



## **DIRECTOR'S RECOMMENDATION**

***Docket Number 230500142***

***Kerr McGee Oil and Gas Onshore LP (KMOG), Operator Number 47120***

***Salazar 5-20HZ (OGDP ID #484871)***

Pursuant to Rule 306, the Director submits to the Commission this recommendation for **CONDITIONAL APPROVAL** of this Kerr McGee Oil and Gas Development Plan located in Weld County.

The underlying permit documents in support of this Recommendation may be found through the Colorado Energy and Carbon Management Commission (ECMC) website under "[Permits](#)".

### **Salazar 5-20HZ (Salazar)**

Form 2A #403278397

Form 2B #403278317

Form 2C #403363718

All supporting hearing documents, including KMOG's Salazar 5-20HZ hearing application, may be found in ECMC's eFilings System under Docket No. 230500142.

---

## **BACKGROUND**

*On May 3, 2023, KMOG submitted to the ECMC an application for their Salazar 5-20HZ Oil and Gas Development Plan (OGDP). Staff returned the Form 2A and 2B to DRAFT status on July 13, 2023 and requested corrections and/or additional information. The applicant resubmitted the Form 2A and 2B on August 2, 2023 and the Director determined the application was complete that same day. This Director Recommendation is based on information finalized in the Form 2A, the Form 2B, and the hearing application as of September 18, 2023. No additional revisions will be made to the application prior to the Commission Hearing scheduled for October 11, 2023.*

## PROPOSED DEVELOPMENT

The proposed Salazar OGDG includes Application Lands in Weld County of approximately 1,760 acres in portions of Sections 16 and 19, and all of Sections 20 and 21, Township 3N, Range 67W. The setting is in the urban-rural interface between St Vrain Creek and the eastern border of the Town of Mead. The proposed surface location in Section 20 is zoned Agricultural by Weld County and is currently used as rangeland. One new surface location is proposed for this OGDG, with a total of 12 new wells to produce a single Drilling and Spacing Unit (DSU).

The Oil and Gas Location will also include four separators, 12 pump jacks, one condensate tank, four water tanks, and other associated production facilities. One MLVT will be used during completions. KMOG has committed to connecting to a third party gas gathering system by the commencement of production operations and will pipe oil from location. Water will be trucked off location. At the time of this Director Recommendation, the wells on the proposed Salazar location are planned to be drilled with a rig powered by natural gas. KMOG has committed to using Group III mud for its oil based mud (OBM) drilling program. The drill cuttings will be stored in closed containers on location and then trucked to a commercial disposal facility.

KMOG has indicated that operations for the proposed location will begin with construction activities in March of 2024 with approximately 30 days for pad construction followed by approximately 2 weeks of setting surface casing. There is an anticipated 2 month delay between setting surface casing and drilling the production string, once drilling of the production strings commence it is anticipated to take 2 months. There will be a 3 month pause between drilling and completions with flowback following immediately after completions. In total as currently planned the operations would take 12 months to drill the proposed 12 wells, with the location anticipated to begin production in March 2025.

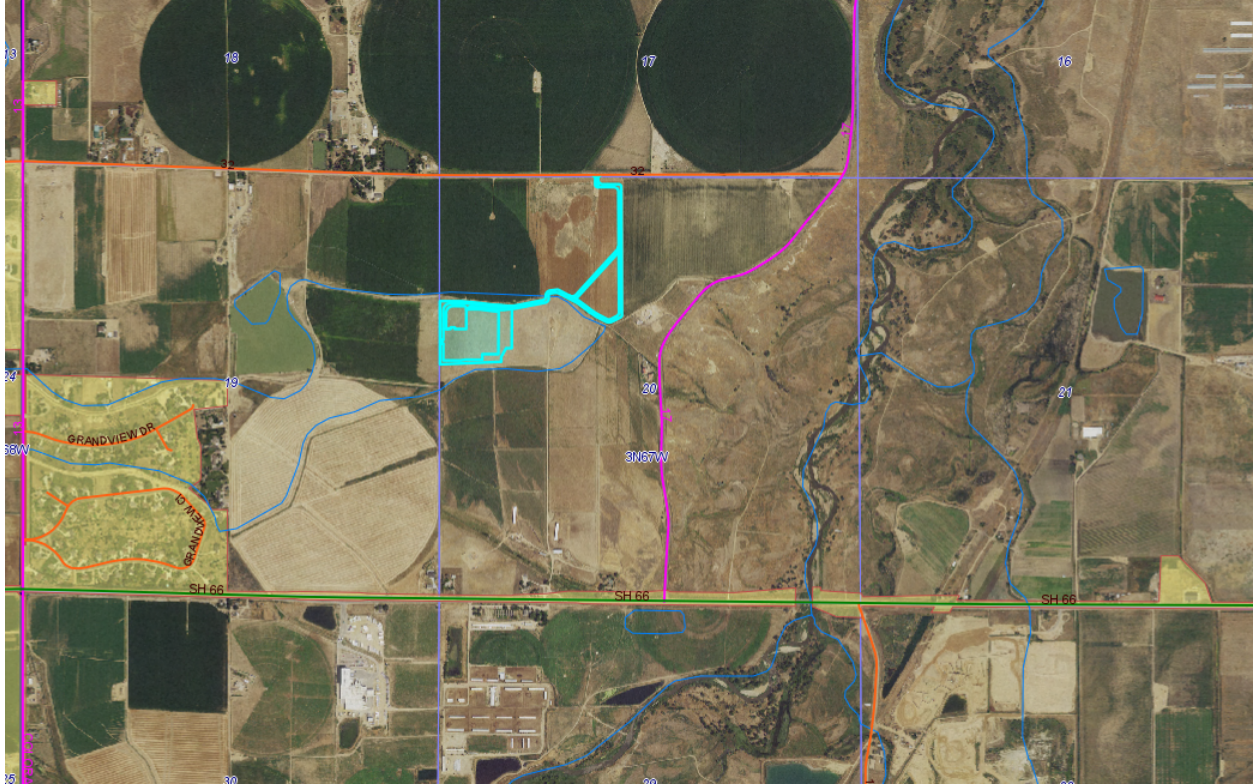


Figure 1: A map of the proposed location and access road(s) in teal. The Town of Mead is in yellow to the west, St Vrain Creek is in blue to the east, and state highway 66 is visible to the south.

**DRILLING AND SPACING CONSIDERATIONS**

KMOG is requesting the development of FEE and STATE minerals covering approximately 1,760 total acres from the Niobrara, Fort Hays, Codell, Carlile and Sharon Springs Formations as follows:

- Establish a new Drilling and Spacing Unit (DSU)
  - The proposed DSU would establish 1,760 acres for oil and gas development and approve up to twelve (12) horizontal wells.
  - KMOG requests the following unit setbacks for the DSU:
    - Niobrara and Sharon Springs formations wells:
      - 65 feet from the eastern and western unit boundaries;
      - 195 feet from the northern and southern unit boundaries;
    - Codell, Fort Hays and Carlile formations wells:
      - 110 feet from the eastern and western unit boundaries; and
      - 330 feet from the northern and southern unit boundaries;
  - All wells: an interwell distance of 150 feet.

There are multiple wells producing or permitted to produce the Niobrara, Fort Hays, Codell, Carlile and Sharon Springs Formations, or portions thereof, within the application lands and within the proposed DSU boundaries; those wells will remain subject to their originally permitted spacing, and will not be included in this OGD. Finally, the STATE minerals within the Application Lands comprise S/2S/2 of section 16, Township 3 North, Range 67 West.

This spacing, as outlined in KMOG's amended Hearing Application, complies with applicable ECMC rules and Staff appreciates the utilization of a single large DSU for these application lands, eliminating the need for multiple individual wellbore spacing units.

### **FINANCIAL ASSURANCE**

Staff confirmed that KMOG has a valid blanket plugging bond on record consistent with Rule 702.

### **PUBLIC COMMENT**

Pursuant to Rule 303.d.(1).A.i, the Public Comment Period was open for 30 days from August 2, 2023 through September 2, 2023. No public comments were received on the Form 2A or through the eFiling system during the Public Comment Period.

### **LOCAL GOVERNMENT PERMITTING AND PRE-APPLICATION CONSULTATIONS**

#### **Pre-Application Consultations**

##### **Local Government**

Weld County is the relevant local government for this proposed location. The pre-application WOGLA was held on August 31, 2022. Weld County approved the WOGLA application (1041WOGLA23-0012) on August 22, 2023, and can be viewed as an attachment to the 2A labeled Local Government Permit (Doc# 2101367).

##### **Colorado Parks and Wildlife (CPW)**

KMOG initiated an email consultation with CPW on February 14, 2023 to discuss the portion of the access road that crosses through a mapped Mule Deer Severe Winter Range High Priority Habitat (HPH). The proposed location does not lie within the HPH, only the access road is within HPH. KMOG proposed adding a temporary access road that would be used for drilling and completion operations scheduled to occur during the sensitive season. CPW agreed to this proposed solution. The pre-application consultation notes can be viewed as an attachment to the 2A labeled CPW Consultation (Doc# 403382939).

## DIRECTOR'S CONSULTATIONS

The Director consulted with CPW and the Colorado Department of Public Health and the Environment (CDPHE) on this OGD application pursuant to Rule 309.e and 309.f; summary and results are as follows:

1. The results of CPW's consultation with KMOG follow:  
Staff and CPW acknowledge KMOG's efforts to minimize impacts to wildlife during the sensitive season by constructing a temporary access road outside of the Mule Deer Severe Winter Range HPH that will be used during drilling and completions operations. KMOG will pay a Compensatory Mitigation fee of \$13,750 for the direct impact habitat mitigation required for the permanent access road. Email correspondence that was conducted during this consultation can be viewed as an attachment to the 2A labeled CPW Consultation (Doc# 2101368).
2. The results of CDPHE's consultation with KMOG follow:  
Staff attended formal consultation between the two parties on August 9, 2023. Staff have applied modified BMPs agreed upon by KMOG and CDPHE to the Form 2A. CDPHE's consultation summary letter can be viewed as an attachment to the 2A labeled CDPHE Consultation (Doc# 2101369).

## ADMINISTRATIVE CONSIDERATIONS

### Condition of Approval:

The proposed Salazar location has 4 RBUs within 2,000 feet of the proposed Working Pad Surface (WPS). KMOG has indicated that all wells, tanks, separation equipment, or compressors will be located over 2,000 feet from all RBUs. Staff has applied the following Condition of Approval (COA) on the Form 2A to ensure that the location is constructed in compliance with Rule 604.b.(3):

*To demonstrate compliance with Rule 604.b.(3): Within 30 days of commencing production operations, KMOG will submit to the Location ID#, via Form 4 Sundry Notice, a post construction survey showing that the measured distance from all wells, tanks, separation equipment, or compressors are greater than 2,000 feet from the 4 Residential Building Units reported to be within 2,000 feet of the WPS.*

## ECMC STAFF'S TECHNICAL REVIEW HIGHLIGHTS

This section addresses issues related to siting, public health, safety, welfare, the environment, and wildlife resources, within the context of § 34-60-106(2.5)(a).

### **Alternative Location Analysis (ALA)**

KMOG was required by Rule 304.b.(2).B.i, and iii to perform an Alternative Location Analysis for their proposed Salazar Location. KMOG analyzed three alternative locations. A combination of lack of surface owner approval, increased technical difficulty, and all three alternative locations triggering similar ALA criteria as the preferred location, led KMOG to continue to pursue the proposed Salazar location. The ALA Narrative can be viewed as an attachment to the 2A labeled ALA Narrative Summary (Doc# 403470184).

