



TEP Rocky Mountain LLC
1058 County Road 215
Parachute, CO 81635

November 8, 2018

Julie Murphy
Director
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

RE: Request for expedited approval of Form 2A (Doc # 40186899) under Rule 303.i. for the Federal GM 41-8 production pad (Location ID 334794, Lot 1, Section 8, T7S-R96W, Garfield County, CO)

Dear Ms. Murphy,

TEP Rocky Mountain LLC ("TEP") requests approval for expedited approval of Form 2A (Doc # 40186899) for the Federal GM 41-8 pad under Rule 303.i. "Special circumstance for permit issuance without notice or consultation." This request accompanies a variance request under Rule 502.b. (attached for reference) requesting permission to transport drill cuttings from the Puckett GV 1-8 well pad and Federal MV 60-8D well pad to the Federal GM 41-8 production pad.

As outlined in the variance request, TEP is requesting to transport drill cuttings from the Puckett GV 1-8 pad and Federal MV 60-8D pad to the Federal GM 41-8 pad, where a drilling pit will be constructed, and drill cuttings will be managed as described in the Site-Specific Drill Cuttings Management Plan included with each Form 4 variance request for the Puckett GV 1-8 and Federal MV 60-8D pads. Drilling on the Federal MV 60-8D will begin the second week of December 2018, and wells on the Puckett GV 1-8 will spud the third week in January 2019. Due to the timing constraints associated with production of drill cuttings on the Federal MV 60-8D, expedited approval for construction of the Federal GM 41-8 drilling pit is necessary to ensure TEP meets contractual drilling obligations and avoids economic hardship.

The GM 41-8 was originally intended to serve as the cuttings management area for the Puckett GV 1-8 well pad and Federal MV 60-8D as requested in Form 2A (Doc #401705444), which was submitted and passed completeness on August 20, 2018. However due to circumstances requiring TEP to alter its plan, which has led to the variance request, the Form 2A was withdrawn on September 17, 2018. Prior to TEP withdrawing the Form 2A, public comment and consultation was completed and passed by Colorado Department of Public Health and Environment, Colorado Parks and Wildlife, the Garfield County LGD, and public users. The GM 41-8 production pad is an existing location on Federal surface and the BLM has granted permission to TEP to construct the cuttings pit (see attached email from Allen Crocket with BLM).

TEP appreciates the expedited review and consideration of our request. If you have any questions or concerns, please contact me directly at 970-263-2736.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey D. Kirtland", is written over a horizontal line.

Jeffrey D. Kirtland
Regulatory Lead

Enclosures



TEP Rocky Mountain LLC
1058 County Road 215
Parachute, CO 81635

November 8, 2018

Julie Murphy
Director
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

RE: 502.b. Variance Request from Rule 907.e.(1) to transport drill cuttings from the Puckett GV 1-8 (Loc ID # 323823, NESW Sec 8, T7S-R96W) and the Federal MV 60-8D (Loc ID# 334950, SWNE, Sec 8 T7S-R95W) to the Federal GM 41-8 pad (Loc ID# 334794, Lot 1 Sec 8, T7S-R96W)

Dear Ms. Murphy,

TEP Rocky Mountain LLC ("TEP") requests approval for a variance under Rule 502.b. from Rule 907.e.(1) to obtain permission to transport drill cuttings from the Puckett GV 1-8 well pad and Federal MV 60-8D well pad to the Federal GM 41-8 production pad.

Rule 907.e.(1). states that "Oily waste may be treated or disposed as follows:

- A. Disposal at a commercial solid waste disposal facility;
- B. Land treatment onsite; or
- C. Land treatment at a centralized E&P waste management facility permitted in accordance with Rule 908"

TEP is requesting permission to transport approximately 4,100 cubic yards of drill cuttings generated from 15 wells on the Puckett GV 1-8 pad, and approximately 4,750 cubic yards of drill cuttings generated from 10 wells on the Federal MV 60-8D to the Federal GM 41-8 pad for disposal. The first well spud on the Federal MV 60-8D is scheduled for the second week of December 2018 and the first well spud on the Puckett GV 1-8 is the third week in January 2019.

