Ephphatha LLC
Special Use Permit
Oil and Gas Exploration and Production

ACTIVITY #: PL-19-129
HEARING DATES:
Planning Commission (PC): March 4, 2021 @ 6:00 p.m.
Board of County Commissioners (BCC): April 13, 2021 @ 11:00 a.m.

PETITIONER: Ephphatha, LLC
Well Name: Dry Creek 31-1A Pilot Hole

PETITION: Special Use Permit for Oil and Gas Exploration and Production

LEGAL: NE4NE4 Section 31, T6N R88W aka Lot 2 Johnson Ranch Subdivision

LOCATION: Located approximately 4 miles southwest of Hayden, CO on the east side of CR 59

ZONE DISTRICT: Agriculture and Forestry (A/F)

STAFF CONTACT: Chris Brookshire cbrookshire@co.routt.co.us

ATTACHMENTS:
- Narrative
- Operation Plan
- Well Completion Diagram
- Well Completion Sketch
- Well Completion Cross Section
- Location Overview Drawing
- Reclamation Plan (during current operations)
- Spacing Unit
- Hydrology Hazard Summary
- Hydrology Hazard map
- Water Well System Map
- Transportation Overview
- Transportation Map
- Equipment and Employees
- Geological Summary
- Reclamation & Weed Control
- Weed Agreement
- Compliance with Zoning Regs
- Mitigation Plan
- R&B Referral Letter
- CDPHE comments 2-9-21 & information page
- Pictures
STAFF NOTE: A narrative is attached to this report which describes the project. Staff would refer you to this narrative for operations, maps, diagrams and pictures.

The petitioner has also submitted additional reports, reclamation plan, dust control plan, COGCC permit, leases, road plans, etc.

Due to the size of these plans not all of the application is included in this report, but is located in the Planning Department and on the web site at [www.co.routt.co.us/planning/pending](http://www.co.routt.co.us/planning/pending) during this review.

It should also be noted that the Colorado Oil & Gas Conservation Commission (COGCC) has revised their rules and regulations as recently as January, 2021. There are rules mentioned by the applicant in the narrative that may have been revised or that refer to a different series of COGCC rules.

Staff has tried to review and incorporate/update new COGCC regulations within this report. There may be additional updates at the meeting.

History:

This is a unique oil/gas application in that the well is not being proposed to be drilled; it was drilled in 1991. Routt County Regulations address new drilling operations and staff has adjusted comments based on the current status of the well.

There are two wells located in this area, located approximately 50’ apart described as follows:

**Dry Creek UT HD 31-#1**

Dry Creek UT HD 31-#1 (31-1) was permitted by the Colorado Oil and Gas Conservation (COGCC) and Routt County in 1991 to Oryx Energy. The well produced a substantial amount of water when it was originally drilled and, therefore, was abandoned. The operator notified the COGCC that there was too much water and that the well was to be plugged and abandoned (PA’d), but this was never completed.

Over time the 31-1 was converted to a water well and now serves Johnson Acres Ranch Subdivision, which is a 35-acre development. This well is permitted through the Colorado Division of Water Resources as the HS-JR#2 well. COGCC records indicate that this well was cased to 600’ deep.

**Dry Creek 31-1A Pilot Hole**

A new permit was issued by the COGCC in 1991, to move drilling operations approximately 50’ to the south of the HD 31-1, but the operator did not notify Routt County of the new well site and a Routt County permit was not reviewed or issued for this site, which is the current location of the oil well.

Dry Creek 31-1A Pilot Hole (31-1A) was completed as a horizontal oil well. According to records from the COGCC and submittals from a previous operator, the vertical drill is approximately 7,800’ deep and then it was drilled horizontally in a northeasterly direction for approximately 3,000 feet for a total depth of 10,371’.

The ownership of the well has changed a number of times since 1991. Documents were filed with the COGCC stating that this well was to be plugged, but this was never completed. Permitting is current with the COGCC,
but 31-1A has never been permitted by Routt County. Previous operators have been notified by Routt County that the well does not have a Routt County permit and operations cannot be conducted. The well meets COGCC standards for a ‘shut-in’ well. A ‘shut-in’ well must be periodically tested to meet requirements to be shut-in. This is called a Mechanical Integrity Test (MIT). The well has not been brought back into production for a number of years. Previous operators have not applied for a permit with Routt County and the well has been ‘shut in’ for a number of years. Ephphatha wants to be able to test and operate this well, which would require a Routt County Special Use Permit.

Site Description:

There is an existing access road to the oil well site. This access crosses a water body/drainage that will have to be reviewed for crossing standards to meet water body regulations. The property is gently rolling grassland.

There are no dwelling units on the property, but the well is located on Lot 2 Johnson Acres Ranch Subdivision.

There is a second water well located to the south and east of County Road 59 approximately 800’-850’ feet from the oil well. That water well serves the Hidden Springs Subdivision, located approximately 3 miles north. This water well is called HSJR-1. CDPHE records show that this well was drilled in 2003. There are other water wells registered in the area, approximately 0.25 mile from this site.

The oil well site currently consists of the well and tank, and the facility is partially fenced. The well pad and the access road will have to be upgraded to handle any traffic and prevent additional mud and dirt from being transported onto the County Road.

Project Description:

Special Use Permit reviews for oil and gas wells are usually for wells that have not been drilled. This review is to determine if the application meets Routt County regulations and requirements. This review is unique in that the well has been drilled.

COGCC records show that there are three cement casings of the well; the surface casing was from the surface to a depth of 600’; 1st string intermediate casing set at 4,000 feet and cemented to the surface; 2nd string set at 7,850 and cemented. A production sleeve was set from 7,758 feet to 10,369 feet (see attached well completion diagram). Casing is placed to prevent any product from leaving or entering the well.

A Mechanical Integrity Test (MIT) is required every 5 years if the well is shut-in. The last MIT was completed in 2017 and passed COGCC inspection. The well is currently in compliance with COGCC regulations.

The well is located approximately four miles southwest of Hayden on the east side of CR 59.

The well pad surface is approximately 1.53 acres. The surrounding disturbed area and the well pad consist of 1.8 acres.

No additional construction work on the access road and the pad is proposed unless upgrades are needed, but as stated above, mitigation measures and upgrades may have to be completed to prevent sediment and erosion from entering the County Road and to meet waterbody regulations. There is a 24” culvert in the drainage and it will have to be assessed. During a site visit it was observed that the access road has minimal road base and the well pad is clay-like soils. The well pad will also need to be upgraded to support heavy equipment and service vehicles and also to prevent soils from leaving the site. The access road is proposed...
to have an application of ¾” road base, but depth of base was not shown; the pad will be covered with ¾”
screened rock 2” thick.

No other drilling operations are proposed at this time other than service, maintenance and testing. The well is
proposed to be brought into production at a future time. Any water that may be used in future operations will
have to be purchased and trucked to the site. Used water will be transported to an approved disposal site.

If the well produces, the oil will be stored in tanks and removed by tanker trucks. It is not known how many
trucks will access the site on a daily basis until the site is tested and production levels are established. It is not
known if any other operations will be conducted because that will depend on the production results. Fracking
or other work-over operations could be completed in the future.

The holding area around the tank is required to contain 1.5 times the amount of liquid held in the tank and also
to accommodate 2’ of containment for any natural water such as rain or snow. An engineer has reviewed the
existing holding area and has certified that it meets requirements.

Equipment left on site should be painted a non-reflective color to blend into the area. If off-site facilities are
proposed, a separate SUP will be required.

Employees

Since the well has been drilled, there should only be one employee monitoring the site. If future work has to be
completed on the well or fracking operations are conducted, there will be additional employees depending on
the work being conducted. These should only be conducted during daylight hours. If additional employees are
needed they will be housed in the Hayden and Craig areas. There will be no man-camps associated with this
well.

Trash and sanitation

If operations are conducted that require employees to be on-site for an extended time, sanitation facilities must
be provided and serviced as needed. A dumpster or trash cage must also be located on site and emptied
as needed during extended employee work. There will be no dumpsters or trash receptacles located at the site
if there are no drilling operations.

Access/Traffic/Parking

Access will be via US 40 to the intersection with CR 27 (Twenty-mile Road) east of Hayden, then south to CR
53B. The Peabody tie-across road will be travelled to access CR 53 to CR 59 (see access road map). A traffic
analysis has been completed for the County Roads and conditions have been added from the Road and
Bridge Department. The petitioner will work with the Routt County Road and Bridge Department for the
issuance of a Grading and Excavation permit and an access permit. There is currently a private agreement for
the use of the Peabody tie-across road, but Routt County is in the process of acquiring the road. COA’s have
been submitted by the Road and Bridge Department and are included.

Dust will be mitigated by a water truck or other methods if necessary. A weed control plan has been submitted
and will have to be monitored for the life of the well. The operator should work with the Routt County Weed
Department to determine appropriate measures to control weeds and also maintain/establish revegetation on
reclaimed areas.
Wastewater

There should be no produced water from continued operations. If there is any produced water or liquid, it will have to be transported to an approved disposal site.

Noise and Air

According to the narrative, the petitioner has agreed to suggested COA #60 to meet Light Industrial noise level requirements. The only noise, at this time, would be from well pad or road maintenance or workover operations if needed. These operations are conducted during daytime hours.

Flaring is not anticipated at this time, but if flaring is needed it must be conducted under COGCC rules. The COGCC has developed new regulations with regard to venting or flaring of natural gas (COGCC Rules 903). Venting and flaring, except as allowed under Rule 903, is prohibited. As part of Rule 903 notice to local governments and emergency responders is required when flaring has to be done.

The petitioner has also stated that they will install, maintain and operate VOC capture equipment on major equipment and route captured emissions through a combustion device. Emissions are also regulated by the COGCC and the CDPHE.

Water

The operator has stated that they will comply with COGCC Rule 615 groundwater baseline sampling and monitoring of water sources in the area. A testing program to meet these requirements even though the well is existing should be established, and should include a base-line test. Baseline tests should be completed before any operations commence. The operator will need to work with the water well owners to conduct the tests. An independent company should be hired to complete testing and distribute results.

It should be noted that the COGCC conducted a water well test on December 23, 2014 on the HS-JR #2 well. A previous water test was also completed on June 4, 2013. The results were supplied to the owner. Staff does not know if any other water wells in the area have any testing results.

There are no COGCC requirements for setbacks between water wells and oil/gas wells

Planning Commission and the Board of Commissioners should use the following excerpts from the Routt County Master Plan and Routt County Zoning Regulations as a guide to determine compliance in their review. Staff comments are in bold face.

Compliance with the Routt County Master Plan

The Routt County Master Plan and Sub Area plans contain dozens of policies regarding land use. The following checklist was developed by Planning Staff to highlight the policies most directly applicable to this petition. Interested parties are encouraged to review the Master Plan and Sub Area plans to determine if there are other policies that may be applicable to the review of this petition.

Chapter 4 – Rural Development

4.3 B Special/Conditional Use Permits that significantly alter the historical use, intensity of use, or character of an area shall be deemed incompatible with this plan.
4.3 C Special/Conditional Use Permits for projects located on traditional ranch lands may be approved when the petitioner has demonstrated that the historic agricultural operation and stewardship of the land will be maintained.

Staff Comments: This well was originally drilled in 1991 and received a COGCC permit, but not a permit through Routt County. The well has been sold through the years to different operators and various production phases have been conducted. The records with the COGCC do not show any recent production but the well is in compliance with COGCC regulations. Surrounding property use will continue and may include agricultural activities, such as grazing.

Chapter 5 – Environmental Impacts

5.3 B While respecting private property rights, the County will not approve development applications or special use permits that would lead to the degradation of the environment without proper mitigation that would bring the proposal into compliance with the Master Plan, appropriate Sub-area Plans, Zoning Regulations, and Subdivision Regulations.

5.3F Routt County will continue to consider the impact of development uses on view corridors, water, wetlands and air.

5.4B The County will require BMP’s for erosion and sedimentation control and grading plans.

