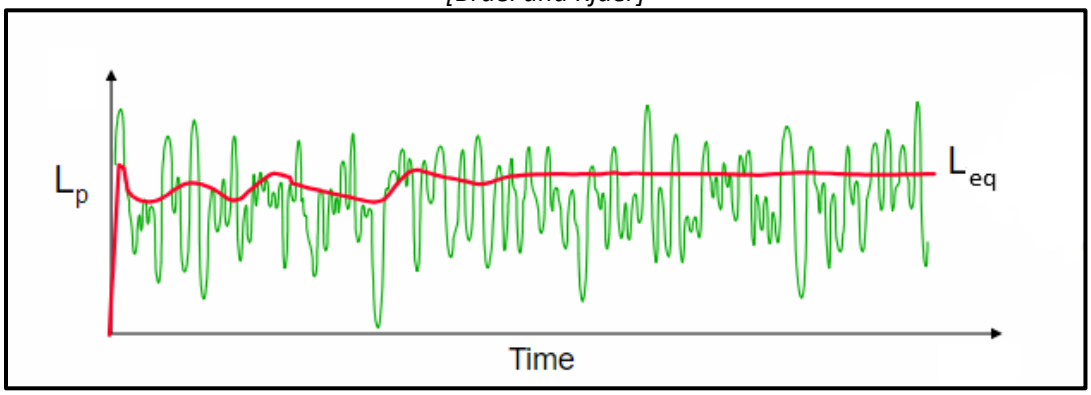
Frequency weightings are applied to measurements to provide a better match between measured results and human perception. Each weighting, in relation to their frequency components, allows for a consistent measurement of the different type of noise sources. A-weighted decibel sound pressure levels (dBA) are measurements recorded from a sound level meter measuring sounds similar to the response of the ear (Figure B). While C-weighted (dBC) measurements are for low-frequency components.

Figure B: *Common Sound Weightings Up to 20 kHz, Z-Weighting Means No Weighting [Bruel and Kjaer]*



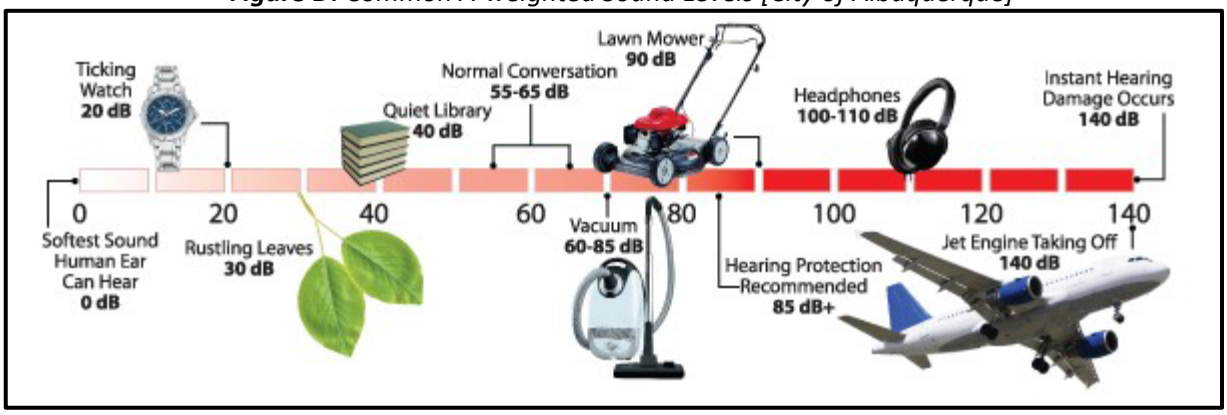
Each measurement has an exponential time factor. Slow time weighting is the most common for environmental noise measurements and will be used for these measurements. For recording over long periods of time, the sound level meter records each weighted decibel reading with an equivalent, or average, continuous sound level reading (Leq). Leq represents the same energy as the actual time varying sound signal (Figure C). LAeq refers to the equivalent continuous sound level for an A-weighted measurement.

Figure C: *Sound Level Recording Displaying Leq, a Steady-State Sound Level, Over a Noise Measurement [Bruel and Kjaer]*



Environmental noise is a combination of various noise sources. These sources may include; vehicle traffic, aircraft flyovers, wind, weather disturbances, commercial or industrial activities, and other short-term events. These sources create “background noise”. Background noise varies throughout the day, generally following the cycle of human activity. Figure D below presents typical A-weighted (dBA) sound levels for common sources of sound.

Figure D: *Common A-weighted Sound Levels [City of Albuquerque]*



Appendix 4 – Glossary

Ambient Noise
All noises that exist in an area and are not related to regulated operations and facilities. Ambient noise includes sound from other industrial noise not subject to this directive, transportation sources, animals and nature.

Average Sound Level
See Energy Equivalent Sound Level.

A-weighted sound level
The sound level as measured on a sound level meter using a setting that emphasizes the middle frequency components similar to the frequency response of the human ear.

Calibration
A procedure used for the adjustment of a sound level meter using a reference source of a known sound pressure level and frequency. Calibration must take place before and after the sound level measurements.

C-weighted Sound Level
The C-weighting approximates the sensitivity of human hearing for relatively loud sounds. The C-weighted sound level is also commonly used to assess low- frequency noise in conjunction with the A-weighted sound level.

Day Night Sound Level (Ldn)
Is the average noise level over a 24-hour period. The noise between the hours of 22:00 and 07:00 is artificially increased by 10 dB. The nighttime noise is weighted to consider the decrease in community background noise.

Daytime Average Sound Level
The time-averaged A-weighted sound level measured between the daytime hours, usually defined as 7:00 am to 7:00 pm.

Decibel (dB)
A unit of measure of sound pressure that compresses a large range of numbers into a more meaningful scale. The basic unit of measurement for sound levels.

dBA
The decibel (dB) sound pressure level filtered through the A filtering network to approximate human hearing response. See dB and A-weighted Sound Level.

dBC
The decibel (dB) sound pressure level filtered through the C filtering network. See Decibel and C-weighted Sound Level.

Energy Equivalent Sound Level (L_{eq})
The Leq is regarded as the average sound pressure level, where the single sound level value represents an amount of energy equal to that of an entire time-varying acoustic signal over a given period.

Facility
Any operation used in exploration, processing, development and transportation of energy resources.

Frequency
The number of oscillations per second for a sound wave.

Impulse Noise
Unwanted, instantaneous sharp sounds that create sudden impulses of pressure similar to gunfire and explosions.

Noise Reduction
The numerical difference, in decibels, of the average sound pressure levels between two locations on either side of a sound wall, or silencer, etc.

Nighttime Average Sound Level (Lnight)
The time-averaged A-weighted sound level measured between the nighttime hours, usually defined as 7:00 pm to 7:00 am.

Ldn
See Day night sound level.

Leq
See Energy Equivalent Sound Level.

Noise
Generally understood as unwanted sound.

Noise Impact Assessment (NIA)
Identifies the expected sound level emitted from operations, and receptor points are placed in locations related to compliance. It also identifies what the permissible sound level is and how it was calculated.

Noise Reduction Coefficient (NRC)
A single number rating of the sound absorption properties for a material. An NRC value of zero indicates the material is purely reflective. An NRC value of one indicates perfect absorption.

Octave Band
An octave band is a frequency band that spans one octave. A band is said to be an octave in width when the upper band frequency is twice the lower band frequency. Octave bands are commonly used in engineering acoustics. The nine common octave bands used for the study of industrial noise are identified by their center frequencies as 31.5Hz, 63Hz, 125Hz, 250 Hz, 500 Hz, 1000 Hz, 2000 Hz, 4000 Hz, and 8000 Hz.

Point Source
A source that radiates sound from a single point. Generally used to model equipment when looking at the sound impact over a large area.

Receiver
A person or piece of equipment that is affected by noise.

Sound
A series of vibrations transmitted through the air, or other medium, and can be heard when they are processed by the human ear.

Sound Level Meter (SLM)
An instrument that contains a microphone and filter used to measure sound levels, using standard frequency-weightings and exponentially weighted time averaging.

Sound Power Level
A physical measurement of the amount of power a sound source radiates into the surrounding air. It is the rate at which sound energy is emitted, or received, per unit time.

Sound Pressure Level (SPL)
The sound level received at a given location. The decibel equivalent of the rate of sound pressure waves at a measured location, usually with a microphone.

Sound Transmission Class (STC)
An integer rating that measures how well a barrier or building partition attenuates sound. Indicates how well a barrier is at stopping sound from transmitting through it.

1/3 Octave Band
The 1/3 octave band analysis provides a finer breakdown of sound energy distribution (compared to full octave band) as a function of frequency.

Lighting Mitigation Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-19

CIVITAS

Crestone Peak Resources, LLC

LIGHT MITIGATION PLAN

FOR

Bennett D Pad

Prepared For:

ADAMS COUNTY
COLORADO

4430 S. Adams County Pkwy.
Brighton, CO 80601
www.adcogov.org

Prepared By:

RPG RESOURCES
a System One company

1720 South Bellaire Street, Suite 400
Denver, CO 80222
www.rpgres.com

Date Prepared: December 2024

Table of Contents

1. PLAN PURPOSE

This Light Mitigation Plan was prepared by RPG Resources (RPG), on behalf of Crestone Peak Resources (Crestone) for the proposed Bennett D Pad. This plan was prepared to comply with State and local Light Mitigation Plan requirement for new oil and gas locations, and it addresses Crestone Peak Resources' plans to adhere to maximum permissible light levels and recommended mitigation measures. Implementation of this plan will serve to avoid or minimize adverse effects to local communities and wildlife populations during the development of the Site.

2. SITE DESCRIPTION

Crestone Peak Resources Bennet D Pad (Site) is located in Township 3 South, Range 64 West, Section 34 in Adams County, CO. The Site is located in the Western Great Plains Range and Irrigated Region Land Resource Region (LRR) of the Central High Plains, Southern Part Major Land Resource Region (MLRA; NRCS 2006).

The area in which the Site is located is zoned A-3 Agricultural Zoning by Adams County. The land type according to the field observations is rangeland. Elevation at the Site is 5,574 feet.

The Site is not located within any Colorado Parks and Wildlife High Priority Habitats (HPHs). There are two residential buildings within 2,000 feet of the Site. The closest Residential Building Unit is located 1,791 feet east of the Site. The next closest Residential Building Unit is 1,951 feet east of the Site. The closest Building Unit is approximately 486 feet to the northeast. The next closest building is 501 feet away to the northeast.

3. OPERATIONAL STAGES & TIMELINE

The current estimated operation stage timelines and light levels are as follows:

Table 3.1 – Bennett D Pad Operational Phase Light Levels

PHASE	ESITMATED START	ESTIMATED LIGHT LEVEL
Drilling Rig	July 2026	2.87 Lumens/SQFT
Completions	January 2027	2.09 Lumens/SQFT
Flowback	June 2027	N/A
Production	August 2027	N/A

The information above is subject to change based on permit approval timing, project adjustments or operational delays, weather conditions, and/or other unforeseen factors. Please refer to Appendix A for Photometric Plans.

4. BEST MANAGEMENT PRACTICES

The following lighting BMPs will be used to minimize and control light pollution at the Bennett D Well pad:

Construction: During pad construction, operations will occur only during daytime thus eliminating and light mitigation considerations.

Drilling and Completions: Crestone Peak Resources will direct site lighting downward at a 20-degree angle and will not shine light above a horizontal plane passing through the center point light source. Crestone will provide sufficient on-site lighting to ensure the safety of personnel on or near the site.

Drilling and Completions: Where a noise barrier is present, lighting fixtures will be placed beneath the barrier, except for those on the drilling rig.

Drilling and Completions: Crestone Peak Resources will use low-glare and no-glare lighting where feasible to minimize safety hazards.

Flowback: Flowback will be piped directly into the facility with no temporary equipment or operations anticipated. For that reason, no temporary lighting is being proposed during this phase.

Production: Crestone Peak Resources will not have permanent lighting on location.

LITERATURE CITED

Energy and Carbon Management Commission. 2024. 400 Series: Operations and Reporting

Colorado Energy and Carbon Management Commission. 2014. Surface Use Agreement: Form 2A Attachment Guidance. Chapter 21, Article V – Guidelines and Regulations for Oil and Gas Exploration and Production in Colorado. [PDF]

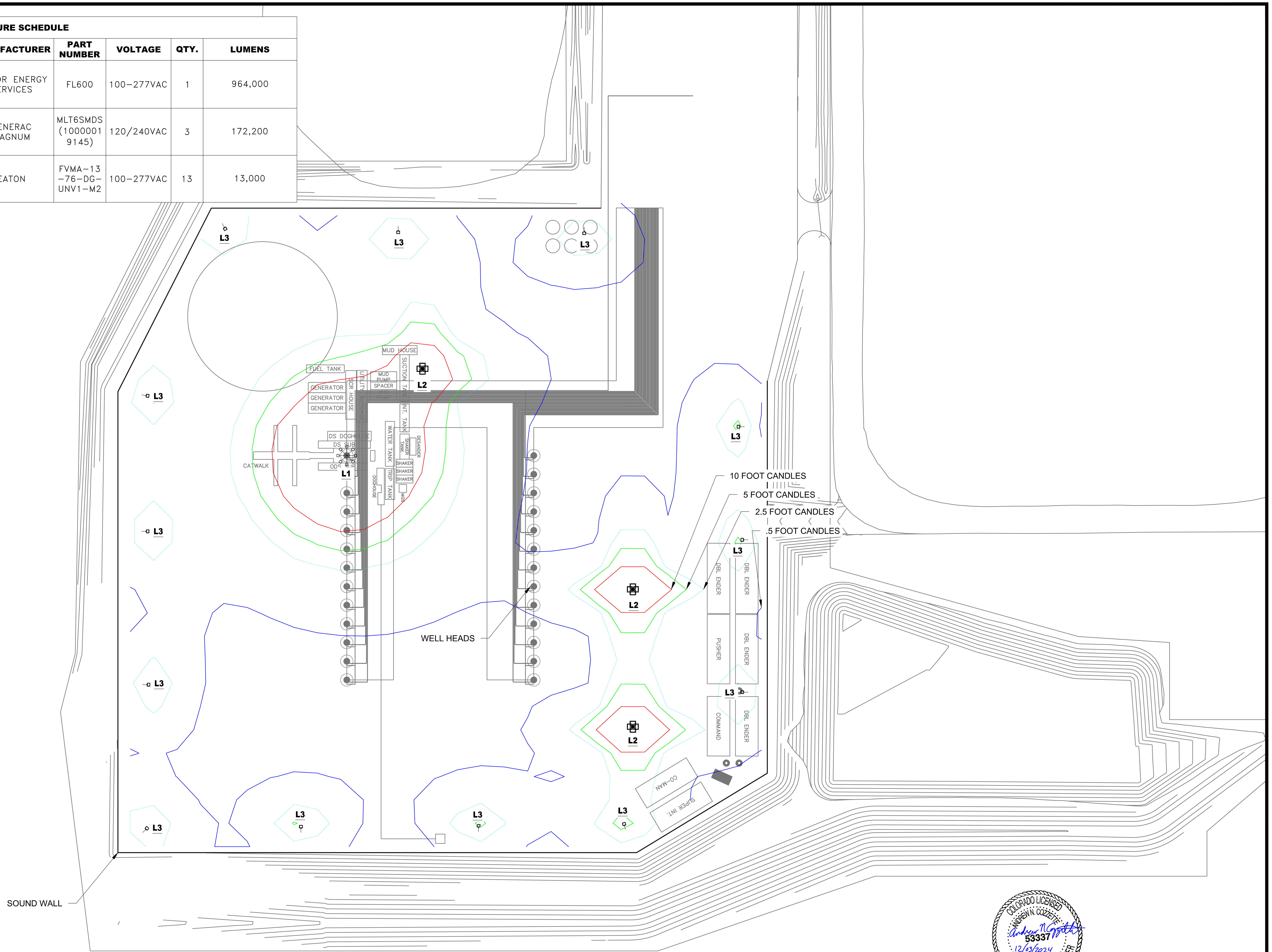
APPENDIX A

Photometric Plans

LIGHTING FIXTURE SCHEDULE								
TYPE	SYMBOL	DESCRIPTION	MOUNTING	MANUFACTURER	PART NUMBER	VOLTAGE	QTY.	LUMENS
L1		COMPACT LED HIGH PERFORMANCE SPORT LIGHT (8 LIGHTS TOTAL) (600W EACH LIGHT)	180'	C-MOR ENERGY SERVICES	FL600	100-277VAC	1	964,000
L2		MOBILE LIGHT TOWER (4 LED LIGHTS MOUNTED PER TRAILER) (296W LED - EACH LIGHT)	23' MAST HEIGHT	GENERAC MAGNUM	MLT6SMDS (1000001 9145)	120/240VAC	3	172,200
L3		CHAMP FMVA LED FLOODLIGHT	20'	EATON	FVMA-13 -76-DG-UNV1-M2	100-277VAC	13	13,000

SITE TOTALS - DRILLING RIG	
TOTAL LUMENS	1,649,600 LUMENS
SITE PERMANENT DISTURBANCE SQUARE FOOTAGE	574,992 SQFT
LUMENS/SQ.FT	2.87 LUMENS/SQFT
ILLUMINATION AT 1-MILE	<0.1 LUX

N



1/4"=1'-0"

0 2' 4' 8'

NOTES:

1. ALL LIGHT FIXTURES AND INSTALLATION MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF LOCAL AND NATIONAL ELECTRICAL CODES, ELECTRICAL SPECIFICATIONS AND DRAWINGS.
2. PRODUCTION FACILITY SHALL BE SIMULTANEOUSLY CONSTRUCTED. PERMANENT PRODUCTION FACILITY LIGHTING SHALL NOT BE IN USE DURING DRILLING AND IS NOT TAKEN INTO ACCOUNT IN THESE CALCULATIONS. THIS DRAWING IS BASED ON A TYPICAL DRILLING RIG AND IS SUBJECT TO VARIATIONS IN DESIGN AND LAYOUT. EACH LAYOUT IS DESIGNED BY OTHERS BUT SHALL NOT EXCEED THE FIXTURE COUNTS LISTED ON THIS DRAWING.
3. RIG LIGHTING WILL VARY DEPENDING ON PARTICULAR WELL BEING DRILLED.

