

BMP	Notes
Operator will implement ambient air quality monitoring on site	Yes
Operator will appropriately time activities associated with high emissions to reduce the potential for exposure (e.g. if development is occurring near a high occupancy building unit, such as a school, then hydraulic fracturing, flowback or hydrocarbon liquids loadout will only occur when school is not in session)	Yes
Operator will properly maintain vehicles and equipment	Yes
Operator will use non-emitting pneumatic controllers	Yes
Electrification: Operator will use electric drilling rigs	No, drilling rig drawworks and pump motors will be driven by electric motors powered by on-site diesel-electric generators. Utility grid service at this location is not currently able to supply enough power to run the drilling rig's electric motors. Should this change in the future, Operator will consider using grid power to run the electric motors on the drilling rig.
Electrification: Operator will use electric pumps for hydraulic fracturing	No, utility grid service at this location is not currently able to supply enough power to run an electric frac fleet. Should this change in the future, and provided an electric-driven frac fleet is available, Operator will consider using grid power to run the frac pumps.
Electrification: Operator will use electric equipment and devices (e.g. vapor recovery units or VRUs, fans, etc.) to minimize combustion sources on site (if yes, operator will provide a list outlining which equipment and devices will be electrified)	Yes, VRUs and all other compressors will be electrified.
Tankless design: Operator will not store produced water or hydrocarbon liquids in storage tanks on site (other than a maintenance tank possibly used for well unloading or other maintenance activities)	No, Operator will store produced water on location in sealed tanks with vapors directed to a temporary combustor, prior to trucking the water to an approved disposal site in sealed trucks. If a produced water disposal pipeline becomes available, Operator will discontinue the use of tanks for routine storage of produced water. Initially, Operator will store hydrocarbon liquids on location in sealed tanks with vapors directed to an ECD. As soon as a crude oil pipeline is in operation at the site, Operator agrees to discontinue the use of tanks for routine storage of hydrocarbon liquids.
Operator will implement a "hybrid production flowback method" or "modern production flowback method" (unlike the conventional or legacy flowback method, which uses temporary equipment to separate the oil, natural gas and water, the "hybrid-production flowback method" or "modern production flowback method" eliminates tanks by routing the oil, natural gas and water directly to permanent production equipment)	Yes
Venting/Flaring: Operator will not flare or vent gas during completion or flowback, except in upset or emergency conditions, or with prior written approval from the Director for necessary maintenance operations	Yes
Venting/Flaring: Operator will control emergency flaring with an enclosed combustor with a destruction efficiency of 98% or better	Yes

Venting/Flaring: Operator will control bradenhead/casinghead venting	Yes
Pipelines: Operator will use pipelines to transport water for hydraulic fracturing to and from location	No, Operator will use pipelines to transport fresh water for hydraulic fracturing to location, however, Operator will truck flowback water off location, unless and until a produced water pipeline can be constructed to the site.
Pipelines: Operator will have adequate and committed pipeline take away capacity for all produced gas and oil	Yes, Operator intends to have the takeaway pipeline in place at the start of the production phase; Operator will have oil tanks on location until the pipeline is operational and separation is stable.
Pipelines: Operator will shut in the facility to reduce the need for flaring if the pipeline is unavailable	Yes
Pipelines: Operator will incorporate options for recycling produced gas onsite during pipeline downtime, such as: using the gas for gas lift systems, routing it to the facility fuel system, or installing a natural gas liquid (NGL) skid to process the gas onsite	Yes
Engines: Operator will use tier IV or better engines for drilling	Yes
Engines: Operator will use tier IV or better engines for hydraulic fracturing	Yes
Engines: Operator will use tier IV or better engines for nonroad construction equipment	Yes
Engines: Operator will use tier IV or better engines for fleets accessing site (service vehicles, sand delivery, haul, produced water, etc.)	No, Operator's vendor selection process will weigh heavily in favor of vendors who use Tier IV or better engines in their trucking fleet, however, Operator is not able to guarantee that all engines in vehicles accessing the site will be Tier IV or better.
Operator will use vapor recovery units (VRUs) to capture and route storage vessel gas to pipeline	No, storage vessel (tank) gas will be routed to ECDs. The oxygen content of storage tank vapors prohibit these vapors from being safely routed into sales pipelines.
Operator will use zero-emission desiccant dehydrators or 98% control of hydrocarbon emissions from glycol dehydrators	N/A, no dehydrators will be installed.
Operator will use compressors equipped with dry seals	Yes
Operator will collect emissions from rod packing on reciprocating compressors and rout them through a closed vent system to a process or emissions control device	Yes
Operator will use lease automated custody transfer (LACT) system to remove/reduce the need for truck loadout	Yes
Odor mitigation: operator will use group III drilling mud	No, Operator will use Group II low-aromatic, low-odor drilling mud.
Odor mitigation: operator will use a chiller to cool drilling fluid as it is piped through the recirculation system before routing to the suction tanks	No, chilling drilling fluid has not shown to contribute significantly to reduction of odors. Drilling fluid chillers are not commonly used or available for use in this area.
Odor mitigation: operator will cover trucks transporting drill cuttings	Yes
Odor mitigation: operator will use a squeegee or other device to remove drilling fluids from pipes as they exit the wellbore	Yes

