

**United States Department of the Interior
Bureau of Land Management**

**Categorical Exclusion
for**

**Piceance Energy LLC
15 Federal wells on existing Sup & Shep Pad 25-11**

Grand Junction Field Office
2815 H Road
Grand Junction, Colorado 81506

DOI-BLM-CO-130-2014-0029-CX

July 2014



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FEDERAL LEASE: COC 64395

LEGAL DESCRIPTION:

Surface (well pad): T. 9 S, R. 93 W., 6th PM:
Section 25 NE¼SW¼
Mesa County, Colorado

Bottomholes: T. 9 S, R. 93 W., 6th PM:
Section 25
Mesa County, Colorado

APPLICANT: Piceance Energy LLC
1512 Larimer Street, Suite 1000
Denver, CO 80202

BACKGROUND:

The existing pad is located on the eastern side of the developed Buzzard Creek Oil and Gas Field. The pad and 13 of 25 planned wells were permitted with the Colorado Oil and Gas Conservation Commission (COGCC) in 2010 by a previous operator. Piceance obtained the lease in 2012 and built the pad in 2013.

Within a mile of Piceance's existing pad, COGCC's GIS database lists about 50 permitted wells, at least 38 of which have been drilled on multi-well pads such as the Sup & Shep 25-11. Within 2 miles, about 140 wells have been drilled, of which roughly 80 are permitted on 7 multi-well pads. Two developed Federal Units, Sheep Creek and Vega, lie within a mile to the northeast and southwest, respectively.

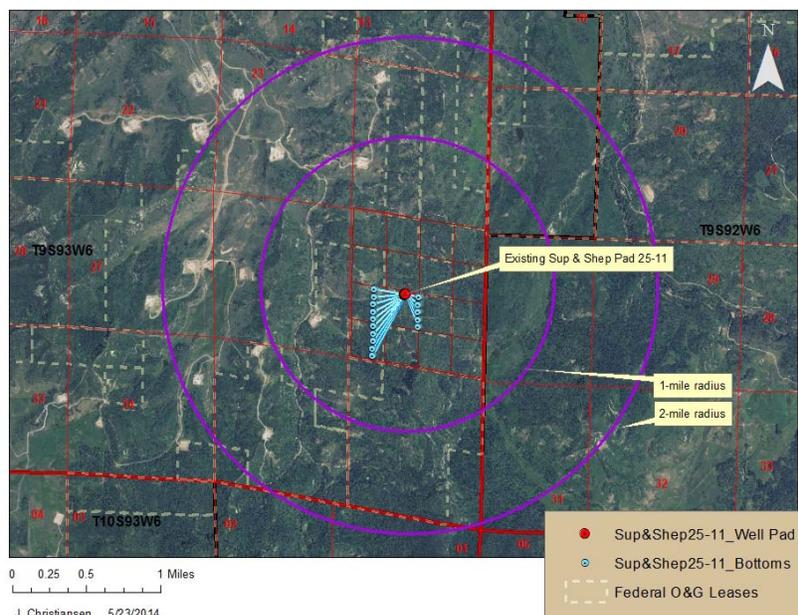


Figure 1. Overview of proposal location and developed area

PURPOSE AND NEED:

The purpose of the Proposed Action, to approve 15 Applications for Permit to Drill (APDs) for oil/gas wells on existing split estate well pad Sup & Shep 25-11, is to permit the applicant to discover and produce fluid minerals from valid federal oil and gas lease COC 64395, held by Piceance Energy, LLC.

The need for the Proposed Action is established under the Mineral Leasing Act of 1920 (MLA), which establishes the BLM’s responsibility to respond to oil and gas applications. The MLA, as amended (30 USC 181 et seq.), authorizes the BLM to issue oil and gas leases for the exploration of oil and gas and permit the development of those leases. Existing leases are binding legal contracts that allow development by the lease holder.

DESCRIPTION OF PROPOSED ACTION:

The Proposed Action is to approve 15 APDs for oil/gas wells on existing well pad Sup & Shep 25-11, located on split estate (private lands above federal minerals). The APDs were submitted to the BLM by Piceance Energy on May 6, 2014. Wells would be drilled directionally through private surface and minerals into Federal oil and gas lease COC 64395, at distances ranging from 400’ to 2,500’.

The following people attended an onsite inspection of the location conducted on May 20, 2014:

- Julia Christiansen, BLM Grand Junction Field Office
- Wayne Bankert and Milt Johnson, Piceance Energy
- Jim Grabowski, GeoSurv Land Surveying and Mapping, Colorado certified professional surveyor
- Shawn Moody and Brandon Hoskin, Moody Construction (built the pad)

The pad disturbance is estimated to be about 5.3 acres. This short-term area of disturbance includes stored topsoil and storm water BMPs such as diversions, catchments and wattles. Following interim reclamation of the pad, when areas unnecessary for production would be recontoured and revegetated, about one acre of working pad surface would remain throughout the productive life of the wells. Piceance Energy stated that they expect to complete the Federal wells on the pad by fall 2016. Depending on the economic viability of the wells, interim reclamation could take place as early as the autumn of 2015, or as late as the fall of 2016. Private wells could also be drilled from the pad, but are not currently foreseen by the BLM or discussed in Piceance Energy’s proposal.



Figure 2. Sup & Shep Pad 25-11, viewing from NE corner toward SW

During construction, vegetation was shredded and salvaged with topsoil, which has been stored as a berm around the pad perimeter. Cut and fill slopes were laid back (rather than left steep), but were not textured and seeded at the time of construction, which typically aids rapid revegetation and soil stabilization (Figure 3). However, native plants were coming in across the site, especially in the topsoil (Figure 4). They included snowberry, serviceberry, mountain mahogany, bunch grasses (too young to ID), forbs, yarrow, and vetches. Scrub oak also grows across the area.



Figure 3. View of SW corner; Fill slope, topsoil berm, storm water diversion, area vegetation



Figure 4. View of SW corner; Cut slope, topsoil, native plants coming in

For further details of surface use under Piceance Energy's APD, see the Surface Use Plan of Operations, Appendix A.

PLAN CONFORMANCE REVIEW:

The Proposed Action is subject to and has been reviewed for conformance with (43 CFR 1610.5, BLM 1617.3) the following plan:

Name of Plan: GRAND JUNCTION Resource Management Plan (RMP)

The RMP includes the reasonable expectation of development in the project area, included in planning *Area Co-2, Emphasis on Oil and Gas*, where about 55,248 acres are available for oil and gas leasing with standard lease terms (p. 2-40, Map 20).

