FORM 2B Rev 03/21

State of Colorado
Energy & Carbon Management Commission

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CUMULATIVE IMPACTS DATA IDENTIFICATION

Per Rule 303, this form and all required components and attachments will be submitted for any Oil and Gas Development Plan.

Form Type: [X] **OGDP** [ ] **Partial 2B - Rule 803.b.(2).A UIC Conversion**

OPERATOR INFORMATION

ECMC Operator Number: 10633
Name of Operator: CRESTONE PEAK RESOURCES OPERATING LLC
Address: 555 17TH STREET SUITE 3700
City: DENVER State: CO Zip: 80202

Contact Name and Telephone:
Name: Jeff Annable
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OIL & GAS DEVELOPMENT PLAN INFORMATION

Oil & Gas Development Plan Name: Chico North OGDP

Oil & Gas Development Plan Docket #:

Docket Number
240300071

Oil & Gas Development Plan ID #: Data not required

[X] This OGDP is included in a Comprehensive Area Plan. CAP ID #: 210700116

OIL & GAS LOCATION DATA

1 Oil & Gas Location Name: Chico 4-65 Number: 26-25 North Status: Active, built

OIL & GAS LOCATION INFORMATION

Form 2A Doc#: 403694859

Loc ID#: 455198

Oil & Gas Location: QTRQTR: SWNW Sec: 26 Twp: 4S Rng: 65W Meridian: 6

Total number of wells planned: 4

Operations Duration

Estimated total number of weeks to construct this Oil & Gas Location: 6

Estimated total number of weeks to drill all planned wells for this Oil & Gas Location: 4

Number of planned drilling occupations to drill all planned wells for this Oil & Gas Location: 1

Estimated total number of weeks to complete all planned wells for this Oil & Gas Location: 6

Number of planned completions occupations to complete all planned wells for this Oil & Gas Location: 1

Will there be simultaneous drilling and completions operations occurring at this Oil & Gas Location? No

Estimated total number of months the Oil & Gas Location will be active, prior to abandonment and reclamation: 360

Noise Impacts

Provide a qualitative evaluation of the incremental adverse noise impacts to the surrounding receptors during the pre-production activities at this Oil & Gas Location.

The sound originating from the development will result in minimal increases in ambient noise during the development phase of this project as a result of the sound mitigation measures proposed. Sound modeling further discussed in the Sound Mitigation plan attached to the Form 2A shows that there will be minimal increase in ambient noise to the potential receptors within 2000' of the location during the development phase of the proposed project.

Provide a qualitative evaluation of the incremental adverse noise impacts to the surrounding receptors during the production stage of this Oil & Gas Location.

The sound originating from the development will result in minimal increases in ambient noise during the production phase of this project as a result of the sound mitigation measures proposed including electrified facilities.

Light Impacts

Provide a qualitative evaluation of the incremental adverse light impacts to the surrounding receptors during the pre-production activities at this Oil & Gas Location.

The light originating from the location during the development phase should result in a minimal increase in ambient lighting. The proposed best management practices, such as the sound wall and downcast lighting work to minimize these potential light impacts. Light modeling further discussed in the Light Mitigation plan attached to the Form 2A shows this minimal increase in ambient lighting to potential receptors.

Provide a qualitative evaluation of the incremental adverse light impacts to the surrounding receptors during the production stage of this Oil & Gas Location.

The light originating from the location during the production phase should result in a minimal to no increase in ambient lighting. The proposed permanent production facility does not include any permanent lighting and the minimal night time truck traffic for production operations helps to eliminate potential light impacts during production operations. Light modeling further discussed in the Light Mitigation plan attached to the Form 2A shows this minimal to no increase in ambient lighting to potential receptors.

Odor Impacts

Provide a qualitative evaluation of the incremental adverse odor impacts to the surrounding receptors during the pre-production activities at this Oil & Gas Location.

A temporary and intermittent increase(s) in odor may be expected due to equipment exhaust and fluid management during drilling and completions operations. Operator plans to utilize best management practices outlined in the odor mitigation plan to minimize the odor impacts experienced by nearby receptors.

Provide a qualitative evaluation of the incremental adverse odor impacts to the surrounding receptors during the production stage of this Oil & Gas Location.

