

STANDARD SURFACE USE CONDITIONS OF APPROVAL
Black Hills Plateau Production, LLC
DeBeque Exploratory Proposal
April 22, 2013

The following standard surface use COAs are in addition to all stipulations attached to the respective Federal lease.

1. Administrative Notification & Requirements. The operator will notify the BLM representative at least 48 hours prior to initiation of construction or reclamation activities. A pre-construction meeting may be scheduled to review all conditions and or stipulations with the operator. Complete copies of all applicable permits, will be kept on site during construction and drilling activities. All on-site personnel will review the approved permit with the COAs before working on the project.
2. Fire. The operator will implement measures to prevent fires on public and private land and be responsible for the costs of suppressing fires on public lands that result from the actions of its employees, contractors, or subcontractors. Range or forest fires caused or observed by such personnel will be immediately reported to the BLM Grand Junction Dispatch at 970-257-4800. All fires or explosions that cause loss of oil or gas, damage to property or equipment, or injuries to personnel will immediately be reported to the BLM Grand Junction Field Office at 970-244-3000. During conditions of extreme fire danger, surface-use operations may be restricted or suspended in specific areas. Additional measures could be required by the BLM.

The BLM may require adaptive management techniques to minimize fire hazards/risks.

3. Other Permits. BLM authorization is contingent upon receipt of and compliance with all applicable federal, state, county, municipal and local permits, including all necessary environmental clearances and permits (Colorado Oil and Gas Conservation Commission (COGCC), U.S. Army Corps of Engineers (USACE), U.S. Fish & Wildlife, U.S. Forest Service, Colorado Department of Transportation, Colorado Department of Health & Environment, County Oil and Gas liaisons, County Health and Road Departments, municipalities, etc.).
4. Existing Uses. The operator will obtain agreements allowing construction and maintenance with all existing right-of-way holders, authorized users, and pipeline operators prior to surface disturbance or construction of the location or access across or adjacent to any existing or approved rights-of-way or pipelines. In the case of privately owned surface, the operator will certify to BLM that a Surface Use Agreement has been reached with the private surface owners prior to commencing construction and that the owner has been provided a copy of the Surface Use Plan of Operations (SUPO) that is part of a Federal APD. If Agreement cannot be reached, the operator will comply with provisions of the law or regulations governing the Federal right of re-entry to the surface (43 CFR 3814).
5. Migratory Bird Act. New surface disturbance, especially vegetation removal, will not be allowed between May 15 and July 15, to prevent potential taking of migratory birds and/or eggs, unless otherwise approved in writing by the Grand Junction Field Manager. If surface disturbance is proposed during this period, a written request for exception and a migratory bird survey will be submitted for approval prior to any surface disturbance. If vegetation removal is accomplished prior to May 15, exception may be granted to allow project activities to proceed during the closure period.

Permanent caps will be placed on or fill placed in any open metal or plastic pipe or post to prevent entrapment of birds.

6. Federally Protected Species Notifications. If the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)
7. Jurisdictional Waters of the U.S. The operator will obtain appropriate permits from the U.S. Army Corps of Engineers (USACE) prior to discharging fill material into waters of the U.S. in accordance with Section 404 of the Clean Water Act. Waters of the U.S. are defined in 33 CFR Section 328.3 and may include wetlands as well as perennial, intermittent, and ephemeral streams. Permanent impacts to waters of the U.S. may require mitigation. Copies of any printed or emailed approved USACE permits or verification letters will be forwarded to the BLM.

When activity in a wetland is unavoidable, the operator may be required to prevent disturbance by use of wooden or other protective mats and will restore all temporarily disturbed wetlands or riparian areas. The operator will consult with the BLM to determine appropriate mitigation, including verification of native plant species to be used in restoration. Temporary and permanent impacts to jurisdictional waters of the U.S. may require additional mitigation, including compensatory offsite mitigation. Contact the USACE, Colorado West Regulatory Branch, at 970-243-1199.

9. Heritage Resources - Cultural and Paleontological. All persons in the area who are associated with this authorization will be informed that any person who, without a permit, injures, destroys, excavates, appropriates or removes any vertebrate fossil, 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). Any heritage resource discovered requires that work in the area must stop and the BLM Authorized Officer notified. Strict adherence to the confidentiality of information concerning the nature and location of archeological resources would be required of the proponent and all of their subcontractors (Archaeological Resource Protection Act, 16 U.S.C. 470hh).

