

**State of Colorado  
Energy & Carbon Management Commission**

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**402650095**

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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:**  **OGDP**       **Partial 2B - Rule 803.b.(2).A UIC Conversion**

**OPERATOR INFORMATION**

OGCC Operator Number: <u>10583</u>	Contact Name and Telephone:
Name of Operator: <u>PETRO OPERATING COMPANY LLC</u>	Name: <u>ALEX COREY</u>
Address: <u>9033 E EASTER PLACE SUITE 112</u>	Phone: <u>(713) 408-7174</u>
City: <u>CENTENNIAL</u> State: <u>CO</u> Zip: <u>80112-2105</u>	Email: <u>alex.corey@iptenergyservices.com</u>

**OIL & GAS DEVELOPMENT PLAN INFORMATION**

Oil & Gas Development Plan Name: LG Everist 2N66W30

Oil & Gas Development Plan Docket #: \_\_\_\_\_ Oil & Gas Development Plan ID #: \_\_\_\_\_

Docket Number	Data not required
<u>220100009</u>	

This OGDG is included in a Comprehensive Area Plan. CAP ID #: \_\_\_\_\_

**OIL & GAS LOCATION DATA**

1 Oil & Gas Location Name: LG EVERIST      Number: 2N66W30      Status: Proposed

**OIL & GAS LOCATION INFORMATION**

Form 2A Doc#: 402823114

Loc ID#: 318924

Oil & Gas Location:      QTRQTR: NWNW      Sec: 30      Twp: 2N      Rng: 66W      Meridian: 6

Total number of wells planned: 12

**Operations Duration**

Estimated total number of weeks to construct this Oil & Gas Location: 11

Estimated total number of weeks to drill all planned wells for this Oil & Gas Location: 14

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: 15

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: 240

**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 proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, making incremental adverse noise impacts from the proposed pre-production operations minimal. Sound walls will be installed around the location to minimize any noise impacts off location during drilling and completion operations. All pre-production activities will comply with the Noise Mitigation plan attached with the associated Form 2A.

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

The proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, making incremental adverse noise impacts from the proposed production operations minimal. All production activities will comply with the Noise Mitigation plan attached with the associated Form 2A.

**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 proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, making incremental adverse light impacts from the proposed pre-production operations minimal. Sound walls will be installed around the location to minimize any light impacts off location during drilling and completion operations. A light impact study was preformed and the sound walls designed accordingly to reduce light impacts as much as possible. All pre-production activities will comply with the Light Mitigation plan attached with the associated Form 2A.

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 during the production stage at this location will be minimal. There are only 4 RBUs within 2000', and they are all over 1000' from the facilities. There should be no adverse light impacts on the surrounding community from this operation.

**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.

The proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, primarily generating engine exhaust, making incremental adverse odor impacts from the proposed pre-production operations minimal. A closed-loop system will be used during drilling operations, minimizing odor impacts from drilling fluids. All pre-production activities will comply with the Odor Mitigation plan attached with the associated Form 2A.

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

The proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, primarily generating engine exhaust, making incremental adverse odor impacts from the proposed production operations minimal. All production activities will comply with the Odor Mitigation plan attached with the associated Form 2A.

**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:  5

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

	Number of Tanks	Total Volume (bbls)
Oil	<u> 4 </u>	<u> 2000 </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> 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	2640	NE	The South Platte River runs to the east (upgradient) of the proposed location. The river transitions into a wetland for a short span, then directly into private land zoned as Agricultural. The contaminant migration pathway at this location is directly to the west/northwest of location. There is a deep pit associated with the LG Everist mining operations directly adjacent to, and downgradient from, the location. Any contaminants from this proposed location would be directed into this pit where they would be contained.
Wetland	2640	NE	There is a transition zone of greenery and trees extending approximately 200-600' from the edge of the South Platte River to the surrounding agricultural lands. The contaminant migration pathway at this location is directly to the west/northwest of location. There is a deep pit associated with the LG Everist mining operations directly adjacent to, and downgradient from, the location. Any contaminants from this proposed location would be directed into this pit where they would be contained.
Surface Waters of the State	10	SE	There is a small freshwater pond/ditch directly to the south of this location. Any contaminants from this proposed location would be directed into this ditch where they would be contained and dealt with accordingly.