Staff comment: The petitioner is responsible for weed and dust control and maintaining the site. The well is in place and there should be no drilling at this time, but additional operations could be conducted in the future. Any additional operations must meet COGCC requirements and inspections. If the well produces, there will be continued inspections by the COGCC, State agencies and Routt County. The well pad will be required to have mitigation for erosion concerns and the access road will require BMP’s for upgrades and to meet waterbody requirements. The road and well pad should be maintained for dust mitigation, weeds and snow removal. According to the application, the access road and well pad will be improved with road base on the access road and screened rock applied to the well pad.

Chapter 7 – Mineral Resources

7.2 A Extraction of minerals in Routt County should occur with as little impact as possible to the people and ecology of the area.

7.3 A Exploration and extraction of minerals from known and probable Mineral Resources Areas should occur prior to any other developments being constructed at said Mineral Resource Areas that would permanently prevent extraction of the mineral.

7.3 E Where applicable, according to County, State and Federal regulations, Routt County encourages the surface and mineral right owners to come to an agreement for any proposed use prior to said use commencing.

7.3J Where mitigation is not possible, or where mitigation is not sufficient to alleviate significant negative impacts to the surrounding area, Routt County shall deny permits in those areas altogether until adequate mitigation measures are available to remedy significant negative impacts.

7.3 O Routt County discourages the placement of mining operations that would permanently harm significant wildlife habitat, permanently displace wildlife populations or interfere with migration corridors.

7.3 P Routt County requires the use of the most technologically advanced procedures and equipment to mitigate the significant negative impacts of mining operations and associated uses.
7.3U Routt County encourages the payment of impact fees, ton-miles fees, up-front road improvements fees, or other fee system to be used to offset costs for maintenance and improvements to roads used for hauling or minerals.

Staff Comments: The review of this application is unique in that the well has been drilled. The operation will have to meet suggested COA’s listed below. The operator will have to meet the conditions from the Routt County Road and Bridge Department based on the traffic analysis study prior to commencing operations and will be required to maintain roads that are affected by operations. Any future operations will have to meet COGCC and Routt County Regulations. There are no other mineral resource extraction sites in this area. There is a 40-acre subdivision (Johnson Acres Ranch) in this area. Current zoning regulations would not allow any further division of these lots. The operator owns the surface (Lot 2 Johnson Ranch) where the water well and the oil well are located. This area is not mapped for critical wildlife concerns. General wildlife COA’s have been added.

Chapter 8 – Hazards to Development; Environmental Constraints

Section 8.10G BMP’s shall be used for all development in such areas. All BMP’s shall be show on plans specific to the site under review.
Section 8.10H Additional erosion control and/or Storm Water Management Plan requirements that may be set forth by the Uniform Building Code or Routt County Zoning Resolution shall also be following during construction in these areas.

Section 8.12 E Routt County discourages ground water withdrawal that reduces the water table significantly. Staff Comments: The location is not mapped for any environmental constraints and is not in a high wildfire area. BMP’s are required to address erosion concerns and appropriate berms must be constructed and maintained surrounding any oil storage facilities. Any water needed for future operations will have to be hauled to the site.

Chapter 9 – Wildlife Resources

Section 9.3A – Resolve that wildlife species and their habitats are important and should be pr
Section 9.3B – Recognize that wildlife and wildlife habitats provide economic, recreational and environmental benefits for the residents and visitors of Routt County.
Section 9.3C Utilize wildlife habitat and species information, including new information as it becomes available, in land use and site plan decision making.
Section 9.3E Review the impacts on wildlife caused by recreational use, residential developments, and other developments and permits, then adjust, amend, terminate, or revoke as may be deemed beneficial to wildlife.
Section 9.3H Protect and/or improve the diversity of native vegetation.
Section 9.3I – Protect and improve riparian and aquatic habitats, because they are rich in biological diversity. Staff Comments: There are no critical wildlife concerns mapped for this site. COA’s are added for possible wildlife concerns. The COGCC has also developed Rule 1201 for the Protection of Wildlife Resources. These rules contain general and specific rules for wildlife. The operator will be required to adhere to these rules. The well pad and access road are constructed and there should be no additional construction associated with this application other than upgrades to the access road and well pad. Weed control and maintenance will have to be conducted for the life of the site. No other disturbance is anticipated at this time.

Compliance with Routt County Zoning Resolution
The following checklist was developed by Planning Staff to highlight the sections of the Routt County Zoning and Subdivision Regulations most directly applicable to this petition. The following section contains a list of the applicable sections of the Routt County Zoning Regulations. Staff Comments are included in bold.
Section 5- General Performance and Development Standards
These standards are designed to limit or eliminate conditions that could negatively impact the environment and/or use of surrounding properties. These standards shall apply in all Zone Districts and to all land uses unless otherwise noted:

5.1.1 Every use shall be operated so that it does not pose a danger to public health, safety or welfare. In addition to the Routt County permit, operations are monitored by the COGCC and must meet other State requirements. Conditions have been added to address water well testing, dust mitigation and other permit requirements. The site should be regularly monitored and, if the well is producing, monitoring should occur on a daily basis.

5.1.2 Every use shall be operated in conformance with all applicable federal, state and local regulations and standards. Failure to comply with any and all applicable federal, state and local regulations and standards may be cause for review and/or revocation of any Land Use Approval granted pursuant to these Regulations. All permits must be in place prior to operations. The COGCC has issued a permit for this site. A condition has been added to address these concerns.

5.1.4 Outdoor storage of materials which might cause fumes, odors, dust, fire hazard, or health hazards is prohibited unless such storage is within enclosed containers or unless a determination is made that such use will not have a detrimental impact on the environment. Conditions have been added to address these concerns. There will be no outdoor storage on-site other than equipment used for testing and production of the oil well. The access road and well pad will be upgraded with road base and screened rock.

5.4 Parking Standards All parking will be at the well pad.
5.5 Addressing Standards The current address is registered with Routt County.

5.7 Right of Way Access Standards The Road and Bridge Department will review the plans for additional work to the access road and determine if a G&E permit will be required. The road will have to meet waterbody regulations.

5.8 Road Construction Standards A traffic analysis had been completed and any required permits and work must be completed prior to the issuance of the Special Use Permit. COA’s are listed below.

5.9 Sign Standards Signage must be in place for the operation and is required by the COGCC.

5.12 Airport Overlay Zone District Standards. This site is located outside of the radius for an FAA determination.

Section 6 - General Standards & Mitigation Techniques for Land Use Approvals

6.1.2 The proposal shall be consistent with applicable Master Plans and sub-area plans. The Routt County Master Plan policies have been noted above.

6.1.4 Public Road Use Performance Standards: The proposal shall comply with the Public Road Use Performance Standards in Section 6.2 of these Regulations. A traffic analysis has been completed for the portions of county roads being used in this operation. Conditions have been submitted by the R&B Department.
6.1.5 Industry Standards: The proposal shall meet or exceed accepted industry standards and Best Management Practices (BMP’s). Routt County and State permits must be issued and the site maintained. Staff will periodically monitor the site for conformance with this permit.

6.1.6 Outdoor Lighting: The proposal shall comply with the Outdoor Lighting Standards in Section 6.3 of these Regulations. There should be no outdoor lighting at the site unless the operator chooses to install motion detection lighting for safety. All work or inspections should be conducted during daylight hours. If any future drilling occurs, lighting will be required for safety reasons.

Section 6.1.7 – Significant Negative Impacts
The proposal shall not create any significant negative impact in surrounding areas. Significant negative impacts are generally considered to be impacts that do not meet regulatory and/or generally accepted performance and environmental standards. If the Planning Director, Planning Commission or County Commissioners determine a proposed Land Use Change has the potential to create a significant negative impact in the surrounding area mitigation may be required, any such mitigation shall meet the Standards of Sections 6.4 through 6.13. If adequate mitigation cannot be accomplished, the use shall not be permitted.

Issues that may be reviewed for potentially significant negative impacts include, but are not limited to:

6.1.7 A. Public Roads, Services and Infrastructure See 6.1.4 above

6.1.7 B Road Capacity, traffic, and traffic safety See 6.1.4 above

6.1.7 C Natural Hazards. There are no hazards mapped at this site

6.1.7 D Wildlife and Wildlife Habitat. See wildlife resources above.

6.1.7 E Water Quality and Quantity The well has been drilled but water may be needed for future testing and production. If drilling, workover, or fracking operations are conducted in the future the petitioner will have to transport water to the site.

6.1.7 F Air Quality There will be emissions from the trucks, equipment and operations. There may be dust from construction or upgrades on the well pad and upgrades to the access road. Dust mitigation should be completed during construction of the access road and well pad. The access road should be maintained to mitigate dust which could be additional gravel or application of water or magnesium chloride during times of increased traffic. Mud and debris cannot be transported from the access road to the County Road. If the site is flared they will have to meet COCGG Rule 903. The petitioner will place combustion equipment for VOC’s which is also regulated by the State.

6.1.7 G Visual Amenities and Scenic Qualities The well pad is located in an area that can be seen by residences in the area. Equipment on site should be painted a color to mitigate visual concerns.

6.1.7 H Wildland fire. Care should be taken during any work or inspections at the site. Fire extinguishers should be onsite during any operations and in site inspection vehicles.

6.1.7 I Noise. There will be noise associated with the drilling operations and any construction at the site and access road. If the well produces, the site is supplied with electricity and electric.
motors will be used for the pump jacks. This will reduce noise during production. It is not known how often a tanker will need to access the site until the well produces.

6.1.7 J Wetlands There is an intermittent drainage located on the property. No wetlands will be impacted by the access road.

6.1.7 K Land Use Compatibility. The oil well has existed since 1991. According to the petitioner, the uses of the surrounding property will continue at the current level. Uses may include grazing or agricultural type operations.

6.1.7 L Odors. There will be odors associated with equipment used during drilling operations. If future drilling occurs, the operation should employ a closed loop system or utilize new technology so no production pits are constructed. COGCC has updated drilling rules.

6.1.7 M Vibration Vibration should be minimal as drilling operations have been completed. There could be vibration if other operations are conducted.

6.1.7 P Reclamation and Restoration The site will be required to be reclaimed after the life of the well in accordance with the COGCC regulations, or if the well is not producing. Routt County will require a reclamation bond.

6.1.7 Q Noxious Weeds The petitioner is required to maintain the site and remove all weeds from the site and the access road. Weeds will have to be monitored throughout the life of the well.

Section 9 – Regulations and Standards for Specific Land Use Changes

The following standards for oil, gas and coal bed methane exploration and development and accessory uses are in addition to the applicable Standards and Mitigation Techniques of Sections 5, Section 6, and Section 9.2 and 9.6 of these Zoning Regulations:

Section 9.2 General Standards for all Mining, Resource Extraction and Accessory Uses

9.2 A Shall be compatible with surrounding agricultural, residential, and recreational land uses by selection of location and/or mitigation. Staff Comment: See comments under Section 4.3B.

9.2 B The proposed operation will be located a sufficient distance from other mining operations so as not to create cumulative impacts to roads, air and water quality, or other resources and amenities. The Planning Commission and the Board of Commissioners will determine sufficiency of distance. Staff Comment: There are no other mining operations in the area.

9.2 C Equipment used for the operation will not be visible from adjacent or surrounding residences, or will be mitigated to the extent possible to reduce visual impacts. Planning Commission and/or the Board of County Commissioners will determine sufficiency of mitigation. Staff Comment: Any equipment kept on site will be painted to blend in to the area. No trash, storage or inoperative vehicles shall be kept on site.

9.2 D Shall be operated such that noise generated by the use does not exceed State of Colorado residential noise standards within 150 feet of any residence. Staff Comment: There are no residences within 150’ in the area. There are structures located to the north, west and south that are approximately 0.25 miles from the site. The site is supplied with electric service which will reduce noise that is usually associated with generators to run equipment. Current COGCC regulations require 200’ feet setback from buildings for new wells. It is not know what required setbacks were in 1991, but county records indicate that the closest residence was constructed in 2007.
9.2 F Truck traffic will not access the mining operation through residential or commercial areas, or such traffic will be mitigated. Planning Commission and/or the Board of County Commissioners will determine sufficiency of mitigation. **Staff Comments:** No private roads through residential areas will be used.