This variance request will address Rule 907.e.(1) A. through B. and demonstrate TEP's good faith effort to comply with the rule. This request is required due to A) safety issues related to the distance and potential routes required for hauling to commercial disposal, B) the limited size and physical constraints of both the Puckett GV 1-8 and Federal MV 60-8D well pads for land treatment on site, and C) challenges associated with permitting the GM 41-8 production pad as a Centralized E&P waste management facility. Please refer to the proposed drill cuttings management plan for each pad for additional information.

TEP is concerned about safety issues related to transporting cuttings to off-site commercial disposal facilities, including impacts related to increased truck traffic on county roads and highways, and potential environmental impacts associated with hauling long distance. TEP estimates a total of 1,106 total truck trips are required for disposal. TEP is requesting to transport drill cuttings by truck 1.1 miles from the Puckett GV 1-8 pad and 0.8 miles from the Federal MV 60-8D pad to the Federal GM 41-8 pad, where a drilling pit will be constructed and drill cuttings will be

managed as described in the Site-Specific Drill Cuttings Management Plan included with each Form 4 variance request for the Puckett GV 1-8 and Federal MV 60-8D pads.

There are currently two potential options for commercial disposal, including Green Leaf Environmental, which is 27 miles from the furthest pad (Puckett GV 1-8), and the Garfield County Landfill which is 17 miles from Puckett GV 1-8. The combined anticipated miles required to haul to Green Leaf Environmental is 58,536 miles, whereas the total miles required for disposal at the Federal GM 41-8 pad is 2,076 miles. Similarly, the total combined miles to the Garfield County Landfill is 35,228. In both cases the accumulated number of miles on narrow roads with steep grades during winter-time operations exacerbates the risks to safely transport cuttings.

TEP designed and constructed the Puckett GV 1-8 pad and Federal MV 60-8D with the least impact to total surface disturbance adjacent to steep slopes per Rule 1002.d., as well as to limit the amount of disturbance on Federal land. As a result, there is no space available for onsite disposal of cuttings, which is the preferred method to manage and dispose of drill cuttings. The Puckett GV 1-8 is located on fee surface (Puckett Land Company), whereas both the Federal MV 60-8D and Federal GM 41-8 pads are located on Federal surface (U.S. Bureau of Land Management ("BLM")). All three pads are existing oil and gas locations.

The Federal GM 41-8 pad, an existing pad with four producing wells, was chosen as a comparable location with similar hydrologic characteristics, not in a flood plain or sensitive area, and closer in proximity to the Puckett GV 1-8 and Federal MV 60-8D pads. Hauling to the Federal GM 41-8 will help alleviate safety concerns related to longer haul distances and help mitigate impacts related to inclement weather and poor road conditions during winter months, which is when these well pads will be operational.

Due to the temporary and isolated impact to the Federal GM 41-8 pad, conversion to a Centralized E&P Waste Facility as described in Rule 908. is not practical. As specified in the drill cuttings management plans, TEP will manage cuttings on the Federal GM 41-8 similarly to on-pad disposal, which includes constructing a drilling pit, segregating cuttings by surface and production hole sections, then testing and analyzing for compliance of COGCC 910-1 standards before burying cuttings per COGCC reclamation rules. Construction of a Centralized E&P facility, which requires constructing pits with liners is not practical as COGCC rules do not allow burial of pit liners, and TEP would have to request a variance.

TEP has obtained approval from the BLM (see attached email from Allen Crocket with BLM) to transport cuttings from the Puckett GV 1-8 and the Federal MV 60-8D to the Federal GM 41-8 pad. Transporting drill cuttings from the two locations and using the cuttings for beneficial reuse is preferred by BLM.

