

State of Colorado Oil and Gas Conservation 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

OGCC Operator Number: 10261
Name of Operator: BAYSWATER EXPLORATION & PRODUCTION LLC
Address: 730 17TH ST STE 500
City: DENVER State: CO Zip: 80202
Contact Name and Telephone:
Name: Lauren Walsh
Phone: (720) 350 8858
Email: lwalsh@bayswater.us

OIL & GAS DEVELOPMENT PLAN INFORMATION

Oil & Gas Development Plan Name: Ruby 7-J Pad
Oil & Gas Development Plan Docket #: 210700120
Oil & Gas Development Plan ID #: Data not required
This OGD is included in a Comprehensive Area Plan. CAP ID #: []

OIL & GAS LOCATION DATA

1 Oil & Gas Location Name: Ruby Number: 7-J Pad Status: Proposed

OIL & GAS LOCATION INFORMATION

Form 2A Doc#: 402590095
Loc ID#:
Oil & Gas Location: QTRQTR: NESW Sec: 7 Twp: 7N Rng: 65W Meridian: 6
Total number of wells planned: 32

Operations Duration

Estimated total number of weeks to construct this Oil & Gas Location: 4
Estimated total number of weeks to drill all planned wells for this Oil & Gas Location: 36
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: 33
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: 420

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.

Per the Noise Mitigation Plan, adverse noise impacts are expected to be approximately between 50-65 decibals during pre-production activities.

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

Per the Noise Mitigation Plan, adverse noise impacts are expected to be approximately between 50-60 decibals during production activities.

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.

No building units or public roads are within 2000' of the working pad surface, so adverse lighting impacts are expected to be minimal during pre-production and production activities.

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

No building units or public roads are within 2000' of the working pad surface, so adverse lighting impacts are expected to be minimal during pre-production and production activities.

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.

No building units are within 2000' of the working pad surface, so adverse odor impacts are expected to be minimal during pre-production and production activities.

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

No building units are within 2000' of the working pad surface, so adverse odor impacts are expected to be minimal during pre-production and production activities.

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: 30

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

	Number of Tanks	Total Volume (bbls)
Oil	<u> 10 </u>	<u> 5000 </u>
Condensate	<u> 0 </u>	<u> 0 </u>
Produced Water	<u> 2 </u>	<u> 1000 </u>
Other volumes of stored fluids, hydrocarbons, chemicals, or E&P Waste Fluids	<u> 2 </u>	<u> 1000 </u>

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.

2 500-bbl multi use tanks will contain oil or produced water.

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	Evaluation of Baseline Condition
Riparian Corridor	<u> 2640 </u>	<u> SE </u>	1943' East to stream as nearest contaminant pathway, then approx. 11000' SE to aquatic native species conservation waters; total 12943'. No riparian corridors within 2640'.
Wetland	<u> 1930 </u>	<u> NE </u>	

1930' NE to wetland described as bank of ditch parallel to spring creek; ditch and wetland are intermittently dry, as the wetland is located within an irrigated center pivot and is currently actively being farmed.

Surface Waters of the State 1930 NE 1930' NE to wetland described as bank of ditch parallel to spring creek - ponds and ditches closer are part of closed irrigation systems exempt from waters of the state status.

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 E 1943' East to stream as nearest contaminant pathway, then no PWS < 5,280'.

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)		Percentage Recycled Water	%
Surface Water	1100000	Recycled Water (Produced Water)	0	Unspecified Source	4000		0	
	0							
Ground Water	0	Recycled Water (non-Produced Water)	0	Total Water Usage	11004000			

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

4000 bbls of water to be purchased from the City of Eaton is unspecified mix of surface water and groundwater.

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

Due to the commitment to the surrounding residents to reduce truck traffic by means of piping completion water to the location, no recycle is planned for this location. Utilizing recycled water could add an additional 75-100 truck trips per day during completion operations.

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.

Data not required

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)	Provide any further information regarding the location's HPH disturbance.
Construction	0	0	No HPH will be disturbed.
Post-interim Reclamation	0	0	

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	1800	Non-Irrigated	100	Conservation Reserve Program(CRP)	0		
Non-Crop Land:	Rangeland	100	Forestry	0	Recreation	0	Other	1490
Subdivided:	Industrial	0	Commercial	244	Residential	236		

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.

1457 exempt political (most is also either irrigated crop land or rangeland), 33 vacant

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	13.9	Shrub Land	0	Mountain Riparian	0	Wetland Aquatic	0
Native Grassland	0	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.