9.2 I The Board of County Commissioners may require a financial performance guarantee in addition to that required by the Colorado Division of Minerals and Geology (CDMG) [aka Reclamation Mining and Safety (CRMS)] to insure that certain conditions of a permit will be complied with. The required amount of such financial performance guarantees may be increased at the discretion of the Planning Director to account for inflation. The County will not require financial guarantees that are duplicative of that required by the CDMG [CRMS]. Copies of all financial guarantees related to the project shall be submitted to the Planning Department prior to permit issuance; including but not limited to those required by the CDMG [CRMS], BLM, Colorado State Land Board, and Routt County. **Staff Comments:** Staff has included a suggested condition that requires a guarantee for items required under this permit that are in addition to COGCC requirements.

9.2 J Any land survey monuments shall be recorded in the Colorado Land Survey Monument Records prior to commencement of mining, and if removed, shall be replaced following reclamation.

9.2K Routt County requires the use of the most technologically advanced and proven procedures and equipment to mitigate the significant negative impacts of mining operations and associated uses. **Staff comment:** Electricity is supplied to the site which eliminates the need for generators. The access road will be watered to eliminate dust if needed. A stormwater permit is issued by the State of Colorado and erosion will be monitored.

The petitioner has submitted a Mitigation Plan to address water, air, noise and visual concerns. COA’s have been added to address mitigation requirements, and the COGCC also addresses these concerns.

**Section 9.6 Oil, Gas and Coal Bed Methane Exploration and Development**

9.6.2A Trash and excess drilling fluids and water from on-site pits shall be transported to an approved disposal site. The Routt County Road and Bridge Director shall have approved the hauling of such materials if on a County Road. If waste materials are hazardous according to state and federal definitions, the wastes must be disposed of in an approved hazardous waste disposal site. **Staff comment:** It is not anticipated that there will be excess water that needs to be transported from this site. Fracking operations could occur in the future so additional transport of water may be needed. Any other hazardous waste will have to be transported off site. The well has been drilled and at this time there should not be extensive water or waste from this site.

9.6.2B All tanks and/or hazardous materials shall be bermed to contain spills. **Staff Comment:** Any holding tanks on-site must have containment areas that are lined and bermed or another form of containment to contain spills. If grazing occurs in the area, fencing should surround the entire site or, at a minimum, the areas that have equipment. Secondary containment areas/devices are regulated by the COGCC Rule 603 series.

9.6.2C All flow lines shall be revegetated as soon as is practical but in no case later than the next growing season. **Staff Comment:** Flow lines are regulated by the COGCC 1100 Series including interim and final reclamation.
9.6.2D Directional signs shall be provided by the drilling companies to advise emergency crews where drilling is taking place. Said signs shall be no more than six (6) square feet and shall be located at the intersection of the county road and point of access to the drilling site. The permittee shall also notify the Sheriff’s Department of the well location. **Staff comment:** A condition has been added to address this. The COGCC also requires information signage at the site. An emergency address number will be assigned and must be posted for emergency services.

9.6.2E All interim restoration and revegetation and final reclamation shall occur in accordance with the applicable Colorado Oil and Gas Conservation Commission (COGCC) rules and regulations in conjunction with the local Natural Resources Service and County Extension Service and the landowner where appropriate. **Staff comment:** The original dimensions of the well pad are not known. It is assumed that the pad has been reduced in size from the original construction. A recent survey of on-site conditions indicates a total disturbed area of 1.80 acres and reclaimed areas of 0.27 acres. The pad area is 1.53 acres. The pad is also used by the HOA for Johnson Acres Ranch to access the water well. For safety reasons, the operator needs to contact the HOA if any work is being conducted on the site to ensure that no private parties enter the site during operations. The HOA should also consult with the operator if personnel needs to be on the site. Personal protective equipment should be worn for anyone on-site. This should include: eye protection, hand and foot protection, hard hat, and flame resistant clothing.

9.6.2F In the case of all gas projects, all domestic waterwells/springs within the project area and outside of the project area to a distance of two (2) miles beyond the furthest necessary well shall be located and, with the consent of the owner, sampled and tested by a qualified, independent water sampling firm for inorganic and organic contaminants, including but not limited to methane, BTEX, hydrogen sulfide, ammonia chloride, nitrates, and sulphates. Such wells/springs shall be tested prior to the start of drilling to establish baseline data, and monthly thereafter with results submitted to the Planning Department quarterly throughout the life of the project to ensure domestic water wells/springs are not contaminated as a result of the project. The Planning Director in consultation with the Environmental Health Department may authorize changes in the testing regimen including: location, frequency, and required tests. **Staff Comments:** The petitioner has a current oil well permit through the State of Colorado. At this time it is not known if oil or gas will be produced from this site. There is a water well within 50’ of this site that serves the Johnson Acres Ranch Subdivision. There is a second water well located approximately 800-850’ to the southwest that serves Hidden Springs Subdivision. The oil well was originally drilled during the time that there were no requirements for testing of water sources. The operator has agreed to comply with current COGCC Rule 617 which may include testing of other water wells in the area. A baseline water test should be conducted for the two water wells in the area, at minimum, and then the operator must meet COGCC regulations for water testing. It is not known at this time if there is another water source that should be tested.

The are no COGCC setback requirements. A comment from the CDPHE explained that the COGCC has very specific down hole well construction requirements and wellbore integrity rules. This correspondence is attached.

9.6.2G Water from oil, gas, or coal bed methane wells may not be discharged into streams or rivers unless permitted by the County. County reserves the right to require independent sampling and testing by a qualified, independent water sampling firm of Sodium Absorption Rates (SAR) and to limit discharge or impose other conditions as necessary to maintain existing surface and/or groundwater quality. **Staff comment:** There should be no water generated from these operations to be discharged on the surface. If excessive water is produced, the water will have to be hauled from the site or a permit obtained from the State for reinjection or ground discharge.
9.6.2H Routt County encourages reclamation to be done in two phases. The first phase to be completed not more than 60 days after the drilling rig is removed and the well is finished and in production. When reclamation is complete, less than 1 acre of land should be left disturbed with the well and associated equipment. The remaining land that was impacted should be reclaimed to its former state or to what the surface owner agrees to. The second stage of reclamation should happen not more than 60 days after the well is plugged and abandoned. The remaining impacted land then needs to be brought to its pre-operation state or to what the surface owner agrees to. At a minimum Routt County reserves the right to enforce COGCC Standards for reclamation. **Staff comment:** Drilling has been completed and the site is partially reclaimed.

**PLANNING COMMISSION / BOARD OF COUNTY COMMISSIONERS OPTIONS:**

1. **Approve the Special Use Permit request without conditions** if it is determined that the petition will not adversely affect the public health, safety, and welfare and the proposed use is compatible with the immediately adjacent and nearby neighborhood properties and uses and the proposal is in compliance with the Routt County Zoning Regulations and complies with the guidelines of the Routt County Master Plan.

2. **Deny the Special Use Permit request** if it is determined that the petition will adversely affect the public health, safety, and welfare and/or the proposed use is not compatible with the immediately adjacent and nearby neighborhood properties and uses and/or the proposed use is not in compliance with the Routt County Zoning Regulations and/or the Routt County Master Plan, Make specific findings of fact; cite specific regulations or policies by number from the Routt County Master Plan, and the Routt County Zoning Regulations.

3. **Table the Special Use Permit request** if additional information is required to fully evaluate the petition. Give specific direction to the petitioner and staff.

4. **Approve the Special Use Permit request with conditions and/or performance standards** if it is determined that certain conditions and/or performance standards are necessary to ensure public, health, safety, and welfare and/or make the use compatible with immediately adjacent and neighborhood properties and uses and/or bring the proposal into compliance with the Routt County Zoning Regulations and Routt County Master Plan.

**FINDINGS OF FACT** that may be appropriate if the Special Use Permit is approved:

1. The proposal with the following conditions meets the guidelines of the Routt County Master Plan and is in compliance with Sections 4, 5, 6, 8 and 9 of the Routt County Zoning Regulations.
2. The Special Use Permit approval with the following conditions will not adversely affect the public health, safety and welfare.
3. The proposal with the following conditions is compatible with the immediately adjacent and neighborhood properties.

**Conditions of Approval:**

1. This Special Use Permit (SUP) shall expire within the timeframes set forth as follows:
   
a. Two (2) years after date of approval if Permittee does not commence drilling and was granted a Permit-to-Drill by COGCC using COGCC Form 2.
b. Three (3) years after date of approval if Permittee does not commence construction operations on a COGCC approved oil and gas location using COGCC Form 2A.

c. Upon expiration of Permittee’s COGCC permit.

2. This SUP is contingent upon compliance with the applicable provisions of the Routt County Zoning Regulations (RCZR) including but not limited to Sections 5, 6, 8 and 9. By signing this SUP, Permittee acknowledges that he or she fully read and understands the standards and mitigation techniques described in the RCZR and this SUP and shall abide by same.

3. The conditions herein shall apply to the Permittee and any employee, subcontractor, or representative that acts on behalf of Permittee or under the auspices of this SUP.

4. This SUP is limited to uses, facilities, and operations for the Permitted Operation (Operation or Operations) as presented in the Approved Project Plan (APP) as follows, including adherence to those specific Best Management Practices and technology as referenced in the approved project plan:

Overview - This well has been drilled and no additional drilling is proposed.

- Well pad approximately 1.53 acres
- Access road has been previously constructed and will be upgraded with ¾” road base ___ thick and maintained throughout the life of the well. The access road will have to be reviewed under application for a Routt County Waterbody access permit.
- Vertical drill is to approximately 7,841 feet and then horizontally drilled to a TVD 10,369’, the surface, intermediate and production casing will meet or exceed COGCC minimum requirements
- Stimulation/fracking operations may be conducted.
- On-site gas flare or venting is not allowed unless it meets COGCC Rule 903.
- Closed loop drilling system (Drilling has been completed)
- All pits or holding areas shall meet COGCC Rule 903 d (6) A, B, C
- Employees will be bused/person vehicles to and from the site; no on-site man camps will be utilized
- Parking will be at the well pad. There will be no parking on C.R. 59.
- An application of ¾” screened rock 2” thick will be applied to the well pad and maintained throughout the life of the well.

5. This SUP is contingent upon Permittee obtaining and complying with any required federal, state and other local permits and the Permittee shall comply with all federal, state, and local laws. Permittee shall notify the Local Governmental Designee (LGD) should the Permittee have any required permit denied, revoked, or suspended. Denial, revocation, or suspension of any required permit shall be grounds for possible revocation of this SUP.

6. Requested modifications to the Operations are subject to administrative decision by the Planning Director pursuant to RCZR 3.2.10.A as “minor changes.” Such requested modifications shall be approved so long as the requested modifications do not create land use impacts of the kind described in RCZR 6.1.7.A-Q, or otherwise increase the scope or extent of the approval or change the intended purpose of the conditions of approval. Requested modifications to the Operations shall be submitted in writing to the Local Government Designee of Routt County (LGD) and the Planning Director for evaluation. In the event a request for modification requires the approval of a state agency, Permittee shall submit the request to the LGD and the Planning Director contemporaneously with the submittal to the applicable agency, and shall also provide the LGD and the Planning Director with all related information and documentation provided to the agency. For any modification request, Permittee shall include relevant documentation and information sufficient to allow the Planning Director to process the
request. In the event the Planning Department determines that a submitted request requires further review by one or more referral agencies, including other county departments, and the request has not already be submitted to such agency or agencies by Permittee, the Planning Department shall refer the request to the referral agencies within two (2) business days after receipt of all required information or documentation to process the referral. An administrative decision as to the requested modification shall be made no later than five (5) business days after receipt of the request when no referral agency (state or otherwise) action is required or three (3) business days after receipt of final recommendations from any referral agency, as the case may be. An administrative decision may include approval, partial approval, denial, or scheduling the decision to be considered by the Board of County Commissioners (BCC). Notwithstanding the appeal provisions of RCZR 3.2.7, administrative decisions made pursuant to this Condition of Approval shall be subject to immediate review by the BCC after a property noticed hearing if such review is requested by Permittee. Permittee may request BCC review in writing (including electronic mail to the Planning Director) within two (2) business days of the administrative decision.