Date Approved: Final EIS, November 1985; Record of Decision (ROD), January 1987

Decision Number/Page: Page 2-7, 2-40

Decision Language: The RMP and ROD describe management decisions based on resource and geographic pieces of land called emphasis areas (USDI 1987; page 2-40). The RMP Oil and Gas Management objective is "To make federal oil and gas resources available for lease, except where prohibited by law or where administrative action is justified in the national interest; to make public land available for economically and environmentally sound exploration and development projects; to avoid health and safety hazards; to protect important, sensitive resource values from unacceptable impacts; and to minimize the impacts to lessees from sensitive resource protection and hazard avoidance."

CATEGORICAL EXCLUSION REVIEW: The proposed action is categorically excluded from further documentation in accordance with statutory NEPA categorical exclusions (CXs), per Section 390 of the Energy Policy Act of 2005, for oil and gas exploration and development.

The proposed action qualifies for ***Categorical Exclusion No. 1***, based on the qualifying criteria for Category 1, listed below. (NEPA Handbook-1790-1, 2008)

Categorical Exclusion No. 1:

Individual surface disturbance of less than five acres¹ so long as total surface disturbance on the lease is not greater than 150 acres² and site-specific analysis in a document prepared pursuant to the NEPA³ has been previously completed.

¹ *If more than one action is proposed for a lease (for example, two or more wells), each activity is counted separately and each may disturb up to five acres.*

² *For larger leases, the requirement for adequate documentation would be satisfied with a copy of the most recent aerial photograph in the file with an explanation of recent disturbance that may not be shown on the aerial photos.(Figure 5)*

³ For the purposes of this CX, a site-specific NEPA analysis can be either an exploration and/or development EA/EIS, an EA/EIS for a specific Master Development Plan, a multi-well EA/EIS, or an individual permit approval EA/EIS.

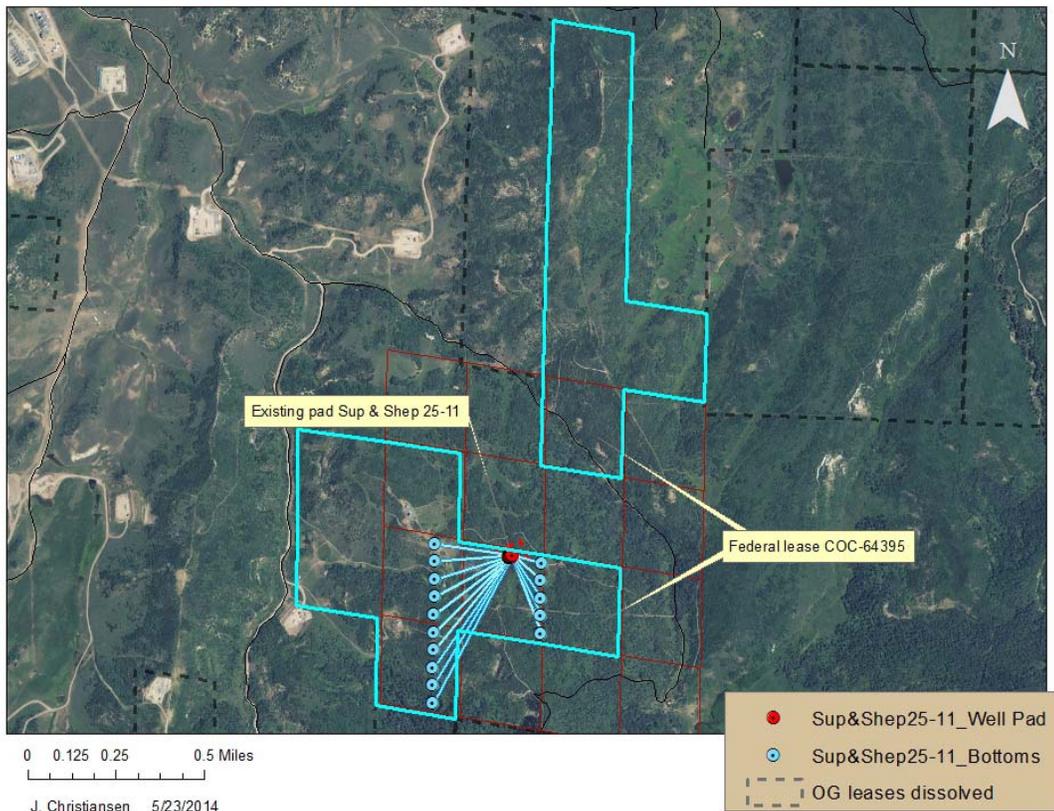


Figure 5. Existing surface disturbance within Lease COC 64375

REVIEW OF EXISTING NEPA DOCUMENTS:

Categorical Exclusion No. 1 requires reference to a previous NEPA document. The Cumulative Impacts section in BLM-CO-130-2007-015-EA for the Vega Plan of Development includes the reasonable expectation of additional development actions that were reasonably foreseeable in the Plateau Creek and Harrison Creek Valleys. This foreseeable scenario encompasses Piceance Energy's proposed 15 APDs for oil/gas wells on existing well pad Sup & Shep 25-11.

Name of Document: Vega Plan of Development

Document Number: BLM-CO-130-2007-015-EA

Date Approved: November 19, 2007

As applicable under BLM authority, which is limited on private lands, the same or more effective mitigation measures considered in the Vega Plan of Development EA would be applied as necessary to reduce impacts to any authorization issued (NEPA Handbook, 2008).

PER THE ENERGY POLICY ACT OF 2005, SECTION 390, THE FOLLOWING APPLY:

Qualifying Criteria (check all that apply)	YES	NO
<u>Category 1:</u> Individual surface disturbances of less than 5 acres, so long as the total surface disturbance on the lease is not greater than 150 acres and site-specific analysis in a document prepared pursuant to NEPA has been previously completed.	X	
a. The action will disturb less than 5 acres; if more than one action is proposed for a lease, each activity is counted separately and each may disturb up to five acres.	X	
b. The current un-reclaimed surface disturbance readily visible on the entire leasehold is not greater than 150 acres, including the proposed action. (Figure 5)	X	
c. This categorical exclusion includes the requirement of a site-specific NEPA document. A site-specific NEPA analysis may be an EA/EIS for exploration and/or development, for a specific MDP, for a multi-well or a single well permit approval.	X	
<u>Category 2:</u> Drilling an oil and gas location or well pad at an existing location where drilling has occurred within five (5) years prior to the date of spudding the well.		X
<u>Category 3:</u> Drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as the plan or document was approved within five (5) years prior to the date of spudding the well.		X
a. The proposed APD is within a developed oil or gas field. A developed field is defined as any field in which a confirmation well has been completed.	X	
b. A NEPA document exists (including that supporting a land use plan) that contains a reasonably foreseeable development scenario encompassing this action.	X	
c. The NEPA document was finalized or supplemented within five years of spudding the new well.		X
<u>Category 4:</u> Placement of a pipeline in an approved right-of-way corridor, so long as the corridor was approved within 5 years prior to the date of placement of the pipeline.		X