LDIS LLC

REFERENCE DRAWINGS		No	PROJ. NUMBER	REVISIONS	BY	CHKD	APVD	DATE
		1		RE-ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	12/02/24
		0		ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	11/07/24

	BY	DATE
DRAWN	CMS	03/27/24
CONST.		
MECH.		
CIV./STRUCT.		
ELECT.		
PIPING		
INSTR.		
PM		
PROCESS		

BENNETT D WELL PAD
ELECTRICAL
LIGHTING PLAN - DRILLING RIG

DRAWING NUMBER	SCALE	REVISION
BD-ELE-7500	NA	1

COLORADO LICENSED ANDREW COZZETTO 53337 12/03/2024 PROFESSIONAL ENGINEER

PLOTTED BY: Reed, Aaron
PLOT DATE: Monday, December 2, 2024 1:29:30 PM
DWG. NAME: G:\LDIS_CLIENT_PROJECTS\RPG Resources\Bennett D\Elect\Drawings\BD-ELE-7500.dwg

NOTES:

1. ALL LIGHT FIXTURES AND INSTALLATION MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF LOCAL AND NATIONAL ELECTRICAL CODES, ELECTRICAL SPECIFICATIONS AND DRAWINGS.
2. PRODUCTION FACILITY SHALL BE SIMULTANEOUSLY CONSTRUCTED. PERMANENT PRODUCTION FACILITY LIGHTING SHALL NOT BE IN USE DURING DRILLING AND IS NOT TAKEN INTO ACCOUNT IN THESE CALCULATIONS. THIS DRAWING IS BASED ON A TYPICAL DRILLING RIG AND IS SUBJECT TO VARIATIONS IN DESIGN AND LAYOUT. EACH LAYOUT IS DESIGNED BY OTHERS BUT SHALL NOT EXCEED THE FIXTURE COUNTS LISTED ON THIS DRAWING.
3. RIG LIGHTING WILL VARY DEPENDING ON PARTICULAR WELL BEING DRILLED.

LDIS LLC

REFERENCE DRAWINGS	

No	PROJ. NUMBER	REVISIONS	BY	CHKD	APVD	DATE
1		RE-ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	12/02/24
0		ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	11/07/24

	BY	DATE
DRAWN	CMS	03/27/24
CONST.		
MECH.		
CIV./STRUCT.		
ELECT.		
PIPING		
INSTR.		
PM		
PROCESS		

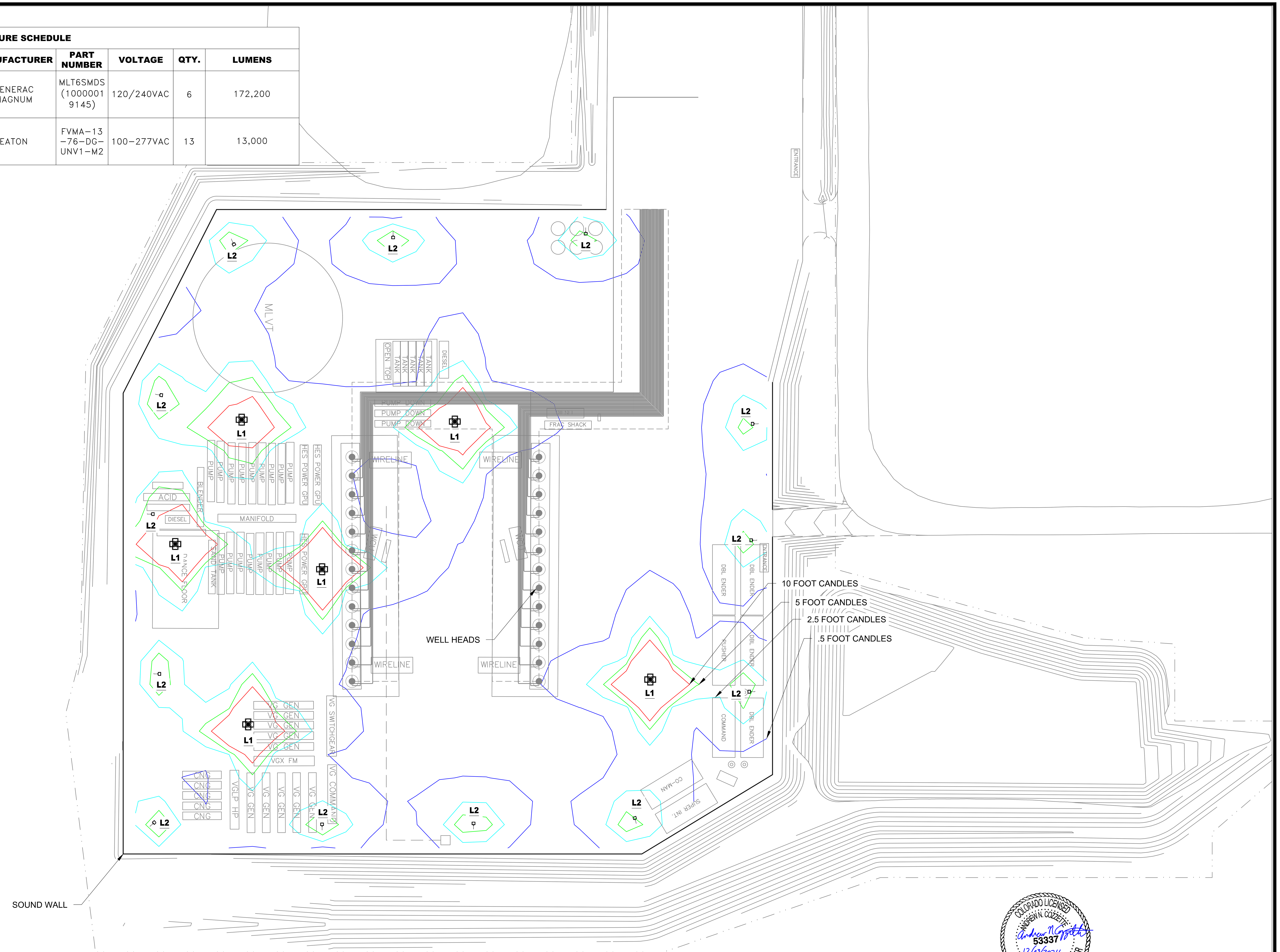
BENNETT D WELL PAD
ELECTRICAL
LIGHTING CALCULATIONS – DRILLING RIG

DRAWING NUMBER	SCALE	REVISION
BD-ELE-7501	NA	1

PLOTTED BY: Reed, Aaron
PLOT DATE: Monday, December 2, 2024 1:29:54 PM
DWG. NAME: G:\LDIS_CLIENT_PROJECTS\RPG Resources\Bennett D\Elect\Drawings\BD-ELE-7501.dwg

LIGHTING FIXTURE SCHEDULE								
TYPE	SYMBOL	DESCRIPTION	MOUNTING	MANUFACTURER	PART NUMBER	VOLTAGE	QTY.	LUMENS
L1	⊠	MOBILE LIGHT TOWER (4 LED LIGHTS MOUNTED PER TRAILER) (296W LED – EACH LIGHT)	23' MAST HEIGHT	GENERAC MAGNUM	MLT6SMDS (10000019145)	120/240VAC	6	172,200
L2	⊓	CHAMP FMVA LED FLOODLIGHT	20'	EATON	FVMA–13–76–DG–UNV1–M2	100–277VAC	13	13,000

SITE TOTALS - DRILLING RIG	
TOTAL LUMENS	1,202,200 LUMENS
SITE PERMANENT DISTURBANCE SQUARE FOOTAGE	574,992 SQFT
LUMENS/SQ.FT	2.09 LUMENS/SQFT
ILLUMINATION AT 1–MILE	<0.1 LUX



COLORADO LICENSED PROFESSIONAL ENGINEER ANDREW N. COZZETTO 53337 12/03/2024

1/4"=1'-0" 0 2' 4' 8'

NOTES:

1. ALL LIGHT FIXTURES AND INSTALLATION MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF LOCAL AND NATIONAL ELECTRICAL CODES, ELECTRICAL SPECIFICATIONS AND DRAWINGS.
2. PRODUCTION FACILITY SHALL BE SIMULTANEOUSLY CONSTRUCTED. PERMANENT PRODUCTION FACILITY LIGHTING SHALL NOT BE IN USE DURING DRILLING AND IS NOT TAKEN INTO ACCOUNT IN THESE CALCULATIONS.
3. THIS DRAWING IS BASED ON A TYPICAL WELL COMPLETION AND IS SUBJECT TO VARIATIONS IN DESIGN AND LAYOUT. ANY VARIATION OF LAYOUT SHALL NOT EXCEED THE FIXTURE COUNTS LISTED ON THIS DRAWING.
4. LIGHTING SHALL BE DOWNCAST AND SHALL NOT SHINE BEYOND THE BOUNDARIES OF THE OIL AND GAS LOCATION.

LDIS LLC

REFERENCE DRAWINGS		No	PROJ. NUMBER	REVISIONS	BY	CHKD	APVD	DATE
		1		RE-ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	12/02/24
		0		ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	11/07/24

	BY	DATE
DRAWN	CMS	03/27/24
CONST.		
MECH.		
CIV./STRUCT.		
ELECT.		
PIPING		
INSTR.		
PM		
PROCESS		

BENNETT D WELL PAD
ELECTRICAL
LIGHTING PLAN – WELL COMPLETION

DRAWING NUMBER	SCALE	REVISION
BD–ELE–7502	NA	1

PLOTTED BY: Reed, Aaron
PLOT DATE: Monday, December 2, 2024 1:30:16 PM
DWG. NAME: G:\LDIS_CLIENT_PROJECTS\RPG Resources\Bennett D\Elect\Drawings\BD-ELE-7502.dwg

COLORADO LICENSED PROFESSIONAL ENGINEER 53337 12/03/2024

NOTES:

1. ALL LIGHT FIXTURES AND INSTALLATION MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF LOCAL AND NATIONAL ELECTRICAL CODES, ELECTRICAL SPECIFICATIONS AND DRAWINGS.
2. PRODUCTION FACILITY SHALL BE SIMULTANEOUSLY CONSTRUCTED. PERMANENT PRODUCTION FACILITY LIGHTING SHALL NOT BE IN USE DURING DRILLING AND IS NOT TAKEN INTO ACCOUNT IN THESE CALCULATIONS.
3. THIS DRAWING IS BASED ON A TYPICAL WELL COMPLETION AND IS SUBJECT TO VARIATIONS IN DESIGN AND LAYOUT. ANY VARIATION OF LAYOUT SHALL NOT EXCEED THE FIXTURE COUNTS LISTED ON THIS DRAWING.
4. LIGHTING SHALL BE DOWNCAST AND SHALL NOT SHINE BEYOND THE BOUNDARIES OF THE OIL AND GAS LOCATION.

REFERENCE DRAWINGS		No	PROJ. NUMBER	REVISIONS	BY	CHKD	APVD	DATE
		1		RE-ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	12/02/24
		0		ISSUED FOR CONSTRUCTION	ACR	SRB	RDH	11/07/24

	BY	DATE
DRAWN	CMS	03/27/24
CONST.		
MECH.		
CIV./STRUCT.		
ELECT.		
PIPING		
INSTR.		
PM		
PROCESS		

BENNETT D WELL PAD
ELECTRICAL
LIGHTING CALCULATIONS – WELL COMPLETION

DRAWING NUMBER	SCALE	REVISION
BD-ELE-7503	NA	1

PLOTTED BY: Reed, Aaron
PLOT DATE: Monday, December 2, 2024 1:30:39 PM
DWG. NAME: G:\LDIS_CLIENT_PROJECTS\RPG Resources\Bennett D\Elect\Drawings\BD-ELE-7503.dwg

APPENDIX B

Cutsheets

C-MOR™
ENERGY SERVICES

TECHNICAL INFORMATION SHEET FOR CROWN JEWEL LIGHT SYSTEM

INTENDED USE

The C-MOR Crown Jewel system is designed to be installed on the crown handrails of most drilling rigs

SPECIFICATIONS:

- Designed to mount to undamaged guardrails which meet OSHA 1910.29(b)(1)
- Engineered mount system (RADesign 1085035) meets API 4F 4th Edition land-based wind loads (180’ @ 90 mph)
- 600 W LED instant start lights
- Dropped object report RADTM-18-1001-01
- Light and junction box retention nets: Dropsafe 7500185
- Rig light safety cables: Kennedy 250 LBS WLL
- Mount system weight: 21 lbs/ light
- Light and bracket assembly weight: 32 lbs/ light
- Junction box weight: 33 lbs/ rig
- Appleton Locking connectors + cable 3.2 lbs/ light
- Complete individual light/mount/cable weight 57 lbs.
- Typical 8 light Crown Jewel full installation: 489 lbs

Description

The FL series is a compact LED fixture designed for high performance sport lighting applications. Compare the FL500 to 1500 WATTS metal halide.

Certification

ETL / DLC

CONFIDENTIAL AND PROPRIETARY

PATENT PENDING

Specifications

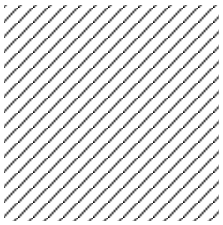
Part No.:	FL600
Wattage:	600 W
Efficacy:	150 LM/W
Lumens:	120,500 LM
Input Voltage:	100-277 V
Power Factor:	.92
CCT:	5000K
CRI:	80+
IP Rating:	IP66
Dimensions:	15.7” x 15.7” x 10”
Weight:	38 lbs. 17.2 kg
Lifespan:	80,000 L70 Hours
EPA Rating	1.2 ft^2
Standard Colors:	Black

C-MOR™

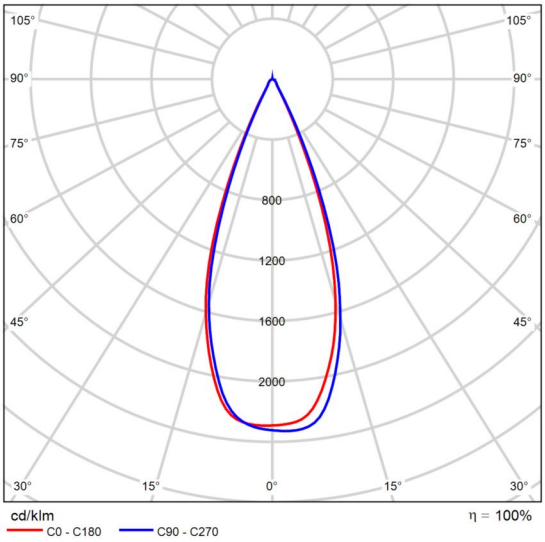
ENERGY SERVICES

Product data sheet

LED LIGHTING DYNAMO 3 STADIUM FLOOD LIGHT 600W



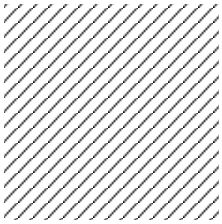
P	600.0 W
Φ_{Lamp}	96000 lm
$\Phi_{Luminaire}$	95951 lm
η	99.95 %
Luminous efficacy	159.9 lm/W
CCT	5000 K
CRI	100