7. Prior to the issuance of this SUP, the Permittee shall provide evidence of liability insurance in compliance with the County's Insurance and Surety Requirements policy then in effect. The certificate of insurance shall include all permit numbers associated with the activity and Routt County shall be named as an additional insured. Permittee shall notify the Routt County Planning Department of any claims made against the policy.

8. Permittee shall furnish evidence of a bank commitment of credit in favor of Routt County, or bond or certified check, in an amount of 150% of the cost of improvements or restoration of the site. Such bonding shall guarantee site restoration or installation of required improvements. Such commitment, bond, or check shall be payable to and held by the Board of County Commissioners or its agent.

9. The Permittee shall be assessed an annual review fee pursuant to the Routt County Planning Department’s Fee Schedule for the life of this SUP. Additional fees may be assessed based on hourly staff time which exceeds the time allotted for the annual review.

10. This SUP shall not be issued until all fees have been paid in full. Failure to pay fees may result in revocation of this SUP.

11. Transfer of this SUP may occur only after a statement has been filed with the Planning Director by the transferee guaranteeing that they will comply with the terms and conditions of this SUP. Bonds, insurance certificates, or other security required by this SUP shall also be filed with the Planning Director by the transferee prior to transfer to assure Operations will be conducted as specified. Any proposal to change the terms and conditions of this SUP upon transfer or transfer request shall require a new permit.

12. Routt County may investigate any credible allegation of non-compliance with this SUP. Upon finding that an alleged violation has occurred, and where said violation also amounts to a violation of COGCC rules, Routt County shall provide notice of the alleged violation to the COGCC pursuant to the procedures in COGCC Rules. To the extent that an alleged violation violates a condition of approval of this SUP, violates any of the applicable requirements of the RCZR or creates significant negative impacts inconsistent with the representations made by the Permittee during the original approval process, the Amendment or Revocation of Approval process may be undertaken following the procedures listed in Section 3.2.11 and 3.2.12 of the RCZR.
13. In the event that Routt County commences an action to enforce or interpret this SUP, the substantially prevailing party shall be entitled to recover its costs in such action including, without limitation, attorney fees.

14. Permittee shall comply with the terms of the Emergency Response Plan developed by Permittee in consultation with the Routt County Department of Environmental Health (RCDEH), the Routt County Emergency Manager, the Routt County Sheriff, the Routt County Communications Center, the local fire district, and the Colorado State Forest Service (Emergency Consultants). Permittee shall amend the Emergency Response Plan if needed and as required by COGCC rules or the Routt County Emergency Manager. At a minimum, the Emergency Response Plan shall address spill or release response, emergency signage, site access maps, on-site fire suppression equipment, wildfire hazard recommendations, storage of hazardous materials, transportation of hazardous materials, and notification requirements concerning spills or releases, transportation of hazardous materials and wastes, and on-site chemicals/materials.

15. Costs associated with any emergency response on the part of Routt County to an adverse condition or event that results from Operations or Permittee’s conduct (or that of an employee or subcontractor) shall be reimbursed to Routt County by Permittee within thirty (30) days of receiving notice of services provided and the costs associated therewith from Routt County.

Wells, Seeps, or Springs:

16. The operator shall comply with COGCC Rule 907 (9) (10) and has proposed to follow COGCC Rule 617.

Initial baseline testing shall include those parameters listed in COGCC Rule 617. Testing shall be obtained and completed by a registered/certified laboratory and not the owner/operator of the well.

The baseline sampling results will be monitored over time for changes unrelated to seasonal fluctuations. Additional “post-completion” test(s) may be required if changes in water quality are identified during follow-up testing.

Electronic copies of a summary of test results described above shall be provided to the Routt County Planning Department to the Staff Planner Assigned to the project by email notice, and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test.

In response to complaints from water well owners, the Planning Director may request further water source sampling following consultation with COGCC and permittee/operator. The consultation will include a review of permittee/operator operational records and baseline groundwater monitoring records.

17. If post-completion baseline water quality sample testing indicates either of the conditions listed below, the Permittee shall immediately notify the COGCC, the owner of the water source, and the Routt County LGD. The permittee will also proceed with actions to determine the source of the impacts, implement corrective action to contain any contaminant(s) related to the operation of the water source that are not naturally occurring, and will prepare plans for mitigation of the impacts to any affected waters in accordance with COGCC rules and regulations:
a. Abnormalities beyond normal seasonal or natural variations.
b. Previously undetected petroleum hydrocarbon contaminants that may be attributed to the Permittee’s oil/gas operations.

18. If water is to be discharged, it shall be discharged in accordance with the Water Quality Control Act and COGCC rules. Permittee shall notify the LGD at least four (4) weeks in advance of such discharge and provide the Colorado discharge permit number as well as a topographic map showing the location of the discharge outfall as well as the haul route. Permittee shall not discharge waste water from the drill or re-inject drill site water for disposal purposes on-site except that injection of water for stimulation operations shall be permitted.

19. Permittee shall obtain a permit from RCDEH for sewage and greywater systems prior to installation in accordance with existing and applicable Colorado Department of Public Health and Environment (CDPHE) regulations.

Air Quality


21. Open burning of slash is prohibited unless absolutely necessary and only with the approval of RCDEH, the local Fire District, and CDPHE, if required.

22. Venting or flaring of natural gas is prohibited and only allowed under COGCC Rule 903.

23. Dust control shall be applied as needed to the private access road during construction and use of the access road. If dust complaints are received along CR 59, the Permittee will work with the Routt County Road and Bridge Department to address dust mitigation at Permittee’s expense.

Wildlife

24. Requested modifications to the wildlife conditions set forth herein are subject to administrative decision by the Planning Director pursuant to RCZR 3.2.10.A as “minor changes” if such changes have been approved in writing by CPW. Requests for changes to wildlife conditions shall be made simultaneously to CPW, the LGD, and the Planning Director. An administrative decision shall be made no later than three (3) business days after receipt of a written notice of approval from CPW. An administrative decision may include approval, partial approval, denial, or scheduling the decision to be considered by the Board of County Commissioners (BCC). Notwithstanding the appeal provisions of RCZR 3.2.7, administration decision made pursuant to this Condition of Approval shall be subject to immediate review by the BCC after a properly noticed hearing if such review is requested by Permittee. Permittee may request BCC review in writing (including electronic mail to the Planning Director) within two (2) business days of the administrative decision.

25. Tanks, overhead wire, fences, pole tops and other facilities or structures shall be designed so they do not provide perches or nests for raptors, crows, and ravens. Raptor perch deterrents shall also be installed. Any deviations shall only be with concurrence of Colorado Division of Parks and Wildlife (CPW).

26. If the well goes to production, the Permittee shall take reasonable measures to reduce the noise to surrounding wildlife. This may include, but not be limited to, hospital grade mufflers for compressors,
pump jacks or other motors necessary to run operations at the site and upward-pointing mufflers to
dissipate potential vibration.

27. The operator will work with the CPW to establish drilling operations that mitigate disturbance to hunting
operations, wildlife management and Hunting for Wildlife Operations.

28. If water is pumped from a river source, all such pumping shall be done in accordance with the rules,
regulations and policies set forth by the CPW and COGCC Rule 1202. Devices, such as generators,
used to pump the water shall be quiet in design and measures taken to reduce noise to surrounding
wildlife.

29. COGCC Rule 1200 Series for the protection of wildlife was adopted January, 2011. Applicable operating
requirements under Section 1202 shall be complied with.

Visual Impacts

30. To the extent practicable, technically feasible, and consistent with safe operations, all exterior lighting
shall be downcast and opaquely shielded with the exception of the drilling rig.

31. Venting and flaring, except as specifically allowed in COGCC Rules 903, are prohibited.

32. Equipment used for Production Operations will not be visible from adjacent or surrounding residences,
or will be painted with uniform, non-contrasting, non-reflective color tones to blend into the surrounding
landscape.

Access and Traffic

33. Overweight and over length permits for vehicles shall be obtained from the Routt County Road and
Bridge Director prior to the use of such vehicles.

34. All haul roads that are public roads must have adequate signage at intersections and at any other
locations that may require signage or additional signage as required by the Routt County Road and
Bridge Department.

35. Access permits shall be obtained to all access roads to be built or improved which intersect Routt
County roads.

36. Routt County has the authority to close any county road at its sole discretion if damage to the road may
occur by its use. To the extent that a road closure may affect Permittee’s operations, Routt County will
cooperate with Permittee to allow operations to be continued in a safe and practicable stopping point.

37. Routt County roads shall not be completely blocked at any time. If traffic regulation is deemed
necessary, the Permittee shall notify the Routt County Road and Bridge Director, or designee thereof, in
advance (if possible), who may then require:

   a. The Permittee or Permittee’s contractor/sub-contractor to place traffic control signage along haul
      routes and at intersections as specified by the Routt County Road and Bridge Director and at
      Permittee’s expense; and

   b. Flaggers to be placed at the intersections of affected county roads as specified by the Routt
      County Road and Bridge Director and at Permittee’s expense; and
c. The Permittee or Permittee’s contractor/sub-contractor to supplement regular dust control efforts by application of dust palliative, as approved by the Routt County Road and Bridge Director and RCDEH and at Permittee’s expense.

38. Directional signs, no less than three (3) and no more than six (6) square feet in size, shall be provided during any drilling or recompletion operation, by the Permittee. Such signs shall be at locations sufficient to advise emergency crews where drilling or recompletion is taking place. At a minimum, such locations shall include: (1) the first point of intersection of a public road and the rig access road and (2) thereafter at each intersection of the rig access route. The Permittee shall also notify the Routt County Sheriff’s Office of the Site and its access point.

39. Permittee shall comply with the following recommendations concerning road improvements and maintenance:

a. Permittee shall limit Routt County road traffic to County Roads 27, 37, 51B, 53, and 59.

b. Permittee is required to obtain any necessary approvals from the Town of Hayden/CDOT for travel via roads not governed by Routt County.

c. The portions of CR 53 and CR 59 affected by this SUP require the following improvements prior to commencement:

d. Routt County will engage a third-party contractor, via its bid process, to make the necessary improvements. Permittee shall be required to enter into a reimbursement agreement with Routt County for payment of the contractor. Upon signing the reimbursement agreement, permittee shall deposit an amount equal to the estimated costs of the improvements with the Routt County Treasurer.

i. Add 7” of Class 6 road base for 3.6 miles of CR 59 per the SGM Road Engineering Study, dated January 2020 From CR 53 to the 31-1 Access Road at a minimum of 24’ wide.

ii. Additional placement of the same materials as needed to ensure that an adequate crown is maintained in the road.

iii. Placement of Magnesium Chloride to the new gravel at a rate of 0.5 gal/SY

iv. “Trucks Entering Roadway,” signs shall be installed, inspected and maintained prior to the heavy construction phase of the well in the locations along CR 53 and 59 per the SGM Road Engineering Study, dated January 2020.

v. Extend all culverts along CR 59 per the SGM Road Engineering Study, dated January 2020.

vi. Provide plans designed and stamped by a Colorado Registered Engineer, for the necessary improvements to accommodate WB-67 sized truck at the intersection of CR 53 and CR 59.

e. Ongoing culvert cleaning, maintenance and replacement as needed to sustain road integrity.

40. All trucks and equipment accessing from CR59 shall be able to exit and be located on private property and off of County road right of way before encountering a fence, gate or cattleguard. At a minimum, the distance from the County road right of way to any gate, fence or cattleguard shall be 1.5 times of the length of the longest vehicle.

41. Permittee will need to acquire a Routt County Work in the Right of Way Permit for the necessary work to be performed on CR 59.