Location is in Irrigated Crop and is surrounded by irrigated farming operations to the North, West, South, and East. These farming operations are also bordered by Hwy 14 to the South, WCR 37 to the West, WCR 39 to the East, and WCR 84 to the North. the Town of Ault is also to the West, limiting opportunities for access by wildlife.

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
32 - Kim loam, 1 to 3 percent slopes	13
53 - Otero sandy loam, 5 to 9 percent slopes	0.5

PUBLIC WELFARE

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 Residential Building Units:	0	78
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	0.35	0.25	0	0.36	0.21	268.15	0
Storage Tanks	0	0	0	0	0	0	0
Venting or Blowdowns	0.7	0.35	0.39	0.62	0.1	310	0
Combustion Control Devices	0.07	1	0.02	0.18	0.36	339.67	0
Non-Road Internal Combustion Engines	133.44	405.05	22.43	0	0	12368	0
Drill Mud	0	0	19.84	12.83	1.55	0	0
Flowback or Completions	0.16	0.72	4.15	1.15	0	45.51	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	19.55	78.2	19.55	0.1	0.1	9627	0.1
Process Heaters or Boilers	0.4	0.34	0.02	0.1	0.1	483	0
Storage Tanks	5.3	10.59	13.15	0.04	1.2	0.6	0
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	1.75	6.43	0.18	0.14	0.1	7431.2	0
Fugitives			0.56	0.19	0.09	0.02	
Venting or Blowdowns	0	0	1.6	0	0	0	0
Combustion Control Devices	0.22	1	0.02	0.18	0.36	339.67	0
Loadout	1.21	1.42	5.2	0	0.2	0.01	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	0.04	82.7	40.58	7.8	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: 4000 During Completions: 720000
 During Drilling: 370000 During Interim Reclamation: 5000
 During Production: 250000

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	0	0	0	0	0	0	0	0	0
Storage Tanks	0	0	0	0	0	0	0	0	0	0
Venting or Blowdowns	1.32	1.84	0.84	2.06	7.1	0	0	0	0	13.16
Combustion Control Devices	0.62	0.84	0.32	1.54	5.4	0	0	0	0	8.72
Non-Road Internal Combustion Engines	563.8	203.94	0	140	0	0	0	57.32	0	965.06
Drill Mud	0	0	0	0	0	0	0	0	0	0
Flowback or Completions	0.68	0.92	0.38	1.2	2.98	0	0	0	0	6.16
Loadout	0	0	0	0	0	0	0	0	0	0

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	0.22	0.08	0	0.03	0	0	0	7.82	0.42	8.57
Process Heaters or Boilers	0.01	0.01	0	0.01	5	0	0	0	0	5.02
Storage Tanks	1226.4	992	0	0	1264	0	0	0	0	14482.4
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	25.16	25.17	24.51	24.67	27.9	0	0	0	0	127.41
Venting or Blowdowns	9	7	0	2	65	0	0	0	0	83
Combustion Control Devices	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Loadout	35.27	49.55	1.37	16.77	290.84	11.14	0	0	0	404.94
Well Bradenhead	0	0	0	0	0	0	0	0	0	0
Well Maintenance	0.21	0.18	0.03	0.07	1.38	0	0	0	0.12	1.99

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.

None anticipated.

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.

None anticipated.

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	100	1100	3600	150	90
Annual	100	5250	23000	300	1080

Estimated total pounds (lbs) of proppant to be used during completions activities. 5000000
00

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

30/20 or 40/70 mesh sand

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.

Operator will use the closed Sand Box technology in which no sand is blown off or transferred on location. The sand boxes are moved into position utilizing a forklift and the sand is introduced to the blender via a conveyor belt. These steps are taken to minimize silica dust and no dust is expected to leave location.

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	2	18
Permitted by COGCC, unbuilt	2	17
Permitted by Relevant Local Government & not COGCC, unbuilt	0	24
Proposed	0	1

Total acreage disturbance during construction of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location: 41.9

Source for acreage total:

- Field Observation/Measurement
- COGCC Location Files
- Aerial Photos/Other
- 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.

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:		Permitted Onsite Storage Capacity	Existing Onsite Storage Capacity
<input type="checkbox"/> Field Observation/Measurement	Oil	20	18
<input checked="" type="checkbox"/> COGCC Location Files	Condensate	0	14
<input checked="" type="checkbox"/> Aerial Photos/Other	Produced Water	2	10
<input type="checkbox"/> Other	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.