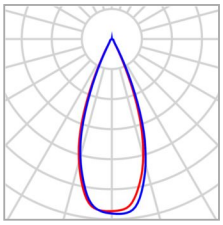


Polar LDC

Site 1

Luminaire layout plan





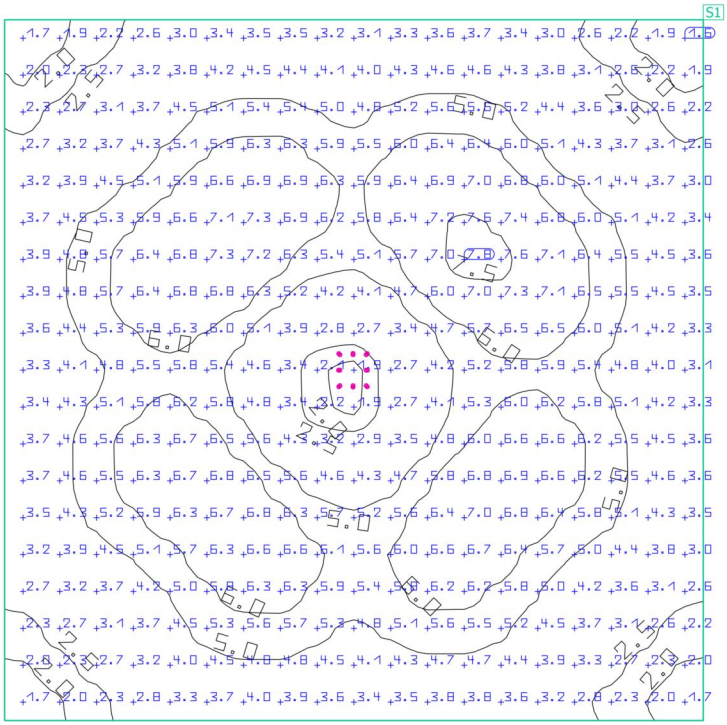
Manufacturer	LED LIGHTING
Article name	DYNAMO 3 STADIUM FLOOD LIGHT 600W

Individual luminaires

X	Y	Mounting height	Luminaire
133.270 ft	-131.361 ft	180.400 ft	1
144.270 ft	-131.361 ft	180.400 ft	2
133.270 ft	-144.361 ft	180.400 ft	3
144.270 ft	-144.361 ft	180.400 ft	4
133.270 ft	-137.861 ft	180.400 ft	5
138.770 ft	-131.361 ft	180.400 ft	6
144.270 ft	-137.861 ft	180.400 ft	7
138.770 ft	-144.361 ft	180.400 ft	8

Site 1

Calculation surface 1



Properties	Ē	E_{min}	E_{max}	Ē/E_{min}	E_{max}/E_{min}	Index
Calculation surface 1 Perpendicular illuminance Height: 1.000 ft	4.70 fc	1.61 fc	7.78 fc	2.92	4.83	S1

Utilisation profile: DIALux preset, Default (Drive Aisles/Parking Areas)

MLT6SM

MOBILE LIGHT TOWER

GENERAC MAGNUM

SPECIFICATIONS

ENGINE

- Mitsubishi® L3E- liquid cooled, diesel engine; Final Tier 4
  - Standby - 12.2 hp @ 1800 rpm
  - Prime - 10.5 hp @ 1800 rpm
  - 3 cylinder
  - 0.95 L displacement
- Polyethylene Fuel Tank:
  - Fuel Type: Diesel
  - Fuel Capacity: 39.9 gal (151.04 L)
  - External 3.5 in. (89 mm) fill port
- Fuel Consumption:
  - Full Load: 0.59 gph (2.24 Lph)*
  - Lights Only: 0.43 gph (1.62 Lph)*
  - Maximum Runtime (Lights Only): 93 hours*
- Cooling system capable of operating at 120°F (49°C) ambient
- 750-hour** service interval
- Full flow filter, spin on type
- Dry type cartridge air filter
- 60 Hz engine/generator
- Wind Rating: 65 mph (105 kph)

**Results based on engine manufacturer and field test data after 100-hour engine break-in period and may vary based on factors including age and maintenance of equipment, environmental conditions and fuel density. Consult the Owner's Manual for fuel and maintenance recommendations.*

***To achieve maximum service interval, replacement of oil filter after 50-hour break-in period is required. Consult Owner's Manual for required oil filter model number.*

GENERATOR

- Marathon Electric®, Brushless
- Up to 6kW power output
- 120/240 VAC – 50/25A
- +/-6% capacitor voltage regulation

ENGINE CONTROLS

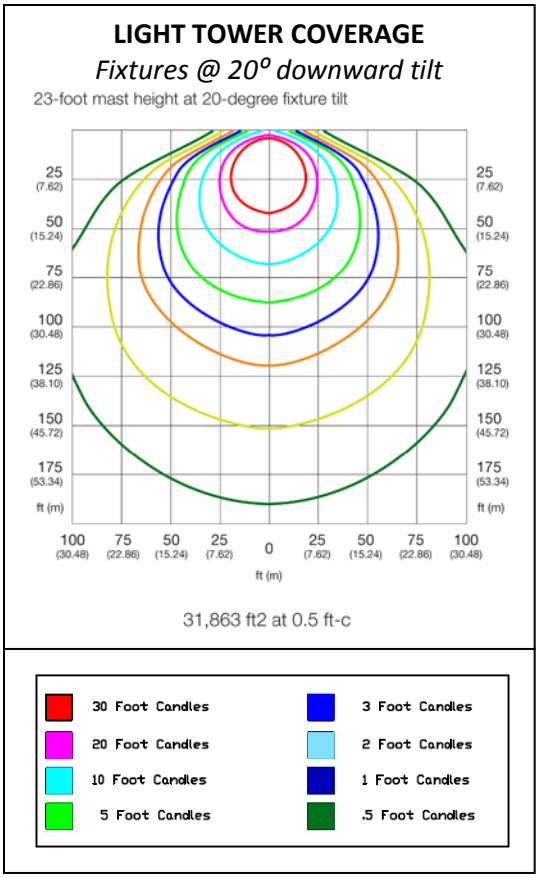
- External, illuminated control panel with sealed switches
- Four position keyed switch – (off, run, glow start)
- Digital hour meter
- Automatic low oil pressure/high temperature shutdown system

ELECTRICAL SYSTEM

- 30A start trip breaker (assures no load condition exists before starting)
- Individual floodlight circuits with sealed 15A breakers
- Standard individually breakered convenience outlets:
  - (1) 120 VAC 20 Amp GFCI duplex outlet (NEMA 5-20R type)
  - (1) 240 VAC 30 Amp twist lock outlet (NEMA L6-30R type)
- Wiring is sized and fused to the amperage draw required
- 440CCA wet cell battery

FLOODLIGHTS

- Four (4) 1,100 watt metal halide
  - 132,000 bare bulb lumens each
  - 70,356 fixture lumens each
  - Total bare bulb lumens (x4): 528,000
  - Total fixture lumens (x4): 281,424
- Coverage @ 0.5 ft-c: 31,863 ft2 (2,960 m2)
- Efficiency: 120 lumens per watt
- Oval aluminum reflector
- Tempered glass lens
- Silicone gaskets for moisture and dust protection
- Friction disc mounting for tool less positioning
- Individual floodlight On/Off switches



MAST

- Vertical mast; 23 ft. (7 m), 5-section with ground adjustable light fixtures
- Dual handle manual winch for ease of deployment; electric winch optional
- Distinctive angle fixture mount for common light distribution
- 359° ground rotational mast with mast fully extended
- Industrial black powder coat finish with polymer guides

ENCLOSURE

- Injection-molded hood enclosure with UV protected colorant
- Flip hood engine compartment for ease of service
- Multi-lingual operating/safety decals
- License plate holder with light
- Manual holder with operating manual
- 68 dB(A) at 23 ft. (7 m) – prime power

TRAILER

- Tubular steel frame
- (3) 1200 lb. (544 kg) tube and sleeve leveling jacks
- All jacks transport and lock in position for storage
- Side outriggers deployed – 10 in. (25.4 cm) span
- 7800 lb. (3538 kg) safety chains with spring loaded safety hooks
- 2 in. (50.8 mm) ball hitch
- Molded polyethylene fenders
- DOT-approved LED tail, side, brake, and directional lights
- 2200 lb. (907 kg) leaf spring axle
- ST175/80D13 – 6 ply
- 47 in. (119.4 cm) track width

WEIGHT & DIMENSIONS

- Dry weight: 1290 lbs. (585 kg)
- Operating weight: 1560 lbs. (708 kg)
- Mast stowed: 118 x 57 x 101 in (3 x 1.45 x 2.6 m)

WARRANTY

1 Year, Unlimited Hours / 2 Years, 2000 Hours

CERTIFICATIONS

CSA Approved / Listed

OPTIONS

Contact sales representative or factory for a list of current available options.

For more information, consult the Owner's Manual at http://www.generacmobileproducts.com/resources-tools/manuals

Product specifications

Eaton FMVA-13-76-DG-UNV1-M2

Catalog Number: FMVA-13-76-DG-UNV1-M2

Eaton Crouse-Hinds series Champ FMVA LED floodlight, 0.91 - 0.32A, Cool white, 3/4" entry, Diffused glass lens, 13000 lumens, 154 lm/W, Die cast aluminum, Yoke mount, 7x6 optics, Gray epoxy powder coat, 100-277 Vac, 90W

General specifications

Product Name
Eaton Crouse-Hinds series Champ FMVA LED floodlight

Catalog Number
FMVA-13-76-DG-UNV1-M2

UPC
662277148801

Product Length/Depth
16.12 in

Product Height
14.94 in

Product Width
9.94 in

Product Weight
24.95 lb

Powering Business Worldwide

Certifications and compliances

Area classification

Hazardous/Classified Locations

Standards type

NEC/CEC

NEC hazardous rating

Class I, Division 2

Class II, Division 2

NEMA Rating

4X

Ingress protection (IP) ratings

IP67

Product specifications

Lamp type

LED

Lumens

13000

Lumens per watt

154

Color temperature

Cool white

Mounting Method

Yoke

Voltage rating

100-277 Vac

Frequency rating

50/60 Hz

Optical distribution

7x6

Entry size

3/4"

Lens material

Diffused glass

Wattage

90W

Power factor

> 0.90

Amperage Rating

0.91 - 0.32A

Material

Die cast aluminum

Special features

Gray epoxy powder coat

Resources

3D models

SP3D Design Package - Champ FMVA LED Hazardous Area Floodlights

Brochures

Crouse-Hinds series Champ FMVA LED Floodlights - 9,000 to 15,000 lumens brochure

Catalogs

Crouse-Hinds series Champ FMVA LED Floodlights - 9,000 to 15,000 lumens catalog page

Installation instructions

IF 1956 - Champ FMVA M2 9L-15L LED Luminaire

Specifications and datasheets

Crouse-Hinds series FMVA LED Floodlights IES photometric files

---

Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

Eaton.com/socialmedia

Odor Mitigation Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-16

CIVITAS

Crestone Peak Resources Operating, LLC

Bennett D Pad
Odor Mitigation Plan

Section 34, Township 3 South, Range 64 West
Adams County, CO

Potential Receptors

Operator will strive to minimize or eliminate odor from being a nuisance to the Residential Building Units (RBUs) within 2000' of the proposed working pad. Prevailing wind direction is coming from the south at this location *(source: Western Regional Climate Center, Denver Airport)*. The highest risk for odor nuisances would be for the residential building units to the north of the pad.

Development Phase

Operator will comply with the requirements of Colorado Energy and Carbon Management Commission (ECMC) Rule 426 during development through the mitigation methods outlined below. In addition to what is being proposed, Operator reserves the right to incorporate evolving technologies aimed at reducing odor during operations should conditions warrant additional controls. The Operator will endeavor to prevent odors from emanating from the Oil and Gas Location by proactively addressing known sources of odor – i.e., drilling mud.

The Operator will use a filtration system and additives to the drilling and fracturing fluids to minimize odors. Use of fragrance to mask odors is prohibited. In order to meet the requirements of ECMC Rule 426, Operator shall implement the following measures:

- Operator shall utilize a closed-loop, pit-less mud system for managing drilling fluids.
- Operator shall employ the use of drilling fluids with low to negligible aromatic contact (IOGP Group III) during drilling operations after the surface casing is set and freshwater aquifers are protected.
- Operator shall remove drill cuttings daily and as soon as waste containers are full.
- Operator shall employ pipe cleaning procedures when removing drill pipe from the hole; these procedures may include "wiping" the pipe before racking it in the derrick.

In the event a person living in a residential Building Unit within 2000' or in the direction of prevailing winds from the Oil & Gas Location's working pad surface complains of odor, Operator shall assess current operations and atmospheric conditions at the time of the complaint to determine whether the odor may have been caused by the Operator's operations. Once a preliminary determination is made, the Operator will provide its findings to the complainant, the Director, and Relevant or Proximate Local Government within 24 hours. If the complaint is justified and unable to be resolved, Operator will work with the Director on necessary and reasonable actions to reduce odor including but not limited to the following:

- Operator may increase concentration of odor-mitigating additives in mud system.

Production Phase

Operator will comply with the requirements of ECMC Rule 426 during development by utilizing the following best management practices outlined below. The primary source of odors during the production phase is gas that is vented during maintenance or normal production operations.

- Operator will utilize a maintenance vessel system which eliminates venting from the location during maintenance operations.
- Operator will utilize a pneumatic air system to actuate the facilities on location which will eliminate the small amount of venting that would normally occur during production operations.
- Operator will utilize a tankless system with three-phase takeaway eliminating odors associated with truck load out.

Additional Air Quality Requirements

Operator will submit an Air Monitoring plan to the Colorado Department of Public Health and Environment which will be approved prior to construction. The air monitoring will be in place prior to construction through 6 months of production.

Proposed Best Management Practices

1. Operator will use a filtration system and additives in the drilling and fracturing fluids that minimize odors.

2. Operator shall utilize a closed-loop, pit-less mud system for managing drilling fluids.

3. Operator shall employ the use of drilling fluids with low to negligible aromatic content (IOGP Group III) during drilling operations after the surface casing is set and freshwater aquifers are protected.

4. Operator shall remove drill cuttings daily and as soon as waste containers are full.

5. Operator shall employ pipe cleaning procedures when removing drill pipe from the hole; these procedures may include “wiping” the pipe before racking it in the derrick.

6. If a justified complaint is received, Operator may increase concentration of odor-mitigating additives in mud system.

7. Operator will utilize a maintenance vessel system.

8. Operator will utilize a pneumatic air system to actuate the facilities on location.

9. Operator will utilize a tankless system with three-phase takeaway eliminating odors associated with truck load out.

Dust Mitigation Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-17

CIVITAS

Crestone Peak Resources Operating LLC

Bennett D Pad

Dust Mitigation Plan

Section 34, Township 3 South, Range 64 West
Adams County, CO

Introduction

In accordance with Colorado Energy & Carbon Management Commission (ECMC) Rule 427, Crestone Peak Resources Operating LLC provides the following information outlining existing conditions at the proposed Oil and Gas Location as well the best practices that will be employed to meet the dust mitigation requirements in these rules.

- NRCS Soil Survey data shows the access road, location, and disturbance area consists of the following soils:
  - Type A
    - Truckton loamy sand (3 to 9 percent slopes)
  - Type B
    - Ascalon-Platner association (0 to 5 percent slopes)

- The Operator will post an access road speed limit not to exceed 20 miles per hour to minimize fugitive dust emissions from vehicle traffic traveling on the access road.

- The Operator will perform regular inspections and road maintenance to ensure the integrity of the access road and associated features is maintained throughout the life of this project. Maintenance consists of re-compacting the road base/recycled asphalt mix on an as-needed basis.

Please refer to the associated Form 2B (Doc ID 403951729) or Transportation Plan for the estimated truck trips for each phase of development.

Well Pad Construction Phase

Fugitive dust emissions associated with well pad construction are generally caused by soil excavation, earthwork and site development activities. The Operator will minimize dust emissions throughout all phases of well pad construction including dust resulting from the use of unimproved road surfaces. Dust suppression during initial construction will be accomplished by the application of freshwater to the access road(s) and exposed earthen surfaces to reduce the transportability of dust when atmospheric conditions are conducive to sustained winds and/or periodic gusts. All dust suppression efforts will consist of only freshwater unless otherwise requested and approved as applicable.

The initial disturbance area will be 22.96 acres.

The surface of the working pad surface of the Location (~13.24 acres) will be covered with Class 6 aggregate material or recycled asphalt. The use of this material greatly reduces the generation and transport of dust.

At the entrance to the location, the Operator will install and maintain vehicle tracking controls (i.e., coarse aggregate, a tracking pad, or cattle guard) to further reduce and remove loose mud and dirt on construction equipment and vehicles servicing location. These controls reduce and minimize the tracking of dirt and mud on public roads. The tracking controls are continually maintained and remain in place during pre-production operations. Topsoil stockpiles will be seeded, straw mulched, and crimped in order to promote the establishment of plants and associated vegetation used to stabilize the stockpiles and prevent the origination of dust and other erosion from occurring.

Well Drilling and Completions Phases

Once the well pad is constructed and covered with aggregate or recycled asphalt, dust emissions will be minimal. Little if any dust emissions are anticipated during the drilling phase. The only notable source of dust during the completions phase is associated with handling of proppant (e.g., north white sand) that is used during hydraulic fracturing.