42. The Permittee shall be assessed County costs directly associated with the project. Payment of the assessment shall be due and owing upon receipt of invoice from County.

43. Routt County roads affected by this SUP will be inspected by the Routt County Road and Bridge Department at intervals determined by same. Any road damage shall be repaired by a third-party
contractor as selected by the Routt County Road and Bridge Department and on a schedule determined by same. Permittee shall solely bear the costs of repairs.

44. Permittee shall maintain county roads affected by this SUP during the life of the Operations. Maintenance shall be determined by the Routt County Road and Bridge Department in its sole discretion and at Permittee's expense. Maintenance may include grading and graveling roadways, sweeping or cleaning access points, and application of a dust palliative as approved by the Routt County Road and Bridge Director and RCDEH.

45. Permittee shall provide and post advance warning signs of truck traffic turning from and entering upon Highway 40 during the importation and exportation of drilling equipment to the site. Types and placement of signs shall be in conformance with the Model Traffic Code and shall be coordinated with CDOT.

46. The Permittee shall be assessed Routt County costs directly associated with the project. Payment of the assessment shall be due and owing upon receipt of invoice from County.

Reclamation and Weeds

47. Permittee shall strictly adhere to all federal and state regulatory standards for reclamation.

48. All disturbed surfaces affected by drilling or subsequent operations, except areas reasonably needed for production operations or for subsequent drilling operations to be commenced within twelve (12) months, shall be reclaimed as early and as nearly as practicable to their original condition or their final land use as designated by the surface owner and shall be maintained to control dust and minimize erosion to the extent practicable.

49. Drill pits shall be reclaimed in conformance with COGCC Rule 911 and Rules 1003 and 1004.

50. When the well is completed for production, all disturbed areas no longer needed will be restored and revegetated as soon as practicable and in conformance with COGCC Rule 1003.

51. During drilling, production, and reclamation operations, all disturbed areas and surrounding agricultural and residential lands shall be kept as free of all undesirable plant species designated to be noxious weeds as practicable. Weed control measures shall be conducted in compliance with the Colorado Noxious Weed Act and COGCC Rule 1003.

52. The interim reclamation completion notice (COGCC Form 4 and attachments) required by COGCC Rule 1003 shall be submitted to the LGD upon completion.

53. Upon plugging and abandonment of the well, all debris and surface equipment shall be removed within three (3) months. All disturbed surfaces shall be reclaimed as early and as nearly as practicable to their original condition or their final land use as designated by the surface owner and pursuant to COGCC Rule 1004.

54. For the purposes of the revegetation requirements set forth herein, Permittee shall work with the local Natural Resources Conservation Service, the County Extension Service, and the landowner to determine the appropriate types and quantities of application materials.

Miscellaneous On-Site Issues

55. Any land survey monuments shall be recorded in the Colorado Land Survey Monument Records prior to commencement of operations, and if removed, shall be replaced following reclamation.
56. Permittee shall follow the COGCC requirements for initial and ongoing site security and safety measures. Such requirements shall adequately address security fencing, the control of fire hazards, equipment specifications, structural stabilization and anchoring, and other relevant safety precautions.

57. Fences of the type and at the locations recommended by the CDPW and agreed to by the surface owner, if different than Permittee, and listed as a condition in the COGCC Form 2A, shall be installed immediately after drilling to protect domestic animals and wildlife. Permittee shall also adhere to the requirements of COGCC Rule 1002.

58. No pets or firearms shall be allowed on the property at any time.

59. The Permittee shall protect and maintain flows of all affected irrigation ditches if applicable.

60. Permittee shall conform to the noise abatement procedures and standards as set forth in COGCC Rule 422.

61. All equipment and housing units used during drilling and completion operations must be removed from the site immediately after such operations are complete.

62. The Permittee shall prevent erosion on any private access roads used by Permittee as well as the pad site in accordance with all requirements of its CDPHE storm water permit.

63. Notification of water source shall be provided to the Planning Department prior to the commencement of each phase of operations.

64. If water is pumped to the drilling site by surface water lines, the route of the final line shall be supplied to the Planning Department prior to operations. All lines placed in Routt County road right of ways or through culverts or under bridges shall have placements approved by Routt County Road and Bridge Department.

### Hazardous and Waste Materials

65. All tanks or hazardous materials containment areas shall comply with COGCC Rules 900. Tanks and containment areas shall be inspected at least every thirty (30) days and the results of such inspections shall be reported to the LGD by Permittee within five (5) days.

66. No junk, trash, or inoperative vehicles shall be disposed of or stored on the site.

67. On-Site toilets shall meet minimum CDPHE requirements for sanitary/sanitation facilities. No-onsite toilets will be left on-site after drilling operations are completed.

68. Fuel, flammable materials, or hazardous materials shall be kept in a safe area and shall be stored in accordance with state requirements as well as the Emergency Response Plan. An inventory of such materials shall be supplied to the Routt County Emergency Manager prior to issuance of this SUP consistent with regulations of the COGCC and CDPHE.

69. All solid waste, excess drilling fluids, and other waste materials shall be transported to a disposal facility that is operated in compliance with the regulations of the Colorado Department of Public Health and Environment. Links to CDPHE Regulations are located under the COGCC 900 Rules. If waste materials
are considered hazardous according to state or federal definitions, the wastes must be disposed of in an approved hazardous waste disposal site. Records of such disposal shall be available for review on-site. The Routt County Emergency Manager shall be notified in advance of the proposed transportation of hazardous materials. The notice shall include the type of material being transported, the intended route, the date that transportation of hazardous materials will commence, and notice when transportation of hazardous materials ceases.

**Reporting**

70. Permittee shall notify the LGD 48 hours in advance of all drilling and completion dates, drilling rig arrival and removal, name of the drilling company, and the drilling rig number. Notification shall occur at least 48 hours in advance of onset or transport of equipment for preparation for drilling rig arrival.

71. Permittee shall notify the LGD of any written or verbal notice of violations or citations issued to Permittee by COGCC, CDPHE, or any other regulatory agency, and the next action to be taken by such agency within 24 hours of notice of same.

72. The contractor shall conduct a well site visit for the Routt County Assessor. An additional field visit will be arranged by the operator/contractor for the Assessor and staff within four months of commencement of the production phase. The Assessor or staff will be allowed to take photo documentation of all equipment on-site. All information and photography shall remain confidential pursuant to C.R.S. 39-5-120. If deemed necessary by the Assessor, future field visits may be requested to update or verify equipment inventory listings. The operator is required to accommodate the Assessor’s request for inspection within a 30-day period from the initial request.
WRITTEN NARRATIVE

Project Overview
The oil well referred to as Dry Creek UT HD 31-1A by the COGCC and an API# 05-107-06175 is located south of Hayden Colorado in the county of Routt. The well was drilled, cased, and approved for production in 1991 and was in production through January 2005. Well maintenance and testing commenced again in 2008 to assist in feasibility studies of potential future production prospects. The COGCC requested a Mechanical Integrity Test in the summer of 2012 and 2017 which were conducted, completed, and approved. The COGCC approved the MIT's, as results were consistent with the recommended guidelines for production an oil well (see attached reports-Section 8.A.).

Based on the history of oil production reported to the COGCC, state land leases were acquired in efforts to access the oil resources. State of Colorado land leases (see Section 4) and other individual leases have been acquired since September 2013 in an effort to begin production on said leases. The well is currently not producing, but has been approved by the COGCC to produce (Section 8. A. Form 4). Routt County has determined the SUP originally issued in 1991 for the drilling of well or wells at said location is no longer valid. Such is the reasoning behind this application for a new SUP for the production of oil/gas at Dry Creek UT HD 31-1A. Upon approval of SUP and authorization by Routt County to commence production, a pump jack (or other production devices) would be utilized at the well site.
Operation Plan

As there is no intent to drill in the near future, there is no timeline or specs for drilling and the necessary subcontractors, employees, or equipment for this activity. There is currently a well bore in place (attached) from the original drilling, casing, and insertions performed in 1991. There is also a production tree installed on the well that allows for attachment to the 300 BBL fill tank for oil, and the potential to attach to other necessary devices as needed for liquid separation, gas flaring/collection, or soil/water collection. The current intent is to produce the oil well with an electric pump jack as the site does have electricity to the property. If at some point in the future the well is deficient in production, the line will be perforated to attempt to resume production of the line. Any water resources necessary for production or perforations will be purchased from the Town of Hayden. There is no intent to initially frack the line, but at some point in the future may be necessary if there is a need to stimulate production of the well.

The site will be monitored by the field foreman on a weekly visit to ensure the facility and the well site are secure and the pump jack is operating correctly. Weekly reports will be maintained in a record book, and any incidences of equipment failure or harm to site from a hydrological, geological, or atmospheric aspect will be reported immediately so as to ensure appropriate containment and reclamation actions are initiated. The field foreman will also be present for transportation of oil from the site to the distribution center to be sold. The site is surrounded by secured fencing to ensure safety not only for individuals/trespassers, but also any potential livestock and/or wildlife in the area. If flaring is necessary at some point during production, county and state officials will be informed and the proper procedure for flaring (EPA Guidelines) will be adhered to, to ensure no environmental harm occurs. Sufficient parking is available at site as there is a large circle drive that is easily accessed by large trucks, tractors, and employee vehicles and has sufficient areas for parking along this road.
CREEK UNIT HD 31 #1A
Moorara Prospect

PRESENT COMPLETION

PERMANENT WELL BORE DATA

13 3/8" 5 1/2# K-55 STC @ 600' MD + 1' 5/5# 5x5 Class "G" CMT Full Returns

DATA ON THIS COMPLETION

2-7/8" 65# J-55
@ 7719'
W/mob 20" @ 7720'

Hole Size = 8 3/4"

TOC = 5000'
Calc using 8 3/4" hole
7" pipe 4 1/2 5x5 w/1.15
Yield 70% Fill

KOPC = 6903'

7" 2 7/8" K-55 5-75
@ 7851' MD w/485
Class "G"

4 1/2" 1 1/4" L-50 From
7758' - 10381' w/Pre.
Relief & plugged pipe
10 3/4" 1 1/2" 0'

Top 7592 MD
Bot 10,394 MD

TD = MD = 10381'
Hydrologic Hazard Summary

The well site does not contain any risk to the surrounding areas water resources. The well underwent a Mechanical Integrity Test (MIT-see attachment, Section 8.a.) in July 2012 and 2017 and was shown to be adequate in the protection of other natural resources in the area. The COGCC approved the testing and found the results adequate for continued production. Testing of surrounding water resources will be performed to ensure the well is neither contaminating any of these resources, nor are any of the water resources a potential risk for the oil well production. Collection and sampling will be performed by Ephphatha, LLC’s field foreman and submitted to ACZ laboratories for analysis. There is a water well (UT HD 31-1) within 50-60' of the oil well, but is neither a potential hydrologic hazard to the oil well, nor is the oil well a hydrologic hazard to the water well due to the substantial casing and construction of the oil well. Seepage does not appear to be a cause for concern in the immediate vicinity as the Colorado Department of Natural Resources website map does not indicate any seepage. Areas near CR59 that commonly have water or wet conditions will be monitored in accordance with the water monitoring plan to ensure no contamination occurs.

Rule 609 and Routt County SUP requires permittee to attempt to identify permitted water wells and seeps/springs within a one-half mile radius of the oil well location for up to four (4) water sources (See Map, Section 15). Two water wells have been identified and will be integrated into the monthly testing plan to ensure no contamination is occurring. The initial baseline testing will occur the first 12 months, followed by a follow-up test at 24 months. Testing will also occur at year 5 to ensure well is in compliance. The Johnson Ranch well located on Lot 2 (Permit # 66138-F-) with no mention of depth of feet. The Western Sierra Mining Corporation on Lot 4 (Permit # 60592-F-) has a depth of 1,286 feet. There is an area of seepage parallel to CR 59 that will be included in the monthly monitoring. Areas Northeast of the oil well and areas Southwest of the oil well will be tested to ensure all seepage area is free from contamination.
Transportation Overview
Transportation of the equipment and vehicles may require a transportation permit, and if necessary, will be applied for to ensure city and county regulations are complied with. Access to the site will be as follows: From US Hwy 40 near Hayden, CO turn south onto Twentymile Road (Twentymile Road is CR 27) and travel +/- 1.2 miles. Turn West (right) on CR 51-B and travel approximately 250 yards and turn left on Haul Road. Continue on Haul Road for +/- 4.3 miles. Turn North (right) onto CR 53 for +/- 0.5 miles. Turn West (left) onto CR 59 for +/- 3.6 miles (just past the power lines) and turn left onto road leading to well site. Follow the access road to end (approximately 300 yards) where well site is located.