2 Oil & Gas Location Name: EAST AULT Number: 18-C PAD Status: Active, built

OIL & GAS LOCATION INFORMATION

Form 2A Doc#: 401568882

Loc ID#: 455456

Oil & Gas Location: QTRQTR: NWNE Sec: 18 Twp: 7N Rng: 65W Meridian: 6

Total number of wells planned: 16

Operations Duration

Estimated total number of weeks to construct this Oil & Gas Location: 0

Estimated total number of weeks to drill all planned wells for this Oil & Gas Location: 0

Number of planned drilling occupations to drill all planned wells for this Oil & Gas Location: 0

Estimated total number of weeks to complete all planned wells for this Oil & Gas Location: 0

Number of planned completions occupations to complete all planned wells for this Oil & Gas Location: 0

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: 420

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.

N/A

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

Adverse noise impacts are approximately between 50-60 decibels during production activities.

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.

N/A

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

Light impacts are so minimal that no complaints have been received from surrounding RBUs throughout the production phase of this location.

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.

N/A

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

Odor impacts are so minimal that no complaints have been received from surrounding RBUs throughout the production phase of this 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: 13

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

	Number of Tanks	Total Volume (bbls)
Oil	<u>18</u>	<u>4000</u>
Condensate	<u>0</u>	<u>0</u>
Produced Water	<u>5</u>	<u>2000</u>
Other volumes of stored fluids, hydrocarbons, chemicals, or E&P Waste Fluids	<u>0</u>	<u>0</u>

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.

N/A

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	Evaluation of Baseline Condition
Riparian Corridor	<u>2640</u>	<u>SE</u>	<u>N/A</u>
Wetland	<u>611</u>	<u>SE</u>	<u>Riverine Intermittent Streambed - Seasonally Flooded</u>
Surface Waters of the State	<u>35</u>	<u>W</u>	<u>unnamed concrete ditch</u>

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	<u>5280</u>	<u>NW</u>	<u>N/A</u>

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)	Percentage Recycled Water	%
Surface Water	<u>0</u>	Recycled Water (Produced Water) <u>0</u>	Unspecified Source <u>0</u>	<u>0</u>	
Ground Water	<u>0</u>	Recycled Water (non-Produced Water) <u>0</u>	Total Water Usage <u>0</u>		

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.

N/A

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.

Data not required

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)	Provide any further information regarding the location's HPH disturbance.
Construction	6.45	0	
Post-interim Reclamation	3.23	0	

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	750	Non-Irrigated	100	Conservation Reserve Program(CRP)	0
Non-Crop Land: Rangeland	100	Forestry	0	Recreation	0
Subdivided: Industrial	0	Commercial	0	Residential	20
				Other	1590

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.

1557 exempt political (most is also either irrigated crop land or rangeland), 33 vacant

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		Shrub Land		Mountain Riparian	
Native Grassland		Plains Riparian		Forest Land	
				Wetland Aquatic	
				Alpine	

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.

N/A

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
24 - Fort Collins loam, 0 to 1 percent slopes	6.46

PUBLIC WELFARE

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 Residential Building Units:	3	23
Total Number of non-school AND non child care center High Occupancy Building Units:	0	0
Total number of School Facilities:	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	0	0	0	0	0	0
Storage Tanks	0	0	0	0	0	0	0
Venting or Blowdowns	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0
Drill Mud	0	0	0	0	0	0	0
Flowback or Completions	0	0	0	0	0	0	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	2.8	2.1	1.4	0.07	0.07	3381	0
Storage Tanks	9.4	0	0	0.2	0.8	0.4	0
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	13.5	2.7	1.4	0.4	0
Fugitives			0.85	0.4	0.15	0.03	
Venting or Blowdowns	0	0	1.4	0	0	0	0
Combustion Control Devices	1	4.5	0.04	4.15	70.65	9817	0
Loadout	0	0	15.5	0.7	0.8	0	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	0.5	82.7	40.6	7.8	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: 0 During Completions: 0
 During Drilling: 0 During Interim Reclamation: 0
 During Production: 250000

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	0	0	0	0	0	0	0	0	0
Storage Tanks	0	0	0	0	0	0	0	0	0	0
Venting or Blowdowns	0	0	0	0	0	0	0	0	0	0
Combustion Control Devices	0	0	0	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Drill Mud	0	0	0	0	0	0	0	0	0	0
Flowback or Completions	0	0	0	0	0	0	0	0	0	0
Loadout	0	0	0	0	0	0	0	0	0	0

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	0	0	0	0	0	0	0	0	0.12
Storage Tanks	0.07	0.04	0	0	0.2	0	0	0	0	0.35
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	0.05	0.04	0	0.1	0.3	0	0	0	0	0.4
Fugitives	0	0	0	0	0	0	0	0	0	0.05
Venting or Blowdowns	0	0	0	0	0.03	0	0	0	0	0.04
Combustion Control Devices	0	0	0	0	0	0	0	0	0	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Loadout	0	0	0	0	0.03	0	0	0	0	0.05
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.