### **Public Health, Safety, and Welfare Considerations**

KMOG is seeking approval of the proposed Salazar location through usage of Rule 604.b.(3). They have provided signed informed consent letters for two of the four RBUs within 2,000 feet of the WPS and agreed to the addition of the above COA to the 2A. The signed Informed Consent Letters can be viewed as an attachment to the 2A labeled Informed Consent Letter (Doc# 2101370). KMOG has committed to CDPHE's BMPs, these can be viewed under the CDPHE BMP section of the Form 2A. KMOG also commits to tie into a gas gathering system by the time production commences and to pipe oil from location.

### **Environmental Resource Considerations**

Water Resources:

The proposed Salazar location has an estimated depth to groundwater of 43 feet. The nearest downgradient surface Waters of the State is an irrigation ditch 85 feet north of the WPS. KMOG has provided a Stormwater Management Plan with site specific BMPs including perimeter berms and lined containments. The BMPs and Stormwater Plan can both be viewed in the Form 2A under the Operator Provided BMPs and Plans sections.

### **Wildlife Resource Considerations**

Staff acknowledges KMOG's efforts to minimize and mitigate impacts to wildlife resources, particularly Mule Deer in the Severe Winter Range High Priority Habitat, by the building and use of a temporary access road. Staff appreciates CPWs consultation about and concurrence with the construction of the temporary access road, while asserting that the permanent access road is also subject to a direct impact habitat mitigation fee.

## **DIRECTOR'S RECOMMENDATION:**

***The Director has obtained and fully reviewed all required and supplemental information necessary to evaluate the OGD's proposed operations and its potential impacts to public health, safety, welfare, the environment and wildlife resources. Through this review, the Director has determined that this OGD complies with all applicable requirements of the Commission's Rules and recommends conditional approval by the Commission.***



**COLORADO**

**Department of Public  
Health & Environment**

September 1, 2023

**Julie Murphy, Director**  
**Energy and Carbon Management Commission**  
**1120 Lincoln St, Suite 801**  
**Denver, CO 80203**

**Re: Colorado Department of Public Health and Environment's Rule 309.f Consultation  
Comments for the Kerr-McGee Oil & Gas Onshore LP Salazar Oil and Gas Development Plan  
(Docket Number Pending)**

The Colorado Department of Public Health and Environment (CDPHE) appreciates the opportunity to consult on the Kerr-McGee Oil & Gas Onshore LP (KMOG) Salazar Oil and Gas Development Plan (OGDP), as well as the ongoing collaboration with the Colorado Energy and Carbon Management Commission (ECMC) to fulfill our shared mission to protect public health and the environment. CDPHE's consultation timeline for this OGDP is as follows: CDPHE was contacted initially by ECMC staff on August 2, 2023. CDPHE provided the Best Management Practices (BMPs) spreadsheet for CDPHE-ECMC Consultations to KMOG and had an initial conversation with the operator on August 3, 2023. KMOG provided to CDPHE its completed BMP spreadsheet for the Salazar OGDP on August 9, 2023. A consultation meeting including CDPHE, ECMC, and KMOG was held on the same day. No adjustments to the BMP spreadsheet as originally submitted were requested. KMOG agreed with committed BMPs as listed on August 10, 2023.

CDPHE notes that the proposed Salazar OGDP contains one pad. There are 4 residential building units (RBUs) within 2,000 feet of the pad. The OGDP is also located within the Denver Metro/North Front Range Ozone Nonattainment Area. The OGDP is not within an identified Disproportionately Impacted Community area. To protect public health and air and water resources, CDPHE supports incorporation of each of the BMPs that KMOG has committed to in the Salazar OGDP, as listed below:

1. Operator commits to monitoring during drilling and completion operations and for the first 6 months of production in accordance with Reg. 7
2. Operator will properly maintain vehicles and equipment
3. Operator will use non-emitting pneumatic controllers



4. Operator will use electric equipment and devices (e.g. vapor recovery units or VRUs, fans, etc.) to minimize combustion sources on site (if yes, operator will provide a list outlining which equipment and devices will be electrified)
5. Operator will not store hydrocarbon liquids in permanent storage tanks on site (other than a maintenance tank possibly used for well unloading or other maintenance activities)
6. Operator will utilize its green flowback setup, which is an emissions controlled process that utilizes a combination of temporary and permanent equipment
7. Operator will not flare or vent gas during completion or flowback, except in upset or emergency conditions, or with prior written approval from the Director for necessary maintenance operations
8. Operator will control emergency flaring with an enclosed combustor with a destruction efficiency of 98% or better
9. Operator will control bradenhead/casinghead venting
10. Operator will use pipelines to transport water used for hydraulic fracturing to location
11. Pipelines: Operator will have adequate and committed pipeline take away capacity for all produced gas and oil
12. Pipelines: Operator will shut in the facility to reduce the need for flaring if the pipeline is unavailable
13. Operator will use Tier IV or equivalent engines, such as NG Tier II w/ battery assist, (or better) for drilling
14. Operator will use Tier IV or equivalent engines, such as NG Tier II w/ battery assist, (or better) for hydraulic fracturing
15. Operator will use lease automatic custody transfer (LACT) system for produced liquid hydrocarbons to remove/reduce the need for truck loadout
16. Operator will use OGP Group III drilling fluid
17. Operator will cover trucks transporting drill cuttings
18. Operator will use a squeegee or other device to remove drilling fluids from pipes as they exit the wellbore
19. Operator will ensure that all drilling fluid is removed from pipes before storage
20. Ozone mitigation on forecasted high ozone days: operator will eliminate use of VOC paints and solvents
21. Ozone mitigation on forecasted high ozone days: operator will minimize vehicle and engine idling
22. Ozone mitigation on forecasted high ozone days: operator will reduce truck traffic and worker traffic, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations
23. Ozone mitigation on forecasted high ozone days: operator will postpone the refueling of vehicles, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations



24. Ozone mitigation on forecasted high ozone days: operator will suspend or delay the use of fossil fuel powered ancillary equipment, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations
25. Ozone mitigation on forecasted high ozone days: operator will postpone construction activities, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations
26. Ozone mitigation on forecasted high ozone days: operator will reschedule non-essential operational activities such as pigging, well unloading and tank cleaning, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations
27. Stormwater inspections: Operator will conduct stormwater inspections immediately after storm event (within 72 hours)
28. Operator will use Modular Large Volume Storage Tanks
29. Vehicle fueling: Operator will refuel vehicles only on impervious surfaces and never during storm events
30. Vehicle fueling: Operator will ensure that a fueling contractor is present during the entire fueling process to prevent overfilling, leaks and drips from improper connections
31. Dust suppression: Operator will not use produced water or other process fluids for dust suppression
32. ECMC permit will incorporate other agency water quality protection plans by reference as applicable (e.g. stormwater management plan)
33. Down gradient controls: Operator will install adequate down gradient controls if they cannot have a control at the source
34. Outfall locations: Outlet protection should be used when a conveyance discharges onto a disturbed area where there is potential for accelerated erosion due to concentrated flow. Outlet protection should be provided where the velocity at the culvert outlet exceeds the maximum permissible velocity of the material in the receiving channel.
35. Stream crossing and Road Construction: Operator will ensure that control measures are designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices
36. Documentation / stormwater management plan: If it is infeasible to install or repair a control measure immediately after discovering a deficiency, operator will document and keep on record in the stormwater management plan: (a) a description of why it is infeasible to initiate the installation or repair immediately; and (b) a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.
37. Operator will properly characterize and dispose of all waste (i.e. the specific landfill/waste disposal location allows for acceptance of the waste stream)
38. Operator will properly test for and dispose of TENORM
39. Operator will not use fracturing fluids which contain PFAS compounds



40. Operator commits to continue its participation in the Colorado Preparedness Resources Network (CPRN), which has a non PFAS foam location identification to be sure, in an emergency, that they would have non-PFAS foam available. If the non-PFAS foam is utilized on location, it is replenished by operator.
41. Operator will coordinate with nearby fire district(s) to evaluate whether PFAS-free foam can provide the required performance for the specific hazard
42. If PFAS-containing foam is used at a location: operator will properly characterize the site to determine the level, nature and extent of contamination
43. If PFAS-containing foam is used at a location: operator will perform appropriate soil and water sampling to determine whether additional characterization is necessary and inform the need for and extent of interim or permanent remedial actions
44. If PFAS-containing foam is used at a location: operator will properly capture and dispose of PFAS-contaminated soil and fire and flush water

CDPHE has run an Enviroscreen analysis on this site, with an overall score of 17.89. The report may be viewed as an appendix to this letter.

CDPHE appreciates this opportunity to consult and looks forward to continued collaboration with ECMC. CDPHE also appreciates KMOG's attentive and timely engagement during this process and we have no additional recommendations at this time. Please do not hesitate to contact me if you have any questions.

Sincerely,



Tessa Sorensen  
Energy Liaison  
Colorado Department of Public Health & Environment

Appendix A - Enviroscreen Report follows





# Environmental Justice Report

## Applicant Information

**Company Name:** Kerr McGee Oil & Gas Onshore LP  
**Facility Name:** Salazar  
**Plant AIRS ID Number:**  
**Permit Type:** OGDP  
**Permit Number:**  
**Facility location used for generating the report:** 40.213 , -104.9214

## Environmental Justice Summary

Weld County

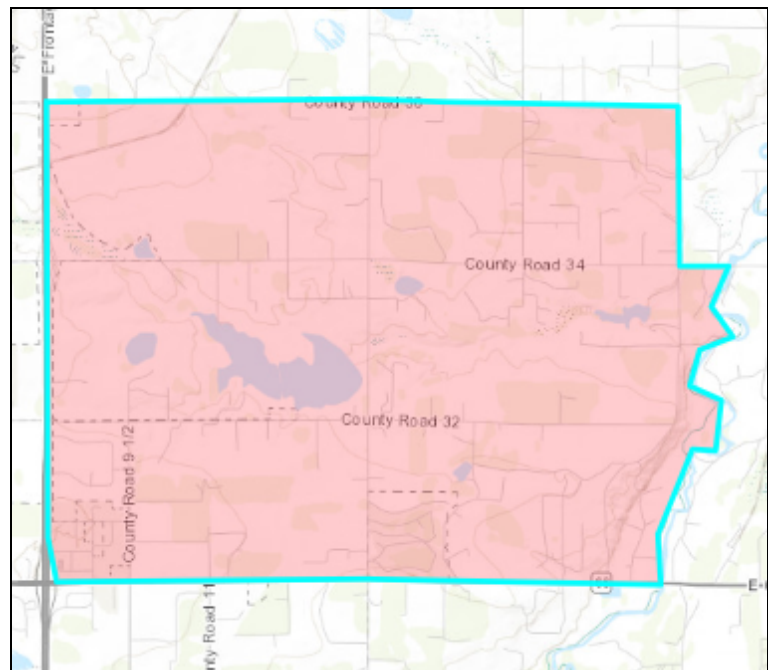
Census Block Group 081230021034

**Air Quality Reg. 3 Disproportionately Impacted (DI) Community**

No

**Air Quality Reg. 3 Community Type**

Not Disproportionately Impacted



<b>Low-income Population</b>	27.1%
<b>People of Color Population</b>	0%
<b>Limited English Proficiency Population</b>	0%
<b>Housing Cost Burdened Population</b>	8.9%
<b>CO EnviroScreen Percentile Score</b>	17.89

## Environmental Justice Overview

**Environmental Exposures Percentile Score** 50.88

The environmental exposures score represents a community's exposure to certain environmental risks relative to the rest of the state. The score ranges from 0 to 100, with higher scores indicating higher burden. The environmental exposures score does not cover all pollutants; it is the average of data on diesel particulate matter, traffic proximity, ozone, PM 2.5, air toxics, other air pollutants, lead exposure risk, drinking water violations, and noise.