Traffic will be circulated via the circle drive allowing vehicles to enter and exit without blocking CR59 or the access road. The access road from CR59 can be seen in its entirety and there is no expectation of issues regarding traffic flow into and out of the site. Site traffic will consist of the aforementioned pre-production vehicles as well as a standard pickup truck driven by the field/site foreman. See attachment 'Transportation Volume' for vehicles accessing the site for production setup/after production setup, if the need to perforate arises, or frac.

Signage will be installed at the necessary locations to ensure traffic is directed to the site. As Twentymile Road has frequent and various truck/equipment accessing it on a daily basis, signage may be placed at the intersection of Hwy 40 and Twentymile Road. Signage will also be placed at entrances to CR 51-B and Haul Road. A sign at CR53 will also be placed to ensure traffic is directed to CR59 (another sign at the turn onto CR 59) and a final sign to indicate the turn off of CR 59 to access road at well site. A total of six (6) signs will be used to ensure traffic is able to easily access the site, unless otherwise directed by the county or Road and Bridge department.
## Equipment & Employees

### Pre-Production Phase

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<tr>
<th>Movement Days per Vehicle</th>
<th>Vehicle Type</th>
<th># of Vehicles</th>
<th>In/Out Trips</th>
<th># of Axles</th>
<th>Gross Weight</th>
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<tr>
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<tr>
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### Frac Phase

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<td>Frac Rig Misc Tubs, flowlines, blocks, etc.</td>
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### Employees

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<tr>
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<tr>
<td>Frac</td>
<td>8</td>
<td>2</td>
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</table>
Geologic Hazard Summary

The well site does not contain any known geologic hazards nor does the production of said well create the potential or risk of geologic hazards in the area. The current well has been in existence since 1991 and has not shown to be detrimental to the surrounding area from a geological perspective. The pad was constructed on a level area, but has some low lying areas to the West that may be potential areas of concern for spills that would eventually drain into these areas. Continual monitoring of the well site and the low lying areas will be maintained for any runoff or improper drainage.
Reclamation & Weed Control Plan
Permittee shall adhere to all state and federal regulatory standards for reclamation. As there is minimal soil and foliage damage or displacement since the well is already drilled and ready for production, the primary need for reclamation would be a final reclamation upon a permanent abandoning of the oil well. Interim reclamation is complete, as all disturbed areas no longer needed have been restored and revegetated in conformance with COGCC Rule 1003. The pad and drilling are complete (prior to current operator ownership) and the current access to the pad is original and will not need a new access to the pad. The well is ready for production, which will consist of placement of a Pump Jack system at well head and connection to the collection tank already on site. Upon commencement of final reclamation, the area around the well and area where the 300 BBL tank is located would have soil replacement upon removal of equipment and be reseeded to the landowner’s specifications and COGCC Rule 1003 to allow the area to return to agriculture production. The current road is used for access to a water well and the oil well; as such road access to the site will not be reclaimed/reseeded.

During production and final reclamation processes, all disturbed areas and surrounding agriculture and residential lands shall be kept free from all undesirable plant species designated to be noxious weeds as practicable. Weed control measures shall be conducted in compliance with the Colorado Noxious Weed Act and the COGCC Rule 1003. Upon plugging and permanent abandonment of the well, all debris and surface equipment shall be removed within three (3) months. All disturbed surfaces shall be reclaimed as early and as nearly as practicable to their original condition or their final land used as designated by the surface owner and pursuant to the COGCC Rule 1004. For the purpose of the revegetation requirements set forth herein, Permittee shall work with the local Natural Resource Conservation Service, County Extension Service, and the landowner to determine the appropriate types and quantities of application materials.
WEED MANAGEMENT AGREEMENT

We, Bahrookh, LLC, agree to coordinate with Ephphatha, LLC (hereinafter referred to as 'the company') or affiliated parties operating on behalf of the company, to have assess, treat, and maintain noxious weeds/vegetation on the property near the oil well (UT HD 31-1A) located on lot 2 of Johnson Ranch occurring at QtrQtr: NENE  Sec: 31  Twp: 6N Range: 88W  Prime Meridian: 6. The said parties agree to communicate about site management and cooperate with each other regarding weed management on the property. As property owners, Bahrookh, LLC will ultimately determine techniques and strategies on the property to deter noxious weed/vegetation growth.

Bahrookh, LLC
3725 Lincoln Ave. #23
Steamboat Springs, CO 80487
Name & Address of Property Owners

Ephphatha, LLC
1314 B Center Dr. #461
Medford, OR 97501
Name & Address of Individual/Producer

QtrQtr: NENE  Sec: 31  Twp: 6N  Range: 88W  Prime Meridian: 6
Address of Well Production and Weed Management

Signature of Bahrookh, LLC
(Shawn Sills on behalf of)

Signature of Ephphatha, LLC (Shawn Sills on behalf of)
Compliance with Routt County Zoning Regulations 5, 6, and 9

SECTION 5.
The health, safety, and welfare of the public are of utmost concern and operations of the well will be performed in a manner so as to eliminate or limit dangerous or hazardous conditions. Operations of the well will be in a manner that is consistent with all applicable federal, state, and local regulations and standards.

There shall be no building or erecting of structures at site without retaining the proper permits and approval for such construction. In addition, there would be no action for any new or current structures prior to being issued a permit by the Environmental Health Director. Any non dwelling units will also be submitted to the Planning Director for approval prior to use as a dwelling unit or for uses other than a dwelling unit.

All outdoor storage of Hazardous and Non Hazardous Materials will only be stored in enclosed containers or if approved by the Planning Director, Commission, or Board of County Commissioners. The storage of any materials that are not incidental to a use by right or an approved permitted use will not occur unless such storage is specifically approved by the Planning Director, Commission, or Board of County Commissioners.

Parking standards will be enforced to ensure there is no traffic congestion on CR 59 or there is no blockage of access the well site via the access road. There is no building that needs parking, but crews for well service and maintenance will need areas to park pickups, tool/equipment trucks, and workover site rigs. There is no encroachment on public right of ways, including but not limited to CR 59 and the well access road. All designated parking areas will allow each vehicle a minimum of 10 feet in width and 20 feet in length and eight feet in height. As the well site needs to be readily reclaimable at final reclamation, no pavements or semi-permanent substances will be used unless so directed by the Planning Director, Planning Commission, or Board of County Commissioners. There will be no parking lots at the site, only designated areas of parking along the access road and at well site.
No building permits will be requested for well site, as such addressing standards and access to buildable lot standards do not present an issue at this time. The easements for access to the well site are in place and a Right of Way Access Permit will not be applied for at this time. Also, as the access road is currently in place and in use, there will be no future access road construction.

Any signage that is not exempt from Section 5.9.2 of the Routt County Zoning Regulations will result in an application for a Minor Use Permit.

There will be no current or future structures that impeded with the mapped Skyline Areas.
There are no Water Bodies in the immediate area that need to be addressed from a Setback standpoint as none of the areas have standing water for 60 days. Occasional water near CR 59 is seasonal and is only present after snow melt or heavy rains.

The oil well is not within the Airport Overlay (AO) Zone District and will not have to address the Standards listed in Section 5.12 of the Routt County Zoning Regulations. The well site is also not in a flood zone, but precautions will be taken to ensure no soil erosion or activities that would create soil erosion are prevented.

SECTION 6.
The production of the oil well shall be consistent with public health, safety, and welfare and the applicable Master Plans and sub-area plans. Use shall be in conformance with all applicable federal, state, and local regulations and standards.

The project shall comply with Public Road Use Performance Standards, Outdoor Lighting Standards, and shall meet or exceed accepted Industry standards and Best Management Practices (BMP’s). The proposal shall not create any significant negative impact in surrounding areas mentioned in the Mitigation Plan and must meet all specific Land Use Approval criteria in Sections 8 and 9 of the Zoning Regulations.

Public road use to access the oil well will increase traffic and change the type of traffic on existing public roads and haul truck traffic and is therefore subject to the Public Road Use Performance Standards to ensure the Routt County road system is protected, maintained and upgraded as needed.

A Traffic Impact Study or Road Engineering Study will be completed in the event the Board of County Commissioners, Planning Commission, Board of Adjustment, or Planning Director determines it is necessary.

Any new roads will meet the currently adopted Routt County Road Standards. Impact to public roads shall be mitigated so condition will remain as good or better as existing condition. Anticipated traffic using the public roads must take into account: road structure (drainage), width, geometry of road, sight distance, condition of surface, intersections, capacity or level of service, accel and decel lanes and non-vehicle uses. The produces will bear the cost of any fees associate with public road use, or permits, as well as the need for repairs, upgrades, development, and maintenance of public roads.

In addition, these standards shall apply: All road cuts shall be revegetated upon completion, none are expected; dust control; county legal load limits; mitigate impact of haul trucks; adjust haul/traffic hours to cooperate with peak traffic hours and school bus hours or environmental conditions such as fog/ice; implement changes in the route to mitigate impact; or avoid blocking road at any time.

See Mitigation Plan for additional compliance protocol of the Standards for Section 6.
SECTION 9.
All mining and accessory uses shall comply with the Standards and Mitigation Techniques in Section 5 and 6. In addition, production shall be: compatible with surrounding agriculture, residential, and recreational land uses; located a sufficient distance from other operations; have visible equipment or equipment will be mitigated to surrounding residences; shall be operated within guidelines of noise standards within 150' of any residence; minimize visual impacts along entryways, not allow truck traffic to access residential or commercial areas; provide liability insurance at a minimum of $1,000,000 for any potential damages with the county named as an Additional Insured (see Miscellaneous); a financial assurance bond for the site to assure any remediation or reclamation has sufficient proceeds for such operation (see Miscellaneous); and any advanced technology necessary to mitigate significant impacts.

There will be neither any isolated mining and accessory uses, nor any mining operations that exceed 9.9 acres of cumulative surfaced disturbance. There will not be any asphalt or concrete plants and accessory uses on the premises.

Oil, gas, and coal bed methane exploration and development will seek a permit term for the life of active production, as the well was previously drilled and tested. The standards that will be adhered to for compliance are as follows: trash and excess fluids will be transported to an approved disposal site; all tanks and/or hazardous materials shall be bermed to contain spills; all flowlines will be revegetated as soon as practical; directional signs will be visible to advise emergency crews of drilling location; all interim revegetation is complete and final reclamation/revegetation shall occur in accordance with COGCC rules and regulations in conjunction with the local Natural Resources Service and County Extension Service and landowner; all wells within a ½ mile radius will be tested and analyzed by ACZ Laboratories; and no water from production may be discharged into any water resources.

All domestic water wells/springs within the project area and within ½ mile shall be sampled, tested, and analyzed by ACZ Laboratories. No discharge into any water resource will be performed without express written consent by the County.
Mitigation Plan

Any issues that may potentially have a significant negative impact will be mitigated if not eliminated to ensure the proposed well operation is not detrimental to the surrounding resources.

--Public Roads, Services, & Infrastructure

Public road use performance standards will be adhered by to ensure the use of the public road system is not excessive or require significantly more cost to maintain. As the production of oil well is not expected to increase traffic or change the type of traffic using the public roads, there is no expectation of increased use or cost to maintain. Producer will sign a reimbursement agreement in the event that road maintenance or improvements are necessary due to the impact of traffic accessing the well site. The production of said oil well shall not significantly impact the public road use and normal wear and tear, but producer will adjust route in order to comply with any alterations in the proposed method of oil transport. Any additional maintenance or snow plowing for access to the site will be provided by producer and at producer’s cost. Any necessary permitting shall also be obtained from Routt County Road and Bridge. Dust control shall also be maintained at producer’s expense and haul trucks will be required to meet county legal load limits.