There should rarely be any odor originating from the location during the production phase since the location will be powered by electricity, serviced using instrument air and a maintenance vessel. Electric compression, instrument air, maintenance vessel and tank blowers will result in a minimal emissions (odors) originating from the permanent location.

WATER RESOURCES

☐ This Oil & Gas Location is listed as a sensitive area for water resources.

☒ This Oil & Gas Location is within 2,640 feet of a surface Water of the State.

Estimated depth to groundwater: 80

Estimated total planned on-location storage capacity of the Oil & Gas Location for:

	Number of Tanks	Total Volume (bbls)
Oil	4	2000
Condensate	0	0
Produced Water	2	1000
Other volumes of stored fluids, hydrocarbons, chemicals, or E&P Waste Fluids	4	48

List, with volumes, the “Other” fluids planned to be stored on the Oil & Gas Location, including, but not limited to: hydrocarbons, chemicals, or E&P Waste fluids.

Corrosion Inhibitor, Paraffin inhibitor, H2S Scavenger, Methanol

Potential Impacted Surface Water Resources

Provide the distance and direction of the contaminant migration pathway from the Oil & Gas Location to the nearest downstream riparian corridors, wetlands, and surface Waters of the State. Also provide an evaluation of the baseline condition of the nearest downstream riparian corridors, wetlands, and surface Waters of the State.
Enter 2,640 for distances greater than 1/2-mile. Distances are measured along the migration pathway, not a straight line from the edge of the Oil & Gas Location.

Distance Direction

Riparian Corridor	1198	S	Forested/Shrub Riparian Area
Wetland	2640	W	N/A
Surface Waters of the State	950	S	Unnamed tributary to Coal Creek (This distance is different from the Form 2A because it measures from the edge of disturbance, not just the working pad surface.))

Potential Impacts to Public Water Resources
Provide the distance, direction, and evaluation of potential impacts to the nearest Public Water System Intake. Enter 5,280 for distances greater than 1-mile.

	Distance	Direction	Evaluation of Baseline Condition
Public Water System Intake	5280	N	There are no Public Water Systems within 5280'

Estimated Water Usage
Provide the estimated total volumes of the following that are anticipated to be used during the drilling and completions stage of the Oil & Gas Location activity.

Water Source	Volume (bbls)		Volume (bbls)		Volume (bbls)		
Surface Water	2025000	Recycled Water (Produced Water)	0	Unspecified Source	0	Percentage Recycled Water	0 %
Ground Water	24500	Recycled Water (non-Produced Water)	0	Total Water Usage	0		

If an unspecified water source is planned to be used, provide a description of the source.

N/A

Evaluate the measures being taken to reduce freshwater use, including reusing and recycling produced water.

The applicant is currently assessing the feasibility of incorporating recycled produced water. This evaluation considers both technical limitations and logistical challenges associated with transporting produced/recycled water to the location. If recycled water use becomes technically and logistically viable, the operator will submit the necessary subsequent Sundry Notice for approval.

ECOSYSTEM & WILDLIFE RESOURCES

List High Priority Habitats (HPH) that occur within one mile of the Oil & Gas Location and list the distance from working pad surface. If the location is partially or entirely within a HPH list the distance as '0' and provide the estimated acreage disturbance of that HPH by the location construction.

High Priority Habitat (HPH) Name:	Distance	Estimated Acreage Disturbed
Pronghorn Winter Concentration Area	0	12.05

List total size of disturbed acreage and disturbed High Priority Habitat (HPH) area (in acres) during the Oil & Gas Location construction and after interim reclamation.

	Total Acreage (acres)	Total HPH Acreage (acres)
Construction	18.25	18.25
Post-interim Reclamation	5.68	5.68

Provide any further information regarding the location's HPH disturbance.

Although the full acreage is listed as being in HPH, only 12.05 acres of the HPH is new disturbance.

Provide the acreage of the existing land use types that occur within one mile of the Oil & Gas Location. Note: a circle with a one mile radius is approximately 2010 acres.

		Existing Acreage		Existing Acreage		Existing Acreage		Existing Acreage
Crop Land:	Irrigated	0	Non-Irrigated	1298.3	Conservation Reserve Program(CRP)	0		
Non-Crop Land:	Rangeland	1020.63	Forestry	0	Recreation	49.26	Other	39.68
Subdivided:	Industrial	0	Commercial	26.86	Residential	26.82		

If any land use is industrial, provide a description of the use or operation of the industrial facilities.