Inadvertent Discovery:

- a) The **National Historic Preservation Act** (NHPA) [16 USC 470s., 36 CFR §800.13], as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM Authorized Officer (AO) must be notified immediately. Within five working days the AO will determine the actions that will likely have to be completed before the site can be used, assuming in place preservation is not necessary §800.13(b)(3).
- b) The **Native American Graves Protection and Repatriation Act** (NAGPRA) [25 USC 3001 et seq., 43 CFR 10.4] requires that if inadvertent discovery of Native American Human Remains or Objects of Cultural Patrimony occurs, any activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA §3(d)).
- c) The **Paleontological Resources Preservation Act** (PRPA) [16 U.S.C. 470aaa] requires the proponent to immediately suspend activities in the vicinity, protect the discovery from damage and notify the BLM Authorized Officer of any paleontological resources discovered as a result of

operations under this authorization. The Authorized Officer will evaluate, or will have evaluated, such discoveries as soon as possible, but not later than 10 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer after consulting with the operator. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (1) following the Authorized Officer's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (2) following the Authorized Officer's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

- d) If human remains are discovered on private or state land associated with this authorization, the BLM will notify the State of Colorado Archaeologist immediately, who will comply with Colorado Revised Statutes (Appendix) regarding the discovery of human remains (24-80-1302).
 - e) In a new discovery situation, the operator may relocate activities to avoid the expense of mitigation and delays associated with this process, as long as the new area has been appropriately inventoried and has no resource concerns, and the exposed materials are recorded and stabilized. Otherwise, the operator will be responsible for mitigation costs. The BLM authorized officer will provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM authorized officer that the required mitigation has been completed, the operator will be allowed to resume construction.
10. Big Game Winter Range Timing Limitation. Where winter range areas identified by BLM are not protected by lease stipulations, an annual Timing Limitation (TL) period will apply from January 1 to March 1, to minimize impacts to wintering big game. All construction, drilling, completion, work-overs and other intensive activities are excluded during the 60-day period. Requests for exceptions to Timing Limitations will be submitted in writing to the BLM via a Sundry Notice.
 11. Range Management. Damage to range improvements (fences, gates, reservoirs, pipelines, etc.) will be avoided, but if they are damaged, the operator will immediately repair or replace them. Where an access road bisects an existing livestock fence, a steel frame gate or a cattle-guard with a bypass gate will be installed across the roadway.
 12. Soils. Cuts and fills will be minimized when working on erosive soils and on slopes in excess of 30 percent. Cut-and-fill slopes will be stabilized through revegetation practices with an approved seed mix shortly following construction activities, to minimize the potential for slope failures, erosion and soil loss. Fill slopes adjacent to drainages will be protected with BMPs designed to minimize sediment transport. On slopes greater than 50 percent, BLM may require a professional geotechnical analysis and/or engineered plans prior to construction.
 13. Weed Control. Before any mobilization of equipment onto public lands, to prevent the spread of invasive species, the operator will perform inspections to insure that all construction equipment and vehicles are clean and free of soil, mud and vegetative material. Avoid driving through or parking on weed infestations.
 14. Dust Abatement. The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations or wind events. If dust abatement is insufficient, the BLM may direct the operator to change the level and type of treatment. BLM approval is required before application of surfactants, binding agents, or other dust-suppression chemicals on federally permitted projects and on public lands. More stringent dust control may be required in areas adjacent to Federal- or State-listed threatened, endangered, or sensitive plant species.

15. Pre-Construction and Limits of Disturbance. Construction control and limit-of-disturbance stakes will be placed before construction, and maintained in place throughout, to ensure construction in accordance with the surface use plan.

Cut and fill slopes and spoil storage areas will be marked with flagging, snow fence, stakes or lath, visible one to another, in a distinctive color. All boundary markers will be maintained in place until final construction cleanup is completed. If markers are disturbed, they will be replaced before construction proceeds.

Access road, pipeline and pad edges will be marked by construction control stakes to ensure construction in accordance with the specifications. Stakes will be visible from one to the next and be staked with no more than 100-foot stationing. If stakes are disturbed, they will be replaced before construction proceeds.