**Environmental Effects Percentile Score** 61.47

The environmental effects score represents how many hazardous or toxic sites are in a community relative to the rest of the state. The score ranges from 0 to 100, with a higher score indicating higher burden. The score is the average of data on proximity to mining, oil and gas operations, impaired surface waters, wastewater discharge facilities, Superfund sites, facilities that use hazardous chemicals, and facilities that generate, treat, store, or dispose of hazardous wastes.

**Climate Vulnerability Percentile Score**                      **55.97**

The climate burden score represents a community’s risk of drought, flood, extreme heat, and wildfire compared to the rest of the state. The score ranges from 0 to 100, the higher the score, the higher the burden.

**Sensitive Populations Percentile Score**                      **30.27**

The sensitive populations score captures how at risk a community is to environmental exposures and climate impacts as it relates to health. For example, air pollution has stronger impacts on older and younger people, and people with chronic conditions such as asthma. The score ranges from 0 to 100, with a higher score being worse. The score is calculated using data on asthma hospitalization rate, cancer prevalence, diabetes prevalence, heart disease prevalence, life expectancy, low birth weight rate, mental health, population over 65, and population under 5.

**Demographics Percentile Score**                                      **5.55**

The demographics score represents a community’s social and economic vulnerabilities. The score ranges from 0 to 100, with a higher number representing a higher vulnerability. It is calculated using data on people living with disabilities, housing cost burden, educational attainment, limited English proficiency, income, and race and ethnicity.

## Pollution and Climate Indicators

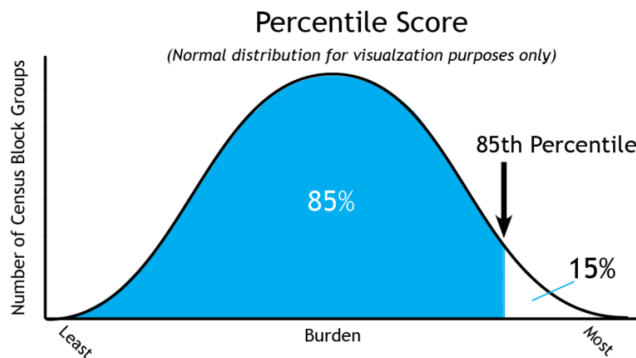
Indicator	Original Unit of Measure	Percentile
Air Toxics Emissions	distance weighted measure of estimated air toxics emissions	95.24
Diesel Particulate Matter	micrograms per cubic meter	42.89
Drinking Water Regulations	population weighted duration (in weeks) of resolved and unresolved health based violations from active community public water systems	83.49
Fine Particle Pollution (PM 2.5)	micrograms per cubic meter	73.9
Impaired Streams and Rivers	average impairment and assessment status of streams	76.47
Lead Exposure Risk	percentage of housing units built before 1960, as an indicator of potential exposure to lead	22.2
Noise	decibels A	19.99
Other Air Pollutants	distance weighted measure of estimated other air pollutant emissions	92.64
Ozone	parts per billion	39.92
Proximity to Hazardous Waste Facilities	distance weighted count of hazardous waste facilities within 5 km	29.62
Proximity to Mining Locations	distance weighted measure of the total number of active coal, hard rock, and construction materials mining permits	83.46
Proximity to National Priorities List Sites	distance weighted count of proposed or listed NPL sites with 5 km	34.99
Proximity to Oil and Gas	distance weighted measure of the total number of active oil and gas locations	98.53
Proximity to Risk Management Plan Sites	distance weighted count of RMP facilities within 5 km	67.24
Traffic Proximity and Volume	amount of vehicular traffic nearby, and distance from roads	30.57
Wastewater Discharge Indicator	toxic chemical concentrations in stream segments per km	61.22
Drought	sum of weekly total percent of an area experiencing a severe, extreme, or exceptional drought	22.93
Extreme Heat Days	average number of high heat days between May and September from 2016 to 2020	86.01
Floodplains	percentage of each geographic area where there is at least a one percent chance of flooding annually	68.54
Wildfire Risk	mean wildfire hazard potential within each geographic area as determined by the US Forest Service, 2021	63.45

## Health and Social Indicators

Indicator	Original Unit of Measure	Percentile
Asthma Hospitalization Rate	rate of hospitalization per 100,000 people	40.09
Cancer Prevalence	percent of adults	67.74
Diabetes Prevalence	percent of adults	36
Heart Disease in Adults	percent of adults	88.93
Life Expectancy	years	16.39
Low Birth Weight	percent of singleton births	9.02
Mental Health Indicator	percent of adults	45.25
Population over 64 years of age	percent of total population	86.5
Population under 5 years of age	percent of total population	7.5
Disability	percent of total population	27.07
Housing Cost Burdened	percent of total population	2.28
Less Than High School Education	percent of total population	76.1
Linguistic Isolation	percent of total population	54.42
Low Income	percent of total population	56.54
People of Color	percent of total population	0.99

## Understanding the Data

The values shown in the Pollution and Climate Indicator and Health and Social Indicator tables are percentiles. Percentiles are a way to see how one area compares to other areas in Colorado. Percentile values range from 0 - 100. A higher score indicates higher burden. Specifically, the percentile tells you the percentage of places in Colorado that have a lower score than the selected location. For example, an area with 85 percentile score for the noise indicator, ranks in the top 15% of areas impacted by noise in Colorado. That means that 85% of the other Census Block Groups in Colorado have a lower score for noise impacts.



The data in the report comes from Colorado EnviroScreen version 1.0. Developed in 2022 by CDPHE and Colorado State University, EnviroScreen maps the overlap of environmental exposures and effects, climate vulnerability, sensitive

populations, and demographics to better understand environmental injustice and environmental health risks in Colorado. For more detailed information on the data sources used in Colorado EnviroScreen Version 1.0 see the [technical documentation](#).

On the first page of the report, red text highlights if values for a census block group meet or exceed the criteria for definition of Disproportionately Impacted Community for Air Quality Regulation 3. On subsequent pages of the report, red text highlights indicators in the top percentiles for Colorado that may warrant additional consideration during the permitting process. The Environmental Justice Report is not intended to show individual health risk or exposure.

In the Environmental Justice Summary on the first page, values shown in red indicate a census block group that meets or exceeds the following criteria to qualify as a Disproportionately Impacted (DI) Community for Air Quality Reg 3:

- Over 40% of households are low-income (meaning they are at or below 200% of the federal poverty level),
- 40% of the population identify as people of color,
- 50% of households are housing-cost burdened (meaning they spend more than 30% of household income on housing costs), or
- 20% of the population is linguistically isolated (meaning no adults in a household speak English well).

A census block group that meets or exceeds any of these percentages is labeled as a Socioeconomically Vulnerable Community (SVC).

The CO EnviroScreen Percentile Score, which is also found on the first page of the Environmental Justice Report, is written in red if it is above the 80th percentile. A census block group with a CO EnviroScreen Score above the 80th percentile is labeled as a Cumulatively Impacted Community (CIC).

In other sections of the Environmental Justice Report, including the Environmental Justice Overview, Pollution and Climate Indicators, and Health and Social Indicators sections, indicator and component scores over the 80th percentile are also highlighted in red. The 80th percentile threshold is used in most cases to flag census block groups that have indicators and groups of indicators (components) that are in the top 20% of census block groups in Colorado. These indicators and components are flagged because they may warrant further review in the permitting process by the permit applicant and/or the Division staff reviewing the permit.

As explained on page 11 of the User Guide, for most indicators, the indicator is highlighted in red if it is above the 80th percentile to indicate that the census block group where the facility is located faces higher risks based on that indicator compared to other Colorado communities. However, less than 20% of census block groups in Colorado have oil and gas facilities or mining locations. Accordingly, all census block groups in Colorado score above the 80th percentile for proximity to these two types of facilities because even having zero facilities puts a community in the top 20%. Accordingly, the Environmental Justice Report highlights a census block group in red if it is above the 85th percentile for mining facilities and above the 90th percentile for oil and gas facilities. This ensures that only census block groups with a greater number of facilities than the statewide average of zero are highlighted on the EJ Report.

On the first page of the report, red text highlights if values for a census block group meet or exceed the criteria for definition of Disproportionately Impacted Community for Air Quality Regulation 3. On subsequent pages of the report, red text highlights indicators in the top percentiles for Colorado that may warrant additional consideration during the permitting process. The Environmental Justice Report is not intended to show individual health risk or exposure.

In the Environmental Justice Summary on the first page, values shown in red indicate a census block group that meets or exceeds the following criteria to qualify as a Disproportionately Impacted (DI) Community for Air Quality Reg 3:

- Over 40% of households are low-income (meaning they are at or below 200% of the federal poverty level),
- 40% of the population identify as people of color,

- 50% of households are housing-cost burdened (meaning they spend more than 30% of household income on housing costs), or
- 20% of the population is linguistically isolated (meaning no adults in a household speak English well).

A census block group that meets or exceeds any of these percentages is labeled as a Socioeconomically Vulnerable Community (SVC).

The CO EnviroScreen Percentile Score, which is also found on the first page of the Environmental Justice Report, is written in red if it is above the 80th percentile. A census block group with a CO EnviroScreen Score above the 80th percentile is labeled as a Cumulatively Impacted Community (CIC).

In other sections of the Environmental Justice Report, including the Environmental Justice Overview, Pollution and Climate Indicators, and Health and Social Indicators sections, indicator and component scores over the 80th percentile are also highlighted in red. The 80th percentile threshold is used in most cases to flag census block groups that have indicators and groups of indicators (components) that are in the top 20% of census block groups in Colorado. These indicators and components are flagged because they may warrant further review in the permitting process by the permit applicant and/or the Division staff reviewing the permit.

As explained on page 11 of the User Guide, for most indicators, the indicator is highlighted in red if it is above the 80th percentile to indicate that the census block group where the facility is located faces higher risks based on that indicator compared to other Colorado communities. However, less than 20% of census block groups in Colorado have oil and gas facilities or mining locations. Accordingly, all census block groups in Colorado score above the 80th percentile for proximity to these two types of facilities because even having zero facilities puts a community in the top 20%. Accordingly, the Environmental Justice Report highlights a census block group in red if it is above the 85th percentile for mining facilities and above the 90th percentile for oil and gas facilities. This ensures that only census block groups with a greater number of facilities than the statewide average of zero are highlighted on the EJ Report.

**Colorado EnviroScreen does:**

- Show which areas in Colorado are more likely to have higher environmental health injustices.
- Identify areas in Colorado where government agencies can prioritize resources and work to reduce pollution and other sources of environmental injustice.
- Provide information to empower communities to advocate to improve public health and the environment.
- Identify areas that meet the updated definition of “Disproportionately Impacted Community” under House Bill 23-1233 adopted a definition that applies to all state agencies, including CDPHE.
- Identify areas where the Air Quality Regulation (Reg.) Number 3, which governs permitting in disproportionately impacted communities, applies.
- Identify areas that meet the prior definition of “Disproportionately Impacted Community” under the Colorado Environmental Justice Act (HB21-1266).