N/A

If any land use is "Other", provide a description of the land use.

ROADS

If any portion of the land use for the proposed oil and gas location includes Rangeland, Forestry, or Recreation, provide a list of the plant community or communities and estimated acreage disturbed for each:

	Estimated Disturbed Acreage		Estimated Disturbed Acreage		Estimated Disturbed Acreage		Estimated Disturbed Acreage
Disturbed Grassland	0	Shrub Land	0	Mountain Riparian	0	Wetland Aquatic	0
Native Grassland	18.25	Plains Riparian	0	Forest Land	0	Alpine	0

Provide a qualitative evaluation of incremental adverse impacts to ecosystems, including any plant communities, as a result of Oil and Gas Operations associated with the proposed Oil & Gas Location.

The entire site disturbance is characterized as Native Grassland vegetation community. Location is wholly located within an industrial complex and zoned as such. Parent Parcel and all adjacent parcels are industrial in nature and zoned as such..

Soil Resources

List all soil map units that occur within the Oil & Gas Location and list the estimated total area (in acres) disturbance of each soil map unit.

NRCS Map Unit Name:	Estimated Disturbed Acreage
(BvC) Bresser-Truckton sandy loams, 3 to 5 percent slopes	17.73
(TrE) Truckton loamy sand, 5 to 20 percent slopes	0.52

PUBLIC WELFARE

[X] This Oil & Gas Location lies within a Disproportionately Impacted Community as defined in the 100-series rules.

Building Units within 1-mile	0'-2,000'	2,001'-5,280'
Total number of ResidentialBuilding Units:	1	3
Total Number of non-school AND non child care center High Occupancy Building Units:	0	0
Total number of School Facilities:	0	0
Total number of Child Care Centers:	0	0

Recreation and Scenic Value

List all State Parks, State Trust Lands, or State Wildlife Area within 1-mile of the Oil & Gas Location.

N/A

List all Designated Outdoor Activity Areas within 1-mile of the Oil & Gas Location.

N/A

List all mapped trails that support any of the following recreational activities within 1-mile of the Oil & Gas Location: Hiking, Biking, Horseback Riding, Motorcycle Riding, ATV Riding, OHV, Nordic Skiing, Snowmobiling, or Snowshoeing.

N/A

AIR RESOURCES

Pre-Production Emissions

Complete the following chart based on the estimated total equipment emissions (in tons) for the Oil & Gas Location during the pre-production (construction, drilling, completions) stage for Criteria Pollutants by equipment type.

	NOx	CO	VOCs	Methane	Ethane	CO2	N2O
Process Heaters or Boilers	0.34	0.09	0	0	0	0	0
Storage Tanks	0.12	0.55	0.45	0	0	0	0
Venting or Blowdowns	0	0	1.25	0.84	0.38	0.06	0
Combustion Control Devices	0	0.01	0.04	0.02	0.01	4.12	0
Non-Road Internal Combustion Engines	22.17	20.79	3.53	0.17	0	4117.33	0.03
Drill Mud	0	0	1.34	0.9	0.4	0.06	0
Flowback or Completions	0	0	0	0	0	2.42	0
Loadout	0	0	0	0	0	0	0

Production Emissions
Complete the following chart based on the estimated full facility equipment emissions (in tons) for the Oil & Gas Location once the Oil & Gas Location has entered the production stage, for Criteria Pollutants. The table should be filled out based on ONE year of operation.

	NOx	CO	VOCs	Methane	Ethane	CO2	N2O
Stationary Engines or Turbines	0	0	0	0	0	0	0
Process Heaters or Boilers	1.29	1.08	0.07	0.03	0.04	1545.88	0.03
Storage Tanks	2.44	11.13	22.55	0.58	6.19	830.51	0.01
Dehydration Units	0	0	0	0	0	0	0
Pneumatic Pumps	0	0	0	0	0	0	0
Pneumatic Controllers	0	0	0	0	0	0	0
Separators	0	0	0	0	0	0	0
Fugitives			0.16	0.09	0.04	0.01	
Venting or Blowdowns	0	0	0.48	0.23	0.12	0.06	0
Combustion Control Devices	0.02	0.11	0.4	0.27	0.12	46.98	0
Loadout	0	0.02	0.34	0	0	9.03	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0
Well Bradenhead	0	0	0	0	0	0	0
Well Maintenance	0	0	0	0	0	0	0

Diesel Vehicle Road Miles
Complete the following chart for diesel vehicle road miles during each stage of oil and gas location operations.