To minimize sand-related dust emissions, the Operator will be utilizing containerized box technology for sand transport, storage and use during the completions phase. These sand containers (or "sand boxes") are sealed containers that protect the sand from exposure to wind and prevent dust generation. While fracturing operations are taking place, sand is dispensed from the sand boxes using transport hoses that keep the sand contained with a sealed system and not exposed to the wind or other atmospheric conditions. The sand is then pumped directly down the wellbore. Using this configuration, the Operator is able to avoid surface stockpiles of unused sand that could generate fugitive dust emissions when subjected to periodic wind events.

Interim Reclamation Phase

Once the wells have been put into production, the Oil and Gas Location will be partially reclaimed to 7.42 acres; only those areas necessary for production and maintenance operations will remain. During interim reclamation, earthmoving activities will be required to reduce the original footprint of the well pad. The movement of earthen materials may create dust. As described above for well pad construction, dust will be controlled on an as-needed basis through application of freshwater on disturbed soils and exposed surfaces.

Those previously disturbed areas that have been graded will be stabilized and revegetated. Revegetated areas may return to prior agricultural use or usage pursuant to the contractual provisions between the operator and the Surface Owner(s).

Production Phase

During the production phase, traffic in and out of the Oil and Gas Location will be limited. Typical maintenance and production operations require less than 10 small pickup trucks per day. Occasionally, larger trucks and associated equipment may be required for maintenance or workover activities, in addition to produced water trucks, which should be less than two trucks per day after the first several months of production.

As a result, long term traffic-related dust will be minimal if not insignificant. As described above, vehicle tracking control (i.e., coarse aggregate, a paved apron, or cattle guard) will be maintained after the terminus of the Apron to minimize tracking of dirt or mud onto public roads. Should dirt or mud tracking on public roads occur, the Operator will use a street sweeper to clean the road surface and minimize the potential for dust generation from muddy roads.

Proposed Best Management Practices

1. On Location, dust suppression during high traffic periods on site will be accomplished by the application of water to the well pad and exposed earthen surfaces to reduce the transportability of dust when atmospheric conditions are conducive to sustained winds and/or periodic gusts. All dust suppression efforts will consist of only freshwater unless otherwise requested and approved as applicable.

2. Off Location, dust suppression during high traffic periods on site will be accomplished by the application of approved methods to the access road(s) and haul route to reduce the transportability of dust when atmospheric conditions are conducive to sustained winds and/or periodic gusts. All dust suppression efforts will consist of, but may not be limited to, the use of fresh water and/or mag-chloride as a dust suppressant.

3. To minimize sand-related dust emissions, the operator will be utilizing containerized box technology for sand transport, storage and use during the completions phase. These sand containers (or “sand boxes”) are sealed containers that protect the sand from exposure to wind and prevent dust generation.

4. The operator will post an access road speed limit not to exceed 20 miles per hour to minimize fugitive dust emissions from vehicle traffic traveling on the access road.

5. The operator will perform regular inspections and road maintenance to ensure the integrity of the access road and associated features is maintained throughout the life of this project. Maintenance consists of re-compacting the road base/recycled asphalt mix on an as-needed basis.

6. The operator will install and maintain vehicle tracking controls (i.e., coarse aggregate, a tracking pad, paved apron, or cattle guard) to further reduce and remove loose mud and dirt on construction equipment and vehicles servicing location.

7. The pad will be plated with aggregate road base material to further minimize fugitive dust.

Visual Aesthetics Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-18

Crestone Peak Resources, LLC

Visual Aesthetics Plan

Bennett D Pad

Introduction

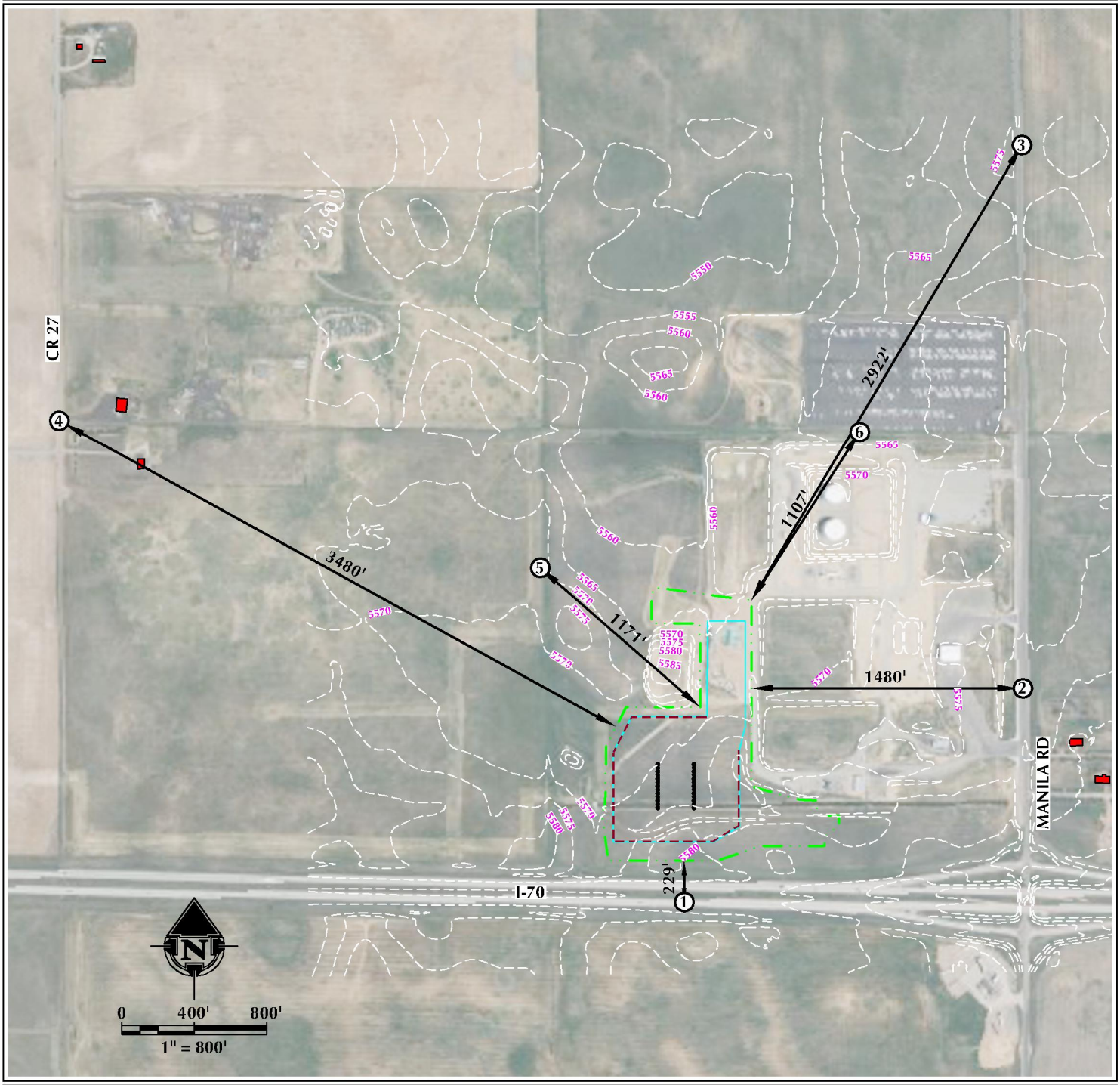
Per Adams County Development Standards and Regulations, Section 4-11-02-03-03-03-18, and the Colorado Energy and Corbon Management Commission's (ECMC), Rule 425, all permanent equipment at new and existing Oil and Gas Facilities, regardless of construction date, which are observable from any public highway, road, or publicly- maintained trail, will be painted with uniform, non-contrasting, non-reflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to but slightly darker than the surrounding landscape.

Visual Mitigation

Thirty-two foot walls will be utilized for drilling, completions and flowback operations around the majority of the well pad. Please refer to the site plans for the wall placement. Although not necessary to meet noise compliance, the walls will provide further sound mitigation and offer visual screening from Interstate 70 and the surrounding residents in the vicinity of this proposed oil and gas location. The wall color will blend with the natural background of the area.

During pre-production operations the drill rig's derrick will be visible above the walls, and some other equipment may be visible during completions. During production, the permanent equipment will blend in with the surrounding landscape and be compatible with the other uses on the property. The following pages show renderings of drilling operations and while the wells are on production from multiple locations in the area.

IMAGE RENDERING LOCATIONS
BENNETT D PAD
SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- WORKING PAD SURFACE
- RESIDENTIAL BUILDING UNIT
- 32' SOUND WALL
- (#) PICTURE LOCATION

SHEET NO: 1 OF 7

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

Prepared For:

CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

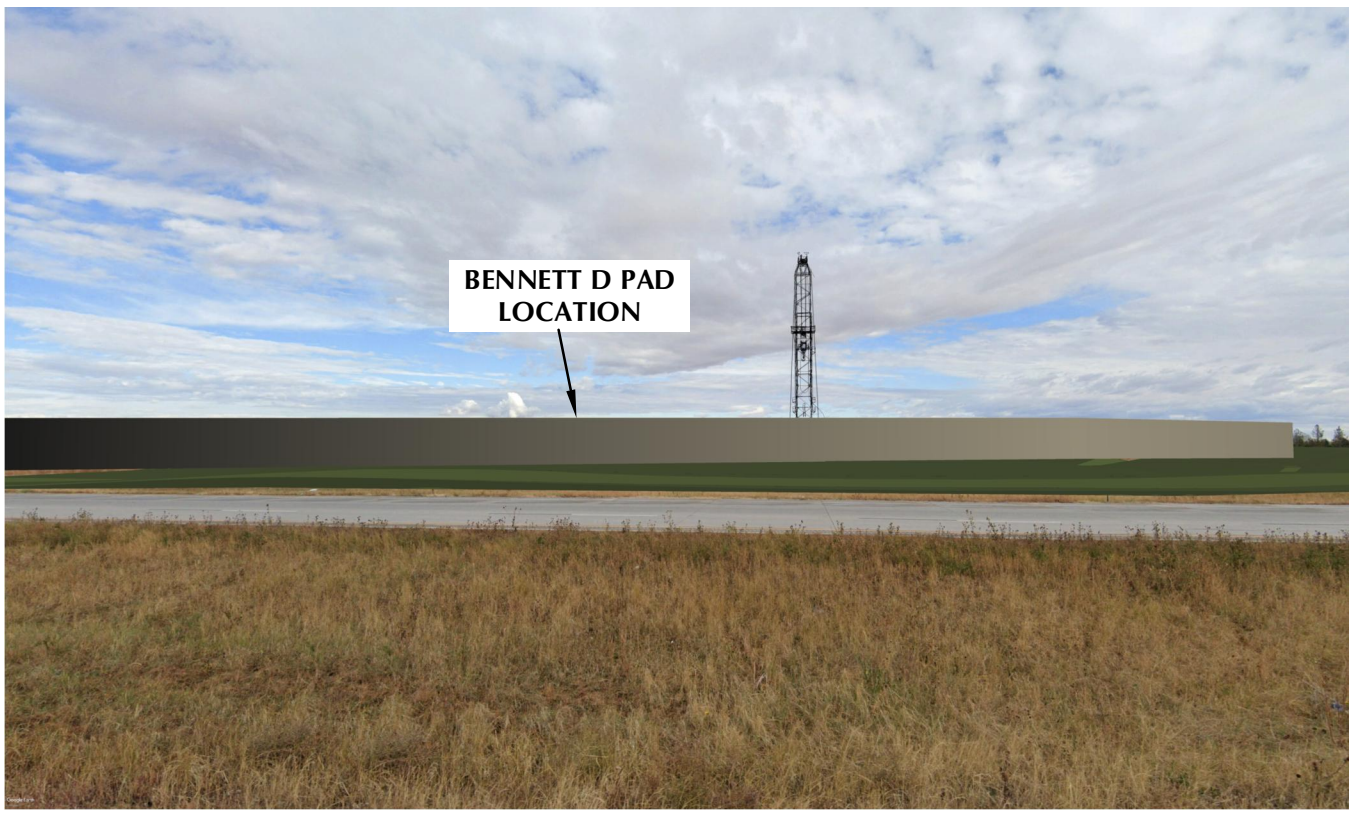
DATE SURVEYED:	9/24/24
DATE:	12/16/24
DRAFTER:	JFE
REVISED:	

DATA SOURCES & NOTES:

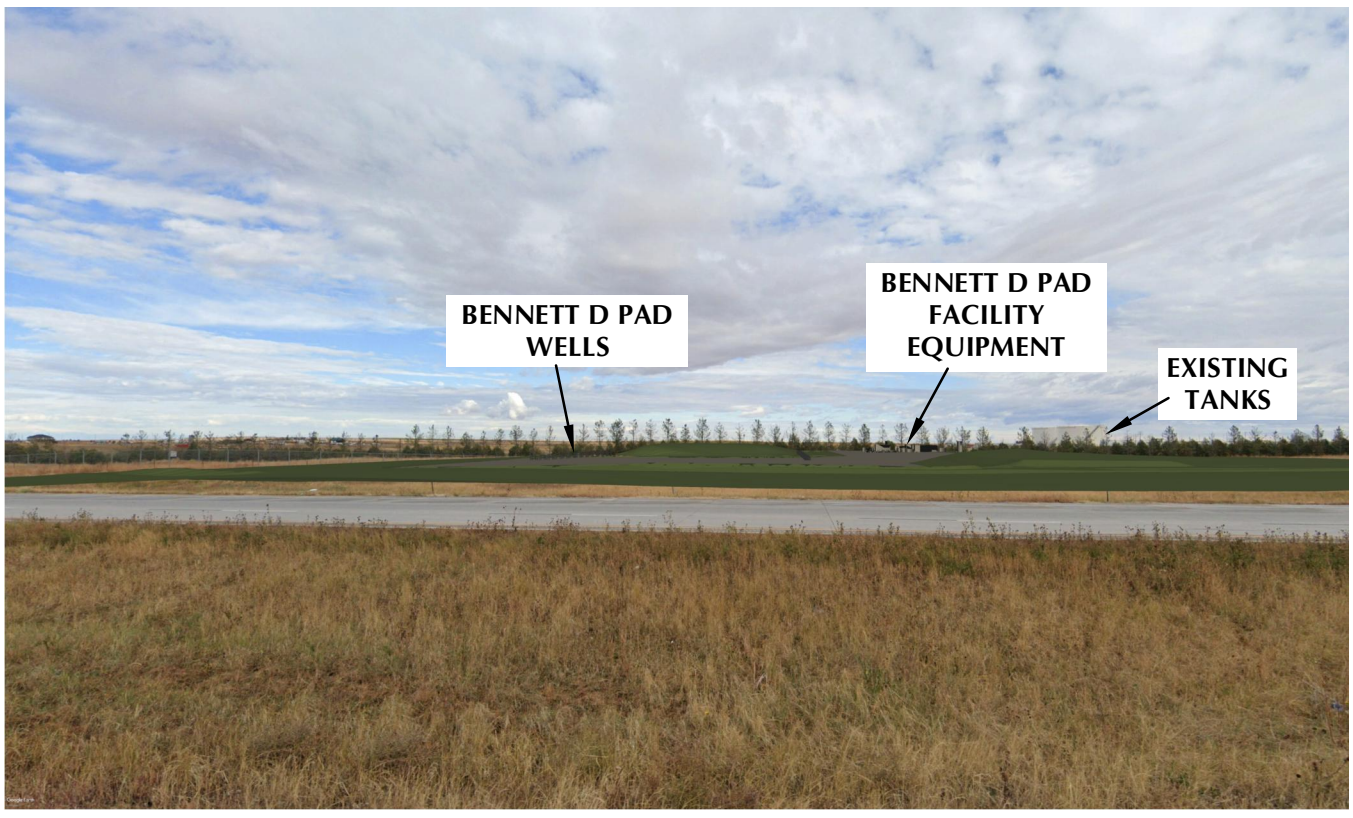
- AERIAL IMAGERY COURTESY OF GOOGLE.
- THIS EXHIBIT IS NOT A PROPERTY BOUNDARY SURVEY AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\DWG\SOC36_BENNETT.dwg, 12/16/2024 4:19:47 PM, jedmunds