16. Storm Water Management and Soil Protection. A General Construction Permit from the Colorado Department of Public Health and Environment (CDPHE) is required and a copy will be provided to the BLM prior to construction. Permit compliance requires a site-specific Storm Water Management Plan, establishment of directed run-off management and adaptive Best Management Practices (BMPs) for the location, as well as systematic monitoring and maintenance of all BMPs. Storm Water BMPs may also incorporate or function as Spill Prevention, Control and Countermeasures (SPCC) controls.

All BMPs must be maintained in good repair and functional condition, including clean-out of sediment basins and catchments, and replacement of straw wattles/ bales or silt fence.

17. As-Built Details. Within 30 days of setting production facilities, the operator will submit to the BLM a digital as-built file of the following: the perimeter of the pad and all related BMPs, to be collected at the base of fill slopes, the head of cut slopes, and to include all associated soil storage areas and storm water BMPs, as well as the wellhead(s) and the centerline of the access road. The digital depiction will be in a format that is GIS compatible (shapefiles) in NAD83, UTM coordinate system, Zone 13North.

18. Drainage Crossings and Culverts. Pads, roads, and pipelines will be located away from defined drainages where possible. In areas where construction is located within 100 feet of a drainage, an adequate vegetative buffer, artificial buffer (e.g., straw bales, matting, etc.), or filter strip will be maintained between the constructed feature road and the drainage, to minimize sediment transport into the drainage.

All vehicles will be fueled at least 100 feet from stream corridors.

Any construction activities at perennial, intermittent and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) will be timed to avoid high flow conditions. The minimum culvert diameter in any installation for a drainage crossing or road drainage will be 24 inches. Culverts on perennial and intermittent streams will be designed to allow for passage of aquatic biota. Culverts at drainage crossings will be designed and installed to pass, without development of a static head at the pipe inlet, at least a 25-year storm event, but may be deemed to require additional culvert design capacity. Due to the flashy nature of area drainages and anticipated culvert maintenance, the USACE recommends designing drainage crossings for the 100-year event. Contact the USACE Colorado West Regulatory Branch at 970-243-1199.

19. Road Construction, Use and Maintenance. Roads will be crowned or sloped, drained with ditches, culverts and/or water dips, and constructed, sized and surfaced in compliance with BLM Gold Book standards (pp. 24-28). Water outlets such as turn-outs and culverts, will incorporate BMPs like rip-rap, sediment catchments and anchored check structures which slow water velocity, to prevent erosion and sediment transport. If applicable, initial gravel application will be to a minimum depth of 4 inches.

When saturated soil conditions exist on access roads or location, or rutting deepens to 3 inches, construction and travel will be halted until soil material dries out, is frozen sufficiently or is otherwise brought to standards appropriate for resource protection and road construction. Use will not proceed under conditions of undue damage and erosion to soils, roads and/or locations. All drainage ditches and culverts will be kept clear and free flowing, and be maintained in good condition.

Where roads are located near drainages, vegetated buffer strips will be left between areas of disturbance and drainages. (See Drainage Crossings and Culverts.)

The operator will provide timely maintenance of roads. A regular schedule for maintenance will include, but not be limited to dust abatement, reconstruction of the crown, slope, or water dips/bars; blading or resurfacing; clean-out of ditches, culverts, catchments and other BMPs. When rutting of the travel-way deepens to 3 inches, maintenance or upgrade will be conducted as approved by BLM.

Roads that access active construction and drilling sites will be posted with warning signs to alert hunters and recreational vehicle users that project personnel and vehicles are in the area. Project personnel will restrict activities and travel to permitted roads and sites.

Operator will install speed control measures on project-related unpaved roads.

Ditches may be revegetated and/or include large rocks or other BMPs, to slow drainage velocity and settle sediment. Ditch seeding and revegetation may be required in erodible soils.

All cut and fill slopes for roads (and well pads and related locations) will be protected against rilling and erosion with BMPs such as soil texturing and seeding or additional measures approved by the BLM. Measures may include geotextiles, weed-free straw crimping/ bales/ wattles/ matting, as needed or as detailed by storm water plan or BLM permit. BMPs will be monitored and maintained in functional condition.

20. Visual Resource Protection. Pads, roads, pipelines and production facilities will be located and placed to avoid or minimize visibility from travel corridors, residential areas and other sensitive observation points—unless directed otherwise by the BLM—and will be designed to maximize reshaping of cut/fill slopes and interim reclamation of the pad.