**Colorado EnviroScreen does not:**

- Define a healthy or unhealthy environment.
- Establish causal associations between environmental risks and health.
- Define all areas that may be affected by environmental injustice or specific environmental risks.
- Provide information about an individual person’s health status or environment.
- Take all environmental exposures into account.
- Tell us about smaller areas within a census block group that may be more vulnerable to environmental exposures than other areas.
- Provide information about non-human health or ecosystem risks.

## Additional Resources

---

[Frequently Asked Questions: Environmental Justice Report Tool for Air Quality Regulation 3](#)

[Air Pollution Control Division's Small Business Assistance Program](#)

[CDPHE Environmental Justice Program](#)

[Colorado EnviroScreen Version 1.0 Reports, Guides, and Resources Folder](#)

FORM  
2A

Rev  
05/22

State of Colorado  
Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403278397

Date Received:

05/03/2023

Oil and Gas Location Assessment

This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location Assessment will allow for the construction of the below specified Location; however, it does not supersede any land use rules applied by the local land use authority. Please see the COGCC website at <https://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

OGDP ID:

Expiration Date:

New Location     Refile     Amend Existing Location # \_\_\_\_\_

If this Location assessment is a component of an Oil and Gas Development Plan (OGDP) application, enter the OGDP docket number(s).

Docket Number	OGDP ID	OGDP Name
230500142		

If this Location assessment is part of an approved Oil and Gas Development Plan, enter the OGDP ID number(s).

<No existing OGDP number provided>

CONSULTATION

- This location is included in a Comprehensive Area Plan (CAP). CAP ID # \_\_\_\_\_
- This Location or its associated new access road, utility, or Pipeline corridor meets Rule 309.e.(2).A, B, or C.
- This Location is within 2,640 feet of a GUDI or Type III Well per Rule 411.b.(4).
- This Location includes a Rule 309.e.(2).E variance request.
- This location includes a Rule 309.f.(1).A.ii. variance request.

Operator

Operator Number: 47120

Name: KERR MCGEE OIL & GAS ONSHORE LP

Address: P O BOX 173779

City: DENVER State: CO Zip: 80217-3779

Contact Information

Name: Rachel Friedman

Phone: (720) 9296564

Fax: ( )

email: Rachel\_Friedman@oxy.com

FINANCIAL ASSURANCE FOR THIS LOCATION (check all that apply)

- Plugging, Abandonment, and Reclamation 20010124
- Centralized E&P Waste Management Facility \_\_\_\_\_
- Gas Gathering, Gas Processing, and Underground Gas Storage Facilities \_\_\_\_\_
- Surface Owner Protection Bond. \_\_\_\_\_

Federal Financial Assurance

- In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for one or more Wells on this Location.

Amount of Federal Financial Assurance \$ \_\_\_\_\_

LOCATION IDENTIFICATION

Name: SALAZAR Number: 5-20HZ

Provide the location description and the latitude and longitude of a single point near the center of the Working Pad Surface as a reference for this Location.

Quarter: SWNW Section: 20 Township: 3N Range: 67W Meridian: 6 Ground Elevation: 4902  
Latitude: 40.213514 Longitude: -104.921430  
GPS Quality Value: 1.2 Type of GPS Quality Value: PDOP Date of Measurement: 02/03/2023

## RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is: LOCATION ID # FORM 2A DOC #

## RELEVANT LOCAL GOVERNMENT SITING INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "Relevant Local Government approval of the siting of the proposed oil and gas location."

This proposed Oil and Gas Location is in an area designated as one of State interest and subject to the requirements of § 24-65.1-108, C.R.S. Yes

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this location? Yes

A siting permit application has been submitted to the Relevant Local Government for this proposed Oil and Gas Location: Yes

Date Relevant Local Government permit application submitted: 05/03/2023

Current status or disposition of the Relevant Local Government permit application for this proposed Oil and Gas Location: In Process

Status/disposition date: 05/03/2023

If Relevant Local Government permit has been approved or denied, attach final decision document(s).

Provide the contact information for the Relevant Local Government point of contact for the local permit associated with this proposed Oil and Gas Location:

Contact Name: Stephanie Frederick Contact Phone: 970-400-3581

Contact Email: sfrederick@weldgov.com

## PROXIMATE LOCAL GOVERNMENT INFORMATION

For every Proximate Local Government (PLG) associated with this proposed Oil and Gas Location, provide the PLG's point of contact and their contact information.

< No row provided >

## FEDERAL PERMIT INFORMATION

A Federal drilling permit (or related siting application) has been submitted for this proposed Oil and Gas Location: No

Date submitted: \_\_\_\_\_

Current status or disposition of the Federal drilling permit (or related siting application) for this proposed Oil and Gas Location: \_\_\_\_\_

Status/disposition Date: \_\_\_\_\_

If Federal agency permit has been approved or denied, attach the final decision document(s).

Provide the contact information of the Federal point of contact for the Federal permit associated with this proposed Oil and Gas Location.

Contact Name: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Contact Email: \_\_\_\_\_ Field Office: \_\_\_\_\_

Additional explanation of local and/or federal process:

Weld County: 1041 WOGLA23-0012

## RELEVANT LOCAL GOVERNMENT OR FEDERAL PRE-APPLICATION CONSULTATION

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Did a pre-application Formal Consultation Process occur with the Relevant Local Government per Rule 301.f.(3)? Yes

Date of local government consultation: 08/31/2022

Did a pre-application Formal Consultation Process occur with the Federal land manager per Rule 301.f.(3)? No

Date of federal consultation: \_\_\_\_\_

Was an ALA that satisfies Rule 304.b.(2).C (or substantially equivalent information per Rule 304.e) developed during a federal or local government permit application process? If yes, attach the ALA to the Form 2A. No

## ALA APPLICABILITY AND CRITERIA

Complete this section for any pre-application consultation related to this proposed Oil and Gas Location that occurred prior to the submission of this Form 2A. If a pre-application Formal Consultation Process occurred, attach a Consultation Summary.

Does the proposed Oil and Gas Location meet any of the criteria listed in Rule 304.b.(2)B? Yes

If YES, indicate by checking the box for every Rule 304.b.(2).B criterion met by this proposed Location, and attach an ALA. See Rule 304.b.(2).B.i-x for full text of criteria.

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> i. WPS < 2,000 feet from RBU/HOBU                                   | <input type="checkbox"/> vi.aa. WPS within a surface water supply area                       |
| <input type="checkbox"/> ii. WPS < 2,000 feet from School/Child Care Center                             | <input type="checkbox"/> vi.bb. WPS < 2,640 feet from Type III or GUDI well                  |
| <input type="checkbox"/> iii. WPS < 1,500 feet from DOAA  | <input type="checkbox"/> vii. WPS within/immediately upgradient of wetland/riparian corridor |
| <input type="checkbox"/> iv. WPS < 2,000 feet from jurisdictional boundary and PLG objects/requests ALA | <input type="checkbox"/> viii. WPS within HPH and CPW did not waive                          |
| <input type="checkbox"/> v. WPS within a Floodplain   | <input type="checkbox"/> ix. Operator using Surface bond                                     |
|   | <input type="checkbox"/> x. WPS < 2,000 feet from RBU/HOBU/School within a DIC               |

Is the proposed Oil and Gas Location within the exterior boundaries of the Southern Ute Indian Reservation, and the Tribe objects to the Location or requests an ALA? If YES, attach an ALA to the Form 2A. No

Operator requests the Director waive the ALA requirement per Rule 304.b.(2).A.i:

Provide an explanation for the waiver request, and attach supporting information (if necessary).

## ALTERNATIVE LOCATIONS DASHBOARD

List every alternative location reviewed and included in the ALA. Provide a latitude and longitude for the approximate center of the alternative location, all Rule 304.b.(2).B Criteria met, if a variance would be required to permit the location, and a brief comment on the key points of the alternative location.

304.b.(2).B.i-x Criteria Met:

#	latitude	longitude	i	ii	iii	iv	v	vi	vii	viii	ix	x	Variance Required?	Comments
	40.212532	-104.924656	x						x					~3 RBUs within 2,000' Not in HPH Could not come to an agreement with the surface owner
	40.220454	-104.917390	x											~1 RBUs within 2,000' Not in HPH Backbuild makes this technically challenging Could not come to an agreement with the surface owner
	40.221187	-104.878035												0 RBUs within 2,000' Not in HPH Longmont fault would be in the heel of the wellbores. Prefer to have major faults intersect the wellbore near the toe to avoid losing the entire wellbore. Could not reach surface owner

## SURFACE & MINERAL OWNERSHIP

Surface Owner Info:

Name: Pete Salazar Jr.

Phone: \_\_\_\_\_

Address: 7031 Highway 66

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: P1942SALAZAR@AOL.COM

City: Platteville State: CO Zip: 80651

Surface Owner at this Oil and Gas Location:  Fee  State  Federal  Indian

- Check only one:
- The Operator/Applicant is the surface owner.
  - The Operator has a signed Surface Use Agreement for this Location – attach SUA.
  - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the surface owner owns the minerals beneath this Location and is committed to an oil and gas lease – attach lease map or provide lease description.
  - All operations on this Oil & Gas Location will develop the minerals beneath the Location, and the Operator intends to use a surface bond per Rule 703 to secure access to this Location – attach lease map or provide lease description.

Surface Owner protection Financial Assurance type: N/A

Surety ID Number: \_\_\_\_\_

Mineral Owner beneath this Oil and Gas Location:  Fee  State  Federal  Indian

Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: Yes

Lease description if necessary: \_\_\_\_\_

## SITE EQUIPMENT LIST

Indicate the number and type of major equipment components planned for use on this Oil and Gas Location:

Wells	12	Oil Tanks	0	Condensate Tanks	1	Water Tanks	4	Buried Produced Water Vaults	0
Drilling Pits	0	Production Pits	0	Special Purpose Pits	0	Multi-Well Pits	0	Modular Large Volume Tank	1
Pump Jacks	12	Separators	4	Injection Pumps	0	Heater-Treaters	0	Gas Compressors	0
Gas or Diesel Motors	0	Electric Motors	0	Electric Generators	0	Fuel Tanks	0	LACT Unit	1
Dehydrator Units	0	Vapor Recovery Unit	0	VOC Combustor	1	Flare	0	Enclosed Combustion Devices	0
Meter/Sales Building	2	Pigging Station	0	Vapor Recovery Towers	0				

### OTHER PERMANENT EQUIPMENT

Permanent Equipment Type	Number
E House	1
Communication Towers	1
Electrical Boxes	1
Chemical Totes	3
Air Compressors	1
FG Scrubbers	1

### OTHER TEMPORARY EQUIPMENT

Temporary Equipment Type	Number
Purge Flares	3
Generator	1
Propane Tanks	1
MLVT	1
Enclosed Combustion Devices	5
Water Tanks	24

### GAS GATHERING COMMITMENT

Operator commits to connecting to a gathering system by the Commencement of Production Operations? Yes

If the answer is NO, a Gas Capture Plan consistent with the requirements of Rule 903.e MUST be attached on the Plans tab.

### FLOWLINE DESCRIPTION

Per Rule 304.b.(6), provide a description of all onsite and off-location oil, gas, and/or water flowlines.

Flowlines - 2"-3" size (outside diameter), constructed of carbon steel.  
 Oil, gas and water pipelines will be used at this location. Water for completions operations will be brought to the location through temporary water lines using KMG's Water on Demand system. The oil and gas pipelines will be constructed by a 3rd party midstream company.

### CULTURAL DISTANCE AND DIRECTION

Provide the distance and direction to the nearest cultural feature as measured from the edge of the Working Pad Surface.