PHOTO LOCATION 1
I-70 - LOOKING NORTH
229' TO EDGE OF OIL AND GAS LOCATION



DRILLING PHASE



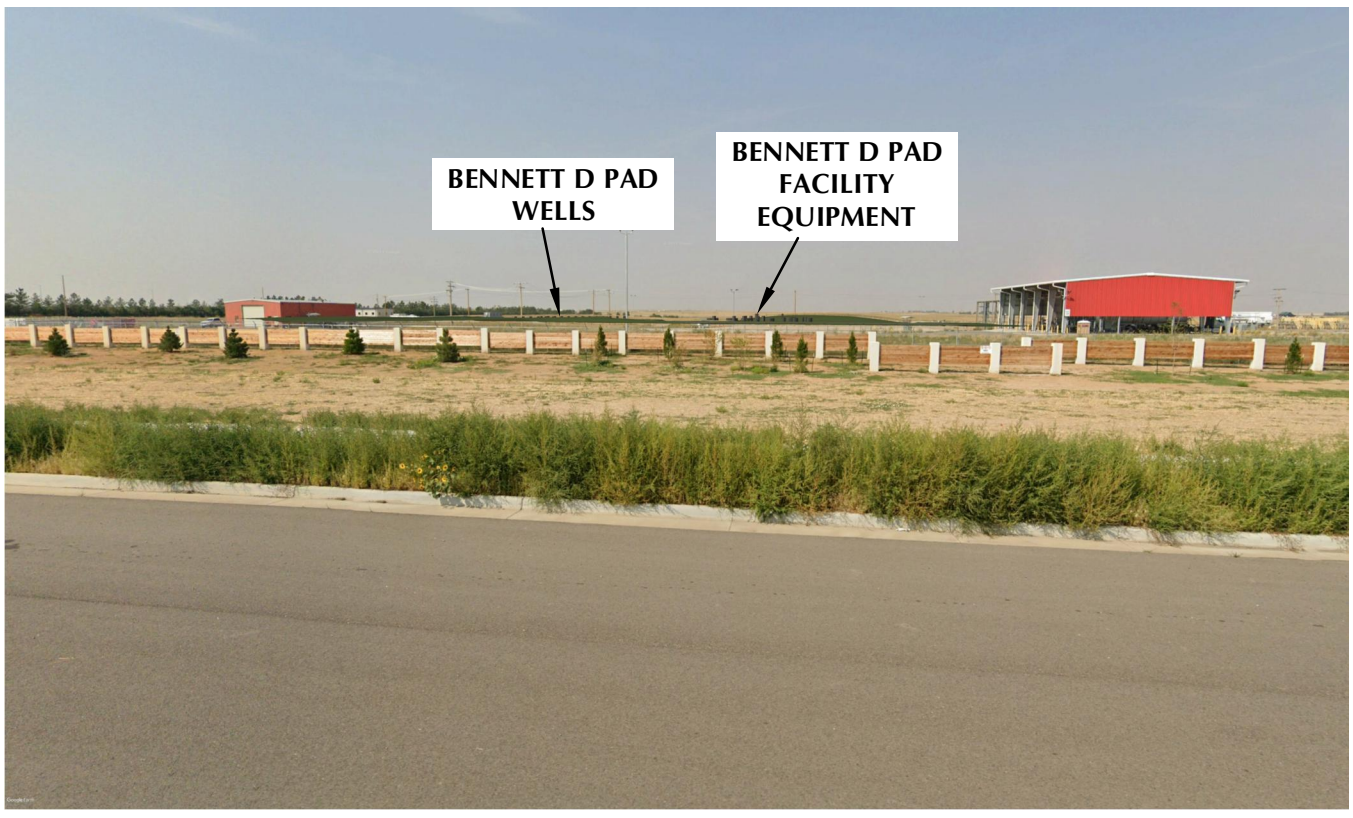
PRODUCTION PHASE

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\DWG\SOC36_BENNETT.dwg, 12/16/2024 4:21:02 PM, jedmunds

BENNETT D PAD **SIMULATION PICTURES** **LOCATED IN SECTION 34** **T3S, R64W, 6TH P.M.** **ADAMS COUNTY, COLORADO**	**Prepared For:** CIVITAS CRESTONE PEAK RESOURCES, LLC 555 17TH STREET, SUITE 3700 DENVER, CO 80202	**GROUND LEVEL PICTURE** **LOCATION 1 - I-70** **DRILLING & PRODUCTION**	609 CONSULTING, LLC SHERIDAN OFFICE 1095 Saberton Avenue Sheridan, Wyoming 82801 Phone 307-674-0609 LOVELAND OFFICE 6706 North Franklin Avenue Loveland, Colorado 80538 Phone 970-776-4331	**NOTE:** - IMAGERY COURTESY OF GOOGLE.
			SCALE: NTS DATE: 12/16/24 REVISED:	SHEET NO: **2** 2 OF 7

PHOTO LOCATION 2
MANILA RD - LOOKING WEST
1,480' TO EDGE OF OIL AND GAS LOCATION

DRILLING PHASE



PRODUCTION PHASE

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\DWG\SOC36_BENNETT.dwg, 12/16/2024 4:21:33 PM, jedmunds

BENNETT D PAD

SIMULATION PICTURES

LOCATED IN SECTION 34
T3S, R64W, 6TH P.M.
ADAMS COUNTY, COLORADO

Prepared For:
CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

GROUND LEVEL PICTURE

LOCATION 2 - MANILA RD

DRILLING & PRODUCTION

609 CONSULTING, LLC
SHERIDAN OFFICE
1095 Saberton Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609
LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

NOTE:
- IMAGERY COURTESY OF GOOGLE.

SCALE: NTS | DATE: 12/16/24 | SHEET NO: 3 3 OF 7

REVISED:

PHOTO LOCATION 3
MANILA RD - LOOKING SOUTHWEST
2,922' TO EDGE OF OIL AND GAS LOCATION

DRILLING PHASE

PRODUCTION PHASE

BENNETT D PAD **SIMULATION PICTURES** **LOCATED IN SECTION 34** **T3S, R64W, 6TH P.M.** **ADAMS COUNTY, COLORADO**	**Prepared For:** CIVITAS CRESTONE PEAK RESOURCES, LLC 555 17TH STREET, SUITE 3700 DENVER, CO 80202	**GROUND LEVEL PICTURE** **LOCATION 3 - MANILA RD** **DRILLING & PRODUCTION**	609 CONSULTING, LLC SHERIDAN OFFICE 1095 Saberton Avenue Sheridan, Wyoming 82801 Phone 307-674-0609 LOVELAND OFFICE 6706 North Franklin Avenue Loveland, Colorado 80538 Phone 970-776-4331	**NOTE:** - IMAGERY COURTESY OF GOOGLE.
			SCALE: NTS **DATE:** 12/16/24 **REVISED:**	**SHEET NO:** 4 4 OF 7

PHOTO LOCATION 4
MANILA RD - LOOKING SOUTHEAST
3,480' TO EDGE OF OIL AND GAS LOCATION

DRILLING PHASE

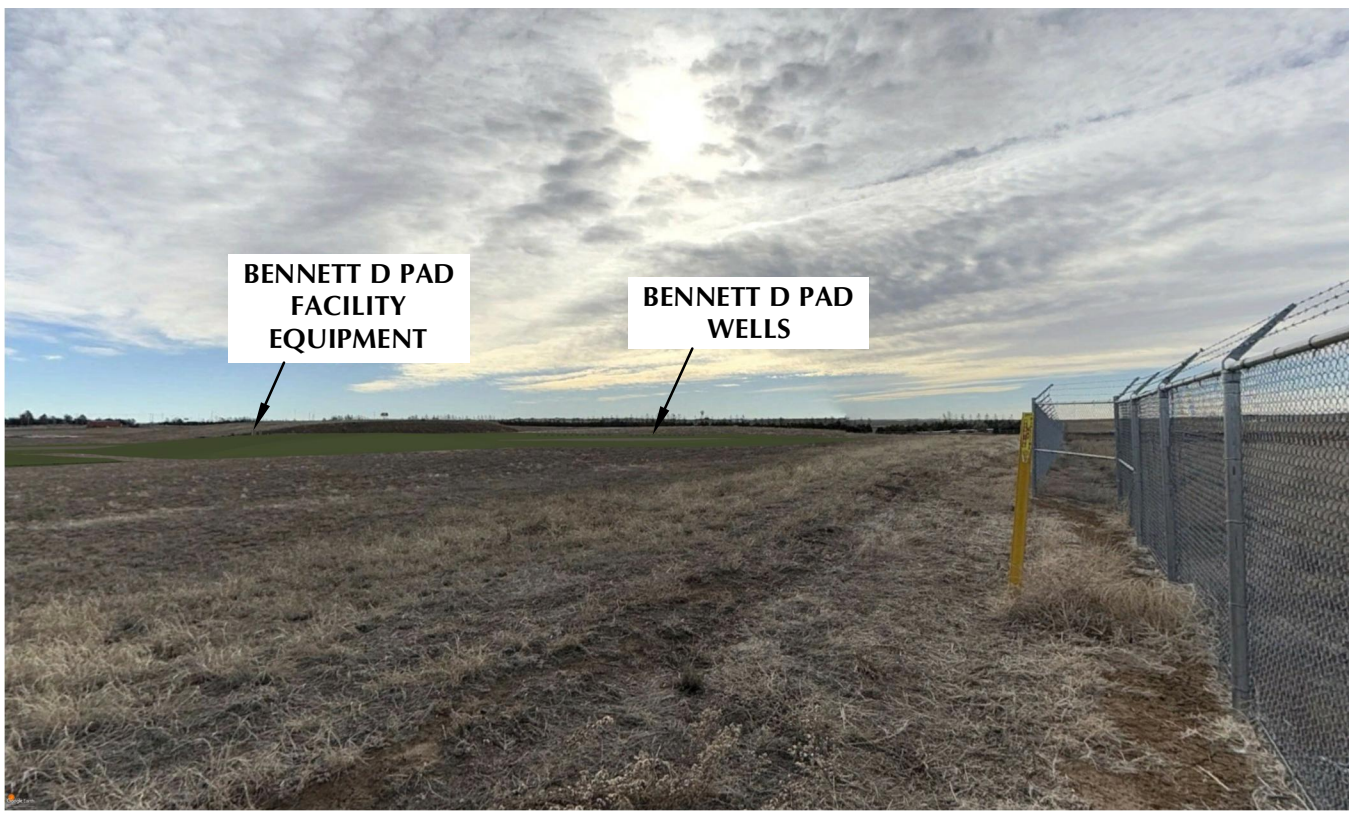
PRODUCTION PHASE

BENNETT D PAD **SIMULATION PICTURES** **LOCATED IN SECTION 34** **T3S, R64W, 6TH P.M.** **ADAMS COUNTY, COLORADO**	**Prepared For:** CIVITAS CRESTONE PEAK RESOURCES, LLC 555 17TH STREET, SUITE 3700 DENVER, CO 80202	**GROUND LEVEL PICTURE** **LOCATION 4 - CR 27** **DRILLING & PRODUCTION**	609 CONSULTING, LLC SHERIDAN OFFICE 1095 Saberton Avenue Sheridan, Wyoming 82801 Phone 307-674-0609 LOVELAND OFFICE 6706 North Franklin Avenue Loveland, Colorado 80538 Phone 970-776-4331	**NOTE:** - IMAGERY COURTESY OF GOOGLE.

SCALE: NTS	**DATE: 12/16/24**	**SHEET NO:** **5** 5 OF 7
REVISED:		

PHOTO LOCATION 5
NORTHWEST OF LOCATION - LOOKING SOUTHEAST
1,171' TO EDGE OF OIL AND GAS LOCATION

DRILLING PHASE



PRODUCTION PHASE

BENNETT D PAD **SIMULATION PICTURES** **LOCATED IN SECTION 34** **T3S, R64W, 6TH P.M.** **ADAMS COUNTY, COLORADO**	**Prepared For:** CIVITAS CRESTONE PEAK RESOURCES, LLC 555 17TH STREET, SUITE 3700 DENVER, CO 80202	**GROUND LEVEL PICTURE** **LOCATION 5 - NORTHWEST OF LOCATION** **DRILLING & PRODUCTION**	609 CONSULTING, LLC SHERIDAN OFFICE 1095 Saberton Avenue Sheridan, Wyoming 82801 Phone 307-674-0609 LOVELAND OFFICE 6706 North Franklin Avenue Loveland, Colorado 80538 Phone 970-776-4331
		NOTE: - IMAGERY COURTESY OF GOOGLE.	SCALE: NTS DATE: 12/16/24 REVISED: SHEET NO: 6 6 OF 7

PHOTO LOCATION 6
FRONT RANGE RV STORAGE - LOOKING SOUTHWEST
1,107' TO EDGE OF OIL AND GAS LOCATION

DRILLING PHASE

PRODUCTION PHASE

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\DWG\SOC36_BENNETT.dwg, 12/16/2024 4:50:05 PM, jedmunds

BENNETT D PAD **SIMULATION PICTURES** **LOCATED IN SECTION 34** **T3S, R64W, 6TH P.M.** **ADAMS COUNTY, COLORADO**	**Prepared For:** CIVITAS CRESTONE PEAK RESOURCES, LLC 555 17TH STREET, SUITE 3700 DENVER, CO 80202	**GROUND LEVEL PICTURE** **LOCATION 6 - FRONT RANGE RV STORAGE** **DRILLING & PRODUCTION**	609 CONSULTING, LLC SHERIDAN OFFICE 1095 Saberton Avenue Sheridan, Wyoming 82801 Phone 307-674-0609 LOVELAND OFFICE 6706 North Franklin Avenue Loveland, Colorado 80538 Phone 970-776-4331	**NOTE:** - IMAGERY COURTESY OF GOOGLE.
			SCALE: NTS	**DATE:** 12/16/24
			REVISED:	**SHEET NO:** 7 OF 7

Community Outreach Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-20

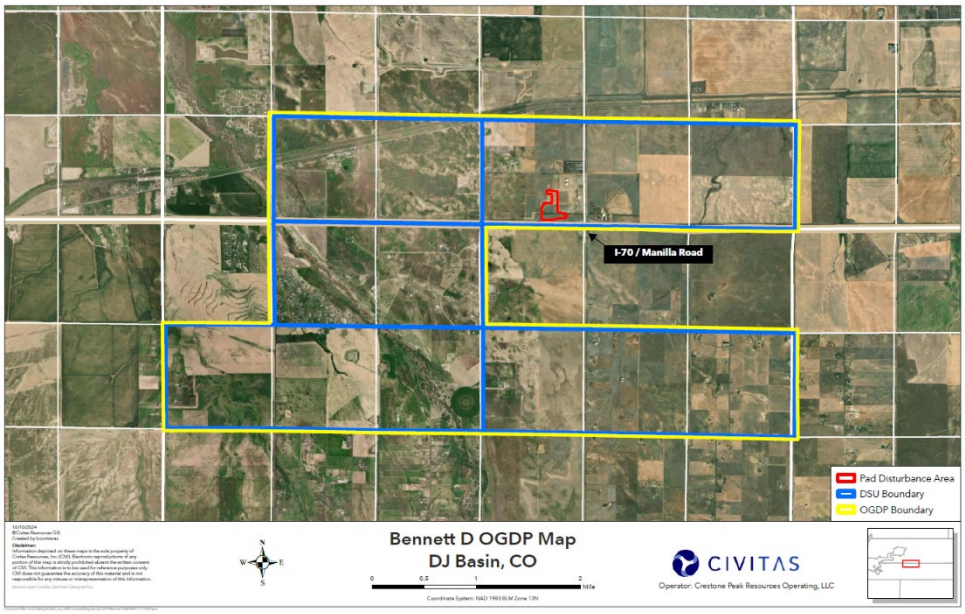
CIVITAS

Crestone Peak Resources Operating LLC

Bennett D Pad Community Outreach Plan

Location

Crestone Peak Resources Operating, LLC (Crestone), a wholly owned subsidiary of Civitas Resources, Inc. is proposing a new oil & gas operation consisting of one well pad with 26 horizontal wells. The new development is located near the intersection of I-70 and Manilla Road in Adams County.



Community Outreach Planning

As a longtime operator in Colorado, local community relationships are extremely important to Crestone Peak Resources. Our Community Outreach plan is comprised of best management practices that are as inclusive as possible to reach any impacted landowners.

On November 25, 2024, Crestone held a pre-application neighborhood meeting for the Bennett D Pad Oil and Gas Facility. The meeting was held at the Bennett Community Center, 1100 E Colfax Ave, Bennett, CO 80102 which sits just a few miles from the proposed location. The meeting was held from 6:00 p.m. to approximately 7:00 p.m. The invitation was sent to 49 addresses on November 8, 2024, arriving two weeks prior to the event. Four members of the public, a representative from Adams County and six representatives from Crestone were in attendance. Poster boards were on display detailing drilling, casing / cementing program, and completions. Handouts were available illustrating proposed drilling and completion layouts and the location once wells are in production. The meeting started with a brief presentation followed by questions from the public.

There are up to five residences whose properties are within 2,000 feet of the project. We have had multiple conversations with a couple property owners and tenants to answer any questions and concerns they may have about the project. Crestone is actively trying to coordinate conversations with the remaining property owners but has not had conversations with two at this time. Having discussions will confirm the number of residences / tenants on these parcels. Crestone is currently pursuing

Informed Consents from each of owners of the residents and tenants, if present, and will provide to the Director as they become available.

The following table illustrates the property owners Crestone will be coordinating with to discuss Informed Consent and the possible number needed for each property.