Qualifying Criteria (check all that apply)	YES	NO
a. The placement of a pipeline in an existing corridor of any type. The term “right-of-way corridor” in Section 390 is not limited to those authorized under 43 CFR 2800, but is a more generalized term that applies to any type of corridor or right-of-way (whether on or off lease) approved under any authority or vehicle of the BLM, including Sundry Notices.		X
b. Placement of the pipeline within five years of placement approval (or amendment) of the most recent date of a Decision (NEPA or permit authorization).		X
<u>Category 5</u> : Maintenance of a minor activity, other than any construction or major renovation of a building or facility.		X

INTERDISCIPLINARY REVIEW:

NAME	TITLE	AREA OF RESPONSIBILITY
Julia Christiansen	Natural Resource Specialist Project Lead	Surface Management Oil and Gas Permitting
Bob Hartman	Petroleum Engineer	Drilling, Production
Anna Lincoln	Ecologist and Acting Planning and Environmental Coordinator	T&E Plant Species, Cumulative Impacts
Alissa Leavitt Reynolds	Archaeologist	Cultural Resources, Native American Religious Concerns
Heidi Plank	Wildlife Biologist	Migratory Bird Treaty Act, T&E Species, Terrestrial & Aquatic Wildlife

Cultural Resources:

A records search of the general project area, and a Class III inventory of the Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), was completed by Grand River Institute, a Colorado BLM permitted cultural resource contracting firm in 2008 (GJFO CRIR 1108-07). Conditions of the existing cultural environment are incorporated by this reference and no cultural resources were found in the APE. The project inventory and evaluation is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

Native American Religious Concerns:

The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. No traditional cultural properties, unique natural resources, or properties of a type previously identified as being of interest to local tribes, were identified during the cultural resources inventory

of the project area. No additional Native American Indian consultation was conducted for the proposed project.

Wildlife Concerns and Special Status Species:

The existing pad is within overall winter range for elk but is not within critical or severe winter range or a winter concentration area of mule deer or elk. While the pad is in an area formerly included in a Lynx Analysis Unit, the closest mapped suitable Lynx habitat is over two miles to the south. Since the existing well pad is on private surface and because no additional disturbance is anticipated, no impacts are anticipated and biological surveys are not necessary.

Special Status Plant Species:

No biological plant surveys were completed prior to well pad construction. The project area is not known to contain any Federally or BLM-listed plant species, and is not within designated critical habitat. As the existing well pad is on private surface, and no additional disturbance is anticipated, biological surveys are not necessary.

NAME OF PREPARER: Julia Christiansen

NAME OF ENVIRONMENTAL COORDINATOR: Anna Lincoln, Acting

DATE: *Latic A. St* 7-10-14

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
GRAND JUNCTION FIELD OFFICE

DECISION DOCUMENT

DOI-BLM-CO-130-2014-0029-CX (390)
15 Federal wells on existing Sup & Shep Pad 25-11

DECISION:

I have reviewed this document and have decided to approve the APDs for 15 Federal wells on existing well pad Sup & Shep 25-11, as described in this document and the APDs, and with attached Conditions of Approval.

The project is categorically excluded from further documentation in an EA or EIS under the Energy Policy Act of 2005, Section 390, Category 1.

RATIONALE:

This decision meets the purpose and need by permitting the applicant to discover and produce fluid minerals from a valid federal oil and gas lease and by meeting the BLM's responsibility to respond to oil and gas applications.

I have evaluated the action relative to Instruction Memorandum Number 2005-247 and the National Environmental Policy Act Handbook H-1790-1, (2008) and have concluded that it qualifies for categorical exclusion under the Energy Policy Act of 2005, Section 390, Category 1.

Existing NEPA document BLM-CO-130-2007-015-EA for the Vega Plan of Development includes reasonably foreseeable additional development actions in the Plateau Creek and Harrison Creek Valleys, such as Piceance Energy's proposed 15 oil/gas wells drilled from a multi-well pad.

As required under Category 1, and as within BLM's authority on private lands, the same or more effective mitigation measures from the referenced Vega Plan of Development would be applied to the 15 Federal APDs. The operator's Surface Use Plan of Operations (Appendix A) and the Grand Junction Standard Surface Use Conditions of Approval (Appendix B) will meet this requirement.

Within 30 days of setting production facilities, Piceance must submit to the BLM a digital "as-built" file to document the actual boundaries and surface disturbance area of the pad and access road.

No cultural records or concerns were documented in the project area.

The pad is within overall winter range for elk but not critical or severe winter range or a winter concentration area of mule deer or elk. The closest suitable Lynx habitat is over two miles distant.

The project area is not known to contain any Federally or BLM-listed plant species, and is not within designated critical habitat.



Field Manager
Grand Junction Field Office

7-10-14

Date

ATTACHMENTS:

Appendix A: Surface Use Plan of Operations for 15 Federal wells on well pad Sup & Shep 25-11
Appendix B: BLM Grand Junction Field Office Standard Surface Use Conditions of Approval

ADMINISTRATIVE REMEDIES:

Administrative remedies may be available to those who believe they will be adversely affected by this decision. Appeals may be made to the Office of Hearings and Appeals, Office of the Secretary, U.S. Department of Interior, Board of Land Appeals (Board) in strict compliance with the regulations in 43 CFR Part 4. Notices of appeal must be filed in this office within 30 days after publication of this decision. If a notice of appeal does not include a statement of reasons, such statement must be filed with this office and the Board within 30 days after the notice of appeal is filed. The notice of appeal and any statement of reasons, written arguments, or briefs must also be served upon the Regional Solicitor, Rocky Mountain Region, 755 Parfet Street, Suite 151, Lakewood, Colorado 80215.)

Appendix A – Surface Use Plan of Operations

15 Federal wells, Well Pad Sup & Shep 25-11– Federal Lease: COC 64395

13 Point Surface Use Plan

PICEANCE ENERGY, LLC
Mesa County, Colorado

Lease COC-064395
Sup & Shep 25-11 Pad

Surface NESW Sec. 25, T09S, R93W 6th PM (Existing Private Pad)

Overview

Piceance Energy, LLC (PE) proposes to directionally drill wells into Federal Lease COC-064395 from the existing Sup and Shep 25-11 Pad. This pad was originally permitted in 2010 by the previous operator through the COGCC Form 2A process for 25 well locations (13 of which were permitted). In 2012, Piceance Energy assumed the assets of the former operator, evaluated the location of the pad and re-designed it to fit the topography. At the same time, PE abandoned 11 of the permits on the location and using the former Operator's data and records on file with the COGCC, re-permitted 3 of the wells in late 2012.