**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	S	The contaminant migration pathway at this location is directly to the west/northwest of location. There is a deep pit associated with the LG Everist mining operations directly adjacent to, and downgradient from, the location. Any contaminants from this proposed location would be directed into this ditch where they would be contained. Normal precipitation is insufficient to breach the boundaries of this pit.

**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	
Surface Water	0	Recycled Water (Produced Water)	0	Unspecified Source	357714		0	%
					3			
Ground Water	0	Recycled Water (non-Produced Water)	0	Total Water Usage	357714			
					3			

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

All water for drilling and completion operations at this location will be sourced from Tallgrass Energy. Drilling water is estimated to total 5,714 bbls and will be trucked to location. Frac water is estimated to total 3,571,429 and will be piped to location.

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. All water for drilling and completion operations at this location will be sourced from Tallgrass Energy. Oil-based mud (OBM) will be used for drilling the production section of these wells. This eliminates the need for water in the vast majority of drilling fluids used at this location. By using OBM, fresh water use on this location is estimated to be reduced by approximately 12,240 barrels. 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.

High Priority Habitat (HPH) Name:	Distance	Estimated Acreage Disturbed
Mule Deer Migration Corridor	0	3.7
Mule Deer Severe Winter Range	0	3.7
Aquatic Native Species Conservation Waters	1585	0

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	3.7	3.7	The location is on land which is currently disturbed by the LG Everist gravel mining operations. Although the HPH boundaries cover the location, no acreage is truly being disturbed by the addition of oil and gas activities. CPW determined through a pre-application consultation that the HPH has previously been removed by the ongoing surface mining operation on site, and no additional disturbance would occur from the proposed operations. Correspondence with CPW attached and saved as "other."
Post-interim Reclamation	2.9	2.9	

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	398	Non-Irrigated	901	Conservation Reserve Program(CRP)	0
Non-Crop Land: Rangeland	0	Forestry	0	Recreation	0
Subdivided: Industrial	4.67	Commercial	27.86	Residential	33.35
				Other	711

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

Refining/Mining - LG Everist, Inc.

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

Commercial, Exempt, Residential, Industrial

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
Native Grassland	0	Plains Riparian	0	Forest Land	0
				Wetland Aquatic	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.

There are no expected incremental adverse impacts as a result of the operations planned at this location. The area is already highly disturbed by an active mining operation, LG Everist. There is no vegetation on location, the surrounding area has been completely altered by the mining operation.

### 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
#3, Aquolls and Aquents, 0-3% slope	3.14
#10, Ellicott-Ellicott sandy-skeletal complex, 0-3% slope	0.56

### 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:	4	33
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	1.67	1.4	0.09	0.03	0.05	1442.5	0
Storage Tanks	0.58	2.66	4.53	0.36	0	3.67	0
Venting or Blowdowns	0	0	0	0	0	0	0
Combustion Control Devices	23.65	107.82	44.71	0	0	0	0
Non-Road Internal Combustion Engines	4.61	1.25	0.37	0.04	0	882.31	0.01
Drill Mud	0	0	1.84	5.4	1.43	0.24	0
Flowback or Completions	0	0	0	0	0	0	0
Loadout	0.03	0.14	1.76	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	3.86	3.25	0.21	0.09	0.12	4637.65	0.09
Storage Tanks	0	0	1.33	0.01	1.57	0.0004	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	0	0	0	0	0
Fugitives			0.27	0.23	0.09	0.02	
Venting or Blowdowns	0	0	1.43	109.55	38.95	9.27	0
Combustion Control Devices	1.15	3.02	0	365.01	0	999.98	0
Loadout	0	0	0.04	0	0.12	0.0007	0
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0
Well Bradenhead	0	0	0.09	0.1	0.04	0.01	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: 2006                      During Completions: 47307  
 During Drilling: 49494                      During Interim Reclamation: 312  
 During Production: 320292

**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	0.05	0.09	0	0	48	0	0	2	0	48
Storage Tanks	166	0	0	0	1326	0	0	0	0	1492

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	2	0	0	0	0	0	0	184	0	189
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	59	80	167	104	139	224	0	67	76	915
Storage Tanks	71	0	0	0	223	0	0	0	0	294
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	0.0093	0.0093	1.16E-05	0.00465	0.0465	1.16E-05	0	0	0	0.07
Venting or Blowdowns	57	57	0.1	29	285	0.1	0	0	0	428
Combustion Control Devices	0	0	0	0	0	0	0	6	0	6
Non-Road Internal Combustion Engines	0	0	0	0	0	0	0	0	0	0
Loadout	1.6	1.6	0	1	8	0	0	0	0	12
Well Bradenhead	4	4	0.004	2	18	0.004	0	0	0	27
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.

The proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, making incremental impacts to public health as a result of the estimated total pre-production of hazardous air pollutant emissions from the proposed pre-production operations negligible. Known Hazardous Air Pollutants (HAPs) include the following: Benzene, Toluene, Ethylbenzene, Xylenes, n-Hexane, 2,2,4-Trimethylpentane (2,2,4-TMP), Hydrogen Sulfide (H2S), Formaldehyde, and Methanol. Benzene can cause irritation of the eyes, skin, and respiratory system. It also has the potential to cause central nervous system depression if ingested, and may cause bone marrow abnormalities, blood cell abnormalities, leukemia, and reproductive effects. Toluene can cause irritation of the eyes, skin, and respiratory system. Chronic issues linked to Toluene are largely caused by abuse of the chemical, but also include dermatitis from prolonged exposure. Ethylbenzene can cause irritation of the eyes, skin, and respiratory system. Inhalation of high concentrations may cause central nervous system effects, and chronic inhalation may cause effects similar to those of acute inhalation. Xylenes can cause irritation of the eyes, skin, and respiratory system. Inhalation can cause respiratory and central nervous system effects, and repeated exposure has been linked to liver problems. n-Hexane can cause irritation of the eyes, skin, and respiratory system. Ingestion may cause gastrointestinal irritation and central nervous system depression. Chronic exposure to n-Hexane may cause dermatitis, adverse reproductive effects, visual disturbances, and peripheral neuropathy. 2,2,4-Trimethylpentane can be irritating to the eyes, respiratory system, and skin. Inhalation of high concentrations may cause central nervous system effects. Hydrogen Sulfide is fatal if inhaled at high enough concentrations. There is no Hydrogen Sulfide gas anticipated at this location. Formaldehyde causes burns by all exposure routes. It is toxic if swallowed, inhaled, or by contact with skin. Formaldehyde is also suspected of causing genetic defects and cancer, and causes damage to organs through prolonged exposure. Methanol can cause irritation of the eyes, skin, and respiratory system. It may be fatal or cause blindness if swallowed. Daily exposure to methanol may result in the accumulation of a harmful amount, as it builds up in the body over time. There is no valid exposure pathway for these HAPs to affect public health. Of these chemicals which are expected to be encountered, measures have been taken to reduce release into the atmosphere, such as closed-loop drilling. With the distance from this location to any surrounding residences, there is no potential for HAPs to migrate in high enough concentrations to cause health impacts.

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.

The proposed location is within LG Everist's active gravel mining operation. These ongoing mining operations include operation of heavy machinery on a daily basis, making incremental impacts to public health as a result of the estimated total production of hazardous air pollutant emissions from the proposed production operations negligible. Known Hazardous Air Pollutants (HAPs) include the following: Benzene, Toluene, Ethylbenzene, Xylenes, n-Hexane, 2,2,4-Trimethylpentane (2,2,4-TMP), Hydrogen Sulfide (H2S), Formaldehyde, and Methanol. Benzene can cause irritation of the eyes, skin, and respiratory system. It also has the potential to cause central nervous system depression if ingested, and may cause bone marrow abnormalities, blood cell abnormalities, leukemia, and reproductive effects. Toluene can cause irritation of the eyes, skin, and respiratory system. Chronic issues linked to Toluene are largely caused by abuse of the chemical, but also include dermatitis from prolonged exposure. Ethylbenzene can cause irritation of the eyes, skin, and respiratory system. Inhalation of high concentrations may cause central nervous system effects, and chronic inhalation may cause effects similar to those of acute inhalation. Xylenes can cause irritation of the eyes, skin, and respiratory system. Inhalation can cause respiratory and central nervous system effects, and repeated exposure has been linked to liver problems. n-Hexane can cause irritation of the eyes, skin, and respiratory system. Ingestion may cause gastrointestinal irritation and central nervous system depression. Chronic exposure to n-Hexane may cause dermatitis, adverse reproductive effects, visual disturbances, and peripheral neuropathy. 2,2,4-Trimethylpentane can be irritating to the eyes, respiratory system, and skin. Inhalation of high concentrations may cause central nervous system effects. Hydrogen Sulfide is fatal if inhaled at high enough concentrations. There is no Hydrogen Sulfide gas anticipated at this location. Formaldehyde causes burns by all exposure routes. It is toxic if swallowed, inhaled, or by contact with skin. Formaldehyde is also suspected of causing genetic defects and cancer, and causes damage to organs through prolonged exposure. Methanol can cause irritation of the eyes, skin, and respiratory system. It may be fatal or cause blindness if swallowed. Daily exposure to methanol may result in the accumulation of a harmful amount, as it builds up in the body over time. There is no valid exposure pathway for these HAPs to affect public health. Of these chemicals which are expected to be encountered, measures have been taken to reduce release into the atmosphere, such as radar on oil tanks to minimize gauging. With the distance from this location to any surrounding residences, there is no potential for HAPs to migrate in high enough concentrations to cause health impacts.