To the extent practical, existing vegetation will be preserved when clearing and grading for pads, roads, and pipelines. Tree or shrub removal may be required by cutting or by shredding to provide slope stability or leave root systems in place. BLM may direct that cleared trees and rocks be salvaged and redistributed over reshaped cut-and-fill slopes or along linear features.

To mitigate straight-line visual contrast effects of cut/ fill slopes, pad margins or cleared vegetation, adaptive management techniques may be required by the BLM before or after construction. Example: Additional tree removal along contrasting edges, to create irregularly shaped openings or natural-looking mosaic patterns; texturing or coloring surfaces to mitigate visual contrasts.

To blend with the natural environment, all permanent above-ground facilities placed on the location will be painted a natural color to blend with the background landscape, in a non-reflective finish. A BLM Standard Environmental Color may be specified.

21. Construction, Vegetation Removal, Topsoil Stripping and Storage. Pre-construction BMPs will be installed before construction. Areas of approved activities will be cleared of brush and trees, usually chipped or shredded in place, then salvaged and stored with topsoil. No stump left in place will exceed six inches in height. Cleared trees and shrubs that are not shredded may be salvaged and stored as storm water perimeter controls for later redistribution on reclaimed areas, as appropriate.

When saturated soil conditions exist on access roads or location, construction will be halted until soil dries or until activities can proceed without soil damage. No saturated or frozen topsoil will be stripped.

At the time of construction, (well pads, pipelines, roads, or other surface facilities) topsoil will be stripped following vegetation removal. Topsoil will include all suitable growth medium present at a site, as indicated by color or texture - depths may vary across a site. Stripped topsoil and vegetation smaller than 4 inches in diameter will be segregated and stored separately from subsoils or other excavated material and replaced prior to final seedbed preparation.

To facilitate its replacement, extend its biological viability and create a berm to control storm water, topsoil will be wind-rowed around pad perimeter wherever practical. Along pipelines and roads, topsoil will be wind-rowed, segregated and stored for later redistribution during reclamation.

Within 30 days of completion of pad construction, topsoil storage piles, storm water control features, temporarily disturbed areas along roads and pipelines, and cut and fill slopes will undergo temporary seeding to stabilize the materials, maintain biotic soil activities, and minimize weed infestations. Seedbed preparation may not be required for topsoil storage piles or other areas of temporary seeding, but track-walking is typical.

22. Chemical and Fuels - Secondary Containment /Exclosure Screening – The operator will prevent all hazardous, poisonous, flammable and toxic substances from contacting soil and/or water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable or toxic substances. Containment will be sufficient to contain 110% of the contents as well as any drips, leaks and anticipated precipitation.

All installed production facilities (storage tanks, load outs, separators, treating units, etc.) with the potential to leak or spill oil, condensate, produced water, glycol, or other fluid which could be a hazard to public health or safety will be placed within appropriate impervious secondary containment structure that will hold 110% of the capacity of the largest single container within it for 72 hours.

Chemical containers will be clearly labeled, maintained in good condition and placed within secondary containment. They will not be stored on bare ground, nor exposed to sun and moisture.

Any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 will be reported per the Comprehensive Environmental Response Compensation and Liability Act of 1980, Section 102b (CERCLA). Copies of any report to any Federal agency or State government as a result of a reportable release/ spill of any toxic substances will be furnished to the BLM, concurrent with the filing of the reports to any Federal agency or State government.

The operator will dispose of any fluids that collect in the containment system which do not meet applicable State or U.S. Environmental Protection Agency livestock water standards, per State law and in a manner so that fluids do not drain to the soil or ground.

All secondary containment systems will be designed, constructed, and maintained to prevent wildlife and livestock exposure to harmful substances. The operator will install effective wildlife and livestock exclosure systems like fencing, netting, expanded metal mesh, lids and grate covers.

23. Pipelines. Buried pipelines will have a minimum cover of 48 inches in a roadway and at road crossings, 36 inches through typical soil and rock, and 24 inches in areas requiring rock blasting. The permit holder is responsible for burying a pipeline to a depth that safely accommodates existing land and road uses and maintenance activities.

Pipeline warning signs permanently marked with the operator's and owner's names (emergency contacts) and purpose (product) of the pipeline will be installed within five days of construction completion and prior to use of the pipeline. Pipeline warning signs are required at all road crossings and along the alignment, visible from sign to sign.