In anticipation of commencing a drilling program in early April 2013, the location, and access road was constructed, and a gas gathering line was installed in the road corridor. The drilling program was postponed for 2013.

During the summer and fall of 2013, the geology and structure of the area was re-evaluated and it was determined a new drilling pattern (3 column) would maximize the economic recovery of the resources in the Plateau Valley. Based on this determination, and the location of the Sup & Shep 25-11 pad, PE decided the most efficient use of the pad would be to drill all Federal mineral lease wells.

1. Existing Roads (See exhibit "Vicinity Map" and "Access Road Map")

To access the proposed project area, travel east from Collbran, CO on CR 330 approximately 12.2 miles to the Harrison Creek Road turn-off. Travel through the locked gate 0.8 miles and bear left. Continue on for 0.7 miles to the intersection of Harrison Creek Road and an unsigned private gravel road. Turn left on gravel road and continue on for approximately 0.4 miles to another unsigned private gravel road intersection and bear right on this road. Continue on for approximately 2.2 miles on this private access road to the Sup and Shep 25-11 pad.

2. Access road (See Article II: "Access Road Construction" of SUA for Additional Landowner Requirements)

- A. Other than previously constructed, no new access roads are required.
- B. The access road and surface disturbing activities will conform to standards outlined in The Oil and Gas Gold Book-Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (Fourth Edition, 2005).
- C. All equipment and vehicles are confined to the access road, pad and areas specified in this APD.
- D. PE will be responsible for continuous inspection and maintenance of the access road. PE will conform to a schedule of preventive maintenance, which at a minimum, provides for the following corrective measures on a biannual basis. (Problem areas will be corrected as needed.)

1. Road surface grading.
2. Relief ditch, culvert cleaning and cattle guard cleaning.
3. Erosion control measures for cut and fill slopes and all other disturbed areas.
4. Road closures in periods of excessive soil moisture to prevent rutting caused by vehicular traffic.
5. Road and slope stabilization measures as required. The road shall be maintained to the standards required for the construction of the road until final abandonment and rehabilitation takes place.
6. Dust abatement will be applied as needed or if requested by the surface owners. Level and type of abatement (watering, application of various dust suppression agents, surfacing) will depend on the conditions. PE will incorporate sufficient dust abatement to prevent any heavy plumes of dust from construction or road use.
7. Weed Control. Weed monitoring and reclamation measures will be continued on an annual basis, or more frequently, if necessary, throughout the life of the project.

3. Location of Existing Wells (See "Vicinity Map")

There are currently no wells drilled on the Sup and Shep 25-11 pad. There are 34 natural gas wells operated by PE in some stage of activity within a one-mile radius (mainly W/NW) of the proposed wells. The 10-point Drilling Plan (Part 1 & 2) identifies 3 water wells permitted within a one-mile radius of the proposed wells. The closest water well is 1230 feet SW of the proposed wells.

**4. Location of Tank Batteries, Production Facilities and Production Gathering and Service Lines
(See Article III: "Pipelines" of SUA for Additional Landowner Requirements)**

A. General

1. Layout of the production facility has not yet been determined. A preliminary anticipated production layout (See "Production Schematic") is part of the permit. A final layout will be submitted to the GJFO when completed as required by Onshore Oil Gas Order No. 1 part VIII and in compliance with 43 CFR 3160's.
2. All permanent (onsite for six (6) months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective, earth-tone color to match the standard environmental colors or to the Land Owner's satisfaction. Any facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded. Production facilities will be placed to allow maximum reshaping of cuts and fills.
3. The tank battery will be constructed on location. A metal containment ring with an impermeable liner with sufficient capacity to contain 110% of the storage capacity of the largest tank will surround it. All loading lines and valves will be placed inside the containment ring surrounding the tank battery.
4. The oil and gas measurement facilities will be installed on location. Upon installation, gas meters will be calibrated in place prior to delivery and then quarterly thereafter. The Authorized Officer will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration reports will be submitted to the Field Office upon request. All meter measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.
5. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.
6. There will be no commingling of fluids or gas from different leases at this facility.

7. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the Authorized Officer.
 8. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
 9. Gas meter run will be located at the edge of the location. The gas flow line will be buried from the wellhead to the meter and downstream for the remainder of the pad. Meter runs will be housed and/or fenced.
 10. In order minimize the amount of vehicular traffic to and from the project site, remote telemetry equipment will be installed at each multi-well pad.
- B. **Gathering Line:** No additional gathering line will be needed beyond that originally installed for the Sup and Shep 25-11 Pad. An 8" line was installed in 2013 from the Sup and Shep 25-11 pad and ties into the existing 12" Piceance Energy gathering line adjacent to the North Vega 5B pad in the SWSW of Sec. 24, T9S, R93W.
- C. LEII will protect all survey monuments, witness corners, reference monuments and bearing trees in the affected areas against disturbance during construction, operations, maintenance and termination of the facilities authorized herein.
- LEII will immediately notify the Authorized Officer (Gran Junction Field Office) in the event that any corners, monuments or markers are disturbed or are anticipated to be disturbed. If any monuments, corner or accessories are destroyed, obliterated or damaged during construction, operation or maintenance, LEII will secure the services of a Registered Land Surveyor to restore the disturbed monuments, corner or accessories, at the same location, using surveying procedures found in the Manual of Surveying Instructions for the Survey of public Lands of the United States, latest edition. LEII will ensure the Registered Land Surveyor properly records the survey in compliance with Colorado Revised Statutes 38-53-101 through 38-53-112 (1973) and LEII will send a copy to the Authorized Officer.
- D. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road easements and any additional areas as specified in the Application for Permit to Drill.

5. Location and Type of Water Supply

- A. Water to drill and complete a Mesa Verde well in the Plateau Valley averages ~7-10 acre-feet. Piceance Energy re-cycles and re-uses produced and flowback water as much as possible to reduce actual freshwater depletion.
- B. Water for the well will be trucked or pumped from approved sources.
- C. Laramie Energy (Piceance parent company) has a Recovery Agreement with the U.S. Fish and Wildlife and is covered by the BLM's Programmatic Biological Opinion for water depletion. A copy of this agreement is on file with the CRVFO.
- D. Any freshwater needed will be purchased from private entities from their water storage reservoirs. Most likely what is known as the Currier Reservoir in NE4 Sec.12, Twn. 9S, Rng. 93W or the Gipp pond in SE Sec.13, Twn. 9S Rng. 94W. Both sites have decrees on record for industrial use and sales. The Colorado Division of Water Resources requires the owner to meter the volume pumped and augment all diversions with industrial contracts with the Bureau of Reclamation.