**Dust Impacts**

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

	During Construction	During Drilling	During Completions	During Interim Reclamation	During Production
Monthly	153	541	782	12	170
Annual	393	1858	2658	12	2040

Estimated total pounds (lbs) of proppant to be used during completions activities. 1600000  
00

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

100 Mesh White and 40/70 White 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. A water truck will be on location to keep dust to a minimum. The installation of sound walls and OBM liner also helps in containment of any silica dust leaving 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	<u>46</u>	Active, built <u>48</u>
Permitted by COGCC, unbuilt	<u>0</u>	Permitted by COGCC, unbuilt <u>0</u>
Permitted by Relevant Local Government & not COGCC, unbuilt	<u>0</u>	Proposed <u>0</u>
Proposed	<u>0</u>	Plugged and Abandoned <u>58</u>

Total acreage disturbance during construction of the active and proposed oil & gas locations within 1-mile of the proposed Oil & Gas Location: 34.87

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	16	16
<input checked="" type="checkbox"/> COGCC Location Files	Condensate	2	2
<input checked="" type="checkbox"/> Aerial Photos/Other	Produced Water	19	19
<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.

**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.

High Priority Habitat (HPH) Name	Estimated Acreage Disturbed
Mule Deer Severe Winter Range	1.95
Mule Deer Migration Corridor	1.95
Aquatic Native Species Conservation Waters	0

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	0.73	0.73	New roads, including access roads	0.73
Pipelines	1.02	1.02	Pipelines	0
Utilities	0.2	0.2	Utilities	0.1

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

A pre-application consult was completed with CPW and they determined that the HPH has already been removed by the active LG Everist gravel mining operations, therefore there will be no true HPH disturbance from the addition of oil and gas activities at this location. Email from CPW included in the attachments.

Number of miles of the existing lease road that are planned to be used to access these location(s): 0.1

**BENEFICIAL IMPACT INFORMATION**

**Equipment and Facility Removal**

Total number of existing wells that are planned to be plugged and abandoned as part of this OGDG: 3

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

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

Oil Tanks: 0  
 Condensate Tanks: 0  
 Produced Water Tanks: 0

reclamation as part of this OGDG: 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): 1095

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

The proposed location falls within the boundaries of Fort Lupton municipality. Fort Lupton will benefit from this location financially through taxes and the addition of job opportunities from oil and gas operations. Businesses in Fort Lupton and the surrounding area will benefit from the addition of oil field employees frequenting the area and buying goods/services.

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

Fencing is proposed around this location to deter any wildlife from interacting with oil and gas operations. This fencing will also serve to deter wildlife from entering a portion of an active gravel mining operation. A pre-application consultation was completed with Colorado Parks and Wildlife (CPW), and their determination was that no direct/indirect wildlife mitigation will be required for this pad due to the location being within an already-disturbed area (gravel mine). All pre-production and production activities will comply with the Wildlife Protection Plan attached with the associated Form 2A.