Odor mitigation: Operator will ensure that all drilling fluid is removed from pipes before storage	Yes
Ozone mitigation on forecasted high ozone days: operator will eliminate use of VOC paints and solvents	Yes
Ozone mitigation on forecasted high ozone days: operator will minimize vehicle and engine idling	Yes
Ozone mitigation on forecasted high ozone days: operator will reduce truck traffic and worker traffic	Yes
Ozone mitigation on forecasted high ozone days: operator will postpone the refueling of vehicles	Yes
Ozone mitigation on forecasted high ozone days: operator will suspend or delay the use of fossil fuel powered ancillary equipment	Yes, on forecasted high ozone days, Operator will suspend or delay the use of fossil fuel powered ancillary equipment for all routine or non-essential operations, but Operator is unable to suspend or delay essential operations like drilling and hydraulic fracturing due to the limited availability and high cost of drilling rigs and frac fleets, plus the risk of losing the hole if operations are suspended.
Ozone mitigation on forecasted high ozone days: operator will postpone construction activities	No, due to the limited availability of drilling rigs and frac fleets and other timing constraints beyond Operator's control, Operator will postpone construction operations on forecasted high ozone days if possible, but cannot guarantee this.
Ozone mitigation on forecasted high ozone days: operator will reschedule non-essential operational activities such as pigging, well unloading and tank cleaning	Yes
Ozone mitigation on forecasted high ozone days: Operator will postpone flowback if emissions cannot be adequately captured with a vapor recovery unit (VRU)	Yes

BMP	Notes
Stormwater inspections: Operator will conduct stormwater inspections immediately after storm event	No, CDPHE requires stormwater inspections every 14 days with inspections after storm events, or inspections every 7 days. Operator elects to inspect every 7 days.
Stormwater inspections: Operator will conduct weekly stormwater inspections during normal operations	Yes
Operator will use Modular Large Volume Storage Tanks	Yes
Secondary containment: Operator will install perimeter controls to control potential sediment-laden runoff in the event of spill or release from Modular Large Volume Storage Tank	Yes
Operator will recycle or beneficially reuse flowback and produced water for use downhole	No, Scheduling, logistical, and availability limitations prevent the use of recycled or reused water. Additionally, the nature of horizontal development makes it difficult to have some wells on flowback while others are being fractured, plus treating and reusing flowback water on a pad would require a large surface disturbance footprint and potentially create more air emissions and odors. However, if it becomes feasible, a small quantity of recycled or reused water could be utilized during the drilling and completion stages.
Vehicle fueling: Operator will refuel vehicles only on impervious surfaces and never during storm events	Yes
Vehicle fueling: Operator will ensure that a fueling contractor is present during the entire fueling process to prevent overfilling, leaks and drips from improper connections	Yes
Dust suppression: Operator will not use produced water or other process fluids for dust suppression	Yes
COGCC permit will incorporate other agency water quality protection plans by reference as applicable (e.g. stormwater management plan)	Yes
Down gradient controls: Operator will install adequate down gradient controls if they can not have a control at the source	Yes
Outfall locations: Outlet protection should be used when a conveyance discharges onto a disturbed area where there is potential for accelerated erosion due to concentrated flow. Outlet protection should be provided where the velocity at the culvert outlet exceeds the maximum permissible velocity of the material in the receiving channel.	N/A
Stream crossing and Road Construction: Operator will ensure that control measures are designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices	Yes
Documentation / stormwater management plan: If it is infeasible to install or repair a control measure immediately after discovering a deficiency, operator will document and keep on record in the stormwater management plan: (a) a description of why it is infeasible to initiate the installation or repair immediately; and (b) a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.	Yes

BMP	Notes
Operator will properly characterize and dispose of all waste (i.e. the specific landfill/waste disposal location allows for acceptance of the waste stream)	Yes
Operator will properly test for and dispose of TENORM	Yes

BMP	Notes
Operator will not use fracturing fluids which contain PFAS compounds	Yes
Operator will provide funding for nearby fire district(s) to support transition away from PFAS-containing foam	No, fire districts have already transitioned away from PFAS-containing foam
Operator will coordinate with nearby fire district(s) to evaluate whether PFAS-free foam can provide the required performance for the specific hazard	Yes
If PFAS-containing foam is used at a location: operator will properly characterize the site to determine the level, nature and extent of contamination	Yes
If PFAS-containing foam is used at a location: operator will perform appropriate soil and water sampling to determine whether additional characterization is necessary and inform the need for and extent of interim or permanent remedial actions	Yes
If PFAS-containing foam is used at a location: operator will properly capture and dispose of PFAS-contaminated soil and fire and flush water	Yes