In summary, TEP believes that relocating the drill cuttings from the Puckett GV 1-8 and the Federal MV 60-8D to the Federal GM 41-8 is the preferred option for final management and disposal for the following reasons:

- The impacts associated with transporting cuttings to commercial disposal versus nearby off-location disposal pose unnecessary and unacceptable safety risks to workers and the public;
- On-site treatment is impossible due to the physical constraints of existing pads in geographically challenging locations; and

- Disposal of drill cuttings from these locations at an existing TEP permitted Centralized E&P facility is not practical given the remote and isolated location of the projects, and converting the GM 41-8 pad to a Centralized E&P is not feasible.

TEP believes that we have made good faith, diligent efforts to comply with Rule 907.e.(1). and feel that the variance to this rule as described herein allows for the safe, compliant, and most efficient method to manage drill cuttings from these locations.

TEP appreciates your expedited review and consideration of our variance request. If you have any questions or concerns, please contact me directly at 970-263-2736.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey D. Kirtland', with a stylized, sweeping flourish at the end.

Jeffrey D. Kirtland
Regulatory Lead

Enclosure

Jeff Kirtland

From: Adam Tankersley
Sent: Wednesday, November 07, 2018 12:29 PM
To: Jeff Kirtland; Vicki Schoeber
Cc: Lynn Cass; Mike Gardner
Subject: FW: Sundry Notice for GM 41-8 Pad Expansion
Attachments: COAs for 2019-0009_TEP GM 41-8 Pad Expansion Sundry Notice.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

The GM 41-8 Drilling Pit has been approved. I don't have a copy of the approved sundry just the COAs.

Adam

From: Crockett, Allen <acrocket@blm.gov>
Sent: Wednesday, November 07, 2018 9:35 AM
To: Adam Tankersley <ATankersley@terraep.com>; James Byers <jbyers@blm.gov>
Cc: Carmia Woolley <cwoolley@blm.gov>; Mayom Achuk <machuk@blm.gov>
Subject: Sundry Notice for GM 41-8 Pad Expansion

Adam,

The Categorical Exclusion prepared by Jim yesterday and the associated Sundry Notice have both been approved by me. I've give them to Mayom (Land Law Examiner) to process, as well as the COAs for the SN (also attached to this email).

Jim, thanks for getting that done so quickly.

Allen

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Allen B. Crockett, Ph.D., J.D.
Bureau of Land Management
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652

Phone 970-876-9005
Fax 970-876-9090

APPENDIX

SURFACE-USE CONDITIONS OF APPROVAL GM 41-8 Pad Expansion for Drill Cuttings Storage DOI-BLM-CO-N040-2019-0009-SCX1

GENERAL COAS APPLICABLE TO ALL ACTIVITIES ASSOCIATED WITH THE GM 41-8 PAD EXPANSION.

The following surface-use COAs shall be implemented, where applicable and feasible, to reduce impacts from project activities. These COAs are in addition to all stipulations attached to the respective Federal leases and to any site-specific COAs for individual well pads, presented following these general COAs.