Parcel #	Total number of Informed Consents (IC) and details
1 - 0181700000275	2 ICs – one surface owner, one tenant; one building is unoccupied
2 - 0181700000304	1 IC – surface owner
3 - 0181734200003	0 or 1 IC – business on property; presence of residence on property is currently unknown.
4 - 0181734100004	1 or 2 ICs – surface owner/potential tenant

Crestone is committed to transparent and consistent community outreach. To that end, we will have a dedicated project website that will be regularly updated to provide news and detailed updates. We will conduct quarterly meetings once the Oil and Gas Facility Permit is approved with Adams County. We will send Activity Notices prior to each phase of development throughout the

To encourage feedback, notices will include several methods for recipients to provide feedback, i.e. the Civitas Community Relations phone number and email address, a postage paid return envelope, or a QR code linked to a response form.

Any feedback from these notices will be logged and brought to the project team for consideration. All areas of feedback will be extensively tracked, including any applicable mitigation measures that are undertaken by the project team. It's our overall goal to incorporate community feedback into operations plans where we can.

Community Outreach Commitments

In an effort to maintain above-and-beyond contact to area residents, Crestone is committed to the following communication vehicles:

- Quarterly meeting once the Oil and Gas Facility Permit is approved with Adams County
- A website dedicated to the Bennett D Pad Project that will provide regular updates
- Activity Notices sent to arrive at least two weeks before each stage of the project
- Several methods of receiving feedback and questions from the public (Community Relations phone number and email, a postage paid return envelope, or a QR code linked to a response form)

CIVITAS

Crestone Peak Resources Operating LLC

Sample Neighborhood Communication

Crestone Peak Resources is seeking approval from the Colorado Energy Carbon Management Commission to construct a new oil & gas well pad, near intersection of I-70 and Manilla Road in Adams County.

Safe and responsible operations are at the core of our company values. Above all, our approach is defined by our commitment to working with our communities. You will receive regular updates as the project continues describing the next phase of operations, the estimated timeline and what you might see when that phase begins.

Your feedback is important to us. Please do not hesitate to contact us with questions about this proposed development. You can reach us via email at CommunityRelations@civiresources.com or via phone at 720-279-9842.

Site-specific Impact Mitigation and Best Management Practices by Phase

Construction

Site Specific Impact Mitigation

- Existing Access Road will be upgraded and utilized, with minimal new road construction.

Best Management Practices

- Freshwater will be used as a dust suppressant, when necessary, on the pad and access road.
- Crestone will conduct additional avian surveys prior to the commencement of construction to ensure no conflicts have developed since the prior survey(s).
- Topsoil stockpiles will be stabilized with appropriate vegetation to provide both short- and long-term stabilization to prevent erosion.
- Tracking controls will be installed at the entrance of the access the road to prevent mud-tracking and associated dust on the public roadway.

Drilling

Site-specific Impact Mitigation

- Rig will utilize grid power.
- Use of Group III drilling fluids.

Best Management Practices

- Installation of polyethylene liner on location during drilling operations. The drilling rig and associated equipment (including fluid storage area) will be placed atop the liner.
- Utilize closed-loop, pit-less fluid management system.
- Remove drilling cuttings daily.

- Lighting will be angled in a downward manner and placed at reasonable heights to limit the halo effect off location.
- Although not necessary for noise compliance, sound walls will be utilized around majority of the well pad.

Completions

Site-specific Impact Mitigation

- Crestone will utilize a Tier IV (or equivalent) completions fleet.

Best Management Practices

- Crestone will install a polyethylene liner across portions of the location as an isolation barrier. The completion fleet and associated equipment (including fluid storage areas) will be placed atop the liner.
- Use of sealed containers (e.g., sandboxes) for the storage and transportation of sand used in hydraulic fracturing.
- Any gas encountered during flowback will be routed to a gas sales pipeline or combusted with a minimum of 98% destruction efficiency.
- Lighting will be angled in a downward manner and placed at reasonable heights to limit the halo effect off location.
- Although not necessary for noise compliance, sound walls will be utilized around majority of the well pad.

Production

Site-specific Impact Mitigation

- Utilize compressed air pneumatics for all pneumatic actuation on location.
- Utilize pipeline for oil and gas takeaway.
- Utilize a pressurized maintenance vessel during maintenance operations.
- Will not install permanent lighting, thereby reducing light pollution and disturbance to nearby receptors during the production period.
- Facility will run on grid power.

Best Management Practices

- Equipment will be painted “desert tan” (or similar) to avoid creating a marked contrast with the surrounding landscape.
- Wells, facilities, and equipment will be equipped to be shut in remotely.
- Tankless facility.
- Bulk and test facility design reduces number of separators which decreases facility footprint.
- Development of a site-specific SPCC plan.

Proposed Construction Timeline

- 2Q2026 – Construct Pad and prepare for drilling operations
- 3Q2026 – Commence drilling operations
- 1Q2027 – Commence completion operations
- 3Q2027 – Complete completion operations, begin production operations

Cumulative Impacts Plan

Adams County Development Standards and Regulations Section 4-11-02-03-03-03-21

Water Resources Exhibit (Potential Contaminate Migration Pathway)

CIVITAS

Crestone Peak Resources Operating, LLC

Bennett D Pad
Cumulative Impact Plan[1]

Section 34, Township 3 South, Range 64 West
Adams County, CO

[1] ECMC 304 c. 19.A.-D.

Table of Contents

1.0 Introduction

All human activities carry the potential for cumulative environmental impacts. These are gradual, incremental effects that, while seemingly minor on their own, can combine to create significant consequences. For example, air and water quality or dust levels may be marginally affected by individual projects, but the combined effect of many projects in a concentrated area can be substantial.

Crestone Peak Resources Operating, LLC (Crestone) acknowledges the importance of considering these cumulative impacts and adheres to relevant regulations, Colorado Energy & Carbon Management Commission (ECMC) Rules 304.c.(19) and 303.a.(5), as well as documenting the potential impacts on the ECMC Form 2B.

EXPERT-LED PLANNING FOR MINIMIZED IMPACTS

The Operator assembles teams of specialists in air quality, wildlife biology, and cultural resources during the planning stages of every project. These experts guide the selection of well and facility locations to minimize environmental impact from the outset.

PROJECT LIFECYCLE FOCUS ON IMPACT REDUCTION

The Operator's commitment to responsible development extends throughout the project lifecycle. These subject matter experts remain involved to ensure that potential environmental impacts are identified, and when possible, avoided entirely. If complete avoidance is not achievable, The Operator prioritizes minimizing and mitigating impacts through various best management practices.

BALANCING DEVELOPMENT WITH ENVIRONMENTAL PROTECTION

The Operator strives to strike a balance between responsible subsurface resource development and minimizing the above-ground footprint of its operations. Bennett D exemplifies this approach, aiming to protect public health, safety, the environment, and wildlife resources.

DETAILED MITIGATION STRATEGIES

This Cumulative Impact Plan (CIP) outlines The Operator's project plan in detail. It covers facility design, operational procedures, and ongoing maintenance practices, all specifically tailored to minimize environmental impact throughout each development phase. The plan will also provide a roadmap for eliminating, minimizing, or mitigating potential impacts to water, soil, and wildlife.

2.0 Air Resources

Ambient air quality is a complex tapestry woven from the interplay of pollutant emissions, regulations, and environmental factors. The quantity and chemical properties of pollutants released locally and upwind significantly influence air quality. Regulations act as a control mechanism, limiting allowable emissions from various sources. However, the story doesn't end there. Topography, with its mountains and valleys, plays a crucial role in pollutant transport and dispersion, potentially creating pockets of higher concentrations. Meteorological factors like wind speed, air turbulence, and mixing depths further influence how pollutants move and disperse, ultimately affecting their ambient concentrations. Land use, whether agricultural fields, urban landscapes, or forests, also plays a part, impacting how pollutants interact with surfaces and disperse into the atmosphere. This intricate interplay between emissions, regulations, and environmental factors ultimately dictates air quality.

The surrounding area is agricultural and irrigated land primarily used for cropland, rangeland, and recreational activities. While current air emissions are limited, the expansion of the Bennett D Pad as part of this OGDP has the potential to increase air pollutant concentrations. The Best Management Practices (BMPs) outlined in this section for all operational phases aim to mitigate these impacts. Significant cumulative impacts to air quality are not expected, but close monitoring and adherence to BMPs are crucial to ensure this prediction is accurate.

This section dives into the potential air quality impacts associated with each development phase of the proposed oil and gas location expansion Bennett D Pad. The Cumulative Impacts Data Evaluation Repository (CIDER) provides a comprehensive record of estimated emissions ("Bottom Up" estimates) for each phase. Additionally, the Form 2B accompanying this OGDP details the estimated air emissions specifically generated by this location. This combined information allows for a thorough assessment of potential air quality effects.

2.1 Phases of Oil & Gas Development

The following section describes the life cycle of a well pad. The Pre-Production Operations phases – e.g., construction, drilling, and completions – comprise a much shorter time than the Production Operations phase and subsequent abandonment.

2.2 Pre-Production Operations

2.2.1 CONSTRUCTION

Timing and Description

Well pad construction could take place over an estimated period of around 2 month and will consist of the construction of a graded, level surface for wells and support equipment.

During the construction phase of the pad, there will be limited air emissions. Emissions will be limited to those resulting from the use of earth-moving equipment (i.e., internal combustion engines) and dust generated from construction activities and vehicular traffic. These types of emissions are consistent with those generated during agricultural activities or other land development activities.

Cumulative Impact Reduction

The siting of this pad will allow for the following cumulative impact reductions:

- Utilization of an existing access point and 2315' of existing access road reduces the need for new disturbance reducing cumulative impacts related to soil resources and potential dust emissions.
- The equipment used to build the pad will be Tier IV emission rated. This signifies the equipment meets the strictest standards for off-road diesel engines, minimizing air pollution from construction activities.

Additionally, the operator will utilize the following best practice procedures to reduce cumulative impacts associated with the construction phase of pre-production activities.

- The operator will utilize freshwater on the access road to minimize the generation and transportation of dust during pre-production activities.
- Mud-tracking devices will be incorporated on the road access before the apron.

2.2.2 DRILLING

Timing and Description

Each well usually takes 5 to 7 days to drill to total depth. The drilling rig that will be utilized to drill the wells to total depth will be powered by the local power grid using an electric drilling engine.

During drilling operations, air emissions can be summarized in three (3) categories:

1. emissions resulting from the use of the drilling rig and associated support equipment (i.e., front end loader, crane, etc.),
2. emissions resulting from drilling operations (i.e., mud break-out, pipe connections, etc.), and
3. dust emissions generated from vehicular traffic.

Cumulative Impact Reduction

The Operator will utilize the following best management practice and site specific equipment to reduce cumulative impacts associated with the drilling stage of development.

- The Operator will employ pipe cleaning procedures when removing drill string from the well and remove drill cuttings daily.
- The operator will utilize a closed loop, pit-less fluid management system.
- The operator pledges to utilize a grid-connected electric drilling rig, thereby mitigating the cumulative environmental impacts associated with internal combustion engine operation.

2.2.3 COMPLETIONS

This stage prepares the wellbore for long-term oil and gas production. Key activities include:

- *Hydraulic Fracturing:* A process that injects fluid at high pressure to create fractures in the rock formation, allowing trapped oil and gas to flow more easily.
- *Wellbore Cleanup (drill-out, tube-up):* Removing drilling debris and installing production tubing within the wellbore to transport oil and gas to the surface.
- *Well Flowback:* Recovering fluids used during fracking and initial wellbore cleanup.

2.2.3.1 HYDRAULIC FRACTURING

Timing and Description

Hydraulic fracturing, or stimulation of the reservoir, utilizes high-pressure fluid injected through hydraulic pumps and portable equipment to create cracks in rock formations around the wellbore, enhancing oil and gas flow. To optimize efficiency during this process, wells are stimulated in groups of three to four, but each undergoes individual fracturing in multiple stages lasting approximately five days per group (depending on wellbore length and fracturing parameters).

The Operator is committed to minimizing air quality impacts. Potential emissions during completion operations originate from three sources:

1. Emissions resulting from internal combustion engines that power hydraulic pumps and other associated equipment.
2. Emissions resulting from wellhead and related operations (i.e., swapping of equipment, wellbore preparation between stages, etc.).
3. Dust emissions generated from the use of sand and vehicular traffic.

Cumulative Impact Reduction

The Operator is committed to minimizing air quality impacts throughout the hydraulic fracturing stage. Here's how we'll achieve this:

- The Operator will utilize Tier IV equivalent or better rated completion equipment to minimize emissions from on-site combustion engines.
- The Operator will employ "block and isolate" practices whenever possible on equipment, piping, and tank connections to prevent leaks and fugitive emissions.
- The Operator will transport fresh water for completion operations using lay-flat pipelines, significantly reducing truck traffic and associated dust generation.
- Sand will be stored and transported in sealed containers. This eliminates the need for open-top hoppers and conveyor belts, drastically reducing the risk of airborne sand particles.

2.2.3.2 DRILL-OUT & TUBE-UP

Timing and Description

The drill-out process utilizes a coiled-tubing unit (CTU) to drill out the plugs that were installed in the horizontal wellbore following each stage of the well stimulation. It takes between 3-4 days to drill-out a horizontal well in the DJ Basin.

Once all the plugs have been drilled out from the horizontal wellbore, production tubing will be installed. Production tubing can usually be installed in one (1) day for a single well. Installation of production tubing is done when the wellbore is pressurized thereby requiring specialized equipment.

Cumulative Impact Reduction

Throughout this process, the wellbore is overbalanced whereby the pressure within the wellbore is greater than the reservoir pressure which prevents the reservoir fluids and gases from entering the wellbore. It is possible that minor amounts of reservoir fluids will be entrained in the wellbore fluid and brought to surface. When this occurs, these fluids or gases will be routed to an emissions-controlled tank (i.e., oil, water) or to combustion device (i.e., gas) with a destruction efficiency of at least 98%.

It has been The Operator's experience that these practices employed during drill-out and tube-up result in negligible emissions into the atmosphere.

The Operator will utilize the following best management practices and site specific equipment to reduce cumulative impacts associated with the drill-out and tube-up process.

The operator will employ the best practice of “block and isolate” whenever possible on equipment, piping, and/or tank connections.

2.2.3.3 WELL FLOWBACK

Timing and Description

This process typically takes between 30 to 60 days before the temporary equipment is removed and the well produces primarily oil and gas with small amounts of produced water. Flowback is essential to bring a well into production. Here's what happens during this stage:

- *Temporary Equipment:* Sand knockouts (SKOs) and a frac tank are installed to assist in "cleaning up the well."
- *Well Cleanup:* The well produces large amounts of water and sand along with small amounts of oil and gas. The SKOs remove sand from the production stream before it enters the separator.
- *Emptying the SKOs:* Just like a full kitchen garbage can, SKOs need to be emptied periodically. Compressed air blows the sand into an open-top tank for temporary storage. The open-top tank is then loaded onto a truck and hauled to an approved disposal facility.
- *Transition to Production:* Once the well is clean, temporary equipment is removed, and the well primarily produces oil and gas with minimal water.

Cumulative Impact Reduction

The Operator is committed to minimizing environmental impact during flowback. Here's how:

- The well stream is routed through permanent production equipment, and all salable produced gas is directed into a sales pipeline. This eliminates the need for venting or flaring salable gas.

2.3 Production Operations

Timing and Description

This is the final and longest phase of the well pad's operation and can continue as long as 30 years. During this phase, oil and gas are continuously produced from the wells and separated into individual components for transport. Here's a breakdown of the process:

- *Three-Phase Separation:* The well stream, a mixture of oil, gas, and water, is separated into these three individual components.

- *Gas Routing:* Once separated from liquids, the captured natural gas will travel to a new sales pipeline installed before production begins. To meet the pressure requirements for transport in midstream pipelines, the gas may sometimes need compression. This compression often occurs alongside additional separation processes using vapor recovery units (VRUs). VRUs essentially act as extra stages to squeeze more gas out of the liquid mixture extracted from the well, improving overall natural gas recovery efficiency.

- *Oil Storage and Transport:* Separated oil is then sent to a dedicated pipeline, eliminating emissions associated with truck traffic and storage tanks.

- *Water Handling:* Produced water is then sent to a dedicated pipeline, eliminating emissions associated with truck traffic and storage tanks.

- *Automated Monitoring:* The entire production process is continuously monitored by an automated system that tracks parameters like pressure, temperature, flow rates, and more. This 24/7 monitoring allows for quick identification and response to any potential issues. If something deviates from acceptable ranges, alarms are triggered, and personnel are notified. Depending on the problem, operators can take steps to isolate it, redirect the process, or shut down wells, equipment, or the entire facility to prevent emission events and protect public health and safety.

Cumulative Impact Reduction

The Operator will utilize the following best management practices and site specific equipment to reduce cumulative impacts associated with the proposed development:

- The operator will utilize the existing oil pipeline to the location. Reducing air emissions associated with truck traffic.
- The operator will utilize a tankless facility design eliminating the emissions that originate from storage tanks on location.
- The operator will utilize compressed air pneumatics for all pneumatic actuation on location. Eliminating the use of natural gas vented to the atmosphere during valve actuation and associated processes.
- The operator will utilize a pressurized maintenance vessel during maintenance operations. Eliminating gas that would otherwise be vented to the atmosphere during maintenance operations.
- The operator will electrify the permanent production facilities.
- Wells, facilities, and equipment will be equipped to be shut-in remotely.