--Road Capacity, Traffic, & Traffic Safety

The use of Routt County roads for transportation to and from the well site will have initial traffic to deliver the pump jack, workover rig, and crew pickups. The initial setup phase will consist of crews accessing the site daily. The workover rig will access and exit the site at the beginning and end of project. The tractor trailer delivering the pump jack will access the site to drop off the equipment and exit without further instances. The setup phase for production and perforation if necessary, should have minimal impact on traffic and traffic safety. An analysis of the road capacity, traffic, and traffic safety can be conducted if the Road & Bridge Department deem it necessary prior to issuance of the SUP.

The Standards and Mitigation Techniques for oil production will be adhered by to ensure the production of the oil has minimal impact on the surrounding environmental resources. The producers will transport any waste to the Millner Landfill (Twin Enviro Services). The 300 BBL collection tank is already bermed at the location in compliance with COGCC guidelines. No drilling is to take place for this request, as the well was previously drilled in 1991 under the original SUP.

--Natural Hazards

The only known potential natural hazards at the site could be excessive rain and excessive amounts of snowfall in the winter months. As the area along CR 59 tends to stay wet or muddy through parts of the Spring and Summer, excessive rain may cause flooding. Excessive amounts of rain or snow may also make the site hazardous for large equipment to access. As such, the access road will be maintained by keeping snow removed and graded for a safe and efficient means of access to the well site.
--Wildlife & Wildlife Habitat
Elk, deer, and antelope do access the well site area, but their access and/or path will not be obstructed or impaired to the point of causing the wildlife to alter their use of the area. The equipment is fenced in attempt to prevent any danger to the well or wildlife. There are no known wildlife habitats on the property or the immediate vicinity that the oil well may obstruct or interfere with.

--Water Quality & Quantity
Areas containing water and wells in the area will be monitored by comparing to baseline tests from the initial 12 month period to test impacts to ground water, water wells, stream/seepage, and quantity. Testing will continue in the second year of operation to ensure no contamination of area water resources. Subsequent testing will be performed in year 5 as well. Any water needs for the site will be purchased from the Town of Hayden and transported to the site via Water Tanker Truck.

--Air Quality
There is no preconceived assumption that the oil well will provide any air pollution, as the well is drilled and the well will be closed to open air environments except in the event where flaring is needed. Production will involve a closed system. Gravel, water, and/or chemical will be utilized to stabilize dust from county roads and access road to the oil well. If wind, usage, lack of moisture, and heat increase air pollution from the dust; frequency of road treatment will increase to meet the demands necessary to minimize air pollution. The dirt roads and access road to the well will be periodically sprayed (either with water or chemical) to maintain dust along CR 59 and the Haul Road to the well site. Severity is often a factor of the regularity of precipitation, dryer years will require more maintenance and wetter years will require less. Weekly assessments of dust conditions will occur to ensure dust is kept at a minimum.

--Visual Amenities & Scenic Qualities
The oil well site is located in a low lying valley and should not interfere with any visual or scenic qualities the property offers or views offered by adjoining properties. Ridgeline views in the area should not be obstructed during production, setup, or maintenance.

--Wildland Fires
The well site does not have timber growth and is not susceptible to wildfire, but the site and the adjacent lots are abundant with native grasses that may pose a risk of catching fire in the dry summer months. As such, the well site will be mowed and maintained to reduce risk of fire from overgrowth of vegetation.

--Noise
Production operations and maintenance will occur during daylight hours (8am-5pm) to minimize any annoyance to area. Jake Brakes will not be allowed at the site, entering or leaving. Access to electricity
at the site will allow for the use of an electric Pump Jack, which will in turn provide minimal noise pollution to the area residents to comply with COGCC Rule 802.

--Wetlands
There are no certified or established wetlands at the well site or property. There are areas that have seasonal flooding from rain or snow melt, but these areas are along CR 59 and not accessed or used while operating or maintaining the oil well and can be avoided to disturb any potential resources these areas may provide.

--Land Use Compatibility
The land is currently not used for livestock or agriculture. The property is covered in grass and has been used in the past for grass hay production. The property is able to be used for agriculture needs as the oil well production will not interfere with the use of the land.

--Odors
As the system will be closed to a collection tank, there are no anticipated odors or fumes that may permeate the surrounding air.

--Vibration
The well has been drilled previously (1991) and there is no expectation of substantial vibration from the electric pump jack or from maintenance at the well site. Any future perforations or frac operations would be temporary in lasting only long enough to sufficiently access the formations and then return to pump jack production.

--Snow Storage
The well site has areas on the South and West sides that allow for snow storage as these areas are between the well site and CR 59 and are not utilized for other purposes. Melting snow will also drain away from these storage areas and allow the well site area to dry quicker in the Spring.

--Historical Significance
There is no known historical significance of the area near the well site, other than the oil well is said to be the first horizontal drilled well in Colorado.

--Reclamation & Restoration
As interim reclamation has been completed, there is only the need for final reclamation after the well has been permanently abandoned and permanently plugged. At such time new soil will be reseeded where well head sets. The access road also services a water well and as such would not be reclaimed or restored to its original condition.
February 5, 2021

Chris,

The Routt County Road and Bridge Department would like to submit the following comments for the permit application numbered TPL-19-129. This is for the existing Ephaphtha #31-1 well. The following are comments for the application as submitted to the Routt County Road and Bridge Department for review.

The road improvement comments originate from the Road Engineering Study that was performed by SGM, Inc. in November 2015 then revised in 2020. The report was generated to mitigate the traffic impacts for the above mentioned well to County Roads 53 and 59.

1. Overweight and over length permits for vehicles shall be obtained from the Routt County Road and Bridge Director prior to the use of such vehicles.
2. All haul roads that are public roads must have adequate signage at intersections and at any other locations that may require signage or additional signage as required by the Routt County Road and Bridge Department.
3. Access permits shall be obtained to all access roads to be built or improved which intersect Routt County roads.
4. Routt County has the authority to close any county road at its sole discretion if damage to the road may occur by its use. To the extent that a road closure may affect Permittee’s operations, Routt County will cooperate with Permittee to allow operations to be continued in a safe and practicable stopping point.
5. Routt County roads shall not be completely blocked at any time. If traffic regulation is deemed necessary, the Permittee shall notify the Routt County Road and Bridge Director, or designee thereof, in advance (if possible), who may then require:
   a. The Permittee or Permittee’s contractor/sub-contractor to place traffic control signage along haul routes and at intersections as specified by the Routt County Road and Bridge Director and at Permittee’s expense; and
   b. Flaggers to be placed at the intersections of affected county roads as specified by the Routt County Road and Bridge Director and at Permittee’s expense; and
   c. The Permittee or Permittee’s contractor/sub-contractor to supplement regular dust control efforts by application of dust palliative, as approved by the Routt County Road and Bridge Director and RCDEH and at Permittee’s expense.
6. Directional signs, no less than three (3) and no more than six (6) square feet in size, shall be provided during any drilling or recompletion operation, by the Permittee. Such signs shall be at locations sufficient to advise emergency crews where drilling or recompletion is taking place. At a minimum, such locations shall include: (1) the first point of intersection of a public road and the rig access road and (2) thereafter at each intersection of the rig access route. The Permittee shall also notify the Routt County Sheriff’s Office of the Site and its access point.
7. Permittee shall comply with the following recommendations concerning road improvements and maintenance:
   a. Permittee shall limit Routt County road traffic to County Roads 27, 37, 51B, 53, and 59.
b. Permittee is required to obtain any necessary approvals from the Town of Hayden/CDOT for travel via roads not governed by Routt County.

c. The portions of CR 53 and CR 59 affected by this SUP require the following improvements prior to commencement:

d. Routt County will engage a third-party contractor, via its bid process, to make the necessary improvements. Permittee shall be required to enter into a reimbursement agreement with Routt County for payment of the contractor. Upon signing the reimbursement agreement, permittee shall deposit an amount equal to the estimated costs of the improvements with the Routt County Treasurer.

   i. Add 7" of Class 6 road base for 3.6 miles of CR 59 per the SGM Road Engineering Study, dated January 2020 From CR 53 to the 31-1 Access Road at a minimum of 24’ wide.

   ii. Additional placement of the same materials as needed to ensure that an adequate crown is maintained in the road.

   iii. Placement of Magnesium Chloride to the new gravel at a rate of 0.5 gal/SY

   iv. “Trucks Entering Roadway,” signs shall be installed, inspected and maintained prior to the heavy construction phase of the well in the locations along CR 53 and 59 per the SGM Road Engineering Study, dated January 2020.

   v. Extend all culverts along CR 59 per the SGM Road Engineering Study, dated January 2020.

   vi. Provide plans designed and stamped by a Colorado Registered Engineer, for the necessary improvements to accommodate WB-67 sized truck at the intersection of CR 53 and CR 59.

e. Ongoing culvert cleaning, maintenance and replacement as needed to sustain road integrity.

8. Permittee will need to acquire a Routt County Work in the Right of Way Permit for the necessary work to be performed on CR 59.

9. All trucks and equipment accessing from CR 59 shall be able to exit and be located on private property and off of County road right of way before encountering a fence, gate or cattleguard. At a minimum, the distance from the County road right of way to any gate, fence or cattleguard shall be 1.5 times of the length of the longest vehicle.

10. The Permittee shall be assessed County costs directly associated with the project. Payment of the assessment shall be due and owing upon receipt of invoice from County.

11. Routt County roads affected by this SUP will be inspected by the Routt County Road and Bridge Department at intervals determined by same. Any road damage shall be repaired by a third-party contractor as selected by the Routt County Road and Bridge Department and on a schedule determined by same. Permittee shall solely bear the costs of repairs.

12. Permittee shall maintain county roads affected by this SUP during the life of the Operations. Maintenance shall be determined by the Routt County Road and Bridge Department in its sole discretion and at Permittee’s expense. Maintenance may include grading and graveling roadways, sweeping or cleaning access points, and application of a dust palliative as approved by the Routt County Road and Bridge Director and RCDEH.

Sincerely yours,

Mike Mordi
Assistant Director
Routt County Road & Bridge
Chris,

I can connect with CDPHE's Water Quality Control Division to see if they have any additional comments. They did review this proposal and didn't have any additional comments above and beyond the ones I already sent you, but perhaps the new information you've provided might generate additional comments. What is the deadline for submitting additional comments?

Also, with respect to setbacks for new oil wells from existing water wells (which I am assuming are private), you will need to discuss that with COGCC. My understanding is that there are no horizontal/geographic setbacks that require new oil wells to be a certain distance from existing water wells. However, they do have very specific downhole well construction requirements and zonal isolation requirements ("wellbore integrity" rules) that negate the need for such a setback. If a domestic water well is properly constructed, then the risk to the water well from the surface spills should be low. It is the water well owner's responsibility to maintain their well to protect their water supply from the introduction of contaminants from any source. I believe COGCC's Engineering Manager might be a good person to discuss this with. Here is his contact info: david.andrews@state.co.us; 970-456-5262 (cell).

Thank you,

Sean Hackett
Energy Liaison

4300 Cherry Creek Drive South, Denver, CO 80246
Cell Phone 303.587.1423

sean.hackett@state.co.us | www.colorado.gov/cdphe
Your feedback is important to us! Please let us know how I am doing.

On Tue, Feb 9, 2021 at 9:45 AM Chris Brookshire <cbrookshire@co.rout.co.us> wrote:

Sean

Thanks for the updated info.

I do have questions with regard to this oil well and proximity of water sources in the area.