During Construction: 38000
During Completions: 221428
During Drilling: 125000
During Interim Reclamation: 3000
During Production: 7300

PUBLIC HEALTH RESOURCES

Pre-Production Emissions
Complete the following chart based on the estimated total equipment emissions (in lbs) for the Oil & Gas Location during the pre-production (construction, drilling, completions) stage for Hazardous Air Pollutants (HAP).

	BEN	TOL	ETH	XYL	NHE	TMP	H2S	FDE	MET	HAP
Process Heaters or Boilers	0.01	0.21	0	0	0	0	0	2.09	0	2.32
Storage Tanks	23.1	0	0	0	72.6	0	0	0	0	95.7
Venting or Blowdowns	13.03	24.52	4.64	12.01	0	0.09	0	0	0	54.3
Combustion Control Devices	0.37	0.69	0.13	0.34	2.31	0	0	0	0	3.84
Non-Road Internal Combustion Engines	39.45	14.39	0	9.89	0	0	0	10.81	0	74.54
Drill Mud	13.95	26.25	4.97	12.86	87.83	0.09	0	0	0	145.95
Flowback or Completions	0	0	0	0	0	0	0	0	0	0
Loadout	11.95	0	0	0	105.6	0	0	0	0	117.55

Production Emissions
Complete the following chart based on the estimated total equipment emissions (in lbs) for the Oil & Gas Location once the Oil & Gas Location has entered the production stage, for Hazardous Air Pollutants (HAP). The table should be filled out based on ONE year of operation.

	BEN	TOL	ETH	XYL	NHE	TMP	H2S	FDE	MET	HAP
Stationary Engines or Turbines	0	0	0	0	0	0	0	0	0	0
Process Heaters or Boilers	0.05	0.09	0	0	46.38	0	0	0	0	48.45
Storage Tanks	679.42	217.11	25.03	57.43	2213.83	6.18	0	0	0	3199
Dehydration Units	0	0	0	0	0	0	0	0	0	0
Pneumatic Pumps	0	0	0	0	0	0	0	0	0	0
Pneumatic Controllers	0	0	0	0	0	0	0	0	0	0

Separators	0	0	0	0	0	0	0	0	0	0
Fugitives	1.67	3.4	0.77	2.04	10.18	0.03	0	0	0	18.1
Venting or Blowdowns	6.05	8.62	1.49	3.86	26.37	0.03	0	0	0	28.98
Combustion Control Devices	4.19	7.88	1.49	3.86	26.37	0.03	0	0	0	43.83
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Loadout	1.2	0	0	0	10.4	0	0	0	0	11.59
Well Bradenhead	0	0	0	0	0	0	0	0	0	0
Well Maintenance	0	0	0	0	0	0	0	0	0	0

Provide a qualitative evaluation of any potential acute or chronic, short- or long-term incremental impacts to public health as a result of the estimated total pre-production hazardous air pollutant emissions.