Pipelines installed beneath stream crossings will be buried to a minimum depth of 4 feet below the channel substrate, to avoid pipeline exposure by channel scour and degradation. Following pipeline burial, the channel grade and substrate composition will be returned to pre-construction conditions.

All pipeline welds within 100 feet of a perennial stream will be x-rayed to prevent leakage. Where pipelines cross streams that support Federal- or State-listed threatened or endangered species or other sensitive species, the BLM may require additional safeguards, including double-walled pipe, and remotely-actuated block or check valves on both sides of the stream.

Buried pipelines will be reclaimed to final reclamation at the time of installation.

24. Well Drilling, Testing, and Completion (Pits). Substances specifically listed as hazardous waste or demonstrating character of a hazardous waste (40 CFR 261) will not be used in drilling, testing, or completion operations, nor introduced at any time into the reserve or cuttings pit.

The operator will minimize or preclude releases of hydrocarbons into open pits. Unless the authorized officer approves the release, no oil should go into a pit except in an emergency. The operator should remove any hydrocarbons (oil, condensate, paraffin, diesel, etc.) introduced a pit within 24 hours of discovery.

Fluids will be confined to pits or tanks during air drilling, flaring or fracturing operations. Flare or blooey lines will be directed into a pit and against a bank to prevent dispersion of materials or flame. Any blooey line will be misted to prevent dispersion of materials.

All pits that may contain liquid material will be lined to prevent seepage into the ground. The pit liner will be maintained in good working condition, with no tears or holes, until the pit is closed.

Pits will be constructed to preclude the accumulation of precipitation runoff and maintain a minimum of 2 feet of freeboard between the maximum fluid level and the lowest point of containment. If pit fluids threaten to rise to a level above that, the operator will immediately prevent introduction of additional fluids until sufficient pit capacity has been restored through fluid removal or will install an alternative approved containment method.

The operator will prevent wildlife and livestock access (including avian wildlife) to fluids pits that contain or have the potential to contain salinity sufficient to harm wildlife or livestock, to contain hydrocarbons, surfactants, or Resource Conservation and Recovery Act-exempt hazardous substances.

For reserve pits, fence all four sides as soon as the pit is constructed. Reconstruct any damage to the rig side of the fence immediately following release of the drilling rig. At a minimum, the operator will adequately fence all fluids pits and open cellars during and after drilling operations until the pit is free of fluids and the operator initiates backfilling.

Fencing for pits and other facilities with potential to cause harm to big game and other wildlife will be 8-foot woven wire fence with adequate bracing. Construct the fence at least 2 feet from the edge of the pit. The bottom two feet of mesh will be no larger than 1½ inch openings, to preclude small animals from entering the pit. All corners will be braced and fence construction will be on cut or undisturbed ground. The fence will be maintained erect and in good condition to exclude wildlife and livestock. (Fencing: BLM Manual Handbook H-1741-1, p. 16)

All open top tanks and pits will be covered or netted to eliminate any hazard to birds and flying mammals (CERCLA Section 101(14)). At a minimum, the operator will install approved netting in these circumstances, immediately following release of the drilling rig. Note: The BLM does not approve flagging, strobe lights, metal reflectors or noisemakers to deter wildlife.

Minimum Netting Requirements: The operator will:

- a. Construct a rigid structure of steel tubing or wooden posts with cable strung across the pit no further apart than 7-foot intervals along the X- and Y-axes to form a grid of 7-foot squares.
- b. Suspend netting a minimum of 4 to 5 feet above the pit surface.
- c. Use a maximum netting mesh size of 1½ inches to allow for snow loading while excluding most birds in accordance with Fish and Wildlife Service recommendations. Refer to: <http://www.fws.gov/mountain-prairie/contaminants/contaminants1c.html>
- d. Cover the top and sides of the netting support frame with netting and secure the netting at the ground surface around the entire pit to prevent wildlife entry at the netting edges.
Note: Other fencing or a wire mesh panel with openings larger than 1½ inches does not sufficiently exclude small wildlife and songbirds unless covered by smaller meshed netting.
- e. Monitor and maintain the netting sufficiently to ensure the netting is functioning as intended, has not entrapped wildlife, and is free of holes and gaps greater than 1½ inches.

Any wildlife or birds found dead or apparently ill in or near pits must be reported to the Grand Junction Field Office immediately.