- E. Drilling, completion, and produced water will be recycled and used whenever possible to reduce the amount of freshwater.
- 6. Source of Construction Materials**
- Surface and subsoil materials within the proposed construction areas were used. Additional gravel or pit lining material was obtained from local private sources.
- 7. Methods for Handling Waste Disposal**
- A. The only pit proposed location is a cuttings pit. PE plans to drill the wells on the Shep and Shup 25-11 pad with a dewatering system with no need for a reserve pit. Drilling fluids are recycled and re-used with cuttings being de-watered and captured in a catch pan and removed to the cuttings pit.
 - B. Produced water is recycled and used in Laramie's drilling operations after completion of a well.
 - C. Produced fluids—liquid hydrocarbons produced during completion operations will be placed in test tanks on the location.
 - D. Permanent 400 bbl steel tanks will be installed next to the production facilities to contain any produced water (if not used for drilling or completion) for the duration of the wells. The produced water will be disposed of at the Danish Flats Disposal Facility in Cisco, Utah, Harley Dome Facility in Utah, Greenleaf Disposal in Debeque, Co or another state approved disposal facility.
 - 1. Cuttings: These will be contained on location in the cuttings pit.
 - 2. Drilling fluids and chemicals: These are recycled through the dewatering system, treated and re-used.
 - 3. Sewage: Chemical toilets or an enclosed sewer system will be used. Contents will be disposed of at an approved disposal facility. No bore holes will be used for disposal of waste materials. Human waste will be contained and will be disposed of at an approved sanitary landfill.
 - 4. Garbage and other waste materials: All garbage and trash will be stored in a totally enclosed trash container and removed and deposited in an approved sanitary landfill within one week following termination of drilling operations. No garbage or trash will be disposed of in the cuttings pit. The wellsite and access road will be kept free of trash and debris at all times.
 - E. Piceance Energy complies with those standards set forth by CERCLA and RICRA for the disposal of hazardous waste materials from oil and gas development. Also, hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.
- 8. Ancillary Facilities**
- A. There are no ancillary facilities planned beyond the standard drilling operations equipment at this time.
 - B. Standard Drilling Operation Equipment on location includes: Drilling rig with associated equipment; living facilities for company representative, tool pusher, mud logger, directional driller; toilet facilities; and trash container(s).
- 9. Wellsite Layout (See Article I: "Wells and Wellsite" of SUA for Additional Landowner Requirements)**

The "Well Location Map" exhibit shows the surface locations and bottom hole locations. The "Pad Layout" exhibit is the site and topography map. The "Access Road Map" shows existing access route. The gathering line was laid in the shoulder of the access road. The "Lease Boundary" exhibit is self explanatory.

The cuttings trench is constructed in the cut side of location. Trench location is noted in "Pad Layout" exhibit.

1. The available ground cover, including topsoil, estimated to be 8 to 10 feet, was removed from the location. The stockpiled topsoil surrounds the location as noted on the "Pad Layout" exhibit.
2. Trash will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location.

10. Plans for Restoration of the Surface

- A. Immediately upon completion of drilling, the location and surrounding area will be cleared of all remaining debris, materials, trash and junk not required for production, and hauled to the nearest legal landfill.
- B. The backfilling of the cuttings pit will be done in such a manner that the cuttings will be confined to the pit and not squeezed out and incorporated in the surface materials. There will be a minimum of three feet of cover (overburden) on the pit. When work is complete, the pit area will support the weight of heavy equipment without sinking.
- C. Piceance Energy or its contractor will notify the Bureau of Land Management, GJFO, (970) 244-3000, forty-eight (48) hours before starting reclamation work that involves earth-moving equipment and upon completion of restoration measures.

A. Interim Reclamation

1. Immediately upon completion of drilling, the location and surrounding area will be cleared of all remaining debris, materials, trash and junk not required for production, and hauled to the nearest legal landfill.
2. The backfilling of the cuttings pit will be done in such a manner that the cuttings will be confined to the pit and not squeezed out and incorporated in the surface materials. There will be a minimum of three feet of cover (overburden) on the pit. When work is complete, the pit area will support the weight of heavy equipment without sinking. Prior to covering the cuttings, they will be tested and meet COGCC Rule 910 requirements.
3. PE or its contractor will notify the Bureau of Land Management, GJFO, (970) 244-3000, forty-eight (48) hours before starting reclamation work that involves earth-moving equipment and upon completion of restoration measures.
4. After completion activities, the location and surrounding area will be cleared of all remaining debris, materials, trash and junk not required for production, and hauled to the nearest legal landfill.
5. This site is also planned as a temporary staging area for "frac" tanks for completion of wells on adjacent future pads if the reservoir and economy justifies additional development. At this time PE has no plans to drill additional wells other than those on this location.
6. Once the determination is made this site is not needed for temporary staging, the operator will reduce the size of the well pad to the minimum surface area needed for production facilities, while providing for

reshaping and stabilization of cut and fill slopes. Slopes will be re-contoured to minimize areas that exceed a 3:1 slope. Any areas exceeding the 3:1 slope criteria or high walls shall be reclaimed using enhanced stabilization and erosion prevention methods.

7. The stockpiled ground cover will be evenly distributed over the disturbed areas.
8. PE requests the BLM to recommend a seed mix for this altitude which will be used on all new disturbed areas.

After the Last Well on the Location is Abandoned, Piceance Energy Will:

B. After the Last Well on the Location is Abandoned, Laramie Will: (See Article IV: Final Reclamation of SUA for Additional Landowner Requirements)

Ensure the well site, roads or other disturbed areas will be restored to or near their original condition. This procedure will include:

1. Ensuring re-vegetation of the disturbed areas to the specifications of the landowner o at the time of abandonment.
2. All disturbed surfaces will be re-contoured to the approximate natural contours ("Final Abandonment" exhibit) and reseeded according to landowner recommendations. Reclamation of the well pad and access road will be performed as soon as practical after final abandonment and reseeded operations will be performed in the fall or spring following completion of reclamation operations. During reclamation of the site, fill material will be pushed into cuts and up over the back slope. Topsoil will be distributed evenly over the location and seeded according to the recommended seed mixture.
3. The access road and location will be re-contoured and ripped or disked prior to seeding. Prior to reclamation of the access road, the landowner will be consulted to determine any road portions that might remain.
4. All cut slopes from access roads and well pad construction will be reseeded within 48 hours after construction is completed.
5. Immediately upon abandonment of all the wells on the pad, all equipment will be removed from the location and surrounding area(s) will be cleared of all debris, materials, trash and junk that may have collected. Pipelines will be cut and abandoned at the location.
6. The recommended BLM seed mix will be used on all disturbed areas or as required by the private surface owner.
7. Those disturbed areas around locations that are being reclaimed may require fencing after seeding to keep wildlife and livestock out until the vegetation gets established. Where fencing is needed, PE will consider the needs of the wildlife during the design of the fencing. The CPW will be contacted for recommendations for appropriate fencing in each area. Once vegetation has been established, the fencing will be removed or reduced in size as needed.