In 2019, Crestone hired a third-party expert from CTEH, LLC, to design and perform studies to characterize the short-term impacts on local air quality and public health from discrete operational phases at four oil and natural gas well pads being developed in Weld County, Colorado. It is important to note that Crestone is using similar technologies and practices for the Chico 4-65 26-25 North Well Site as was used in the four locations in the studies. The specific goals of this project were to: (1) collect a high-resolution data set of chemical concentrations in air near the well pad and the surrounding communities; and (2) evaluate the impact on risks to public health, if any, from the release of oil and gas-related compounds into the air during specific operational phases of well development. CTEH conducted real-time air monitoring for total VOCs, hydrogen sulfide,H2S,particulate matter, PM and specific VOCs (such as benzene), simultaneously with other measurements. As the report states in its Executive Summary: More than 5,000 total measurements were collected in real-time by CTEH personnel in the communities surrounding the well pads over a period of 26 days. Additionally, 20 analytical samples were collected from four locations around the Aspen 3-65 15-14 South well pad to evaluate potential community exposures over 5 days of flowback activities. Approximately 99% of the real-time VOC measurements recorded in the communities were Non detections, which means that VOCs were not present or that VOC concentrations were less than the instrument detection limit of 1 ppb [part per billion] for VOCs. This detection limit is well below the federal (ATSDR [Agency for Toxic Substances and Disease Registry]) health guideline level for short-term adverse health effects for benzene (9 ppb). Of the over 1,500 measurements collected for benzene specifically or VOCs in general, just one reading was at a detectable level but did not exceed public health guideline values for the BTEX compounds. No H2S was ever detected [at a detection limit of 0.1 part per million], and just one of over 1,500 readings taken for PM, taken on along a dirt road, was higher than typical background values. In the 20 analytical air samples collected in the surrounding community during flowback, the maximum measured concentrations for BTEX compounds were also all 10 to 13,000-times lower than their respective federal acute health guideline values. The real-time and analytical data indicate no adverse health risks to nearby communities, including sensitive individuals, from cumulative exposures to VOCs that may be emitted from pre-production and production activities at Crestone well pads. Since Crestone is planning to use similar practices and technologies for the Chico North Well Site as was used in the four locations in Weld County, we expect similar outcomes at Chico 4-65 26-25 North wellsite.

Provide a qualitative evaluation of any potential acute or chronic, short- or long-term incremental impacts to public health as a result of the estimated annual production hazardous air pollutant emissions.

In 2019, Crestone hired a third-party expert from CTEH, LLC, to design and perform studies to characterize the short-term impacts on local air quality and public health from discrete operational phases at four oil and natural gas well pads being developed in Weld County, Colorado. It is important to note that Crestone is using similar technologies and practices for the Chico 4-65 26-25 North Well Site as was used in the four locations in the studies. The specific goals of this project were to: (1) collect a high-resolution data set of chemical concentrations in air near the well pad and the surrounding communities; and (2) evaluate the impact on risks to public health, if any, from the release of oil and gas-related compounds into the air during specific operational phases of well development. CTEH conducted real-time air monitoring for total VOCs, hydrogen sulfide,H2S,particulate matter, PM and specific VOCs (such as benzene), simultaneously with other measurements. As the report states in its Executive Summary: More than 5,000 total measurements were collected in real-time by CTEH personnel in the communities surrounding the well pads over a period of 26 days. Additionally, 20 analytical samples were collected from four locations around the Aspen 3-65 15-14 South well pad to evaluate potential community exposures over 5 days of flowback activities. Approximately 99% of the real-time VOC measurements recorded in the communities were Non detections, which means that VOCs were not present or that VOC concentrations were less than the instrument detection limit of 1 ppb [part per billion] for VOCs. This detection limit is well below the federal (ATSDR [Agency for Toxic Substances and Disease Registry]) health guideline level for short-term adverse health effects for benzene (9 ppb). Of the over 1,500 measurements collected for benzene specifically or VOCs in general, just one reading was at a detectable level but did not exceed public health guideline values for the BTEX compounds. No H2S was ever detected [at a detection limit of 0.1 part per million], and just one of over 1,500 readings taken for PM, taken on along a dirt road, was higher than typical background values. In the 20 analytical air samples collected in the surrounding community during flowback, the maximum measured concentrations for BTEX compounds were also all 10 to 13,000-times lower than their respective federal acute health guideline values. The real-time and analytical data indicate no adverse health risks to nearby communities, including sensitive individuals, from cumulative exposures to VOCs that may be emitted from pre-production and production activities at Crestone well pads. Since Crestone is planning to use similar practices and technologies for the Chico North Well Site as was used in the four locations in Weld County, we expect similar outcomes at Chico 4-65 26-25 North wellsite.

Dust Impacts

The following are the estimated number of truck trips traveling on or off the Oil & Gas Location.

Total	During Construction	During Drilling	During Completions	During Interim Reclamation	During Production
Monthly	1145	1380	6366	100	30
Annual	1717	1564	12732	215	360

Estimated total pounds (lbs) of proppant to be used during completions activities. 8750000

Provide the type of proppant(s) that are planned to be used during completions activities.

Main sand used is 40/70 mesh white or equivalent sand. Smaller volumes of 100 mesh and 200 mesh sand may also be used.