Any lined pit, any pit constructed with a slope steeper than 3:1, or where entrapment hazards may exist, will include escape ramps or ladders installed every 50 feet along the slope and at each corner. Example: anchored sections of galvanized chain-link fence at least 24 inches wide extending from the bottom of the pit to the top of the pit slope and across the top edge of the pit liner for at least two feet.

Operator and all subcontractors will comply with all State wildlife laws. As per Colorado Revised Statute 33-6-109 (1), it is unlawful for anyone to hunt, take or possess wildlife except as permitted by Colorado Statute or by Colorado Wildlife Commission regulation. Colorado statute defines “hunt” to include “trapping” and “capturing.” The trapping and subsequent drowning of wildlife within a pit may be viewed as illegal taking of wildlife and criminal or civil actions/ penalties for wildlife could be imposed. “Wildlife friendly” conditions are intended to prevent wildlife loss and potential legal consequences.

Pits will be dry prior to soil testing and backfilling and closed per COGCC standards. Before backfilling, impervious pit liner will be removed and disposed of properly. Liquids and solids collected on/in the liners will not be allowed to come into contact with the pad surface, parent soil or any other earthen layers during site cleanup. Liners will be properly cleaned prior to removal or removed in such a manner that liquids/solids do not escape. Liners may be washed off into lined ditches, lined sumps or into the lined cellar and then pumped to the lined sumps prior to being removed. At the time of backfilling, all muds and associated solids will be confined to the pit, with none squeezed out or incorporated into surface materials. A minimum of 4 feet of cover (overburden) is required above any muds or solids. When work is complete, the pit area must support the weight of heavy equipment without subsidence.

25. Production. Production facilities will be located and arranged to facilitate safety and minimize long-term surface disturbance. Typically, they will be clustered at the access end of the pad with tanks in cut. Access to facilities should be provided by a teardrop-shaped road through the production area, so that the driving area may be clearly defined and limited so that teardrop center may be revegetated.

To blend with the natural environment, all permanent above-ground facilities placed on the location will be painted a natural color that blends with the background landscape, in a non-reflective finish. A BLM Standard Environmental Color may be specified.

26. Interim Reclamation of Producing Wells.

- a. *Deadlines and Objectives. (Deadlines are subject to extension on a case-by-case basis, following application in writing to the BLM.)*

Within 30 days of completion of pad construction, topsoil storage berms, storm water control features, temporarily disturbed areas along roads and pipelines, and cut and fill slopes will undergo temporary seeding to stabilize materials, maintain biotic soil activities, and minimize weed infestations.

Within 6 months following completion of the last well planned on a pad, or after a year has passed with no new wells drilled, interim reclamation (IR) will be completed to reduce the well pad to the smallest size needed for production. IR will include earthwork, seeding and BMPs.

Interim reclamation will restore landforms; reestablish/maintain biologically active topsoil, including vegetative cover; control erosion and sediment transport; and minimize losses of habitat, visual resources, and forage throughout the life of the well.

Prior to interim reclamation, the operator will meet with BLM to inspect the disturbed area, to review the existing reclamation plan and agree upon any revisions to the plan.

Seed tags will be submitted for BLM approval at least 14 days before proposed seeding date.

Notify the BLM at least 48 hours prior to beginning any reclamation work. Weed-free certification, seed tags, and a Subsequent Report Sundry Notice describing the reclamation will be submitted to the Grand Junction Field Office within 30 days of seeding.

IR performance standards will be considered met when disturbed areas not needed for long-term production operations or vehicle travel have been recontoured and stabilized; revegetated with a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community that minimizes visual impacts, provides forage and stabilizes soils.

At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species which occur in the surrounding natural vegetation. Permanent vegetative cover will be determined successful when the basal cover of desirable perennial species is at least 80 percent of the basal cover of the adjacent undisturbed area or of potential basal cover as defined in the National Resource Conservation Service Ecological Site(s) for the area.

Operators and right-of-way holders are required to meet reclamation performance standards. Successful compliance with standards is determined by the BLM. If revegetation is unsuccessful, subsequent treatments and reseedings will be required until standards are met.

- b. Recontouring and Seedbed Preparation.* Leaving in place only the areas needed for production, pull fill slope soils up and return them to cut areas, pushing up and over the edges of the cut. Compacted areas to be reclaimed will be ripped in two passes at opposite directions before being reshaped (at least 18 inches deep, furrows spaced at 2 feet).