11. Surface Ownership:

The surface location is on private lands owned by Sup & Shep, LLC. The original and amended Surface Use, Access, and Right of Way Agreement is included as part of this submittal.

12. Other Information

- A. The Sup and Shep 25-11 pad and access road are part of PE's "North Vega Project Area" storm water management plan and permit (CDPHE No. COR-03K454).

- B. COGCC Colorado Parks and Wildlife map layer indicates no Sensitive Wildlife Habitat or Restricted Surface Occupancy associated with this location or access road.
- C. There are no lease stipulations attached to Lease COC-064395 and the GJFO GIS files for "Oil and Gas Lease Stipulations" from Appendix D of the 1985 GJFO RMP verifies this.
- D. A cultural resource survey was completed for this area in 2008 by the Grand River Institute.
- E. Once the wells are drilled and completed PE's SPCC plan will be amended to include the site as part of the plan.
- F. There will be no deviation from the proposed drilling and/or work-over program without prior approval from the Authorized Officer. Safe drilling and operating practices will be observed.
- G. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
- H. The dirt contractor will be provided with an approved copy of the surface use plan.

13. Lessee's or Operator's Representative and Certification

A) Representative: Wayne P. Bankert (Senior Reg. & Env. Coordinator)
 Piceance Energy, LLC
 601 28 ¼ Road, Suite D
 Grand Junction, CO 81506
 (970) 812-5310 Office
 (970) 985-5383 Cell
 (970) 683-5594 Fax

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations and Onshore Oil and Gas Orders. The operator is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

B) Representative Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

By: Wayne P. Bankert
 Wayne P. Bankert
 Senior Reg. & Env. Coordinator
 Piceance Energy, LLC

Date: 5/5/2014

Appendix B – Surface Use Conditions of Approval
15 Federal wells, Well Pad Sup & Shep 25-11– Federal Lease: COC 64395

BLM Grand Junction Field Office
Standard Surface Use Conditions of Approval

The following are required, as applicable, in addition to any Federal lease stipulations. On private lands, surface owner's rights and preferences may take precedence.

1. Administrative Notification & Requirements. The operator shall 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, shall be kept on site during construction and drilling activities. All on-site personnel shall review the approved permit with the COAs before working on the project.
2. Fire. The operator shall implement measures to prevent fires on public and private land and shall be held 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 the operator's employees, contractors, or subcontractors shall be immediately reported to the BLM Grand Junction Dispatch 970-257-4800. All fires or explosions that cause damage to property or equipment, loss of oil or gas, or injuries to personnel shall immediately be reported to the BLM Dispatch and 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, or additional measures may be required by the BLM.

In cases of fire hazard, BLM may require adaptive management techniques to minimize risks.

3. Other Permits. This 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 Health and Road Departments, municipalities, etc.).
4. Existing Uses. The operator shall 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 a 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 shall 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) required as part of a federal APD. If Agreement cannot be reached, the operator shall comply with provisions of the laws 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, shall 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 shall 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.

Any bird found dead, injured or apparently ill, especially in or near a pit, trench, tank, exhaust stack, or fence shall immediately be reported to the BLM, at 970-244-3000.

Open metal or plastic pipes or posts shall be permanently filled or capped, to prevent bird entrapment.

All production equipment with a chimney, vent, or stack shall be fitted with a device such as an excluder cone that prevents birds and small mammals from entering or perching on any part of the chimney. Flat screens inside stacks are insufficient protection.

All open top tanks and pits shall be covered or netted to eliminate any hazard to birds and flying mammals (CERCLA Section 101(14)).

6. Federally Protected Species Notifications. Any dead or injured migratory bird, bald or golden eagle, or species listed by the US Fish and Wildlife Service (FWS) as threatened or endangered, that is found in or adjacent to a pit, trench, tank, exhaust stack, or fence shall immediately be reported to the FWS at: Creed Clayton, USFWS, 445 West Gunnison Avenue, Suite 240, Grand Junction, CO 81501; creed_clayton@fws.gov and to the Grand Junction Field Office at 970-244-3000.
7. Jurisdictional Waters of the U.S. The operator shall obtain appropriate permits from the U.S. Army Corps of Engineers (USACE) prior to discharging fill material into Waters of the U.S. (WoUS) in accordance with Section 404 of the Clean Water Act. WoUS are defined in 33 CFR Section 328.3 and may include wetlands as well as perennial, intermittent, and ephemeral streams. Impacts to WoUS may require mitigation. Copies of any approved USACE permits or verification letters shall be forwarded to the BLM prior to permitted work commencing.

When activity in a wetland is unavoidable, the operator may be required to prevent disturbance by use of wooden or other protective mats and shall restore all temporarily disturbed wetlands or riparian areas. The operator shall 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 WoUS may require additional mitigation, including compensatory offsite mitigation. Contact the USACE, Colorado West Regulatory Branch, at 970-243-1199, or susan.nall@usace.army.mil.

8. Heritage Resources - Cultural and Paleontological. All persons in the area who are associated with this authorization shall 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, which 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 other resource concerns, and the exposed materials are recorded and stabilized. Otherwise, the operator shall 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.
9. 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 shall 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 prohibited during this period. Requests for exceptions to TLs shall be submitted in writing to the BLM via a Sundry Notice or letter.
10. Range Management. Damage to range improvements (fences, gates, reservoirs, pipelines, etc.) shall be avoided, but if they are damaged, the operator shall 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 shall be installed across the roadway, unless a landowner dictates otherwise.
11. Soils. Cuts and fills shall be minimized when working on erosive soils and on slopes in excess of 30 percent. On slopes greater than 50 percent, BLM may require a professional geotechnical analysis and/or engineered plans prior to construction.

All cut and fill slopes for roads and well pads shall be protected against rilling and erosion by BMPs such as soil texturing and seeding or additional measures approved by the BLM to minimize the potential for erosion, soil loss and slope failure. Measures may include matting, geotextiles, weed-free

straw crimping, anchored bales/wattles, as needed or as detailed by storm water plan or BLM permit. BMPs shall be monitored and maintained in functional condition.

12. Weed Control. Before any mobilization of equipment onto public lands, in order to prevent the spread of invasive species, the operator shall perform inspections to insure that all construction equipment and vehicles are clean and free of soil, mud and vegetative material. The operator shall provide copies of such inspections upon request by the BLM. Vehicles and equipment shall avoid driving through or parking on weeds.