The Dry Creek UT HD 31 1A Pilot Hole was drilled in 1991. API # 05 107 06175.
The Colorado Department of Public Health and Environment (CDPHE) appreciates the opportunity to comment on this proposal. Please note that the following requirements and recommendations are not intended to be an exhaustive list and it is ultimately the responsibility of the applicant to comply with all applicable rules and regulations. Please also note that CDPHE’s failure to respond to any referrals should not be construed as a favorable response.

**Hazardous and Solid Waste**

The applicant must comply with all applicable solid and hazardous waste rules and regulations.

Solid waste regulations are available here: [https://www.colorado.gov/pacific/cdphe/swregs](https://www.colorado.gov/pacific/cdphe/swregs).

Hazardous waste regulations are available here: [https://www.colorado.gov/pacific/cdphe/hwregs](https://www.colorado.gov/pacific/cdphe/hwregs).

Applicable requirements may include, but are not limited to, testing for and properly disposing of technologically enhanced naturally occurring radioactive materials (TENORM) and other solid or hazardous waste.

If you have any questions regarding solid and hazardous waste, please contact CDPHE’s Hazardous Materials and Waste Management Division (HMWMD) by emailing comments.hmwmd@state.co.us or calling 303-692-3320.

**Water Quality and Conservation**

The applicant must comply with all applicable water quality rules and regulations. Water quality regulations are available here: [https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations](https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations).

Applicable requirements may include, but are not limited to obtaining a stormwater discharge permit if construction activities disturb one acre or more of land or if they are part of a larger common plan of development that will disturb one or more acres of land. In determining the area of construction disturbance, CDPHE’s Water Quality Control Division (WQCD) looks at the entire plan, including disturbances associated with utilities, pipelines or roads constructed to serve the facility.

Please use the Colorado Environmental Online Services (CEOS) to apply for new construction stormwater discharge permits, modify or terminate existing permits and change permit contacts.

For CEOS support please see the division website: [https://www.colorado.gov/pacific/cdphe/cor400000-stormwater-discharge](https://www.colorado.gov/pacific/cdphe/cor400000-stormwater-discharge)
or contact:
Email: cdphe_ceos_support@state.co.us or cdphe_wqcd_permits@state.co.us
CEOS Phone: 303-691-7919
Permits Phone: 303-692-3517

WQCD has compliance assistance and guidance materials on their website. There is an Oil and Gas field wide permit guidance that is specifically for construction activities associated with oil and gas. This guidance can be found at https://drive.google.com/file/d/1D5s7e9UEEJinxY9I4l4ATLh6x08PMwNdz/view.

Additionally, while CDPHE acknowledges that disposal of flowback and produced water through licensed third-party wastewater injection facilities is the preferred method of disposal, in order to minimize the amount of fresh water used in oil and gas development, we encourage the applicant to develop a plan for using all available means to recycle and reuse these waters beneficially.

If you have any questions regarding water quality, please contact CDPHE’s WQCD by emailing cdphe.commentswqcd@state.co.us or calling 303-692-3500.

Air Quality

The applicant must comply with all relevant state and federal air quality rules and regulations. Air quality regulations are available here: https://www.colorado.gov/pacific/cdphe/aqcc-regs.

Applicable requirements may include, but are not limited to, reporting emissions to the Air Pollution Control Division (APCD) by completing an Air Pollutant Emissions Notice (APEN). An APEN is a two in one form for reporting air emissions and to obtain an air permit, if a permit will be required. While only businesses that exceed the Air Quality Control Commission (AQCC) reporting thresholds are required to report their emissions, all businesses - regardless of emission amount - must always comply with applicable AQCC regulations.

Information on oil and gas APENS and permits can be found at https://cdphe.stg.colorado.gov/apens-and-air-permits. In addition to an index of oil and gas forms, guidance, APENs and memos, this website contains an Oil and Gas Industry Emissions Calculation and Regulatory Analysis Workbook to assist operators applying for permits in following approved emissions calculation methods. If you have any questions regarding Colorado’s APEN or air permitting requirements or are unsure whether your business operations emit air pollutants, please call the Small Business Assistance Program (SBAP) at 303-692-3175 or 303-692-3148.

The project area is located within or near the Denver Metro/North Front Range (DMNFR) ozone nonattainment area.\(^1\) Many sources contribute to ozone formation including oil and gas exploration and production. In particular, the use of diesel or gas-powered equipment and devices and the flaring of natural gas produces nitrogen oxides (NOx) as well as additional volatile organic compound (VOC) emissions, which contribute to ozone formation. Emissions

\(^{1}\) A map of the DMNFR ozone nonattainment area can be viewed on the following website: https://www.colorado.gov/airquality/ss_map_wm.aspx
from outside of the DMNFR ozone nonattainment area can contribute to ozone formation within the nonattainment area. Combustion engines used for compression are a large source of Carbon Dioxide (CO2) emissions and leaks from storage tanks and pneumatic devices can result in fugitive methane emissions. CO2 and methane are greenhouse gases, which contribute to climate change.

In order to minimize emissions from equipment and devices, CDPHE recommends that the applicant coordinate with the relevant electric utility provider to assess the feasibility of utilizing power from the electric grid to the maximum extent practicable for all drilling and completion activities. If electrically-powered alternatives are not available for a particular function, CDPHE recommends that drill rigs and hydraulic fracturing pumps be fueled by natural gas. If natural gas-powered engines are not feasible, then CDPHE recommends that diesel-powered engines perform at Tier 3 or 4 standards defined in 40 CFR Part 89, or better. CDPHE also recommends that the applicant use non-emitting pneumatic controllers (i.e. no-bleed or instrument air driven).

Currently, natural gas pipelines in the DMNFR ozone nonattainment area are at or near capacity and some operators have requested approval to flare natural gas. In addition to wasting a resource, flaring contributes to ozone formation. CDPHE recommends that the applicant limit venting or flaring of natural gas to upset or emergency conditions, or with prior written approval from the COGCC Director for necessary maintenance operations. Emergency flaring should be controlled with an enclosed combustor with a manufacturer certification of at least 98% destruction efficiency. Additionally, CDPHE recommends that the applicant ensure that adequate pipeline takeaway capacity is available for gas, oil, fresh and produced water prior to completion. This will ensure that closed-loop green completion techniques are utilized to the maximum extent practicable and that the venting or flaring of natural gas will be minimized, thus reducing emissions from the wellsite. CDPHE also recommends that the applicant conduct LDAR inspections as frequently as possible during the drilling and completion phase and at least semi-annually during the production phase at the well site.

CDPHE also recommends that the applicant implement some or all of the following ozone mitigation measures on forecasted high ozone days:
- Postpone flowback if emissions cannot be adequately captured with a vapor recovery unit (VRU);
- Reduce truck traffic and worker traffic;
- Minimize vehicle and engine idling;
- Postpone the refueling of vehicles;
- Properly maintain vehicles and equipment;
- Suspend or delay the use of fossil fuel powered ancillary equipment;
- Postpone construction activities;
- Reschedule non-essential operational activities such as pigging, well unloading and tank cleaning;
- Eliminate the use of paints and solvents containing VOCs.

If you have more general questions about air quality, please contact CDPHE’s APCD by emailing cdphe.commentsapcd@state.co.us or calling 303-692-3100.
Odors

CDPHE recommends that the applicant evaluate different additive formulations that have the potential to better suppress odors, including but not limited to additives that are not diesel-based. Additionally, the applicant should use a chiller to cool drilling fluid as it is piped through the recirculation system before routing to the suction tanks. The applicant should also evaluate and employ one or more of the following measures where safe and feasible to further reduce the potential for odors and fugitive emissions: covering trucks transporting drill cuttings, enclosing shale shakers to contain fumes from exposed mud, wiping down drill pipes as they exit the wellbore to remove drilling fluids, and ensuring that all drilling fluid is removed from pipes before storage.

Well pads within close proximity to people

On October 17, 2019, CDPHE published the study “Human Health Risk Assessment for Oil and Gas Operations in Colorado.”² This study was funded by CDPHE and conducted by ICF International, using actual emissions data collected by Colorado State University along the Front Range and Garfield County. It modeled levels of pollutants that people could be exposed to as a result of oil and gas development and found that short-term exposures to chemicals related to oil and gas development, such as benzene, may cause short-term negative health impacts (e.g. headaches; dizziness; respiratory, skin and eye irritation) during worst-case conditions. The study found that the risk of negative short-term health impacts could occur at all distances modeled, up to and including 2,000 feet, particularly during the drilling, hydraulic fracturing and flowback phases of development. While the study did not find any chronic health impacts (i.e. cancer), it did not rule out the possibility of chronic health impacts because it did not comprehensively measure exposures from multiple well pads in a single community, exposures to VOC emissions from non oil and gas sources, or other cumulative impacts like particulate matter or noise. Due to these limitations, the study concluded that additional measurements and analysis is needed to understand how closely the models represent real-world conditions. If the proposed well pad is in close proximity to residents, the County may want to consider a requirement that the applicant or a third party independent contractor develop and implement an air quality monitoring program.

Additionally, the County may want to include a requirement that the operator notify residents in close proximity to the proposed well pad that they can report any health concerns to CDPHE’s Oil and Gas Health Information and Response Program through the program’s website (http://www.colorado.gov/oghealth) or by calling 303-389-1687.

Polyfluoroalkyl substances in firefighting foams

PFAS are a family of human-made substances that do not occur naturally in the environment. They have been used for decades in food packaging, carpets, personal care items, ski waxes, other household items, and firefighting foam due to their ability to resist heat, oil, stains, grease, and water. Human contact with these chemicals is widespread, and nearly all people have some measurable levels of the chemicals in their blood. Human health toxicity information is only available for a small number of the thousands of these chemicals.

² The full study as well as a summary of the study can be found on the following CDPHE Oil and Gas Health Information and Response Program website (under the headings “2019: Human Health Risk Assessment for Oil and Gas Operations in Colorado” and “What the 2019 study does and doesn’t do”): http://www.colorado.gov/oghealth
However, despite the limited information, this toxicity information suggests that exposure to some PFAS can cause a range of negative health outcomes. Health effects from these chemicals may include pregnancy complications, liver damage, high cholesterol, and others. More research is underway to better understand these health consequences. When PFAS is released into the environment, it can get into water, especially groundwater, and contaminate drinking water supplies. House Bill 19-1279 bans the sale, manufacture, or distribution of firefighting foam with PFAS chemicals within the state starting August 2, 2021, unless exempt. CDPHE has prepared an action plan summarizing how we will protect Coloradans from risks posed by PFAS.3

Due to the potential for contamination from the use of firefighting foams with PFAS chemicals, the applicant should coordinate with local fire departments to evaluate whether PFAS-free foam can provide the required performance for the specific hazard. If PFAS-containing foam is used at a location, then the applicant should be required to follow best management practices to: properly characterize the site to determine the level, nature and extent of contamination; 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; and properly capture and dispose of PFAS-contaminated soil and fire and flush water.

**Health Equity and Environmental Justice**

CDPHE is dedicated to promoting and protecting the health and environment for all Coloradans. As part of those efforts, we strive to achieve health equity and environmental justice.

**HEALTH EQUITY** is when all people, regardless of who they are or what they believe, have the opportunity to attain their full health potential. Achieving health equity requires valuing all people equally with focused and ongoing efforts to address inequalities.

**ENVIRONMENTAL JUSTICE** is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income. With respect to the development, implementation and enforcement of environmental laws, regulations and policies.

CDPHE notes that certain projects have potential to impact vulnerable minority and low-income communities. It is our strong recommendation that your organization consider the potential for disproportionate environmental and health impacts on specific communities within the project scope and if so, take action to mitigate and minimize those impacts. This includes interfacing directly with the communities in the project area to better understand community perspectives on the project and receive feedback on how it may impact them during development and construction as well as after completion. We have included some general resources for your reference.

Resources:

- CDPHE’s Health Equity Resources
- CDPHE’s “Sweet” Tools to Advance Equity
- EPA’s Environmental Justice and NEPA Resources

3 https://www.colorado.gov/pacific/cdphe/pfcs
Access road in foreground from CR 59

Facility in background

Well head left center; Water well located in shed right center

Background is holding tank
Well head and holding tank with lined pit