Following final contouring, evenly redistribute salvaged topsoil. BLM may require soil amendments. Final seedbed preparation will consist of scarifying (raking or harrowing) or roughening spread topsoil prior to seeding, unless seeding takes place immediately. Seedbed preparation techniques may include pocking, ripping, disking or other soil roughening techniques. If contour cultivating is approved, it will be 4-6 inches deep or to the depth of redistributed topsoil. If pocking, pit the surface with small depressions to form micro-basins, in a "fish scale" pattern. Construct them along the contour, perpendicular to the natural flow of water and/or prevailing wind.

- c. Seed Mixes.* All disturbed areas will be seeded with a seed mixture approved by the BLM, consistent with BLM standards in terms of species and seeding rate for the specific habitat type within the project area.
- Seed will contain no noxious, prohibited or restricted weed seeds and contain no more than 0.5 percent by weight of other weed seeds.
 - Only viability-tested, certified seed for the current year, with a minimum germination rate of 80% and a minimum purity of 90% will be used.
 - Seed that does not meet the above criteria will not be applied to public lands.
- d. Seeding procedures.* Seeding will be conducted no more than 24 hours following final seedbed preparation. If interim revegetation is unsuccessful, the operator will implement subsequent reseedings until interim reclamation standards are met.

Where possible, drill seed ½ inch deep, following the contour of the site. Follow drill seeding with culti-paction or crimped weed-free straw mulch, to enhance seed-to-soil contact and prevent loss of seeds and soil. In areas that cannot be drilled, broadcast seed at 2.0 times the application rate, within 24 hours of soil work. If seeding takes place later than within 24 hours of dirt work, cover seed ½ to 1 inch deep with a harrow or drag bar, unless pocking. When pocking is used as seedbed preparation, seed must be broadcast within 24 hours of soil prep.

- f. *Erosion Control.* Cut-and-fill slopes will be protected against erosion with the use of pocking/pitting, lateral furrows, hydromulch or other measures approved by the BLM. Near drainages or in areas with high erosion potential, additional revegetation, BMPs or methods may be required, to reduce soil erosion and offsite transport of sediments.
- g. *Fencing and Site Protection.* The pad will be fenced to BLM standards to exclude grazing livestock for the first two growing seasons or until seeded species are firmly established, whichever comes later. The BLM will approve the type of fencing.

In deer and elk habitat, fences for livestock exclusion will not exceed 40 inches. The four-strand fence will have smooth top and bottom wires. Distance from the ground to the bottom smooth wire will be no less than 16 inches. Distance from the top wire to the second wire will be no less than 12 inches. Middle wires will be barbed, with 6 inch spacing.

- h. *Monitoring.* The operator will regularly monitor, for reclamation success and for invasive species, all sites categorized as “operator reclamation in progress” and will submit an annual monitoring report of these sites to the BLM by December 1 of each year. The annual report will document whether attainment of reclamation objectives appears likely. If objectives appear unlikely to be achieved, the report will identify appropriate corrective actions. Upon review and approval of the report by the BLM, the operator will be responsible for implementing approved or specified measures.

27. Final Reclamation. The long-term objective of final reclamation is to return the land, following use for energy development, to a condition approximating that which existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats.

A well pad that no longer has a producing well will undergo final reclamation within no more than 1 year following plugging and abandonment of the final well on that pad. Buried pipelines will be reclaimed to final reclamation standards at the time of installation.

Prior to final reclamation of a well pad or pipeline, the operator will meet with BLM to inspect the disturbed area, review the existing reclamation plan, and agree to any changes to the plan.

The BLM will be notified at least 48 hours prior to commencing any reclamation work and within 48 hours of completion of reclamation work.

Prior to recontouring and reseeding the pad, the operator will complete the following:

- All equipment, facilities, and trash will be removed from the location.
- Each borehole will be plugged and capped, and its related surface equipment removed.
- Subsurface pipelines will be purged and plugged at specific intervals.
- Dry hole markers will be subsurface, to prevent their use as perching sites by raptors.

Recontouring for final reclamation will consist of returning the pad, material storage piles, cut-and-fill slopes, and storm water control features to natural contours that blend with adjacent undisturbed areas, as specified in the final reclamation plan or final reclamation plat approved by BLM.

Requirements for seedbed preparation, soil amendments, seed, seeding procedures, mulching, erosion control, fencing, site security, and monitoring will be as specified for interim reclamation.