Building:	Distance	Direction	Rule 604.b Conditions Satisfied (check all that apply):			Details of Condition(s)	604.b (4)
			604.b. (1)	604.b. (2)	604.b. (3)		
Residential Building Unit (RBU):	1788 Feet	W	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All wells tanks, separation equipment and compressors are outside of 2,000' of RBUs. Please see the submit tab comment box for further details	<input checked="" type="checkbox"/>
High Occupancy Building Unit(HOBU)	2000 Feet	W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Designated Outside Activity Area:	<u>2000</u> Feet	<u>SW</u>				
Public Road:	<u>1644</u> Feet	<u>N</u>				
Above Ground Utility:	<u>1678</u> Feet	<u>N</u>				
Railroad:	<u>2000</u> Feet	<u>NW</u>				
Property Line:	<u>31</u> Feet	<u>W</u>				
School Facility:	<u>2000</u> Feet	<u>S</u>				
Child Care Center:	<u>2000</u> Feet	<u>S</u>				
Disproportionately Impacted (DI) Community:	<u>2000</u> Feet	<u>S</u>				
RBU, HOBUs, or School Facility within a DI Community:	<u>2000</u> Feet	<u>S</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**RULE 604.a.(2). EXCEPTION LOCATION REQUEST**

Operator requests an Exception Location Request from Rule 604.a.(2) [well is less than 150 feet from a property line]. Exception Location Request Letter and Waiver signed by offset Surface Owner(s) must be attached.

**CULTURAL FEATURE INFORMATION REQUIRED BY RULE 304.b.(3).B.**

Provide the number of each Cultural feature identified within the following distances, as measured from the Working Pad Surface:

	<b>0-500 feet</b>	<b>501-1,000 feet</b>	<b>1,001-2,000 feet</b>
Building Units	<u>0</u>	<u>0</u>	<u>4</u>
Residential Building Units	<u>0</u>	<u>0</u>	<u>4</u>
High Occupancy Building Units	<u>0</u>	<u>0</u>	<u>0</u>
School Properties	<u>0</u>	<u>0</u>	<u>0</u>
School Facilities	<u>0</u>	<u>0</u>	<u>0</u>
Designated Outside Activity Areas	<u>0</u>	<u>0</u>	<u>0</u>

**CONSTRUCTION**

Size of disturbed area during construction in acres: 14.71

Size of location after interim reclamation in acres: 4.20

Estimated post-construction ground elevation: 4902

**DRILLING PROGRAM**

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No If YES, attach H2S Drilling Operations Plan.

Will salt sections be encountered during drilling: No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE

Drilling Fluids Disposal Method: Centralized E&P WMF

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see attached Waste Management Plan

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

Centralized E&P Waste Management Facility ID, if applicable: 456644

## CURRENT LAND USE

Current Land Use: check all that apply per Rule 304.b.(9).

Crop Land:  Irrigated  Non-Irrigated  Conservation Reserve Program (CRP)

Non-Crop Land:  Rangeland  Forestry  Recreation  Other

Subdivided:  Industrial  Commercial  Residential

Describe the current land use:

Rangeland

Describe the Relevant Local Government's land use or zoning designation:

AG

Describe any applicable Federal land use designation:

N/A

## FINAL LAND USE

Final Land Use: check all that apply per Rule 304.b.(9).

Crop Land:  Irrigated  Non-Irrigated  Conservation Reserve Program (CRP)

Non-Crop Land:  Rangeland  Forestry  Recreation  Other

Subdivided:  Industrial  Commercial  Residential

## REFERENCE AREA INFORMATION

If Final Land Use includes Non-Crop Land (as checked above), the following information is required:

Describe landowner's designated final land use(s):

Rangeland

Reference Area Latitude: 40.212750

Reference Area Latitude: -104.919480

Provide a list of plant communities and dominant vegetation found in the Reference Area.

Plant Community	Dominant vegetation
Disturbed Grassland	Halogeton (Halogeton glomeratus)
Disturbed Grassland	Squirreltail (Elymus elymoides)

Noxious weeds present: Yes

## SOILS

List all soil map units that occur within the maximum extent of the proposed Oil and Gas Location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" listing the typical vertical soil profile(s). This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS website at <https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/> or from the COGCC website GIS Online map page. Instructions are provided within the COGCC website help section.

NRCS Map Unit Name: 79-Weld loam, 1 to 3 percent slopes

NRCS Map Unit Name: 82-Wiley-Colby complex, 1 to 3 percent slopes

NRCS Map Unit Name: 83-Wiley-Colby complex, 3 to 5 percent slopes

## GROUNDWATER AND WATER WELL INFORMATION

Provide the distance and direction, as measured from the Working Pad Surface, to the nearest:

water well: 580 Feet SW

Spring or Seep: 5280 Feet N

Estimated depth to shallowest groundwater that can be encountered at this Oil and Gas Location: 43 Feet

Basis for estimated depth to and description of shallowest groundwater occurrence:

1965' E, Permit 326624, total depth 29', Static Water Level 18', Elev 4877'

(SWL calc: (4902 - 4877) + 18 = 43)

## SURFACE WATER AND WETLANDS

Provide the distance and direction to the nearest downgradient surface Waters of the State, as defined 85 Feet N

in the 100-Series Rules, measured from the Working Pad Surface:

If less than 2,640 feet, is the Waters of the State identified above within 15 stream miles upstream of a Public Water System intake? No

Provide the distance and direction to the nearest downgradient wetland, measured from the Working

Pad Surface: 2640 Feet E

Provide a description of the nearest downgradient surface Waters of the State:

Irrigation Ditch

If the proposed Oil and Gas Location is within a Rule 411.a Surface Water Supply Area buffer zone, select the buffer zone type: \_\_\_\_\_

Public Water System Administrator - Contact Name \_\_\_\_\_ Email \_\_\_\_\_

If the proposed Oil and Gas Location is within a Rule 411.b GUDI/Type III buffer zone, select the buffer zone type: \_\_\_\_\_

Public Water System Administrator - Contact Name \_\_\_\_\_ Email \_\_\_\_\_

Is a U.S. Army Corps of Engineers Section 404 permit required for the proposed Oil and Gas Location, access road, or associated pipeline corridor? No

If a U.S. Army Corps of Engineers Section 404 permit is required, provide the permit status, and permit number if available:

\_\_\_\_\_

Is the Location within a Floodplain? No Floodplain Data Sources Reviewed (check all that apply):

Federal (FEMA)  State  County  Local

Other

Does this proposed Oil and Gas Location lie within a Sensitive Area for water resources, as defined in the 100-Series Rules? Yes

## CONSULTATION, WAIVERS, AND EXCEPTIONS

When Rule 309.e.(2) Consultation must occur, check all that apply:

- This location is included in a Wildlife Mitigation Plan
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within federally designated critical habitat or an area with a known occurrence for a federal or Colorado threatened or endangered species. Provide description in Comments section of Submit tab.
- This Oil and Gas Location or associated new access road, utility, or pipeline corridor falls within an existing conservation easement established wholly or partly for wildlife habitat. Provide description in Comments section of Submit tab.

When Rule 309.e.(3) Consultation is not required, check all that apply:

- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Protection Plan.
- This Oil and Gas Location has been included in a previously approved, applicable Wildlife Mitigation Plan.
- This Oil and Gas Location has been included in a previously approved, applicable conservation plan.

Pre-application Consultation:

- A pre-application consultation with CPW, regarding this Oil and Gas Location, occurred 03/14/2023 on:

## CPW Waivers and Exceptions (check all that apply and attach all CPW waivers to this Form 2A):

- The applicant has obtained a Rule 304.b.(2).B.viii CPW waiver for the requirement to complete an ALA.
- The applicant has obtained a Rule 309.e.(2).G CPW waiver and consultation is not required.
- The applicant has obtained a Rule 309.e.(5).D.i CPW waiver and is requesting an exception from Rule 1202.c.(1).R.
- The applicant has obtained a Rule 309.e.(5).D.ii CPW waiver and is requesting an exception from Rule 1202.c.(1).S.
- The applicant has obtained a Rule 309.e.(5).D.iii CPW waiver of Rule 1202.c.(1).T.
- The applicant has obtained a Rule 309.e.(5).D.iv CPW waiver and is requesting an exception from Rule 1202.c.(1) in accordance with an approved CAP.
- The applicant has obtained a Rule 1202.a CPW waiver.
- The applicant has obtained a Rule 1202.b CPW waiver.
- In accordance with Rule 1203.a.(3), the applicant requests an exception from compensatory mitigation Rule(s): \_\_\_\_\_

## HIGH PRIORITY HABITAT AND COMPENSATORY MITIGATION

This Oil and Gas Location, associated access roads, utility, or Pipeline corridor falls wholly or partially within the following High Priority Habitats (Note: dropdown options are abbreviated - see Rule 1202 for full rule text):

High Priority Habitat (list all that apply)	Oil and Gas Location	Access Road	Utility or Pipeline Corridor
1202.d.(3) - Mule deer migration & winter		x	

The following questions are for Oil and Gas Locations that cause the density to exceed one Oil and Gas Location per square mile in Rule 1202.d High Priority Habitat:

Direct Impacts:

Is Compensatory Mitigation required per Rule 1203.a for this Oil and Gas Location? No

Is a Compensatory Mitigation Plan proposed to address direct impacts for this Oil and Gas Location? No

Have all Compensatory Mitigation Plans been approved for this Location? Yes

If not, what is the current status of each Plan?

N/A

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? Yes

Direct impact habitat mitigation fee amount: \$ 13750

Indirect Impacts:

Is Compensatory Mitigation required per Rule 1203.d for this Oil and Gas Location? No

Is a Compensatory Mitigation Plan proposed to address indirect impacts for this Oil and Gas Location? No

Have all Compensatory Mitigation Plans been approved for this Location? No

If not, what is the current status of each Plan?

N/A

Is a Compensatory Mitigation Fee proposed for this Oil and Gas Location? No

Indirect impact habitat mitigation fee amount: \$ \_\_\_\_\_

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	MULE DEER & ELK	Wildlife - Minimization	If new oil and gas operations must occur within CPW-mapped mule deer and elk severe winter range and/or winter concentration areas, the operator agrees to conduct new oil and gas operations outside the time period from December 1 through April 30.

