



OXY USA INC.

SURFACE USE PLAN OF OPERATIONS

Sheep Mountain Unit 6-4-I Pad

Proposed Wells: Sheep Mountain 6-4-I with Minerals in Fee Minerals and COC 004399A

Sheep Mountain 1-3-M with Minerals in COC 010646

**Surface Location: Section 9, Township 27S, Range 70W, 6th PM
Huerfano County, CO**

Overview

The Sheep Mountain Unit 6-4-I pad is located on private lands owned by Ms. Carol Koscow and will contain two new proposed wells as listed above. There are six existing wells located on the same pad; the pad will be expanded to accommodate the drilling of the two proposed wells. Use of the existing pad will allow OXY to drill the two wells without additional surface disturbance to build roads or a pad, and will greatly reduce the amount of dust and minimize road traffic.

1. Existing Roads

- A. The proposed pad site is located approximately 10 miles southeast of the town of Gardner in Huerfano County, Colorado.
- B. Access roads: From the town of Gardner, travel west to the intersection of Hwy. 69 and CR 550, and travel west on CR 550. Take the first left on CR 560 and continue to CR 562. Turn left on the existing gravel road and continue 1.1 miles to the Sheep Mountain Unit 6-4-I pad. Refer to the topographical map "Vicinity Map" and topographical map "Access Road Map."
- C. Use of the county roads for access to the drilling site will be cleared with the Huerfano County Government and permits will be secured.
- D. The existing lease roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location. Excessive rutting or other surface disturbance will be avoided.

2. Access Road and Well Pad Construction

- A. The Sheep Mountain Unit 6-4-I pad has been in existence since the early 1980's when drilling operations began. The proposed pad expansion will be built to the north and west of the existing pad and will only require approximately 150' of new access road from the existing access road. The distance from wellhead to wellhead is approximately 130 feet. Once drilling and completion operations have been completed and restoration has been implemented the road will be returned to its original status.
- B. A fence, currently located across the proposed pad location, has been surveyed and is shown on the Location Drawing. During drilling and completion operations it will be moved and then returned to its original position.
- C. Gates or cattle guards: No additional gates or cattle guards are required.
- D. Road maintenance: During drilling and production operations, the road surface and shoulders will be kept in a safe and legal condition and will be maintained in accordance with the original construction standards. The access road right-of-way will be kept free of trash during operations.
- E. Dust will be controlled on the roads and locations during construction and drilling by periodic watering as necessary.
- F. Gravel or other surfacing may be used when necessary for "soft" road sections, steep grades, pad surfaces, highly erosive soils, clay and silty soils, and/or where all-weather access is required.
- G. All access roads will be upgraded and maintained as necessary to prevent soil erosion and to accommodate year-round traffic.

3. Location of Existing Wells

- A. As of December 8, 2014, there are six wells identified by the COGCC GIS map within a one-mile radius of the two proposed wells. The six wells are:
 - Sheep Mountain 2-9-H, 05-055-06057, producing
 - Sheep Mountain 6-9-B, 05-055-06075, producing
 - Sheep Mountain 5-9-A, 05-055-06073, producing
 - Sheep Mountain 3-4-O, 05-055-06065, producing
 - Sheep Mountain 4-4-P, 05-055-06072, producing
 - Sheep Mountain 7-9, 05-055-06031, producing

4. Location of Existing and/or Proposed Facilities

- A. As for all of the wells in the Sheep Mountain Unit, the only equipment left on location after the completion and reclamation phase of the project is the wellhead and a short portion (~50') of the flow line.
- B. The facility plan calls for a new set of flow lines from the two proposed wells to travel south, in the same ditch, to where the existing compressor building and related facilities are located (refer to "OXY Sheep Mountain 6-4-I Pad Proposed Pipeline/Flowline Layout"). The six existing wells on the pad also flow to this compressor building. The facilities consist of the compressor building, air coolers, a produced water tank, a glycol tank, an interstage heat exchanger and an electrical substation/transformers.
- C. At the Drill Site # 1 facilities, the produced volumes will be measured prior to entering the dehydration and compression stages. Once the gas is compressed to its desired pressure, it is sent through an existing 12" flow line to a central location referred as "Origin Meter Station" where the gas volume from all the SMU drill sites (there are 5 drill sites currently in the unit) is again measured and custody transfer between the SMU operations and the Sheep Mountain Pipeline takes place.
- D. Drill site #1 facilities have been in place since the early 1980's. All the compression equipment is housed in a building. The only equipment outside the building are cooling fans and cooling exchangers for temperature control in between compression stages, a storage tanks for produced water and one for the glycol dehydration system. All equipment is contained within an appropriate berm. All equipment is driven by electrical motors. The electrical substation is located on the southwest corner of the pad across the compressor building. This site has been inspected satisfactorily by the Colorado Oil and Gas Commission as of 5/15/2014.