N/A

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.

None have been reported in the past, and none are anticipated for the future during the production phase of this location.

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	0	0	0	0	45
Annual	0	0	0	0	540

Estimated total pounds (lbs) of proppant to be used during completions activities. 0

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

N/A

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.

N/A

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	3	7
Permitted by COGCC, unbuilt	4	29
Permitted by Relevant Local Government & not COGCC, unbuilt	0	1
Proposed	0	1

Total acreage disturbance during construction of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location: 41.2

Source for acreage total:

- Field Observation/Measurement
- COGCC Location Files
- Aerial Photos/Other
- 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.

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
- COGCC Location Files
- Aerial Photos/Other
- Other

	Permitted Onsite Storage Capacity	Existing Onsite Storage Capacity
Oil	8	34
Condensate	0	14
Produced Water	4	11
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.

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 OGDG, 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 OGDG:

	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	0	0
Pipelines	0	0	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 OGD.

Number of miles of the existing lease road that are planned to be used to access these location(s): 0

BENEFICIAL IMPACT INFORMATION

Equipment and Facility Removal

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

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

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

Oil Tanks: 0

Condensate Tanks: 0

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

Produced Water Tanks: 0

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

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

None anticipated.

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

None anticipated.

MITIGATION INFORMATION

Item	Impacted Resource	Mitigation Description
1	Air Resources	Per the approved WOGLA, the submitted Form 2B, and on a BMP on the submitted Form 2A, according to Rule 903.e.(1)A., Bayswater shall connect the proposed facility to nearby gas gathering systems and shall transport natural gas via pipelines at first production. Bayswater will not flare gas at this location.
2	Air Resources	Bayswater will source and deliver fresh water to the location for the completion operations via temporary pipelines which will significantly reduce the emissions impacts associated with truck traffic.
3	Air Resources	Bayswater will perform a baseline air quality monitoring survey prior to the commencement of drilling operations and the site will have continuous air monitoring during the drilling, completion and production operations. Bayswater will share the results of the baseline air quality survey, the design of the air monitoring program as well as the data the program collects with the Weld County Department of Public Health and Environment and COGCC if requested.
4	Public Welfare	By utilizing a quiet frac fleet for completion operations and providing engineered noise abatement sound walls on all four sides of the pad, noise impacts will be reduced to residential building units.
5	Public Health Resources	Per the Dust Mitigation Plan, Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, automation of wells and production facilities, regular road maintenance, restriction of construction activity during high-wind days, and silica dust controls when handling sand used in hydraulic fracturing operations.
6	Public Welfare	Bayswater will control dust on the proposed site and private access road with gravel or road base and through the use of speed restrictions, regular road maintenance, traffic restrictions during periods of high wind, silica dust controls when handling sand used in hydraulic fracturing operations, and the application of fresh water or other dust suppression agents as needed.