Straw mulch, seeds, BMPs and all materials used on BLM lands shall be certified weed-free. Certification shall be provided to the BLM upon request.

In areas with sensitive plant species, weed treatments shall be limited to spot treatments and require site-specific pre-approval by the BLM.

The operator shall regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the BLM/USFS *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*, dated March 2007. Pesticide Use Proposals (PUPs) shall be approved by the BLM prior to the use of herbicides.

Annual reports regarding weed management and reclamation success shall be submitted to the Grand Junction Field Office in compliance with the *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*.

13. Dust Abatement. The operator shall 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.
14. Pre-Construction and Limits of Disturbance. An onsite pre-construction meeting may be required, to ensure that construction proceeds in accordance with all specifications, approved permit and COAs. At least 48 hours prior to initiation of construction or reclamation activities, contact Julia Christiansen at 970-244-3093 or the Grand Junction Field Office at 970-244-3000.

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

Pre-construction storm water BMPs shall be installed before pre-construction inspection.

Limit-of-disturbance (LOD) stakes or markers shall be placed before pre-construction inspection. If disturbed during construction, they shall be immediately replaced before construction proceeds and remain in place until final construction cleanup is completed. Markers shall be visible from one to another and no further than 100 feet apart. Access road, pipeline and pad edges, cut and fill slopes and soil storage areas shall also be distinctively marked with flagging, snow fence or stakes, visible from one to another. All construction control markers shall remain in place until the post-construction inspection with the BLM is concluded.

15. 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 shall be provided to the BLM prior to construction. Permit compliance, which coincides with BLM resource protection

objectives, requires a site-specific Storm Water Management Plan, controls for storm water run-off and run-on, adaptive BMPs and systematic monitoring and maintenance of all BMPs. Storm water BMPs may also be designed to function as Spill Prevention, Control and Countermeasures (SPCC) controls, reclamation BMPs or visual resource protection BMPs.

Pre-construction storm water BMPs shall be installed before construction starts and be inspected during pre-construction inspections.

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.

16. As-Built Details. Within 30 days of setting production facilities or completing a facility, pipeline, location or new road, the operator shall submit to the BLM a digital “as-built” file that documents the actual boundaries of disturbance for that location/feature. This perimeter shall include all disturbance related to the permitted location: the pad, all storm water BMPs, and the complete disturbance area of new access roads. All fill slopes, cut slopes, associated soil storage areas, etc. shall be depicted. The digital depiction shall be in an ArcGIS-compatible format (shapefile or geodatabase), in NAD83, UTM coordinate system, Zone 13 North, in meters.
17. Drainage Crossings and Culverts. Pads, roads, and pipelines shall be located away from defined drainages wherever possible. 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 shall be maintained between the constructed feature and the drainage, to minimize sediment transport into the drainage.

All vehicles shall 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) shall be timed to avoid high flow conditions. The minimum culvert diameter in any installation for a drainage crossing or road drainage shall be 24 inches. Culverts on perennial and intermittent streams shall be designed to allow for passage of aquatic biota. Culverts at drainage crossings shall 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.

18. Road Construction, Use and Maintenance. Roads shall 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 and roadside ditches shall incorporate BMPs such as rip-rap, sediment catchments and anchored check structures that slow water velocity, to prevent erosion and sediment transport. Ditches may be revegetated and/or include large rocks or other BMPs to slow water and settle sediment. Ditch revegetation may be required in erodible soils. All drainage ditches and culverts shall be kept clear and free flowing, and shall be maintained in good condition.

Road use and construction shall halt under conditions of undue damage and erosion to soils, roads and/or locations. When saturated soil conditions exist on access roads or location, or rutting deepens past 3 inches, construction and travel shall halt until soil material dries out, is frozen sufficiently or is otherwise brought to standards that provide for resource protection. Where applicable, initial road base/gravel application shall be of CDOT Class 6 aggregate or equivalent, to a minimum depth of 6”.

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

All cut and fill slopes for roads (and well pads and related locations) shall 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 shall be monitored and maintained in functional condition.

Roads that access active construction and drilling sites shall be posted with warning signs to alert hunters and recreational vehicle users to project personnel and vehicles in the area. Construction and rig schedules may be included.

Project personnel shall restrict activities and travel to permitted roads and sites.

Operator shall install speed control measures on project-related unpaved roads and enforce them with project personnel.

The operator shall routinely provide timely maintenance of roads. Regular maintenance shall 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 travelway deepens to 3 inches, maintenance or upgrade shall be conducted as approved by BLM.

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

To the extent practical, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. Trees or shrubs may be appropriate to cut or shred in place, to protect visual resources, enhance slope stability or to leave root systems in place. The BLM may direct that cleared trees and rocks be salvaged and redistributed over reshaped cut-and-fill slopes or along linear features. Salvaged native rocks may be also be used where appropriate as perimeter storm water controls, toe slope anchors or angular armor against erosion protection.

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. For example, additional tree removal could be required along a contrasting edge, to create irregularly shaped openings or natural-looking mosaic patterns; surfaces might require texturing or coloring to mitigate visual contrasts.

Construction shall utilize measures such as soil-roughening, recontouring and/or revegetation, and/or shall be employed to reduce contrasts in texture, color and form. Hydro-applied colorant of fill slopes may be required.

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

Where determined by the BLM to be necessary based on site-specific visual impacts of project components, a site-specific Visual Mitigation Plan shall be required before surface disturbance and project activities begin. This plan would include a detailed analysis of potential impacts and

mitigation measures that shall be developed and implemented.

20. Construction, Vegetation Removal, Topsoil Stripping and Storage. Pre-construction BMPs shall be installed inspected by the BLM before construction.

Areas of approved activities shall be cleared of brush and trees. Trees or shrubs may be appropriate to cut or shred in place, depending on needs to protect visual resources, enhance slope stability or leave root systems in place. No stump left in place shall exceed six inches in height. Accordingly,

- Trees that are chipped or shredded in place shall be salvaged and stored with topsoil.
- Trees that are cut down, cut up or track-walked shall be salvaged and stored as storm water perimeter controls for later redistribution on reclaimed areas.

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

At the time of construction, (well pads, pipelines, roads, or other surface facilities) topsoil shall be stripped following vegetation removal. Topsoil shall 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 shall be segregated and stored separately from sub-soils 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 shall be wind-rowed around pad perimeter wherever practical. Along pipelines and roads, topsoil shall be wind-rowed, segregated and stored for later redistribution during reclamation.

Topsoil storage piles, storm water control features, temporarily disturbed areas along roads and pipelines, and cut and fill slopes shall be seeded at the time of construction or within 30 days, to stabilize materials, maintain biotic soil activities, and minimize weeds. Seedbed prep shall be required unless seeding occurs immediately after construction.