5. Location and Type of Water Supply

- A. Weber Drilling, a local contractor with an office in the town of Walsenburg, has been set up to supply water and possibly transportation services.
- B. An agreement has been reached with the Koscove ranch operator to supply water. Water will be obtained from a existing source permitted to supply water for drilling operations. The take point is located off an existing lease road approximately 2.4 miles from the SMU 6-4-I pad.
- C. Access to water from the Huerfano River has also been secured. Take out point will be .3 miles south of the intersection of CR 550 and CR 560.
- D. To replenish the watershed of the water taken out from the above described sources B. and C, OXY has reached an agreement with the Huerfano County Water Conservancy District and will be covered under the Substitute Water Supply Plan.
- E. All water used in connection with these operations will be stored in tanks in an effort to conserve and re-use the water and minimize road traffic. The water used and stored will be removed from the property upon completion of all operations.

6. Construction Materials

- A. Native surface and subsoil materials within the existing construction areas will be used (excess fill, storm water, BMPs, etc.). Additional gravel (if required) or pit lining material (if required) may be obtained from commercial sources.

7. Methods for Handling Waste

- A. During drilling operations a closed loop system will be utilized so there will be no reserve pit on the pad.



- B. Cuttings: Any drilling fluid or completion fluids will be recycled/reused, whether the fluids are oil-based mud (OBM) or water-based mud (WBM) and will be directed through steel mud pits on the rig and not into a reserve pit. The closed loop system is designed to keep any drilling mud from settling on the ground.
- C. All cuttings coming across the shale shakers will be diverted to a metal container adjacent to the shaker skid. Sawdust and gravel will be mixed in with the cuttings to classify the waste as a solid material. A backhoe will remove the cuttings and transfer them to a roll-off box on the rig site. The dimensions of the box are 22 ft length x 8 ft wide x 4 ft deep (20 cubic yards). The roll-off box will be lined with a 6 mil poly "burrito bag." All cuttings will be placed into the burrito bag inside the roll-off box and enclosed so that no waste can contact the ground. A truck will then haul the roll-off box to a designated disposal site. Twin Enviro Services will be the designated service company to load and haul the cuttings to the disposal site.
- D. In addition, a vertical cuttings dryer system will be implemented for the Oil Base drilling fluid phase. The cuttings contained in the metal container will be loaded to the adjacent vertical dryer, which by centrifugal force removes significant remaining fluid from the cuttings. The dry cuttings are directly disposed in to a roll off box on the rig site, which will be handled as mentioned above (7.C). The recovered drilling fluid is pumped back to a reserve tank for treatment and re-utilization. The vertical dryer reduces the oil on the cuttings for improved waste management and transportation.
- E. A waste profile form will be completed for the project, a sample of the cuttings will be analyzed and results will be submitted to Twin Enviro Services for profiling purposes. A copy will be made available to CDPHE and Colorado Oil and Gas Conservation Commission. Each load will be manifested.
- F. The manifest will include the profile number and will be signed off by rig personnel at time of pick-up. It will also be signed off at the disposal site once the load arrives. The manifest system will ensure safe and legal pick-up, transport, and disposal of drill cuttings.
- G. Any spills of oil, gas, or other potentially hazardous substances will be reported immediately to all responsible and authorized parties and will be mitigated immediately, as appropriate, through clean-up and/or removal to an approved disposal site.
- H. Self-contained chemical portable toilets will be provided for human waste disposal. The accommodations that include bathrooms will be connected to the holding tanks. Upon completion of operations or as needed, the toilet holding tanks will be pumped and the contents will be disposed of at an approved sewage disposal facility.
- I. Garbage and other waste material will be collected in a portable, self-contained, wildlife-proof and fully enclosed trash container during drilling and completion operations. Upon completion of operations or as needed, the trash will be disposed of at an approved sanitary landfill. No garbage or trash will be burned on location. The well pad site and access road will be kept free of trash and debris at all times.

8. Ancillary Facilities

- A. Self-contained skid-mounted trailers may be used on site during drilling operations to house essential personnel. The location for placement of the TEH (Temporary Employee Housing) trailers will be determined at a date closer to the projected spud date of the two proposed wells.