3.0 Public Health Impacts

Public concerns exist in Colorado regarding air quality impacts from oil and gas development on nearby communities. Studies by the Colorado Department of Public Health and Environment (CDPHE) in 2017 assessed these risks, finding measured air concentrations below safe levels. Subsequent dispersion modeling performed by CDPHE in 2019 showed there was a risk of potential health impacts under perfect meteorological conditions 2000' from oil and gas locations. The oil and gas industry, including The Operator, has developed, and implemented improved practices, particularly during flowback, which eliminate the use of open tanks and significantly reduce potential emissions during both pre-production and production operations.

The Operator is committed to responsible development and has undertaken independent monitoring efforts. In 2019, The Operator partnered with CTEH, LLC to conduct studies evaluating the short- and long-term air quality impacts of various operational phases at our development sites. These studies, conducted alongside best management practices, confirmed adherence to health guidelines established by the Agency for Toxic Substances and Disease Registry (ATSDR). Furthermore, The Operator's operations have been monitored by the Colorado Air Monitoring Mobile Lab (CAMML), providing independent verification of air quality data. The best management practices proposed at the Bennett D location meet or exceed the best management practices that were implemented at the locations that were being monitored during the CTEH study and CAMML air monitoring.

There are two residential units (RBUs) within 2,000 feet of the working pad, with one RBU being used as an office. The closest RBU is the structure used as an office.

The Operator believes the proposed development will have no public health impacts. This conclusion is based on the following:

- *Implementation of Committed BMPs:* The project will utilize BMPs including a utility-powered electric rig, Tier IV or better rated completion equipment, a tankless facility, three-phase takeaway, and electrified facilities.

- *Extensive Monitoring Data:* The Operator has access to air monitoring data from similar projects that employed more impactful mitigation strategies. This data supports the expectation of no health impact to the two (2) RBUs within 2000' of the proposed working pad surface.

3.1 Cumulative Impact Reduction

The Operator prioritizes responsible air quality management throughout the project lifecycle.

- *Pre-Production Monitoring:* Continuous air monitoring will be implemented around the well pad even before construction operations begin. This proactive approach allows us to establish baseline air quality data.

- *Ongoing Monitoring:* Air monitoring will continue through the first 6 months of production, providing real-time data to ensure our operations are not creating adverse cumulative impacts on the surrounding area.

- *Regulatory Oversight:* The air monitoring plan will be submitted to the Colorado Department of Public Health and Environment (CDPHE) for review and approval, ensuring it meets all regulatory requirements.

4.0 Water Resources

There are above- and below-ground mechanisms by which hydraulic fracturing activities have the potential to impact water resources. These mechanisms include water withdrawals in times of, or in areas with, low water availability; spills of hydraulic fracturing fluids or produced water; below ground migration of liquids and gases resulting from poor wellbore construction practices; and inadequate treatment and discharge of wastewater.

4.1 Water Sourcing

Water is a major component of most hydraulic fracturing operations. It typically makes up more than 90% of the mass injected into a well. The water used in hydraulic fracturing activities represents less than 1% of total annual water use and consumption in the United States. Coordination with other water users is necessary to minimize potential conflicts with end users – i.e., agriculture, irrigation, etc.

4.1.1 WATER MINIMIZATION

The Operator prioritizes water conservation in its completion operations and has recently changed its wellbore spacing strategy. The current methodology has helped minimize impacts that result from water acquisition by using fewer wells but maximizing the resource development of the wells.

4.1.2 WATER RECYCLING

The Operator is actively seeking ways to minimize its environmental impact. One of the ways to accomplish this is by continuously evaluating new water recycling technologies to see if they can be implemented sustainably while meeting state and local regulations. Once a technology proves effective and compliant, the Operator will substantially reduce their dependence on freshwater resources by integrating the use of recycled water into its completion operations.

4.2 Groundwater Protection

Groundwater is a vital resource, and its protection is paramount during oil and gas well drilling operations. Colorado mandates a strict casing and cementing program for all wells drilled within the State. This ensures isolation of the wellbore from usable groundwater sources.

The following types of groundwaters require isolation from the wellbore and all potential flow zones:

- Domestic Use-Quality,
- Agricultural Use-Quality,
- Surface Water Quality Protection,
- Potentially Usable Quality pursuant to 5 C.C.R. §1002-41,
- Groundwater that has not been classified by statute but exhibits total dissolved solids less than 10,000 mg/l.

The Operator uses 9-5/8" steel surface casing that is set to a depth at least fifty (50) feet below the base of the deepest known groundwater subject to the above-captioned criteria. Surface casing is usually set at 1500' below ground surface and typically correlates with the regional base of the Fox Hills, or the base of the Upper Pierre aquifer (or its correlative geologic unit). Once the casing is set, it is fully cemented in place using the displacement method thereby placing specialized cement from the bottom of the 9-5/8" casing back to surface.

The ECMC reviews all Form 02 (Permit to Drill) Applications for adequate surface casing setting depths and cementing programs based on the following factors:

- Subsurface ground water maps prepared by the State Water Engineer,
- Offset well data,
- All available water well data.

Offset wells are all existing wells within 1,500 of the completed portions of the proposed wells. The Operator and the ECMC take further steps to ensure groundwater protection by reviewing these offset wells. This review confirms that the offset wells have sufficient protections in place, including:

- Proper plugging and abandonment for wells no longer in use.
- Adequate casing and cementing for all other existing wells.

Prior to operations, The Operator will check for depth of ground water and soil suitability. The estimated depth of the water table is more than 400ft. This estimate is based on data from a water well in the vicinity of the Bennett D Pad.

4.3 Surface Water Protection

Oil and gas development can pose risks to surface waters through accidental spills or increased soil erosion. The Operator prioritizes protecting surface water and implements several mitigation measures. The Operator enlisted biologists and hydrologists to conduct a comprehensive site assessment. This assessment included a detailed field survey within a 500-foot radius and a broader desktop survey covering a 2,640-foot area surrounding the proposed location for Bennett D Pad. The surveys identified five surface water features located downstream (downgradient) within 2,640 feet of the project site. Two of these features are isolated wetlands, and the other three are NWI-mapped wetlands and a intermittent lake/pond. To safeguard these wetlands and surface waters of the state, the Operator has developed a Stormwater Protection Plan, which is included with the Form 2A. This plan detail the specific measures that will be taken to protect these downgradient surface water features.

Beyond these plans, The Operator intends to implement the following robust procedures throughout the development phase to further minimize potential impacts on surface waters.

4.3.1 PREVENTING SPILLS AND LEAKS

The Operator prioritizes preventing spills and leaks through various containment measures. During drilling and completion stages, a large polyethylene liner isolates the drilling rig, equipment, and storage areas. This liner captures any potential spills, preventing them from reaching the ground.

4.3.2 ENGINEERED CONTAINMENT FOR PRODUCTION FACILITIES

For the production phase, The Operator utilizes a robust, engineered containment system around the separators. This system features post-driven perimeter walls with a geotextile base, all coated with a durable polyurea liner. This liner is resistant to punctures, UV rays, weather extremes, and common oil and gas chemicals.

4.3.3 SPILL RESPONSE PLAN

Despite these preventative measures, The Operator recognizes the possibility of accidental spills. A comprehensive spill response plan ensures a swift and effective response. In case of a release, immediate notification goes to designated personnel who initiate a series of response procedures. These procedures prioritize stopping the discharge at the source whenever safe to do so. Spill response resources are then deployed to contain the spill, assess the impact, and develop a clear path for cleanup and disposal. The Operator maintains a comprehensive record of all spills, including documentation, lab analyses, and proper waste disposal.

4.3.4 STORMWATER SEDIMENTATION AND PROTECTION

The Operator prioritizes preventing negative impacts on nearby surface water features through a comprehensive stormwater management plan. This plan incorporates sediment controls to prevent runoff laden with sediment from reaching these water bodies.

For more specific details on the stormwater control measures planned for this site, please refer to the Stormwater and Erosion Control Plan.

In summary, The Operator prioritizes protecting surface water resources at the Bennett D Pad through preventative measures and a robust spill response plan.

5.0 Terrestrial and Aquatic Wildlife Resources and Ecosystems

The proposed Bennett D Location is a new well pad and is located in rangeland, near the interstection of Interstate 70 and Manilla Road. This property also has midstream oil infrastructure where this pad will be co-located.

5.1 Terrestrial Wildlife Resources and Ecosystems

Oil and gas operations can disrupt wildlife and ecosystems in several ways:

Habitat Loss: Construction of well pads, roads, and pipelines can fragment and destroy wildlife habitat.

Disturbance: Noise, light pollution, and human activity can stress wildlife, affecting their breeding, feeding, and migration patterns.

Spills and Leaks: Accidental spills of oil and completion fluids can contaminate water sources and soil, harming wildlife and their food sources.

Habitat Fragmentation: Roads and infrastructure can divide wildlife populations, making it harder for them to find food, mates, and shelter.

These impacts can affect a wide range of wildlife, including birds, mammals, reptiles, amphibians, and insects.

5.1.1 ENVIRONMENTAL REVIEW, FIELD STUDIES, AND DESKTOP ANALYSIS

A robust environmental review was completed by a third-party consultant during the initial planning phase for the proposed location. Based on desktop analyses and field investigations, no potential conflicts were identified regarding the presence of High-Priority Habitat or State/Federal Sensitive, Threatened, or Endangered species. More information regarding the environmental review and analysis can be found in the attached Wildlife Protection Plan.

Eagles: Field surveys found no bald eagle or golden eagle nests, or nesting activities were observed within ½ mile of the proposed Location.

Burrowing Owls: No suitable burrowing owl habitat (i.e., prairie dog town) was identified within ¼ mile of the Site.

Other Raptors: Three inactive non-eagle raptor nests were observed within ½ mile of the Site. One nest is located approximately 365 feet southwest of the Site, a second nest is located approximately 700 feet west from the Site, and a third nest is located approximately 700 feet east of the Site.

Migratory Birds: No migratory bird nests or nesting activity were observed; however, suitable nesting habitat, including surface topography, vegetation, and artificial structures, is present at and immediately surrounding the Location.

5.1.2 PRE-CONSTRUCTION WILDLIFE SURVEYS PLANNED

Based on the findings, a consulting biologist recommended additional wildlife surveys before operations begin. These surveys will focus on the four bird categories mentioned above (details in the Wildlife Protection Plan). The operator will incorporate these surveys into pre-construction planning and deploy a biologist before construction starts.

5.1.3 ACTIVE NEST MANAGEMENT

If active nests are discovered, the operator will collaborate with the relevant agency to determine appropriate next steps, potentially including site-specific mitigation measures.

5.1.4 LAND MANAGEMENT AND RECLAMATION

The operator's weed management and interim reclamation plans aim to minimize disruption to existing vegetation and preserve topsoil. Interim reclamation, involving replanting with the input of the landowner, will occur shortly after production begins. The goal is to revegetate the area in a way that supports continued agricultural use of the land.

5.1.5 HABITAT DISTURBANCE MINIMIZATION

The Operator designed the project to minimize its footprint. The Bennet D location is partially on previously disturbed land adjacent to a midstream facility. This will result in a more efficient and less disruptive development by locating near similar land use.

5.2 Aquatic Wildlife Resources and Ecosystems

Oil and Gas operations have the potential to impact aquatic wildlife and ecosystems in the following ways:

Water Contamination: Spills of oil, completion fluids, or produced water can pollute rivers, streams, and lakes. These contaminants can be toxic to fish, invertebrates, and other aquatic life, disrupting food chains and causing population decline.

Sedimentation: Activities like road construction and well pad clearing can increase erosion, leading to increased sediment runoff into waterways. This sediment can smother fish eggs and other aquatic life, reducing oxygen levels in the water and harming overall ecosystem health.

A robust environmental review was completed by a third-party consultant during the initial planning phase for the proposed location.

5.2.1 DESKTOP AND FIELD STUDIES

A review of the area surrounding the proposed location for Bennett D Pad, including desktop analysis and field investigations, identified potential aquatic habitats within 1,000 feet. These features are depicted on the attached Hydrology Map.

- *Ditches:* Ditches were identified, but are determined to be low quality for aquatic wildlife as they are dry for large portions of the year. The ditches are utilized for stormwater controls. The ditch in the southern part of the location will be rerouted.
- *Wetlands/Ponds:* Two (2) field verified wetlands and one (1) stormwater pond.
    - Field-verified isolated wetlands located 54 and 150 feet west of the WPS.
    - A stormwater pond situated 150 feet west of the WPS.

To safeguard these potential aquatic habitats, the Operator has developed a Stormwater Protection Plan, which is included with Form 2A. This plan detail the specific measures that will be taken to protect these downgradient surface water features. Crestone plans to install a three foot berm at the edge of the WPS in the direction of the wetlands.

Furthermore, the project will incorporate full wrap sound walls. These walls will help shield potential aquatic habitats from noise and light disturbances.

5.2.2 SPILL PREVENTION MEASURES

Given the surrounding aquatic features, The Operator will utilize its robust set of spill protection and response measures to aid in preventing potential discharges of fluids off location. In the unlikely event of a spill on location, The Operator has implemented BMPs to capture discharged fluids before reaching any surface waters (*see Water Resources section*).

5.2.3 STORMWATER SEDIMENTATION AND PROTECTION

The operator prioritizes preventing negative impacts on nearby surface water features through a comprehensive stormwater management plan. This plan incorporates sediment controls to prevent runoff laden with sediment from reaching these water bodies. For more specific details on the stormwater control measures planned for this site, please refer to the Stormwater and Erosion Control Plan.

5.2.4 PLATTE RIVER STEWARDSHIP

Civitas Resources, Inc, parent company of The Operator, is an active member of the South Platte Water Related Activities Program ("SPWRAP"), a Colorado nonprofit corporation established by Colorado water users for the purpose of representing water users' interests and partnering with the State of Colorado to implement the Platte River Recovery Implementation Program in central Nebraska. This program provides a venue and mechanism to address possible Endangered Species Act issues on and along the Platte River including to assist in the recovery of threatened or endangered species within this important river corridor and elsewhere in the river basin. Additional information about this unique organization can be found here - http://cospwrap.org/ .

6.0 Soil Resources

Oil and gas operations has the potential to impact Soil Resources in the following ways:

- *Compaction:* Heavy equipment used during construction can compact the soil, reducing pore space and air circulation. This can harm plant growth and hinder the soil's ability to absorb water, potentially leading to erosion.
- *Stripping and Stockpiling:* Removing topsoil during construction activities exposes the underlying subsoil. Stockpiling topsoil for later use can also damage its structure and fertility.
- *Contamination:* Accidental spills of oil, completion fluids, or produced water can contaminate soil, rendering it unsuitable for plant growth and potentially harming soil organisms.
- *Loss of Topsoil:* Improper erosion control measures can lead to topsoil being washed away by wind or rain, reducing soil fertility and productivity.

These impacts can significantly degrade the quality and function of topsoil, making it difficult to reclaim the land for its original use after oil and gas operations cease.

Crestone prioritizes topsoil preservation throughout the development process.

6.1 Pre-Construction Soil Assessment

A qualified soil scientist conducts a thorough survey to assess the depth and characteristics of different soil layers, especially the crucial topsoil. This analysis (details available in the Topsoil Protection Plan) helps determine the final grading plan and identify the Best Management Practices (BMPs) needed to protect the soil during construction and ensure its future viability.

6.2 Topsoil Stockpiling

- To preserve valuable topsoil, it will be stockpiled within designated areas permitted for disturbance.
- To prevent oxygen depletion, stockpile height will be kept low.
- Safe and efficient seeding will be ensured by maintaining slopes no steeper than 4:1.

6.3 Topsoil Seeding

Following final grading, a custom seed mix specifically designed for the project will be drill-seeded into the stockpiles. This mix, detailed in the Interim Reclamation Plan, prioritizes:

- *Native, perennial grasses and forbs:* These contribute to a natural ecosystem and require less maintenance.
- *Deep-rooted species like alfalfa:* These enhance soil stability by anchoring it from within.
- *Compatibility with local soil:* Choosing species suited to the soil type ensures optimal growth.

6.4 Interim Reclaimed Area Seeding

An analysis will be conducted to determine the most effective soil amendments for optimal seed germination and plant establishment.

An annual cover crop will also be included in the seed mix, detailed in the Interim Reclamation Plan to:

- Quickly establish vegetation and provide initial ground cover.
- Aid in soil stabilization by reducing erosion.

Offer temporary cover until the permanent plant mix matures.

6.5 Spill Prevention and Response

Crestone recognizes the potential for leaks or spills to impact soil resources. As referenced in the Water Resources section, a robust set of spill prevention measures are implemented:

- Trained personnel for spill identification and response.
- Industry best practices to identify and remediate impacted soil.
- Adherence to ECMC's 900-Series Rules and other relevant regulations.