CPW Proposed Wildlife BMPs

No BMP

AIR QUALITY MONITORING PROGRAM

Will the Operator install and administer an air quality monitoring program at this Location? Yes

Operator Proposed BMPs

No	BMP Target	CDPHE Recommendation	COGCC Action
	Water		Adopt as BMP
	Description	Vehicle fueling: Operator will refuel vehicles only on impervious surfaces and never during storm events	
	CDPHE Comment		
	Air		Adopt as BMP
	Description	Pipelines: Operator will shut in the facility to reduce the need for flaring if the pipeline is unavailable	
	CDPHE Comment		
	Air		Adopt as BMP

Description	Ozone mitigation on forecasted high ozone days: operator will postpone construction activities, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations.
CDPHE Comment	
PFAS	Adopt as BMP
Description	If PFAS-containing foam is used at a location: operator will properly capture and dispose of PFAS-contaminated soil and fire and flush water
CDPHE Comment	
Air	Adopt as BMP
Description	Pipelines: Operator will have adequate and committed pipeline take away capacity for all produced gas and oil
CDPHE Comment	
Air	Adopt as BMP
Description	Ozone mitigation on forecasted high ozone days: operator will suspend or delay the use of fossil fuel powered ancillary equipment, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations.
CDPHE Comment	
PFAS	Adopt as BMP
Description	Operator will not use fracturing fluids which contain PFAS compounds.
CDPHE Comment	
Air	Adopt as BMP
Description	Venting/Flaring: Operator will control emergency flaring with an enclosed combustor with a destruction efficiency of 98% or better
CDPHE Comment	
Air	Adopt as BMP
Description	Ozone mitigation on forecasted high ozone days: operator will postpone the refueling of vehicles, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations.
CDPHE Comment	
Air	Adopt as BMP
Description	Venting/Flaring: Operator will not flare or vent gas during completion or flowback, except in upset or emergency conditions, or with prior written approval from the Director for necessary maintenance operations
CDPHE Comment	
Air	Adopt as BMP
Description	Ozone mitigation on forecasted high ozone days: operator will eliminate use of VOC paints and solvents
CDPHE Comment	
Water	Adopt as BMP
Description	Operator will use Modular Large Volume Storage Tanks
CDPHE Comment	
Air	Adopt as BMP
Description	Operator will use lease automated custody transfer (LACT) system to remove/reduce the need for truck loadout
CDPHE Comment	
Water	Adopt as BMP
Description	CPGCC permit will incorporate other agency water quality protection plans by reference as applicable (e.g. stormwater management plan)
CDPHE Comment	

Air		Adopt as BMP
Description	Odor mitigation: operator will cover trucks transporting drill cuttings	
CDPHE Comment		
Water		Adopt as BMP
Description	Dust suppression: Operator will not use produced water or other process fluids for dust suppression	
CDPHE Comment		
Water		Adopt as BMP
Description	Documentation / stormwater management plan: If it is infeasible to install or repair a control measure immediately after discovering a deficiency, operator will document and keep on record in the stormwater management plan: (a) a description of why it is infeasible to initiate the installation or repair immediately; and (b) a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.	
CDPHE Comment		
Water		Adopt as BMP
Description	Outfall locations: Outlet protection should be used when a conveyance discharges onto a disturbed area where there is potential for accelerated erosion due to concentrated flow. Outlet protection should be provided where the velocity at the culvert outlet exceeds the maximum permissible velocity of the material in the receiving channel.	
CDPHE Comment		
PFAS		Adopt as BMP
Description	If PFAS-containing foam is used at a location: operator will properly characterize the site to determine the level, nature and extent of contamination	
CDPHE Comment		
Air		Adopt as BMP
Description	Venting/Flaring: Operator will control bradenhead/casinghead venting	
CDPHE Comment		
Air		Adopt as BMP
Description	Engines: Operator will use tier IV or better engines for hydraulic fracturing	
CDPHE Comment		
PFAS		Adopt as BMP
Description	If PFAS-containing foam is used at a location: operator will perform appropriate soil and water sampling to determine whether additional characterization is necessary and inform the need for and extent of interim or permanent remedial actions	
CDPHE Comment		
Air		Adopt as BMP
Description	Engines: Operator will use tier IV or better engines for drilling	
CDPHE Comment		
Air		Adopt as BMP
Description	Electrification: Operator will use electric equipment and devices (e.g. vapor recovery units or VRUs, fans, etc.) to minimize combustion sources on site (if yes, operator will provide a list outlining which equipment and devices will be electrified)	
CDPHE Comment		
Water		Adopt as BMP
Description	Stormwater inspections: Operator will conduct stormwater inspections immediately after storm event	
CDPHE Comment		
Air		Adopt as BMP

Description	Operator commits to monitoring during drilling and completion operations and for the first 6 months of production in accordance with Reg. 7	
CDPHE Comment		
Water	Adopt as BMP	
Description	Vehicle fueling: Operator will ensure that a fueling contractor is present during the entire fueling process to prevent overfilling, leaks and drips from improper connections	
CDPHE Comment		
Air	Adopt as BMP	
Description	Operator will utilize its green flowback setup, which is an emissions controlled process that utilizes a combination of temporary and permanent equipment.	
CDPHE Comment		
Air	Adopt as BMP	
Description	Tankless design: Operator will not store produced water or hydrocarbon liquids in storage tanks on site (other than a maintenance tank possibly used for well unloading or other maintenance activities).	
CDPHE Comment		
Air	Adopt as BMP	
Description	Operator will use non-emitting pneumatic controllers	
CDPHE Comment		
Air	Adopt as BMP	
Description	Ozone mitigation on forecasted high ozone days: operator will minimize vehicle and engine idling	
CDPHE Comment		
Air	Adopt as BMP	
Description	Operator will properly maintain vehicles and equipment	
CDPHE Comment		
Air	Adopt as BMP	
Description	Ozone mitigation on forecasted high ozone days: operator will reduce truck traffic and worker traffic, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations.	
CDPHE Comment		
Air	Adopt as BMP	
Description	Odor mitigation: operator will use a squeegee or other device to remove drilling fluids from pipes as they exit the wellbore	
CDPHE Comment		
Waste	Adopt as BMP	
Description	Operator will properly test for and dispose of TENORM	
CDPHE Comment		
PFAS	Adopt as BMP	
Description	Operator commits to continue its participation in the Colorado Preparedness Resources Network (CPRN), which has a non-PFAS foam location identification to be sure, in an emergency, that we would have non-PFAS foam available. If the non-PFAS foam is utilized on location, it is replenished by operator.	
CDPHE Comment		
Water	Adopt as BMP	
Description	Stream crossing and Road Construction: Operator will ensure that control measures are designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices	

CDPHE Comment	
Water	Adopt as BMP
Description	Secondary containment: Operator will install perimeter controls to control potential sediment-laden runoff in the event of spill or release from Modular Large Volume Storage Tank
CDPHE Comment	
PFAS	
Description	
CDPHE Comment	
PFAS	Adopt as BMP
Description	Operator will coordinate with nearby fire district(s) to evaluate whether PFAS-free foam can provide the required performance for the specific hazard
CDPHE Comment	
Air	Adopt as BMP
Description	Odor mitigation: Operator will ensure that all drilling fluid is removed from pipes before storage
CDPHE Comment	
Water	Adopt as BMP
Description	Down gradient controls: Operator will install adequate down gradient controls if they can not have a control at the source
CDPHE Comment	
Waste	Adopt as BMP
Description	Operator will properly characterize and dispose of all waste (i.e. the specific landfill/waste disposal location allows for acceptance of the waste stream)
CDPHE Comment	
Air	Adopt as BMP
Description	Ozone mitigation on forecasted high ozone days: operator will reschedule non-essential operational activities such as pigging, well unloading and tank cleaning, as feasible given the number of ozone action days, the operations ongoing at the time, and safety considerations.
CDPHE Comment	
Air	Adopt as BMP
Description	Odor mitigation: operator will use zero VOC (group III, low/negligible odor) drilling mud
CDPHE Comment	
Air	Adopt as BMP
Description	Pipelines: Operator will use pipelines to transport water for hydraulic fracturing to and from location
CDPHE Comment	

### CDPHE Proposed COAs OR BMPs

No BMP

### PLANS

Total Plans Uploaded: 15

(1) Emergency Spill Response Program consistent with the requirements of Rules 411.a.(4).B, 411.b.(5).B, & 602.j

- (2) Noise Mitigation Plan consistent with the requirements of Rule 423.a
- (3) Light Mitigation Plan consistent with the requirements of Rule 424.a
- (4) Odor Mitigation Plan consistent with the requirements of Rule 426.a
- (5) Dust Mitigation Plan consistent with the requirements of Rule 427.a
- (6) Transportation Plan
- (7) Operations Safety Management Program consistent with the requirements of Rule 602.d
- (8) Emergency Response Plan consistent with the requirements of Rule 602.j
- (9) Flood Shut-In Plan consistent with the requirements of Rule 421.b.(1)
- (10) Hydrogen Sulfide Drilling Operations Plan consistent with the requirements of Rule 612.d
- (11) Waste Management Plan consistent with the requirements of Rule 905.a.(4)
- (12) Gas Capture Plan consistent with the requirements of Rule 903.e
- (13) Fluid Leak Detection Plan
- (14) Topsoil Protection Plan consistent with the requirements of Rule 1002.c
- (15) Stormwater Management Plan consistent with the requirements of Rule 1002.f
- (16) Interim Reclamation Plan consistent with the requirements of Rule 1003
- (17) Wildlife Plan consistent with the requirements of Rule 1201
- (18) Water Plan
- (19) Cumulative Impacts Plan
- (20) Community Outreach Plan
- (21) Geologic Hazard Plan

## VARIANCE REQUESTS

Check all that apply:

- This proposed Oil and Gas Location requires the approval of a Rule 502.a variance from COGCC Rule or Commission  
Order number: \_\_\_\_\_

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## RULE 304.d LESSER IMPACT AREA EXEMPTION REQUESTS

Check the boxes below for all Exemptions being requested. Lesser Impact Area Exemption Request must be attached, and will include all requested exemptions.

- |  |  |
|--|--|
| <input type="checkbox"/> 304.b.(1). Local Government Siting Information      | <input type="checkbox"/> 304.c.(1). Emergency Spill Response Program           |
| <input type="checkbox"/> 304.b.(2). Alternative Location Analysis            | <input type="checkbox"/> 304.c.(2). Noise Mitigation Plan                      |
| <input type="checkbox"/> 304.b.(3). Cultural Distances                       | <input type="checkbox"/> 304.c.(3). Light Mitigation Plan                      |
| <input type="checkbox"/> 304.b.(4). Location Pictures                        | <input type="checkbox"/> 304.c.(4). Odor Mitigation Plan                       |
| <input type="checkbox"/> 304.b.(5). Site Equipment List                      | <input type="checkbox"/> 304.c.(5). Dust Mitigation Plan                       |
| <input type="checkbox"/> 304.b.(6). Flowline Descriptions                    | <input type="checkbox"/> 304.c.(6). Transportation Plan                        |
| <input type="checkbox"/> 304.b.(7). Drawings                                 | <input type="checkbox"/> 304.c.(7). Operations Safety Management Program       |
| <input type="checkbox"/> 304.b.(8). Geographic Information System (GIS) Data | <input type="checkbox"/> 304.c.(8). Emergency Response Plan                    |
| <input type="checkbox"/> 304.b.(9). Land Use Description                     | <input type="checkbox"/> 304.c.(9). Flood Shut-In Plan                         |
| <input type="checkbox"/> 304.b.(10). NRCS Map Unit Description               | <input type="checkbox"/> 304.c.(10). Hydrogen Sulfide Drilling Operations Plan |
| <input type="checkbox"/> 304.b.(11). Best Management Practices               | <input type="checkbox"/> 304.c.(11). Waste Management Plan                     |
| <input type="checkbox"/> 304.b.(12). Surface Owner Information               | <input type="checkbox"/> 304.c.(12). Gas Capture Plan                          |
| <input type="checkbox"/> 304.b.(13). Proximate Local Government              | <input type="checkbox"/> 304.c.(13). Fluid Leak Detection Plan                 |
| <input type="checkbox"/> 304.b.(14). Wetlands                                | <input type="checkbox"/> 304.c.(14). Topsoil Protection Plan                   |
| <input type="checkbox"/> 304.b.(15). Schools and Child Care Centers          | <input type="checkbox"/> 304.c.(15). Stormwater Management Plan                |
|  | <input type="checkbox"/> 304.c.(16). Interim Reclamation Plan                  |
|  | <input type="checkbox"/> 304.c.(17). Wildlife Plan                             |
|  | <input type="checkbox"/> 304.c.(18). Water Plan                                |
|  | <input type="checkbox"/> 304.c.(19). Cumulative Impacts Plan                   |
|  | <input type="checkbox"/> 304.c.(20). Community Outreach Plan                   |
|  | <input type="checkbox"/> 304.c.(21). Geologic Hazard Plan                      |