1. **Administrative Notification.** The operator shall notify the BLM representative at least 48 hours prior to initiation of construction. If requested by the BLM representative, the operator shall schedule a pre-construction meeting, including key operator and contractor personnel, to ensure that any unresolved issues are fully addressed prior to initiation of surface-disturbing activities or placement of production facilities.
2. **Road Maintenance.** Roads shall be crowned, ditched, surfaced, drained with culverts and/or water dips, constructed, and maintained to road standards submitted with APDs and described in BLM's *Gold Book*. Initial gravel application shall be a minimum of 6 inches. The operator shall provide timely year-round road maintenance and cleanup on the access roads. A regular schedule for maintenance shall include, but not be limited to, blading, ditch and culvert cleaning, road surface replacement, and dust abatement. When rutting within the traveled way becomes greater than 6 inches, blading and/or gravelling shall be conducted as approved by the BLM. (*Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition—Revised 2007, BLM/VO/ST-06/021+3071/REV 07*)
3. **Drill Cuttings Management.** Cuttings generated from the numerous planned well bores shall be worked through a shaker system on the drill rig, mixed with a drying agent, if necessary, and hauled to and deposited in the off-site GM 41-8 drilling pit for later burial during the interim reclamation earthwork
4. **Dust Abatement.** The operator shall implement dust abatement measures as needed to prevent fugitive dust from vehicular traffic, equipment operations, or wind events. The BLM may direct the operator to change the level and type of treatment (watering or application of various dust agents, surfactants, and road surfacing material) if dust abatement measures are observed to be insufficient to prevent fugitive dust.
5. **Reclamation.** Specific measures to follow during interim reclamation are described below.
 - a. **Reclamation Plans.** In areas that have low reclamation potential or are especially challenging to restore, reclamation plans will be required prior to APD approval. The plan shall contain the following components: detailed reclamation plans, which include contours and indicate irregular rather than smooth contours as appropriate for visual and ecological benefit; timeline for drilling completion, interim reclamation earthwork, and seeding; soil test results and/or a soil profile description; amendments to be used; soil treatment techniques such as roughening, pocking, and terracing; erosion control techniques such as hydromulch, blankets/matting, and wattles; and visual mitigations if in a sensitive VRM area.
 - b. **Deadline for Interim Reclamation Earthwork and Seeding.** Interim reclamation to reduce a well pad to the maximum size needed for production, including earthwork and seeding of the interim reclaimed areas, shall be completed within 6 months following completion of the last well planned to be drilled on that pad as part of a continuous operation. If a period of greater than one

year is expected to occur between drilling episodes, BLM may require implementation of all or part of the interim reclamation program.

Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring, unless BLM approves otherwise based on weather. If road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an unreclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.

If requested by the project lead NRS for a specific pad or group of pads, the operator shall contact the NRS by telephone or email approximately 72 hours before reclamation and reseeding begin. This will allow the NRS to schedule a pre-reclamation field visit if needed to ensure that all parties are in agreement and provide time for adjustments to the plan before work is initiated.

The deadlines for seeding described above are subject to extension upon approval of the BLM based on season, timing limitations, or other constraints on a case-by-case basis. If the BLM approves an extension for seeding, the operator may be required to stabilize the reclaimed surfaces using hydromulch, erosion matting, or other method until seeding is implemented.

- c. Topsoil Stripping, Storage, and Replacement. All topsoil shall be stripped following removal of vegetation during construction of well pads, pipelines, roads, or other surface facilities. In areas of thin soil, a minimum of the upper 6 inches of surficial material shall be stripped. The BLM may specify a stripping depth during the onsite visit or based on subsequent information regarding soil thickness and suitability. The stripped topsoil shall be stored separately from subsoil or other excavated material and replaced prior to final seedbed preparation. The BLM best management practice (BMP) for the Windrowing of Topsoil shall be implemented for well pad construction whenever topography allows.
- d. Seedbed Preparation. For cut-and-fill slopes, initial seedbed preparation shall consist of backfilling and recontouring to achieve the configuration specified in the reclamation plan. For compacted areas, initial seedbed preparation shall include ripping to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping shall be conducted in two passes at perpendicular directions. Following final contouring, the backfilled or ripped surfaces shall be covered evenly with topsoil.

If directed by the BLM, the operator shall implement measures following seedbed preparation (when broadcast-seeding or hydroseeding is to be used) to create small depressions to enhance capture of moisture and establishment of seeded species. Depressions (pocking) shall be no deeper than 1 to 2 inches and shall not result in piles or mounds of displaced soil. Excavated depressions shall not be used unless approved by the BLM for the purpose of erosion control on slopes. Where excavated depressions are approved by the BLM, the excavated soil shall be placed only on the downslope side of the depression.