These comprehensive measures minimize the risk of spills and ensure a rapid response in the unlikely event of a discharge.

By employing these practices, the Operator strives to minimize cumulative impacts, protect valuable topsoil and facilitate successful land reclamation after project completion.

7.0 Public Welfare

The following narrative is intended to supplement the above-described resources and potential impacts. Although this information is contained elsewhere within the application materials, brief summaries of impacts and mitigations for several key areas, often referred to as nuisances, are:

7.1 Noise

7.1.1 PRE-PRODUCTION OPERATIONS - NOISE

POTENTIAL IMPACT

Relative to ambient levels, temporary increases in sound levels are expected during drilling and completion operations.

MITIGATION

Sound walls. Sound walls will be erected around the location prior to the commencement of the drilling phase and will remain until the completions phase is finalized. The walls will stand 32' tall and utilize acoustic fabric to aid in the attenuation of sound emanating from equipment on the location.

Utility Powered Electric Rig. A utility powered electric rig reduces noise by eliminating the noise associated with on-site power generation.

Quiet Completions Fleet. A 'quiet completions fleet' will be utilized for hydraulic fracturing.

7.1.2 PRODUCTION OPERATIONS - NOISE

POTENTIAL IMPACT

Relative to ambient, intermittent temporary increases in sound levels are expected during ongoing production operations.

MITIGATION

Grid Power. The Operator will utilize electric grid power to energize the facility eliminating most noise sources on the planned location.

7.2 Light

7.2.1 PRE-PRODUCTION OPERATIONS - LIGHT

POTENTIAL IMPACT

The drilling and completions phases occur 24-hours per day, which means lighting is required by regulation for worker safety during nighttime hours. Illuminating the location may cast halos or shadows that are perceptible from a distance. Headlights on vehicles may also be visible during the overnight hours when vehicles enter/exit location.

MITIGATION

Lighting Orientation. Lights will be angled in a downward manner to limit the 'halo effect' from impacting nearby receptors.

Lighting Height. Lights on location and those affixed to the sound walls will be placed at reasonable heights to limit 'light spillage' off location.

Essential Use Only. Only lights necessary to maintain a safe and regulatory compliant working environment will be used.

7.2.2 PRODUCTION OPERATIONS - LIGHT

POTENTIAL IMPACT

Artificial lighting at the well pad during production operations may create light impacts through halos, shadows, or headlights from entering/exiting vehicles.

MITIGATION

No Permanent Lighting. No permanent lighting is planned to be installed at this location, minimizing ongoing lighting impacts.

7.3 Odor

7.3.1 PRE-PRODUCTION OPERATIONS - ODOR

POTENTIAL IMPACT

Temporary odoriferous emissions during drilling and completions operations may be anticipated; these odors can generally be characterized as having a "petroleum scent" or a "burning metal" scent. Additionally, exhaust from diesel powered equipment may be identifiable from time to time.

MITIGATION

The use of these BMPs is anticipated to eliminate odor as a potential nuisance to receptors.

Closed Loop Systems. The operator will utilize closed-loop fluid management systems.

Low-Emission Drilling Fluids. The operator will utilize IOGP Group III drilling fluids.

Prompt Waste Removal. The operator will remove drill cuttings on a daily basis or as soon as waste containers are full.

Pipe Cleaning Procedures. The operator will employ pipe cleaning procedures when removing drill pipe from the hole.

7.3.2 PRODUCTION OPERATIONS - ODOR

POTENTIAL IMPACT

Occasional odors similar to those experienced during drilling and completion may occur.

MITIGATION

The Operator will utilize the following mitigation measures.

Electric Operations. The operator will utilize electric power for production facilities which eliminates potential odors from on-site combustion engines.

Pneumatic Systems. The operator will employ instrument air pneumatics which removes the need to vent gas during valve operation and reduces the potential for odor release.

Closed-Loop Maintenance. The operator will use a dedicated maintenance vessel to capture gas during maintenance procedures, preventing it from escaping into the atmosphere.

Tankless Location. The operator plans to operate this pad as a tankless location. This will reduce the source of potential odors associated with tank emissions.

7.4 Dust

7.4.1 PRE-PRODUCTION OPERATIONS – DUST

POTENTIAL IMPACT

Dust generated from the movement of equipment and materials on location may occur; vehicular traffic may generate dust while traversing the access road.

MITIGATION

Mud Tracking Control. The operator will install vehicle tracking controls at the entrance of the access road.

Dust Suppression. The operator will use freshwater as a dust suppressant on the pad and access road as atmospheric conditions warrant. This will serve to minimize potential dust generated from the location.

7.4.2 PRODUCTION OPERATIONS – DUST

POTENTIAL IMPACT

Dust generated from the movement of equipment and materials on location may occur; vehicular traffic may generate dust while traversing the access road.

MITIGATION

Dust Suppression. The operator will use freshwater as a dust suppressant on the pad and access road as atmospheric conditions warrant. This will serve to minimize potential dust generated from the location.

7.5 RECREATION & SCENIC VALUES

Oil and gas development can introduce several changes that can negatively impact recreation and scenic values. These include:

- *Visual alterations:* Drilling rigs, wellheads, and pipelines create physical structures that can disrupt the natural landscape. This can be particularly significant in areas valued for scenic beauty or wilderness experiences.
- *Noise disruptions:* Machinery and vehicles used in oil and gas operations generate noise that can detract from the tranquility of recreational areas.
- *Reduced visitation:* Studies suggest a correlation between oil and gas development and decreased visitation rates in nearby recreational areas. This could be due to a combination of the factors mentioned above.

7.5.1 RECREATION

There are no parks or other public spaces in the vicinity of the proposed Location.

PRE-PRODUCTION OPERATIONS MITIGATION

The operator will utilize the pre-production mitigation measures outlined previously to mitigate potential impacts to the identified recreational feature related to noise, light, odor, and dust.

PRODUCTION OPERATIONS MITIGATION

Due to the current land use as an oil midstream facility along with the production mitigation measures outlined previously to mitigate potential impact, it is not anticipated that there will be any impacts to the recreation.

7.5.2 SCENIC VALUES

The installation of the necessary equipment and facilities will have little effect on the viewshed as this is an existing oil terminal. Depending on the vantage point of the observer, the proposed project may slightly modify the viewshed when looking westward. However, the viewshed will not be "blocked;" the observer should be able to reposition themselves for a vantage point that is free and clear of the proposed location. No permanent impacts are anticipated.

8.0 Proposed Best Management Practices

8.1 Public Health Cumulative Impacts Mitigation Measures

1. The operator will monitor this pad during each operational phase through its FLIR camera program to verify that sites are operating correctly and in compliance with regulations.

2. The operator will implement a continuous air monitoring plan that will be compliant with the requirements outlined in CDPHE Regulation 7.

8.2 Construction

1. The operator will conduct additional avian surveys prior to the commencement of construction to ensure no conflicts have developed since the prior survey.

2. Use of freshwater to minimize the generation and transportation of dust.

3. Topsoil will be stockpiled on location with slopes not greater than 4:1.

4. Topsoil stockpiles will be stabilized with appropriate vegetation to provide both short- and long-term stabilization to prevent erosion.

5. Tracking controls will be installed at the entrance of the access the road to prevent mud-tracking and associated dust emissions on the public roadway.

6. Prior to drilling operations, a sound barrier (minimum rating of STC-30) will be installed around the pad site. This sound barrier will be 32 feet tall and remain onsite through completions operations.

8.3 Drilling

1. Employ pipe cleaning procedures when removing drill string from hole.
2. Utilize closed-loop, pit-less fluid management system.
3. Use of freshwater to minimize the generation and transportation of dust.
4. The operator commits to using an electric powered rig during drilling operations.
5. The operator will install a polyethylene liner across portions of the location as an isolation barrier. The drilling rig and associated equipment (including fluid storage areas) are placed atop the liner.
6. Lighting will be angled in a downward manner to limit the halo effect off location.
7. Lights will be placed at reasonable heights to limit spillage off location.
8. The operator will utilize IOGP Group III drilling fluids.
9. The operator will remove drill cuttings on a daily basis or as soon as waste containers are full.

8.4 Completions

1. The operator will utilize Tier IV or equivalent rated completion equipment. This helps to minimize the cumulative impacts to air resources that are associated with the use of internal combustion engines.

2. A "quiet completions fleet" will be used for hydraulic fracturing operations.

3. Employ the practice of "block and isolate" whenever possible on equipment, piping, and/or tank connections.

4. Use of sealed containers (e.g., sandboxes) for the storage and transportation of sand used in hydraulic fracturing.

5. Any gas encountered during flowback will be routed to a gas sales pipeline or combusted with a minimum of 98% destruction efficiency.

6. Any fluids encountered during flowback will be sent to the oil and produced water pipelines that will service the location.

7. Use of freshwater to minimize the generation and transportation of dust.

8. The operator will install a polyethylene liner across portions of the location as an isolation barrier. The completion fleet and associated equipment (including fluid storage areas) will be placed atop the liner.

9. Lighting will be angled in a downward manner to limit the halo effect off location.

10. Lights will be placed at reasonable heights to limit spillage off location.

8.5 Production

1. The operator will install an oil pipeline to the location prior to first production. Reducing air emissions associated with truck traffic and the transfer of oil from storage tanks to tanker trucks.

2. The operator will utilize compressed air pneumatics for all pneumatic actuation on location. Eliminating the use of natural gas vented to the atmosphere during valve actuation and associated processes.

3. The operator will utilize a pressurized maintenance vessel during maintenance operations. Eliminating gas that would otherwise be vented to the atmosphere during maintenance operations.

4. The operator will electrify the permanent production facilities.

5. Development of a site-specific SPCC plan.

6. Wells, facilities, and equipment will be equipped to be shut in remotely.

7. The operator will conduct additional avian surveys prior to the commencement of construction to ensure no conflicts have developed since the prior survey(s).

8. Equipment will be painted “desert tan” (or similar) to avoid creating a marked contrast with the surrounding landscape.

9. The operator will not install permanent lighting.

References

ICF. Final Report: Human Health Risk Assessment for Oil & Gas Operations in Colorado. October 17, 2019. https://drive.google.com/file/d/1pO41DJMXw9sD1NjR_OKyBJP5NCb-AO0I/view. Accessed March 2, 2021.

CDPHE. Assessment of Potential Public Health Effects from Oil and Gas Operations in Colorado. February 21, 2017. https://drive.google.com/file/d/0B0tmPQ67k3NVVFc1TFg1eDhMMjQ/view. Accessed March 2, 2021.

CDPHE. Oil and Gas Community Investigations. https://cdphe.colorado.gov/oil-and-gas-and-your-health/oil-and-gas-community-investigations. Accessed March 2, 2021.

CDPHE. Colorado Air Monitoring Mobile Lab (CAMML) Data. https://www.colorado.gov/airquality/tech_doc_repository.aspx. Accessed March 2, 2021.

Riley, T. Z., E. M. Bayne, B. C. Dale, D. E. Naugle, J. A. Rodgers, and S. C. Torbit. 2012. Impacts of crude oil and natural gas developments on wildlife and wildlife habitat in the Rocky Mountain region. The Wildlife Society Technical Review 12-02. The Wildlife Society, Bethesda, Maryland, USA. https://wildlife.org/wp-content/uploads/2014/05/Oil-and-Gas-Technical-Review_2012.pdf . Accessed March 17, 2021.

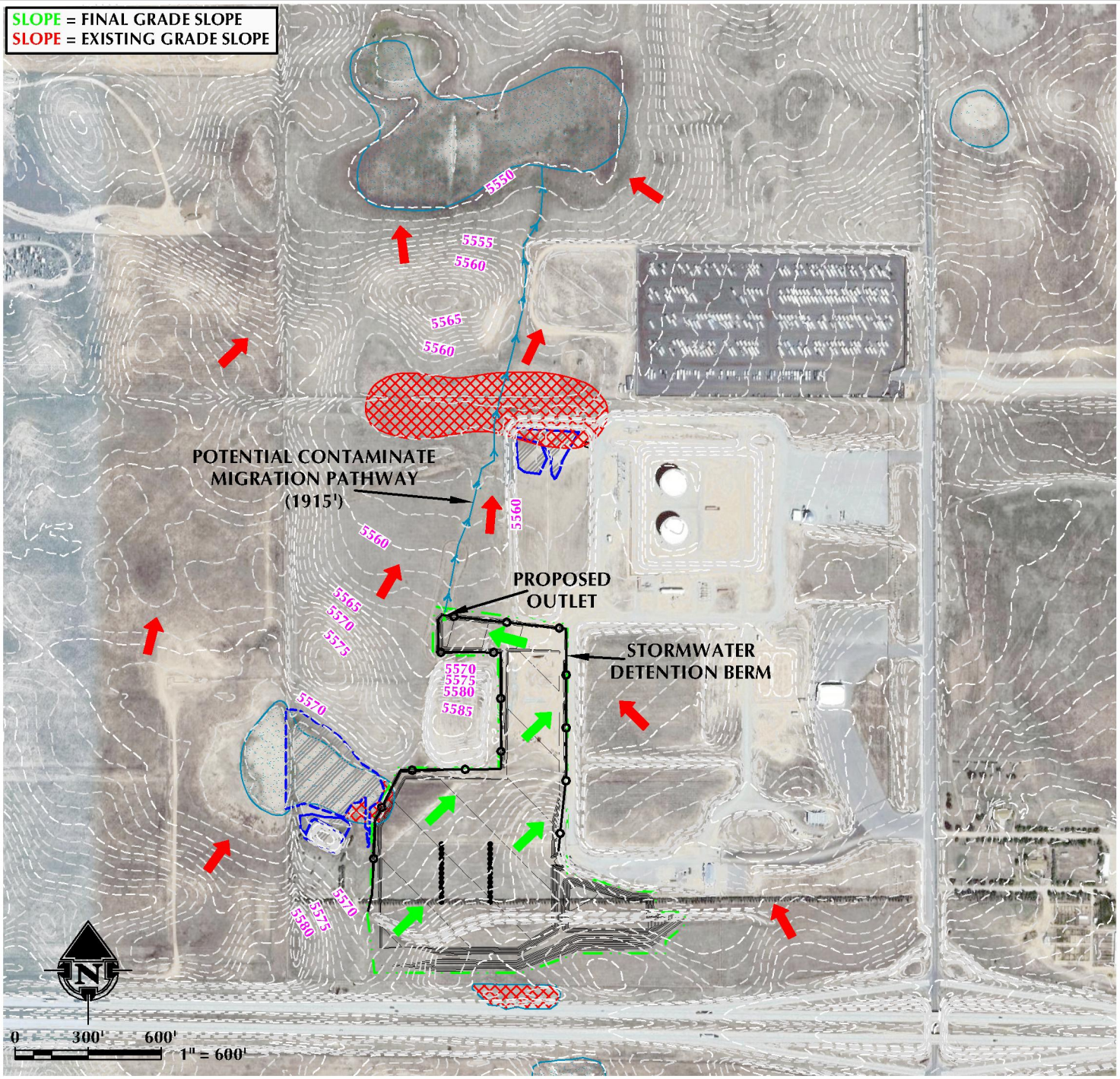
U.S. EPA. Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-16/236F, 2016. https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 . Accessed March 17, 2021.

U.S. FWS. Ecological Services Program: Energy Technologies and Impacts – Oil and Gas. https://www.fws.gov/ecological-services/energy-development/oil-gas.html . Accessed March 18, 2021.

WATER RESOURCES EXHIBIT

BENNETT D PAD

SECTION 34, TOWNSHIP 3 SOUTH, RANGE 64 WEST, 6TH P.M., ADAMS COUNTY, COLORADO



LEGEND

- PROPOSED WELL
- PROPOSED OIL AND GAS LOCATION
- DELINEATED WETLAND (PER RPG)
- NWI WETLAND
- NWI WETLAND (FIELD VERIFIED TO NOT BE PRESENT PER RPG)
- EXISTING GRADE CONTOUR (1' INTERVAL)
- FINAL GRADE CONTOUR (1' INTERVAL)
- POTENTIAL CONTAMINATE MIGRATION PATHWAY

609 CONSULTING, LLC

LOVELAND OFFICE
6706 North Franklin Avenue
Loveland, Colorado 80538
Phone 970-776-4331

SHERIDAN OFFICE
1095 Sabertón Avenue
Sheridan, Wyoming 82801
Phone 307-674-0609

DATE SURVEYED:	9/24/24
DATE:	12/13/24
DRAFTER:	KMG
REVISED:	

DATA SOURCE:
- AERIAL COURTESY OF NEARMAP.

PREPARED FOR:

Prepared for:
CIVITAS
CRESTONE PEAK RESOURCES, LLC
555 17TH STREET, SUITE 3700
DENVER, CO 80202

K:\CIVITAS RESOURCES\2023\2023_182_SOC36_T3S_R64W_SEC_36\DWG\SOC36_BENNETT.dwg, 12/13/2024 10:20:56 AM, kgiles