21. Chemical and Fuels - Secondary Containment /Exclosure Screening – The operator shall prevent all hazardous, poisonous, flammable and toxic substances from contacting soil and/or water. At a minimum, the operator shall install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable or toxic substances. Containment shall 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 may be a hazard to public health or safety shall be placed within an appropriate impervious secondary containment structure that shall hold 110% of the capacity of the largest single container within it for 72 hours.

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

Chemical containers shall be clearly labeled, maintained in good condition and placed within secondary containment. They shall 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 shall 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 shall be furnished to the BLM, concurrent with the filing of the reports to any Federal agency or State government.

The operator shall 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.

The BLM, CDPHE Water Quality Control Division, COGCC and CPW shall be contacted immediately if a reportable spill occurs.

22. Pipelines. Buried pipelines shall 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 shall bury a pipeline to a depth that safely accommodates existing land and road uses and routine maintenance activities such as grading.

Pipeline warning signs permanently marked with the operator's and owner's names (emergency contacts) and purpose (product) of the pipeline shall 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 shall 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 shall be returned to pre-construction conditions.

All pipeline welds within 100 feet of a perennial stream shall 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 shall be reclaimed to final reclamation standards at the time of installation.

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

The operator shall 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 must remove any hydrocarbons (oil, condensate, paraffin, diesel, etc.) introduced to a pit within 24 hours of discovery.

During air drilling, the blooey line shall be misted. Cuttings and fluids shall be confined to pits or tanks during drilling, flaring or fracturing operations. Flare or blooey lines shall be directed into a pit and against a bank, or otherwise contained, to prevent dispersion of materials or flame, fluids and cuttings.

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

Pits shall be constructed to prevent accumulating precipitation runoff and to maintain at least two feet of freeboard between the maximum fluid level and the lowest point of containment. If pit fluids

threaten to rise higher, the operator shall immediately prevent introduction of additional fluids until sufficient pit capacity has been restored through fluid removal or shall install an alternative approved containment method.

The operator shall 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 shall 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 shall be 8-foot woven wire fence with adequate bracing, constructed at least 2 feet from the edge of the pit berm. The bottom two feet of woven wire shall have openings no larger than 1½ inches, to preclude small animals. All corners shall be braced and fence construction shall be on cut or undisturbed ground. The fence shall be maintained erect and in good condition. (Fencing: BLM Manual Handbook H-1741-1, p. 16)

All open top tanks and pits shall be covered or netted to eliminate any hazard to birds and flying mammals (CERCLA Section 101(14)). The operator shall prevent wildlife, bird and livestock access to fluids pits that could contain salinity sufficient to harm them or to contain hydrocarbons, surfactants, or Resource Conservation and Recovery Act-exempt hazardous substances. At a minimum, the operator shall install approved netting in these circumstances, immediately following release of the drilling rig. The BLM does not approve flagging, floating balls, strobe lights, metal reflectors or noisemakers.

Minimum Netting Requirements: The operator shall:

- 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 it is covered by smaller meshed netting.
- e. Monitor and maintain the netting sufficiently to ensure it is functioning as intended, has not sagged closer to the pit, 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, shall 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.

The operator and all subcontractors shall 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 shall be dry prior to soil testing and backfilling and closed per COGCC (EPA Table 910-1) standards. Before backfilling, impervious pit liner shall be removed and disposed of properly. Liquids and solids collected on/in the liners shall not be allowed to come into contact with the pad surface, parent soil or any other earthen layers during site cleanup. Liners shall 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 shall 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.

24. Production. Production facilities shall be located and arranged to facilitate safety and minimize long-term surface disturbance. Typically, this means 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 and the teardrop center may be revegetated. This is especially applicable when roads are maintained as "primitive," per the BLM Gold Book.

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. BLM Standard Environmental Color Yuma or Shale Green would be appropriate to the setting.

25. 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.)*

Interim reclamation shall 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. (BLM Northwest District Recommended Outline for Surface Reclamation Planning for Oil and Gas Operations, Including Objectives, Performance and Monitoring Standards, 2013)

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

Topsoil storage piles, storm water control features, temporarily disturbed areas along roads and pipelines, and cut and fill slopes shall be seeded at the time of construction or within 30 days, to stabilize materials, maintain biotic soil activities, and minimize weeds. Seedbed prep shall be required unless seeding occurs immediately after construction.

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) shall be completed to reduce the well pad to the smallest size needed for production. IR shall include earthwork, seeding and BMPs.

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

Seed tags shall 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 shall be submitted to the Grand Junction Field Office within 30 days of seeding.

IR performance standards shall be considered met when disturbed areas not needed for long-term production operations or vehicle travel have been

- recontoured and stabilized, and
- revegetated with a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community that anchors soils, minimizes visual impacts, and provides forage.

At a minimum, the established plant community shall 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 shall 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 shall be ripped in two passes at opposite directions before being reshaped.

Following recontouring, evenly redistribute salvaged topsoil. Soil amendments may be permitted or required. Seedbed preparation shall consist of scarifying (roughening) spread topsoil prior to seeding, unless seeding takes place immediately or is drilled. Seedbed preparation techniques may include pocking, ripping, disking or other soil roughening techniques. If contour cultivating is approved, it shall 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, across (not parallel with) the natural flow of water and/or prevailing wind.

- c. Seed Mixes.* All disturbed areas shall 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 shall 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% shall be used.

- Seed that does not meet the above criteria shall not be applied to public lands.

d. *Approved Seed Mixture. Piceance's proposed use of locally adapted, wildlife friendly seed mixes emphasizing bunchgrasses, forbs and shrubs is appropriate to site.*

e. *Seeding procedures.* Seeding shall be conducted no more than 24 hours following final seedbed preparation. If interim revegetation is unsuccessful, the operator shall 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 shall 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 sediment transport.

g. *Fencing and Site Protection.* The pad shall 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 shall approve the type of fencing.

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

h. *Monitoring.* The operator shall regularly monitor, for reclamation success and for invasive species, all sites categorized as "operator reclamation in progress" and shall submit an annual monitoring report of these sites to the BLM by December 1 of each year. The annual report shall document whether attainment of reclamation objectives appears likely. If 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 approved or specified measures.

26. Final Reclamation. The long-term objective of final reclamation is to return the land, following authorized use, 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 with no producing well shall undergo final reclamation within no more than 1 year following plugging and abandonment of the final well on that pad. Buried pipelines shall be reclaimed to final reclamation standards at the time of installation.

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

The BLM shall 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 shall complete the following:

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

Recontouring for final reclamation shall 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 shall be as specified for interim reclamation.