If directed by the BLM, the operator shall conduct soil testing before seeding to identify if and what type of soil amendments may be required to enhance revegetation success. At a minimum, the soil tests shall include texture, pH, organic matter, sodium adsorption ratio (SAR), cation exchange capacity (CEC), alkalinity/salinity, and basic nutrients (nitrogen, phosphorus, potassium [NPK]). Depending on the outcome of the soil testing, the BLM may require the

operator to submit a plan for soil amendment. Any requests to use soil amendments not directed by the BLM shall be submitted to the CRVFO for approval.

- e. Seed Mixes. A seed mix consistent with BLM standards in terms of species and seeding rate for the specific habitat type shall be used on all BLM lands affected by the project (see Attachment 1 of the letter provided to operators dated September 9, 2014).

For private surfaces, the operator shall use a BLM-approved native seed mix unless specified otherwise by the private landowner.

The seed shall contain no prohibited or restricted noxious weed seeds and shall contain no more than 0.5 percent by weight of other weed seeds. Seed may contain up to 2.0 percent of “other crop” seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended. Seed tags or other official documentation shall be submitted to BLM at least 14 days before the date of proposed seeding for acceptance. Seed that does not meet the above criteria shall not be applied to public lands.

- f. Seeding Procedures. Seeding shall be conducted no more than 24 hours following completion of final seedbed preparation.

Where practicable, seed shall be installed by drill-seeding to a depth of 0.25 to 0.5 inch. Where drill-seeding is impracticable, seed may be installed by broadcast-seeding at twice the drill-seeding rate, followed by raking or harrowing to provide 0.25 to 0.5 inch of soil cover or by hydroseeding and hydromulching. Hydroseeding and hydromulching shall be conducted in two separate applications to ensure adequate contact of seeds with the soil.

An exception to these seeding requirements shall be made for seeding of sagebrush. Sagebrush seeding shall occur prior to winter snowfall, or on top of snow. Sagebrush may be sown either by broadcast seeding, or, if not on snowpack, by placing the seed in the fluffy seed box of a seed drill, with the drop tube left open to allow seed to fall out on the ground surface.

If interim revegetation is unsuccessful, the operator shall implement subsequent reseeding until interim reclamation standards are met.

- g. Mulch. Mulch shall be applied within 24 hours following completion of seeding in project areas within pinyon-juniper, sagebrush shrubland, and/or salt-desert shrub habitat types. Mulch may consist of either hydromulch or of certified weed-free straw or certified weed-free native grass hay crimped into the soil. Mulch shall not be used within mountain shrub or spruce-fir forest habitat types, unless requested or approved by the BLM.

NOTE: Mulch is not required in areas where erosion potential mandates use of a biodegradable erosion-control blanket (straw matting).

- h. Erosion Control. Cut-and-fill slopes shall be protected against erosion with the use of water bars, lateral furrows, or other BMPs approved by the BLM. Additional BMPs such as biodegradable wattles, weed-free straw bales, or silt fences shall have be employed as necessary to reduce transport of sediments into the drainages. The BLM may require use of hydromulch or biodegradable blankets or matting in areas with high erosion potential to ensure adequate protection from slope erosion and offsite transport of sediments and to improve reclamation success.
- i. Site Protection. The pad shall be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species are firmly established, whichever comes later. The seeded species will be considered firmly established when at least 50 percent of the new plants are producing seed. The BLM will approve the type of fencing.