## OPERATOR COMMENTS AND SUBMITTAL

Comments

604.b.3 Items: Cultural Item Measurements from Nearest Well: Building 1929' E, Building Unit 2,002' E, HOBU 5280+; Cultural Item Measurements from Nearest Well or Facility Equipment: Building 1628' W, Building Unit 2,001' NW, HOBU 5280+

This proposed location is not within 500 feet of OHWM and no wetlands are present. No USACE 404 permit will be required to construct this location. Please refer to the Wildlife Mitigation Plan for further details.  
Temporary above ground polyethylene water pipelines (diameter 10" - 12" with a 60 BPM capacity) will deliver water to location operations from larger trunk lines for completions operations.  
Flowlines will flow to the production facility location. During production, flow direction in the flow lines is from the wellhead to the production facility. The size of flowlines is typically 3".  
Flow lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the production facility.  
Gas custody transfer occurs at the custody transfer meter located on the proposed production facility location. Oil custody transfer occurs at the LACT Unit located on the proposed production facility location.  
Two 500 barrel skid-mounted tanks will be temporarily placed onsite for use of the pre-spud rig only. One tank will store water and the other will store water-based mud.  
A temporary ECD may be utilized during drilling.  
Gas lift compressors may be used at this location.  
Gas lift lines are also occasionally installed (one per well) from the well head to the production facility. During operation flow direction in the gas lift lines will be from the production facility to the well head. The size of the gas lift lines is typically 2". Gas lift lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the tank battery.  
Compressed air supply lines will also be installed from the well head to the production facility. During operation flow direction in the supply lines will be from the production facility to the well head. The size of the supply lines is typically 1". Supply lines will be constructed from steel pipe, buried, and will equal the distance between the well heads and the production facility.  
Temporary 500 BBL skid-mounted frac tanks will be utilized during flowback and initially for produced water.  
Temporary ECDs and temporary tanks will be on location for 9 - 12 months and will be removed as water production declines.  
A temporary generator may be placed on location if needed and would be in place until electric power is available.  
Temporary purge flares may be placed on location for up to 60 days.  
A temporary 500-gallon propane tank will be used on location to provide fuel gas during facility equipment startup.  
KMOG is proposing one temporary 20,000 BBL MLVT for this location - 32 feet tall and 67 feet diameter.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: \_\_\_\_\_ Date: 05/03/2023 Email: djregulatory@oxy.com

Print Name: Rachel Friedman Title: Geological Advisor

Based on the information provided herein, this Oil and Gas Location Assessment complies with COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved: \_\_\_\_\_ Director of COGCC Date: \_\_\_\_\_

### Conditions Of Approval

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

COA Type	Description
	To demonstrate compliance with Rule 604.b: After production equipment has been installed, prior to beginning production, KMOG will submit to the Location ID#, via Form 4 Sundry Notice, a post-construction survey showing the measured distance from the edge of the wellheads, tanks, separation equipment or compressors to the Residential Building Unit(s) (RBU(s)) confirming that all equipment etc is at least 2,000 feet away from the RBU(s).

1 COA

### Best Management Practices

No BMP/COA Type	Description
1 Planning	<p>The MLVT will be in compliance with the following COGCC safety setbacks. 1) Seventy-five (75) feet from a wellhead, fired vessel, heater-treater, or a compressor with a rating of 200 horsepower or more; 2) Fifty (50) feet from a separator, well test unit, or other non-fired equipment. Signs shall be posted on each MLVT to indicate that the contents are fresh water and that no E&amp;P waste fluids are allowed. Location and additional signage shall conform to Rule 210.</p> <p>MLVT will be operated with a minimum of 1 foot freeboard at all times.</p> <p>Access to the tanks shall be limited to operational personnel.</p> <p>Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications. KMOG follows manufacturers Standard Operating Procedures (SOPs) and will provide these SOPs upon request to the COGCC.</p> <p>KMOG will conduct daily, visual inspections of the exterior wall and general area for any integrity deficiencies before, during, and after filling the MLVTs. If deficiencies are noted, KMOG will repair them as soon as practicable. Records of repairs will be maintained per Rule 205.</p> <p>KMOG will follow pre-construction risk assessment measures to address safety concerns, and minimize environmental impacts and property damage in the unlikely event of a MLVT release.</p> <p>In the event of a catastrophic MLVT failure, KMOG shall notify the COGCC as soon as practicable but not more than 24 hours after discovery, submit a Form 22- Accident Report within 10 days after discovery, conduct a root cause analysis and provide same to COGCC on a Form 4-Sundry Notice within 30 days of the failure.</p> <p>All MLVT liner seams shall be welded and tested in accordance with applicable ASTM international standards. Any repairs to liners shall be made using acceptable practices and applicable standards.</p> <p>The MLVT shall be constructed and operated in accordance with a design package certified and sealed by a Licensed Professional Engineer either in Colorado or the state where the MLVT was designed or manufactured.</p> <p>KMOG hereby certifies to the Director that the MLVT at this location will be designed and implemented consistent with the Colorado Oil and Gas Conservation Commission policy dated June 13, 2014.</p> <p>MLVT Noise/Light: KMOG will install portable sound panels around the MLVT pumping operation to minimize noise and light.</p>
2 General Housekeeping	All loadlines shall be bullplugged or capped.
3 General Housekeeping	<p>Waste BMPs</p> <p>Wastes will be stored in containers or on lined containment that are chosen for compatibility and checked periodically for leaks or integrity problems.</p> <p>All specific wastes in the attached site-specific Table will have a detailed Safety Data Sheet available which includes information such as the properties of the wastes; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical.</p> <p>The proper personal protective equipment will always be worn when handling waste. Employees will refer to the Safety Data Sheet for additional information.</p> <p>Wastes will be segregated and stored according to its waste type.</p> <p>When feasible, wastes will be recycled, re-used, or treated onsite. No onsite treatment or recycling is planned onsite for this location.</p> <p>All waste streams will be transported off location for recycling or disposal in a timely manner in accordance with local, state, and federal regulations.</p> <p>All spills or leaks will be cleaned up upon discovery in accordance with local, state, and federal testing and cleanup standards. All waste generated from the cleanup process will be profiled, as required by local, state, and federal regulations, for recycling or disposal. Manifests will be used to track all waste generated.</p> <p>During drilling, completions, and facility construction, human waste and septic from temporary buildings will be stored in tanks. These tanks will be emptied via vacuum truck for disposal. Temporary portable restrooms will also be available for workers during this phase.</p>

4	General Housekeeping	<p>Light BMPs</p> <p>During construction of all phases, KMOG will only conduct day light operation and there will be no nighttime operations that require lighting.</p> <p>Exterior lighting shall be directed away from residential and other sensitive areas or shielded from said areas to eliminate glare. Light spillage beyond the perimeter of the well site shall be minimized.</p> <p>Bulbs shall be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of each fixture.</p> <p>Prior to commencement of drilling and completion activities, a partial perimeter, engineered sound wall consisting of approximately 1,580 linear feet of 32-foot-tall, rated at STC32, will be installed around the well pad to reduce noise levels at the critical receptor points.</p> <ul style="list-style-type: none"> <li>o 480 linear feet on west edge of the well pad above the flow line corridor</li> <li>o 380 linear feet on north edge of well pad with an opening for the access road</li> <li>o 520 linear feet on the east edge of well pad</li> <li>o and 200 linear feet on the south edge of the well pad (on the east half of the pad)</li> </ul> <p>KMOG will utilize LED fixtures to reduce skyglow.</p> <p>KMOG will position all lights to point in a downward direction where vertical lighting is not required.</p> <p>Where it is required, lights are angled in a vertical direction to provide task lighting for safety and operations involving personnel.</p> <p>Derrick mast lighting in Section 6.1 is facing horizontally to provide adequate lighting for safe operation.</p> <p>Lighting is angled to mitigate the amount of light leaving the location boundary, and away from surrounding off site buildings.</p> <p>Lighting within the Drilling area has been reduced to provide a minimum acceptable value for safe operation.</p> <p>Light masts are automatically switched off/on based on lighting sensors.</p> <p>Lights are switched off when not required.</p> <p>Low power (63 W) LED lights are used for the drill rig.</p> <p>Lighting within the Completion and Flowback areas have been reduced to provide a minimum acceptable value for safe operation.</p> <p>Lighting within the Production areas have been reduced to provide a minimum acceptable value for safe operation.</p>	
5	Wildlife	<p>An environmental assessment will be conducted immediately prior to pad construction, drilling, and completion operations.</p>	
6	Wildlife	<p>A temporary access road will be constructed so that construction and drilling activities avoid the Mule Deer Severe Winter Range HPH.</p> <p>Construction of the portion of the permanent access road that lies within the Mule Deer Severe Winter Range HPH will be limited to the seven months between May 1 and November 30.</p> <p>Water for completions operations will be piped to the pad.</p> <p>Production facilities are designed to truck oil, eliminating storage tanks and truck trips.</p> <p>Install screening or other devices on the stacks and on other openings of heater treaters or fired vessels to prevent entry by migratory birds.</p> <p>Use remote monitoring of well production.</p> <p>During drilling and completions, sound walls will be constructed around the well pad, as needed, to dampen noise and minimize dispersed light.</p> <p>Lighting will be directed inward and downward toward the Location in order to minimize lighting impact.</p>	
7	Storm Water/Erosion Control	<p>KMOG will perform bi-weekly stormwater inspections during normal operations plus post-precip / melt response, based on COR40 permit.</p>	

8	Storm Water/Erosion Control	<p>Topsoil/Stormwater BMPs</p> <p>Ditch and berm shall be installed around the perimeter of the location, and subsequently around all topsoil stockpiles, to intercept and divert stormwater run-on/run-off and sediment from precipitation and melt events.</p> <p>Track packing all topsoil stockpiles will occur to prevent erosion from stormwater and wind, as well as provide temporary stabilization.</p> <p>Seeding and crimped straw mulch will be applied to prevent erosion and soil loss from stormwater and wind.</p> <p>Vegetation establishment through seeding efforts will promote soil health and maintain carbon exchange.</p> <p>Weed control will occur seasonally and as needed to hinder the spread of weeds throughout the topsoil stockpile(s) and help native grass establishment.</p> <p>During the construction phase topsoil will be stockpiled ~6 feet tall and with a 5:1 slope north of the facility and ~7 feet tall with a 5:1 slope east of the well pad to minimize erosion potential.</p> <p>The long-term topsoil stockpile will be bermed ~4 feet tall at a 4:1 slope north and on the northeast corner of the facility and ~3 feet tall at a 5:1 slope surrounding the well pad to maintain microbial activity for an extended time.</p>
9	Material Handling and Spill Prevention	<p>All storage tanks used for active production rig drilling operations, used in lieu of pits, will contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges will be used on tanks associated with the surface rig.</p>
10	Material Handling and Spill Prevention	<p>KMOG will ensure that a fueling contractor is present during the entire fueling process to prevent overfilling, leaks and drips from improper connections</p>
11	Material Handling and Spill Prevention	<p>Fluid Leak Detection BMPs</p> <p>Two crew members required and dedicated for all fluid transfers (no exceptions) from start to finish of the operation. Their sole focus is on the transfer. No fluid transfer will occur during crew change. Crew members conducting the fluid transfer will not leave the area until transfer operations completed.</p> <p>Tanks (along with auxiliary equipment installed in tanks) will be inspected prior to use and replaced/repaired if damaged.</p> <p>During rig up, hoses and lines will be properly assembled, all bolts properly made up and gaskets installed.</p> <p>Appropriate secondary containment will be utilized when equipment maintenance is conducted on location.</p> <p>Contractors will maintain an updated copy of their SPCC plan on location.</p> <p>Tanks will have hatches, valves and bull plugs secured prior to transfers.</p> <p>Pre-job inspection will be conducted prior to start up which include the visual inspection of hoses, lines, and valves to ensure proper connection and alignment.</p> <p>During operations, all fluid containing equipment is inspected daily.</p> <p>The temporary produced water storage tanks and permanent crude oil (condensate) and produced water storage tanks will be staged on a geosynthetic liner and surrounded by an earthen berm. The berms will enclose an area sufficient to provide secondary containment for 150% of the volume of the largest single tank and will be sufficiently impervious to contain spilled or released material. Berms and the liner and all secondary containment devices will be inspected at the same time as stormwater inspections, with personnel on location, daily inspections will occur. During non-active, but while under construction, site inspections will occur every 14 days. When construction is completed and the location is on production, site inspections will occur every 28 days at a minimum.</p> <p>Monitor pressure responses and containment to identify potential leaks. Lines will be walked continuously throughout operations (between stages) to identify potential leaks.</p> <p>There is a slam valve and control valve with Emergency Shut Down system in line to the external temp tanks to prevent overflowing tanks during the green flowback duration.</p> <p>Hourly walk-throughs and pressure measurements recorded during flowback operations for leak detection.</p> <p>Automation technology will be utilized at this facility.</p>