9. Well Site Layout

- A. The attached survey plats specify the drill site layout as staked. The "Construction Layout Drawing" shows the proposed construction layout for the pad. It indicates the portion of the pad that will be fill vs. what will be cut. It summarizes in a table the volume of cut, fill, excess and top soil and identifies within the boundary of the location where the top soil and excess will be stored. The location of the storm water control is also shown.
- B. Appropriate topsoil berms, sediment traps and storm water ditches and drainages will be installed. OXY will be installing, monitoring and adapting appropriate storm water BMPs (Best Management Practices). Soil material and topsoil material will not be pushed into drainages. All soil material and topsoil material will be placed so that it can be retrieved and reused.
- C. The two proposed wells to be drilled from the expanded 6-4-I pad are:
 - a. Sheep Mountain 6-4-I, reaching COC 004399A and reaching free minerals
 - b. Sheep Mountain 1-3-M, reaching COC 010646
- D. All wells will be identified with a well sign which includes the following information: operator name, API number, legal description, BLM lease number, OXY emergency number, and local emergency dispatch number.
- E. The pad location is identified with a pad sign which includes the following information: pad name and number, legal description, county, GPS coordinates, operator name, OXY emergency contact number, and local emergency dispatch number.

- F. Depth and width of stockpiles will vary with availability and stormwater requirements.
- G. The well pad is located within a native grassland/shrub/forest vegetative community per the COGCC Natural Resources Conservation Service (NRCS) map. The soil name is Brownsto very gravelly loam.
- H. In general, any materials to be moved will be returned according to a last-out/first-in philosophy.

10. Plans for Surface Reclamation

- A. Upon completion of drilling, the location and surrounding area will be cleared of all remaining debris, materials and trash not required for production and hauled to the nearest legal landfill.
- B. OXY or OXY's contractor will notify the Bureau of Land Management, Canon City, CO, forty-eight hours before starting interim reclamation work that involves earth-moving equipment, and again upon completion of final reclamation measures.
- C. A closed-loop system will be utilized for this well; a drilling pit will not be used.
- D. After completion activities, OXY will reduce the size of the well pad to the minimum surface area needed for operations/well maintenance, while providing for reshaping and stabilization of cut and fill slopes. Slopes will be recontoured and erosion prevention methods will be incorporated. Any excess topsoil will be salvaged for recontouring and revegetation use. At least the top 6" of soil will be stripped and segregated from subsoil for interim reclamation. A seed mix meeting landowner-intended range management practices will be utilized.
- E. The surface is privately owned and OXY will follow and adhere to the OXY USA INC. Noxious Weed Management Plan for Sheep Mountain, which states we will be responsible for treating Colorado list A and B Noxious Weeds, within the project area for the life of the project.
- F. Current stormwater control BMPs for run-on control will be maintained. Run-off control on recontoured slopes will consist of surface roughening by tracking gentle slopes and pocking of steep slopes and re-seeding. Placement of additional BMPs as necessary to protect exposed surfaces prior to establishing adequate vegetative cover will be conducted. All stormwater BMPs will be installed, inspected and maintained as required by Oxy Stormwater Discharge Permit and Management Plan in compliance with CDPHE regulations.
- G. OXY is proposing that within 6 months of completing or plugging wells to start interim and final reclamation (weather permitting).

11. Surface Ownership

- A. The surface of the Sheep Mountain Unit 6-4-I pad is the privately owned. The operator (OXY USA Inc.) hereby certifies that a copy of the Surface Use Plan of Operations has been provided to the private surface owner of the well site location.

12. Other Information

- A. If archaeological, historical or vertebrate fossil materials are discovered during the course of any construction activities, OXY will immediately suspend all activities and contact the appropriate BLM office. Operations in the area of discovery will not resume until written authorization to proceed has been issued by the BLM.
- B. OXY will be fully responsible for the actions of the subcontractors.
- C. A copy of the approved APD and Conditions of Approval will be on location during drilling and completion operations.
- D. The Sheep Mountain Unit 6-4-I pad is located within a Colorado Parks and Wildlife black bear area; the OXY "Wildlife and Domestic Animals Policy" BMP is attached.
- E. The initial pre-consultation meeting with the CPW occurred via email on December 8, 2014.
- F. The shape files for the Sheep Mountain 1-3-M well were emailed to Aaron Richter on 01/06/2015.
- G. The shape files for the Sheep Mountain 6-4-I well were emailed to Aaron Richter on 01/13/2015.
- H. The BLM mineral lease boundary is outlined on the "SMU 6-4-I Pad Federal Minerals" attachment.





Lessee's or Operator's Representative and Certification

Sheep Mountain Unit 6-4-I Pad
Sheep Mountain 6-4-I Well, COC 004399A and Fee Minerals
Sheep Mountain 1-3-M Well, COC 010646

A) Representative:

Adriano Celli
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Houston, TX 77046
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832.876.2473 Cell

B) Field Representative:

Al Giussani
Senior Reservoir Engineer Advisor
OXY USA INC./OXY USA Inc.
806-894-0200 Office
806-638-1296 Cell

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.

C) 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 the 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.

Executed this 14 day of January, 2015.

Name: Adriano Celli
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Field Representative (if not above signatory)

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By: 
Adriano Celli