- j. Monitoring. The operator shall conduct annual monitoring surveys of all sites categorized as “operator reclamation in progress” and shall submit an annual monitoring report of these sites, including a description of the monitoring methods used, to the BLM by **December 31** of each year. The annual monitoring report shall document whether attainment of reclamation objectives appears likely. If one or more objectives appear unlikely to be achieved, the report shall identify appropriate corrective actions. Upon review and approval of the report by the BLM, the operator shall be responsible for implementing the corrective actions or other measures specified by the BLM.
6. Weed Control. The operator shall regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the Glenwood Springs Field Office *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*, dated March 2007. A Pesticide Use Proposal (PUP) must be approved by the BLM prior to the use of herbicides. Annual weed monitoring reports and Pesticide Application Records (PARs), including GPS data in accordance with the February 27, 2014, letter to operators, shall be submitted to the BLM by **December 1**.
7. Bald and Golden Eagles. It shall be the responsibility of the operator to comply with the Bald and Golden Eagle Protection Act (Eagle Act) with respect to “take” of either eagle species. Under the Eagle Act, “take” includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest and disturb. “Disturb” means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior. Avoidance of eagle nest sites, particularly during the nesting season, is the primary and preferred method to avoid a take. Any oil or gas construction, drilling, or completion activities planned within 0.5 mile of a bald or golden eagle nest, or other associated activities greater than 0.5 miles from a nest that may disturb eagles, should be coordinated with the BLM project lead, the BLM wildlife biologist, and the USFWS representative to the BLM Field Office at 970-243-2778 x28.
8. Raptor Nesting. To protect nesting raptors, a survey shall be conducted prior to construction, drilling, or completion activities that are to begin during the raptor nesting season (**February 1 to August 15**). The survey shall include all potential nesting habitat within 0.25 mile of a well pad, access road, pipeline, or other surface facility. Results of the survey shall be submitted to the BLM. If a raptor nest is located within the buffer widths specified above, a 60-day raptor nesting TL will be applied by the BLM to preclude initiation of construction, drilling, and completion activities during the appropriate nesting season. The operator is responsible for complying with the Migratory Bird Treaty Act (MBTA), which prohibits the “take” of birds or of active nests (those containing eggs or young), including nest failure caused by human activity (see COA for Migratory Birds below).
9. Migratory Birds – Nesting Habitat. Pursuant to BLM Instruction Memorandum 2008-050, all vegetation removal or surface disturbance in previously undisturbed lands providing potential nesting habitat for migratory birds is prohibited from **May 15 to July 15**. An exception to this TL may be granted if nesting surveys conducted no more than one week prior to surface-disturbing activities indicate that no migratory bird species are nesting within 30 meters (100 feet) of the area to be disturbed. Nesting shall be deemed to be occurring if a territorial (singing) male is present within the distance specified above. Nesting surveys shall include an audial survey for diagnostic vocalizations in conjunction with a visual survey for adults and nests. Surveys shall be conducted by a qualified surveyor between sunrise and 10:00 AM under favorable conditions for detecting and identifying migratory birds. This provision does not apply to ongoing construction, drilling, or completion activities that are initiated **prior to May 15** and continue into the 60-day period at the same location.

10. Migratory Birds – General. It shall be the responsibility of the operator to comply with the Migratory Bird Treaty Act (MBTA) with respect to “take” of migratory bird species, which includes injury and direct mortality resulting from human actions not intended to have such result. To minimize the potential for the take of a migratory bird, the operator shall take reasonable steps to prevent use by birds of fluid-containing pits associated with oil or gas operations, including but not limited to reserve pits, produced-water pits, hydraulic fracturing flowback pits, evaporation pits, and cuttings trenches. Liquids in these pits—whether placed or accumulating from precipitation—may pose a risk to birds as a result of ingestion, absorption through the skin, or interference with buoyancy and temperature regulation.

Based on low effectiveness of brightly colored flagging or spheres suspended over a pit, the operator shall install netting with a mesh size of 1 to 1.5 inches, and suspended at least 4 feet above the fluid surface, on all pits into which fluids are placed, except for storage of fresh water in a pit that contains no other material. The netting shall be installed within 24 hours of placement of fluids into a pit. The requirement for netting does not apply to pits during periods of continuous, intensive human activity at the pad, such as drilling and hydraulic fracturing phases or, as pertains to cuttings trenches, during periods of active manipulation for cuttings management, remediation of contaminated materials, or other purposes.