7	Public Health Resources	Trucks will be prohibited from idling on location when not in use to prevent the accumulation of odors from exhaust.
8	Public Welfare	As stated in the Interim Reclamation Plan, a meeting with the surface owner will occur after completions but before interim reclamation to determine a fencing plan. The location will be adequately secured per 603.h to restrict access by unauthorized persons in accordance with the surface owner's requests.
9	Public Health Resources	<p>Leak detection and repair minimizes impacts to public health. All facilities onsite shall be subjected to an instrument-based leak detection and repair (LDAR) inspection at least monthly during drilling and completion and quarterly during production. Volumetric Testing involves measurement of liquid volume which must be added or removed from system to maintain constant pressure; volume changes indicate either leaks or thermal expansion/contraction of liquid.</p> <p>Spill response includes notifications, reporting, response actions, remediation, and corrective actions. Waste will be properly classified as E&P or non-E&P wastes. For E&P waste, all spills greater than 1 barrel (outside containment) or greater than 5 barrels (inside containment) will be reported to the COGCC using a Form 19. If remediation is required, a Form 27 will also be submitted. Spills related to non-E&P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Bayswater tracks and cleans up all spills, including those that are not reportable.</p>
10	Public Welfare	<p>Leak detection and repair minimizes impacts to Public Welfare. All facilities onsite shall be subjected to an instrument-based leak detection and repair (LDAR) inspection at least monthly during drilling and completion and quarterly during production. Volumetric Testing involves measurement of liquid volume which must be added or removed from system to maintain constant pressure; volume changes indicate either leaks or thermal expansion/contraction of liquid.</p> <p>Spill response includes notifications, reporting, response actions, remediation, and corrective actions. Waste will be properly classified as E&P or non-E&P wastes. For E&P waste, all spills greater than 1 barrel (outside containment) or greater than 5 barrels (inside containment) will be reported to the COGCC using a Form 19. If remediation is required, a Form 27 will also be submitted. Spills related to non-E&P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Bayswater tracks and cleans up all spills, including those that are not reportable.</p>
11	Water Resources	<p>Leak detection and repair minimizes impacts to water resources. All facilities onsite shall be subjected to an instrument-based leak detection and repair (LDAR) inspection at least monthly during drilling and completion and quarterly during production. Volumetric Testing involves measurement of liquid volume which must be added or removed from system to maintain constant pressure; volume changes indicate either leaks or thermal expansion/contraction of liquid.</p> <p>Spill response includes notifications, reporting, response actions, remediation, and corrective actions. Waste will be properly classified as E&P or non-E&P wastes. For E&P waste, all spills greater than 1 barrel (outside containment) or greater than 5 barrels (inside containment) will be reported to the COGCC using a Form 19. If remediation is required, a Form 27 will also be submitted. Spills related to non-E&P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Bayswater tracks and cleans up all spills, including those that are not reportable.</p>
12	Air Resources	<p>Leak detection and repair minimizes impacts to air resources. All facilities onsite shall be subjected to an instrument-based leak detection and repair (LDAR) inspection at least monthly during drilling and completion and quarterly during production. Volumetric Testing involves measurement of liquid volume which must be added or removed from system to maintain constant pressure; volume changes indicate either leaks or thermal expansion/contraction of liquid.</p> <p>Spill response includes notifications, reporting, response actions, remediation, and corrective actions. Waste will be properly classified as E&P or non-E&P wastes. For E&P waste, all spills greater than 1 barrel (outside containment) or greater than 5 barrels (inside containment) will be reported to the COGCC using a Form 19. If remediation is required, a Form 27 will also be submitted. Spills related to non-E&P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Bayswater tracks and cleans up all spills, including those that are not reportable.</p>

13	Water Resources	By implementing the Fluid Leak Detection Plan, attached Form 2A BMPs, and active stormwater management plan with fieldwide stormwater management permit that specifically references this site, impacts to water resources will be reduced to the fullest extent possible.
14	Soil Resources	The 2A Plans and collaborative efforts of the Operator and Surface Owner over siting minimize the impact of the proposed operations on soil resources.
15	Public Welfare	The estimated number of anticipated truck trips for the Oil and Gas Facility seeking Commission approval combined with the number of anticipated truck trips at any other Oil and Gas Locations within a 1-mile radius during the same time period calculated with as locations with anticipated construction, drilling, and completion dates between Q1 2022 and Q1 2024 is outlined in the Dust Mitigation Plan.
16	Public Health Resources	The estimated number of anticipated truck trips for the Oil and Gas Facility seeking Commission approval combined with the number of anticipated truck trips at any other Oil and Gas Locations within a 1-mile radius during the same time period calculated with as locations with anticipated construction, drilling, and completion dates between Q1 2022 and Q1 2024 is outlined in the Dust Mitigation Plan.

OPERATOR COMMENTS AND SUBMITTAL

Only 7 of the 16 wells at the existing East Ault 18-C Pad location are producing into the same DSU as the proposed Ruby 7-J Pad, so the East Ault Oil & Gas Location was added to this Form 2B at COGCC staff request: "We will continue to require the East Ault Location be brought into the OGD, and continue to require the 7 existing wells that are producing the DSU in sections 7 & 8, but no additional wells or spacing needs to be brought in."

Print Name: Justin Garrett

Title: Regulatory Analyst

Email: regulatory@ascentgeomatrics.com

Date: 07/30/2021

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

COGCC Approved: _____

Director of COGCC

Date: _____

Attachment Check List

Att Doc Num **Name**

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Total Attach: 0 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	The OGDG is being returned to Draft for revisions on the Form 2A, Form 2C, and the Hearing Application. This Form is being returned to Draft with the remainder of the OGDG.	12/23/2021

Total: 1 comment(s)