Provide an evaluation of the proposed proppant management system that will be used to minimize dust during completions activities, including the estimated amount of silica dust that will leave the Oil & Gas Location.

The proppant management system is the box style system with gravity deployment. The system has proven to deliver sand with very little to no visible dust. The actual measurement of dust is visual at this time. OSHA exposure limits of silica dust have been measured and provided to insure worker exposure is controlled in this area per OSHA requirements. This system has controlled or eliminated the possibility of dust leaving the site.

EXISTING OIL & GAS

Total number of oil & gas locations within 1-mile of the Oil & Gas Location:

	Total Number of Locations		Total Number of Wells
Active, built	4	Active, built	11
Permitted by ECMC, unbuilt	0	Permitted by ECMC, unbuilt	0
Permitted by Relevant Local Government & not ECMC, unbuilt	1	Proposed	0
Proposed	0	Plugged and Abandoned	0

Total acreage disturbance during construction of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location: 54.65

Source for acreage total:

- [ ] Field Observation/Measurement
- [X] ECMC Location Files
- [X] Aerial PhotosOther
- [ ] Other

If “Other” is selected, please describe the source use to determine the acreage total for construction disturbance of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location.

N/A

Total permitted capacity of on-location storage (in number of pits and tanks) of the active and proposed oil & gas locations within 1-mile of the Oil & Gas Location : NOTE: providing the existing number of pits and tanks on surrounding existing locations is optional.

Source for storage totals:

- [ ] Field Observation/Measurement
- [X] ECMC Location Files
- [X] Aerial PhotosOther
- [ ] Other

	Permitted Onsite Storage Capacity	Existing Onsite Storage Capacity
Oil	21	15
Condensate	0	0
Produced Water	7	5
Pits	0	0

If “Other” is selected, please describe the source use to determine the tank totals for the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location.

N/A

OIL & GAS DEVELOPMENT PLAN-SCALE DATA

List High Priority Habitats (HPH) that are estimated be disturbed by the construction of new roads, including access roads, pipelines, and utilities for this OGDP, along with the estimated disturbed acreage of each HPH.

No HPH Identified

List the total estimated of disturbed acreage and the total disturbed High Priority Habitat (HPH) area (in acres) during construction and the acreage that will remain disturbed after interim reclamation of the following for the entire OGDP:

	Construction			Post-interim Reclamation	
	Total Acreage (acres)	Total HPH Acreage (acres)		Total Acreage (acres)	Total HPH Acreage (acres)
New roads, including access roads	0	0	New roads, including access roads	0	0
Pipelines	0	0	Pipelines	0	0
Utilities	0	0	Utilities	0	0

Provide any further information regarding the HPH disturbance from the construction of new roads, including access roads, pipelines, and utilities for this OGDP.

The infrastructure including access roads/pipelines/utilities is all existing and therefore will not require any new disturbance.

Number of miles of the existing lease road that are planned to be used to access these location(s): 0.38

BENEFICIAL IMPACT INFORMATION

Equipment and Facility Removal

Total number of existing wells that are planned to be plugged and abandoned as part of this OGDP: 0

Total number of existing locations that are planned to be closed and undergo final reclamation as part of this OGDP: 0

Total number of acres that are planned to be reclaimed through the closing of existing locations: 0

Total number of existing pits that are planned to be closed and undergo final reclamation as part of this OGDP: 0

Estimated number of vehicle trips that are planned to be prevented from the above mentioned facility closures and equipment upgrades (on an annual basis): 0

Total number of tanks planned to be removed from existing locations through the approval of this OGDP:

Oil Tanks: 0

Condensate Tanks: 0

Produced Water Tanks: 0

Provide a qualitative evaluation of any incremental beneficial impacts to the surrounding community directly and indirectly from this OGDP.

The proposed OGDP will have beneficial impacts on the surrounding communities. These beneficial impacts include but are not limited to the following: provide a reliable domestic energy source; employ Colorado residents during all phases of operations; generate tax revenue and the payment of fees to local and state agencies; and provide royalty income to mineral interest owners.

Provide a qualitative evaluation of any incremental beneficial impacts to the surrounding wildlife and ecosystems directly and indirectly from this OGDP.

There are no incremental beneficial impact to the surrounding wildlife and ecosystem.