### **MITIGATION INFORMATION**

Item	Impacted Resource	Mitigation Description
1	Air Resources	Per the approved Fort Lupton permit, the submitted Form 2B, and on a BMP on the submitted Form 2A, according to Rule 903.e.(1)A. Petro shall connect the proposed facility to nearby gas gathering systems and shall transport natural gas via pipelines at first production. Petro will not flare gas at this location.
2	Air Resources	Petro 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	Petro 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. Petro 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 if requested.
4	Public Welfare	By posting signs and advising various personnel of preferred haul routes, truck traffic will be routed to minimize or avoid adverse traffic impacts to nearby residents.
5	Public Health Resources	Per the attached Dust Mitigation Plan, Petro 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. Petro additionally has implemented the use of traffic signs when leaving the location to remind drivers of specific routes to utilize.
6	Public Welfare	As stated in the submitted Form 2B, Petro 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	By implementing the measures detailed in the attached Odor Mitigation Plan and through use of odor neutralizers added to drilling fluids, odor impacts will be reduced to the fullest extent possible.
9	Public Welfare	The completed well sites will be surrounded with a chain link fence and gate with adequate lock. Petro personnel will monitor the well sites regularly. Authorized representatives and/or Petro personnel shall be on-site 24/7 during drilling and completion operations. All new well sites are also manned 24/7 during the initial flowback and production phases. After this, all wells will be remotely monitored by Petro's production personnel and Operations Manager. A copy of an Emergency Response Plan is attached with the associated Form 2A.

10	Public Welfare	<p>"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&amp;P or non-E&amp;P wastes. For E&amp;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&amp;P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Petro tracks and cleans up all spills, including those that are not reportable. "</p>
11	Public Health Resources	<p>"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&amp;P or non-E&amp;P wastes. For E&amp;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&amp;P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Petro tracks and cleans up all spills, including those that are not reportable. "</p>
12	Water Resources	<p>"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&amp;P or non-E&amp;P wastes. For E&amp;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&amp;P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Petro tracks and cleans up all spills, including those that are not reportable. "</p>
13	Air Resources	<p>"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&amp;P or non-E&amp;P wastes. For E&amp;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&amp;P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled. Petro tracks and cleans up all spills, including those that are not reportable. "</p>
14	Water Resources	<p>By implementing the attached 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.</p>
15	Soil Resources	<p>The associated Form 2A Plans and collaborative efforts of the Operator and Surface Owner over siting minimize the impact of the proposed operations on soil resources.</p>
16	Public Welfare	<p>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 is outlined in the Dust Mitigation Plan.</p>

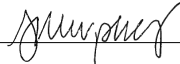
17	Public Welfare	Petro will meet all applicable visual impact requirements set forth by COGCC regulations during operations. The permanent facilities will be painted in accordance with COGCC regulations and in a manner to harmoniously blend with the surrounding environment. The site will be reclaimed to as near the original grades as practicable.
18	Soil Resources	Petro will utilize a lease access road from Weld County Road 18 for all traffic associated with construction and production of the wells proposed in this application. The road will be properly graded for adequate drainage and shall be surfaced and maintained to prevent dust and mud accumulation and to provide sufficient access for fire protection, Culverts and bridges shall be utilized where necessary.

**OPERATOR COMMENTS AND SUBMITTAL**

Map with building units within one mile attached and saved as "other." This location sits on an existing surface gravel mine, operated by LG Everist Mining Company. The location is already built, graded, and surface has been previously disturbed by ongoing mining operations. There will be negligible surface disturbance attributed to the addition of this proposed location and associated operations.

Print Name: Sean Dolfinger Title: Assoc. Drilling Engineer  
 Email: sean.dolfinger@iptenergyservices.com Date: 02/24/2022

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: 8/9/2023

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2369488	OTHER
402650095	Form 02B SUBMITTED
402965183	OTHER
402965201	OTHER

Total Attach: 4 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	OGDP ID# 482694 and this Form are approved by Commission Order Number 407-3478.	08/09/2023
OGLA	Post-Hearing. Updated datafields as required by the Commission during the hearing. Updated data sheet provided by operator is attached as OTHER.	08/09/2023
OGLA	The Director has determined this OGDG application is complete. Form pushed to IN PROCESS.	08/09/2022

Total: 3 comment(s)