12	Dust control	<p>KMOG will proactively deploy fresh water to suppress dust along access road to well pad/ facility during all phases of pre-production operations  Speed limits will be reduced to 10 mph on access road and 5 mph once vehicles reach well pad/ facility  In the event of high winds that generate dust that cannot be mitigated with an application of water, KMOG will shut down construction operations  During the Completions phase, KMOG will utilize a fully enclosed sand containerized proppant delivery system that eliminates the use of pneumatic transfer on location. This methodology utilizes a gravity choke feed system that reduces dust significantly. The dust levels from this system are minimal and below Occupational Safety and Health Administration (OSHA) permissible exposure limit which eliminates the need for additional Personal Protective Equipment (PPE).</p>
13	Construction	<p>KMOG will extend an existing access road off of County Road 32 to access the location. For drilling and completions a temporary access road will be created and reclaimed after these operations phases are completed. A permanent access road will be constructed for use during production operations. The roads will be properly constructed and maintained to accommodate for emergency vehicle access.</p>
14	Construction	<p>The completed wellsite will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMOG personnel will monitor the wellsite upon completion of the wells. Authorized representatives and/or KMOG personnel shall be on-site during drilling and completions operations.</p>
15	Construction	<p>KMOG will only construct during day light and there will be no nighttime operations that require lighting.</p>
16	Noise mitigation	<p>Prior to commencement of drilling and completion activities, a partial perimeter, engineered sound wall consisting of approximately 1,580 linear feet of 32-foot-tall wall, rated at STC32, will be installed around the edge of the well pad to reduce noise levels at the critical receptor points. The total footage is broken down below:</p> <ul style="list-style-type: none"> <li>o 480 linear feet on the west edge of the well pad, north of the flow line corridor</li> <li>o 380 linear feet on the north edge of the well pad, with an opening for the access road corridor</li> <li>o 520 linear feet on the east edge of the well pad</li> <li>o 200 linear feet on the east half of the south edge of the well pad</li> </ul> <p>KMOG will utilize a modified drilling rig designed to reduce overall noise levels. This will include low noise level shale shakers and modifications to the generator house to reduce noise levels from the exhaust vents and radiator fans. Additional noise reduction modifications may also be implemented depending on the rig contractor utilized following a noise survey study.</p> <p>KMOG 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). Flowback utilizes a fraction of similar, but smaller equipment compared to the three other operations studied. Perimeter sound walls will be left in place until flows are initiated to appropriately manage noise levels for this operation.</p> <p>Throughout the duration of pre-production operations and any construction lasting longer than 24-hours, KMOG will conduct continuous noise monitoring at ambient monitoring points 1 and 3 as shown in Figure 3 of Section 7 of this document.</p> <p>If the drilling rig or completions fleet is changed prior to commencement of operations, the mitigation measures employed will be equally or more protective. A sundry form will be submitted to outline any changes per both codes as required.</p> <p>KMOG will post contact information to receive and address noise complaints arising from pre-production operations around the clock, 24-hours, 7 days per week. Upon receipt of a complaint, either directly to KMOG, from the COGCC, or from Weld County, a KMOG representative will contact the associated stakeholder within 48-hours of receipt.</p>

17	Odor mitigation	<p>All oil-based drilling fluids will be built using a Group III base oil with negligible aromatic content and PAH less than 0.001% so that it does not emit odor during all production drilling operations.</p> <p>The Group III base oil will be utilized in a closed loop drilling fluid system and eliminate odor at the shakers, transfer tank, active/reserve tanks, and cuttings in collection tanks and during transport.</p> <p>All drill cuttings are processed through centrifugal dryers to remove residual oil-based drilling fluid not removed by shale shakers.</p> <p>All tubulars pulled out of the hole will be wiped prior to being racked in the derrick or laid down.</p> <p>Cuttings storage time on location will be minimized prior to transport to local landfills.</p> <p>New drilling fluid will be built using transfer line outlets located below tank fluid level to minimize splashing/agitation. New fluid will only be built using Group III base oils.</p> <p>KMOG uses pipelines to transport hydrocarbons (oil &amp; gas) from the production facility eliminating odors that could occur during truck loading.</p> <p>Production facilities are inspected regularly by KMOG to make sure the equipment is working property and necessary maintenance is performed, to reduce potential odors. KMOG incorporates Audio, Visual, Olfactory (AVO) observations at production facility inspections.</p> <p>KMOG will use Best Management Practices to reduce unloading events and to reduce potential odor causing emissions when liquids unloading is necessary (i.e., maintenance activities to remove liquids from existing wells that are inhibiting production).</p> <p>KMOG remotely monitors production facilities, this reduces traffic onto production facilities which may create odors from truck traffic.</p>
18	Drilling/Completion Operations	<p>Test separators and associated flow lines, sand traps and emission control systems shall be installed on-site to accommodate completions techniques. When commercial quantities of salable quality gas are achieved at each well, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, KMOG shall not produce the wells without an approved variance.</p>
19	Drilling/Completion Operations	<p>Guy line anchors will not be used. Base Beams will be used to stabilize the rig and removed after drilling.</p>

20	Interim Reclamation	<p>Interim Reclamation/Topsoil BMPs</p> <p>A berm will be installed around the northern, eastern, western, and southern edges of the Salazar 5-20HZ well pad and the southern, eastern, and northern edges of the facility pad to divert stormwater run-on &amp; run-off to a designated outlet structure. This BMP will be installed during construction disturbance reduction, and prior to removal of construction perimeter controls.</p> <p>Diversion ditch and berm will remain in-place until final reclamation activities commence.</p> <p>A spillway/outlet will be installed in the northeastern portion of the well pad berm and the northeastern portion of the facility pad berm for Salazar 5-20HZ during interim reclamation. All spillways and outlets will remain in-place until final reclamation activities are complete.</p> <p>Culverts will be installed at the northern access off the well pad and facility pad, as well as along the northern portion of the access road for Salazar 5-20HZ intersecting with Weld County Road 32. Culverts will be evaluated at the time of construction and installed as needed. Permanent culverts will be reinforced with inlet and outlet protection to mitigate sediment transport and surface erosion. These BMPs will remain in place throughout the life of production for Salazar 5-20HZ and removed during final reclamation.</p> <p>Seeding will take place once surface disturbing activities are complete. Topsoil stockpiles will be stabilized with seed and mulch no longer than 14-days after completion of stockpiling efforts unless weather or ground conditions are not suitable to properly create a seedbed and promote successful germination.</p> <p>Seed &amp; mulch will be installed on all disturbed areas no longer utilized for construction, and on all topsoil stockpiles which will remain on Salazar 5-20HZ for use during final reclamation. Anticipated topsoil stockpiles will be situated along the southern, eastern and northern perimeter of the facility and western, southern, eastern and northern perimeter of the well pad. Seeding will remain in place until re-disturbed during final reclamation efforts.</p>
21	Final Reclamation	<p>The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.</p>
22	Final Reclamation	<p>Once the wells have been plugged and abandoned, KMOG will identify the location of the wellbores with permanent monuments that will detail the well names and date of plugging.</p>

Total: 22 comment(s)

## Attachment List

<u>Att Doc Num</u>	<u>Name</u>
2101367	LOCAL GOVERNMENT PERMIT
2101368	CPW CONSULTATION
2101369	CDPHE CONSULTATION
2101370	INFORMED CONSENT LETTER
2101371	CORRESPONDENCE
403278397	FORM 2A SUBMITTED
403382825	LOCATION PICTURES
403382840	LOCATION PICTURES
403382842	LOCATION DRAWING
403382846	PRELIMINARY PROCESS FLOW DIAGRAMS
403382847	HYDROLOGY MAP
403382853	ACCESS ROAD MAP
403382861	RELATED LOCATION AND FLOWLINE MAP
403382864	DIRECTIONAL WELL PLAT
403382934	OTHER
403382935	SURFACE AGRMT/SURETY
403382936	NRCS MAP UNIT DESC
403382937	CULTURAL FEATURES MAP
403382939	CPW CONSULTATION
403382940	LGD CONSULTATION
403382941	GEOLOGIC HAZARD MAP
403382942	ALA DATASHEET
403385765	REFERENCE AREA MAP
403470184	ALA NARRATIVE SUMMARY
403470251	LOCATION AND WORKING PAD GIS SHP
403470254	LAYOUT DRAWING
403470278	LOCAL/FED FINAL PERMIT DECISION
403470335	WILDLIFE HABITAT DRAWING
403484690	REFERENCE AREA PICTURES

Total Attach: 29 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	The Director has determined that the OGD application that this Form is a component of conditionally meets all requirements of Rule 306.a. The Director's Recommendation has been attached to the Form 2A.	09/18/2023
OGLA	On September 13, 2023 With Operator concurrence staff performed the following: Uploaded the final approved WOGLA as an attachment to the Form 2A; Uploaded the email correspondence that concluded CPW's consultation as an attachment to the Form 2A; Uploaded the CDPHE consultation summary letter as an attachment to the Form 2A; Reviewed Operator provided BMPs on Operator BMP tab, removed duplicates and unenforceable BMPs and added BMPs from plans; and, Uploaded the signed Informed Consents as attachments to the Form 2A.	09/13/2023
OGLA	On September 12 and 13, 2023 with Operator and CDPHE concurrence staff updated the BMPs in the CDPHE Consult tab and attached the CDPHE Consult Summary to the Form 2A.	09/13/2023
OGLA	On September 12, 2023 with Operator concurrence staff performed the following: Updated the Wildlife Tab to show that Compensatory Mitigation IS proposed for this Oil and Gas Location and the direct impact habitat mitigation fee amount was changed from \$0 to \$13,750.	09/13/2023
OGLA	The Director has determined this OGD application is complete. Form pushed to IN PROCESS.	08/02/2023
OGLA	Returned to Draft for Completeness.	07/13/2023

Total: 6 comment(s)

## **Public Comments**

No public comments were received on this application during the comment period.