MITIGATION INFORMATION

Item	Impacted Resource	Mitigation Description
1	Air Resources	CONSTRUCTION o Use of freshwater to minimize the generation and transportation of dust. DRILLING o Employ pipe cleaning procedures when removing drill string from hole. o Utilize closed-loop, pit-less fluid management system. o Use of freshwater to minimize the generation and transportation of dust. COMPLETIONS o Employ the practice of ³block and isolate whenever possible on equipment, piping, and/or tank connections. o Use of sealed containers (e.g., sandboxes) for the storage and transportation of sand used in hydraulic fracturing. o Use of freshwater to minimize the generation and transportation of dust. o Any gas encountered during drill-out will be combusted with a minimum of 98%destruction efficiency. o Any fluids encountered during drill-out will be sent to a controlled tank and stored until transferred for disposal (e.g., water) or sale (e.g., oil). o Any gas encountered during flowback will be routed to a gas sales pipeline or combusted with a minimum of 98% destruction efficiency. o Any fluids encountered during flowback will be sent to a controlled tank and stored until transferred for disposal (e.g., water) or sale (e.g., oil). PRODUCTION o Lease Automated Custody Transfer (LACT) will be used to transfer fluids from the oil production tanks to either the oil pipeline or truck (if needed). o Instrument air skids will be used to generate compressed air for all pneumatic actuations. o Vapor Recovery Towers (VRT) will be used for separation of the production stream. o Production Facilities will be powered by electricity sourced from the regional power grid. o Wells, facilities, and equipment will be equipped to be shut-in remotely.
2	Water Resources	SURFACE WATER PROTECTION o Installation of polyethylene liner on location during drilling and completions operations. o Installation of an engineered containment system around/beneath production facilities. o Development of a site-specific SPCC plan. GROUNDWATER PROTECTION o Installation of polyethylene liner on location during drilling and completions operations. o Installation of an engineered containment system around/beneath production facilities. o Development of a site-specific SPCC plan.
3	Ecosystem and Wildlife Resources	TERRESTRIAL SPECIES o Operator will conduct additional avian surveys prior to the commencement of construction to ensure no conflicts have developed since the prior survey(s). AQUATIC SPECIES o Installation of polyethylene liner on location during drilling and completions operations. o Installation of an engineered containment system around/beneath production facilities.
4	Soil Resources	TOPSOIL o Topsoil stockpiles will be stabilized with appropriate vegetation to provide both short and long-term stabilization to prevent erosion.

5	Public Welfare	NOISE o Sound walls (32' high) will be constructed around the perimeter of the location to enhance sound attenuation and retard sound propagation. o Two (2) continuous noise monitoring terminals will be placed proximal to residential building units to monitor sound levels. o A "quiet completions fleet" will be used for hydraulic fracturing operations. LIGHT o Lighting will be angled in a downward manner to limit the halo effect off location. o Lights will be placed at reasonable heights to limit spillage off location. o Sound walls (32' high) will be constructed around the perimeter of the pad and aid in minimizing lighting impacts to surrounding receptors. ODOR o Utilization of a closed-loop fluids management system. o Use of IOGP Group III drilling fluids. o Remove drilling cuttings daily. o Odor-mitigating additives will be incorporated into drilling fluids. o Employ pipe-cleaning procedures when removing drill pipe from wellbore. DUST o Freshwater will be used as a dust suppressant when necessary, on the pad and access road. o Mud-tracking devices will be incorporated on the road access before the apron. RECREATION & SCENIC VALUES o Equipment will be painted "desert tan" (or similar) to avoid creating a marked contrast with the surrounding landscape. o Co-Location of facility equipment will result in less equipment and disturbance in the area.

OPERATOR COMMENTS AND SUBMITTAL

Print Name: Scott Farkas Title: Lead, Permitting

Email: sfarkas@civiresources.com Date: 04/16/2024

Based on the information provided herein, this Cumulative Impacts Data Identification Form 2B complies with ECMC Rules and is hereby accepted into the Cumulative Impacts Data Evaluation Repository (CIDER database).
Contact OGLA Staff for consultation.

ECMC Approved: **Director of ECMC** Date:

ATTACHMENT LIST

Att Doc Num	Name

Total Attach: 0 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)