In addition to netting of pits, oil slicks and oil sheens shall be promptly skimmed off the fluid surface. The requirement for prompt skimming of oil slicks and oil sheens also applies to cuttings trenches in which precipitation has accumulated. All mortality or injury to birds shall be reported immediately to the BLM project lead and to the USFWS representative to the BLM Field Office at 970-243-2778 x28 and visit <http://www.fws.gov/mountain-prairie/contaminants/oilpits.htm>.

11. Range Management. Range improvements (fences, gates, reservoirs, pipelines, etc.) shall be avoided during development of natural gas resources to the maximum extent possible. If range improvements are damaged during exploration and development, the operator will be responsible for repairing or replacing the damaged range improvements. If a new or improved access road bisects an existing livestock fence, steel frame gate(s) or a cattleguard with associated bypass gate shall be installed across the roadway to control grazing livestock.
12. Paleontological Resources. All persons associated with operations under this authorization shall be informed that any objects or sites of paleontological or scientific value, such as vertebrate or scientifically important invertebrate fossils, shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with operations under this authorization any of the above resources are encountered the operator shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM of the findings. The discovery shall be protected until notified to proceed by the BLM.
13. Cultural Education/Discovery. All persons in the area who are associated with this project shall be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons would be subject to prosecution.

If subsurface cultural values are uncovered during operations, all work in proximity to the resource will cease and the Authorized Officer with the BLM notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by the permitted archaeologist. Within 48 hours of the discovery, the SHPO and consulting parties will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. BLM in cooperation with the operator will ensure that the discovery is protected from further disturbance until mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer.

Pursuant to 43 CFR 10.4(g), the holder shall notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony on Federal land. Further, pursuant to 43 CFR 10.4 (c) and (d), the holder shall stop activities in proximity to the discovery that could adversely affect the discovery. The holder shall make a reasonable effort to protect the human remains, funerary items, sacred objects, or objects of cultural patrimony for a period of thirty days after written notice is provided to the authorized officer, or until the authorized officer has issued a written notice to proceed, whichever occurs first.

Antiquities, historic ruins, prehistoric ruins, and other cultural or paleontological objects of scientific interest that are outside the authorization boundaries but potentially affected, either directly or indirectly, by the Proposed Action shall also be included in this evaluation or mitigation. Impacts that occur to such resources as a result of the authorized activities shall be mitigated at the operator's cost, including the cost of consultation with Native American groups.

Any person who, without a permit, injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law (16 USC 433, 16 USC 470, 18 USC 641, 18 USC 1170, and 18 USC 1361).

14. Visual Resources. Production facilities shall be placed as indicated on the plats attached to the APD, unless an alternative placement is approved by the BLM, to avoid or minimize visibility from travel corridors, residential areas, and other sensitive observation points—unless directed otherwise by the BLM due to other resource concerns—and shall be placed to maximize reshaping of cut-and-fill slopes and interim reclamation of the pad.

To the extent practicable, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. The BLM may direct that cleared trees and rocks be salvaged and redistributed over reshaped cut-and-fill slopes or along linear features.

Aboveground facilities shall be painted **Shadow Gray** selected to minimize contrast with adjacent vegetation or rock outcrops.

15. Escape Ramps (Open Pits and Cellars, Tanks, and Trenches). The operator shall construct and maintain pits, cellars, open-top tanks, and trenches to exclude livestock, wildlife, and humans (except authorized personnel) and, in the event of inadvertent entry, to escape from these below-grade areas. At a minimum, the operator shall construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape from each pit, cellar, open-top tank, and trench. Ramps shall be secured and properly positioned to allow wildlife to escape.

Site-Specific Surface-Use COAs related to the DOE 1-M-18 Project

Cuttings Management Considerations. The proposed Drilling Cuttings Disposal Plan, dated November 1, 2018 and supporting plats and construction drawings submitted with the Sundry Notice shall be fully implemented during the construction, use, and reclamation of the drilling pit including the testing procedures to ensure that the cuttings satisfy COGCC's Table 910-1 standards.