



OXY USA WTP LP

SURFACE USE PLAN OF OPERATIONS

Cascade Creek 697-15B Pad

Surface Location: NWSW, Section 15, Township 6S, Range 97W, 6th PM

Garfield County, CO

Lease No. COC 56300

Overview

The proposed Cascade Creek 697-15B pad will be constructed on private lands owned by OXY USA WTP LP ("Oxy") and will contain 16 wells; 15 wells will reach Federal minerals and 1 well will reach fee minerals. Access to the location will be across private land.

1. Existing Roads

- A. The proposed pad site is located approximately 20 miles north of the town of DeBeque in Garfield County, Colorado.
- B. Access roads: Refer to topographical map "Proposed Access Map."
- C. Access roads within a one-mile radius: Refer to topographical map "Access Road Map."
- D. The existing 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.
- E. Refer to the last page of the plat package for directions ("Driving Directions").

2. Access Road and Well Pad Construction

- A. The BLM authorized officer will be contacted 48 hours prior to commencement of construction activities.
- B. There will be no new access road constructed. The existing road for the Cascade Creek 697-15B pad is entirely on private surface and was constructed to be compatible with the anticipated load traffic; refer to the "Location Drawing" plat.
- C. Gates, cattle guards or fence cuts: None 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. The proposed pad access from the existing road will be approximately 40' for the access and the pipeline, plus or minus 10', for a total of 50'. There will be 28' of flat surface for the pad access and the pipeline, with approximately 20' of proposed driving disturbance. Ditches will be placed on the inside of the proposed pad access due to the topography of the site.
- F. Oxy will windrow all brush, limbs and other woody material separately from the topsoil along the roadway or near the well pad. The upper six inches of topsoil will be salvaged and placed in a berm on the northwest corner of the pad and on the east side of the pad to provide stormwater control and provide topsoil for interim and final reclamation efforts; refer to "Construction Layout Drawing 1 of 5." The topsoil berm will be compacted, tracked and seeded after construction is completed to ensure topsoil integrity and prevent erosion. All disturbances will be seeded to encourage vegetative cover growth to limit erosion potential.
- G. Stormwater run-on protection will be provided as needed. Cut and fill slopes will be tracked or pocked as necessary to minimize stormwater run-off potential, and seeded to stabilize the soil with cover vegetation.
- H. A run-off retention and sediment collection trap will be constructed below the toe of the pad fill slope using the segregated topsoil. A drainage outlet will be constructed as needed with armored run-down structures to allow for water discharge.
- I. A drainage ditch will be installed on the west side of the pad to drain stormwater from the bottom of the cut slopes and the pad surface into the sediment trap discussed above; refer to "Construction Layout Drawing 1 of 5."

- J. Dust will be controlled on the roads and locations during construction and drilling by periodic watering or application of chemical agents as necessary.
- K. 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.
- L. All access roads will be upgraded and maintained as necessary to prevent soil erosion and to accommodate year-round traffic.
- M. Surface disturbance will be limited to the proposed location shown; refer to "Construction Layout Drawing 4 of 5."
- N. Road and/or pipeline rights-of-way: None required.

3. Location of Existing Wells

- A. As of December 8, 2011, there were approximately 150 wells identified by the COGCC GIS map within a one-mile radius of the proposed well. Refer to "697-15B: Wells Within 1-Mile Radius."

4. Location of Existing and/or Proposed Facilities

- A. Production facilities will be placed to allow the best possible reshaping of cuts and fills. If a tank battery is constructed on this lease, containment of 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 berm surrounding the tank battery. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed. The proposed facilities to be located on the well pad will be 1-400 bbl condensate tank, 1 pigging station, 3-400 bbl water tanks, 1 cavity pump, 1-6" gas pipeline, 4 4-pack separators, 1 electric motor, 16 LACT units, 2 water pipelines, 1 electric generator, 1 gas compressor and 1-48" VCU combustor. Refer to "Location Drawing."
- B. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the BLM – Grand Junction Field Office.
- C. The oil and gas measurement facilities will be installed on the well location. Oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. A copy of the meter calibration reports will be submitted to the Field Office. Gas meter runs for these wells will be located within one hundred (100) feet of the wellhead. The gas flow line will be buried from the wellhead to the meter and downstream for the remainder of the pad.
- D. All site security regulations as specified in Onshore Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbons storage tanks will be effectively sealed in accordance with 3162.7-5 (b.4.).
- E. There is an existing gas gathering line which follows the existing access road so no additional disturbance will occur.
- F. All permanent structures (onsite for six months or longer) constructed or installed, including pumping units, will be painted a flat, non-reflective earth tone color to match one of the standard environmental colors, which will be Shale Green (5Y 4/2) or the prescribed color outlined in the approved permit to drill. All production facilities will be painted within six months of installation. Facilities that are required to comply with Occupational Health and Safety Act Rule and Regulations will be excluded from this painting requirement.
- G. If the wells are productive, that portion of the drill site to be utilized for the production facilities will be surfaced with gravel.

5. Location and Type of Water Supply

- A. As surface owner in this area, Oxy has access to ponds in this area. Water trucks will be used to transport the water using existing access roads to the location. Additional water may be obtained from an access point along the Colorado River near DeBeque, Colorado. The access route from the Colorado River to the proposed pad is described in the "Driving Directions." 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 proposed construction areas will be used (excess fill, stormwater, BMPs, etc.). Additional gravel or pit lining material (if required) may be obtained from commercial sources.

7. Methods for Handling Waste

- A. A semi-closed loop system will be used during drilling operations.
- B. A 270' x 65' x 15' deep lined reserve pit will be built in the cut of the well pad; refer to "Construction Layout Drawing 1 of 5."
- C. Cuttings will be trucked to one of two approved cuttings disposal locations on Oxy (private surface) property. No public roads will be used for the disposal of cuttings. The cuttings will be sampled, and the cuttings disposal location will be sloped and contoured, and capped and reseeded. Oxy is currently in the process of permitting four additional cuttings disposal locations on Oxy (private surface) property to accommodate current and future drilling needs.
- D. Produced fluids: Liquid hydrocarbons produced during production operations will be confined to flowback tanks for a period not to exceed 90 days. The liquid hydrocarbons may also be recycled and used for drilling, completion or frac'ing activities for a different location. Excess water may be piped or trucked to disposal wells and/or trucked to a commercial disposal facility. Currently, all produced water from Federal wells is either trucked to the Logan Trail off-loading facility then injected into the Logan Trail 28-10 SWD, or sent to Oxy's Central Water Handling Facility for re-use. Produced water from non-Federal wells goes to the Central Water Handling Facility which provides additional gravity separation of produced water, then sends the water out for re-use or disposal. In order to reduce the amount of truck traffic and associated truck-generated dust, Oxy proposes to incorporate the produced water from the Federal wells with the produced water from the one non-Federal well into the water pipeline system used by the non-Federal wells.
- E. Sewage: Self-contained chemical portable toilets will be provided for human waste disposal. 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.
- F. Garbage and other waste material: These materials 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 disposed of in the reserve pit nor will it be burned on location. The well pad site and access road will be kept free of trash and debris at all times.
- G. Any spills of oil, gas, salt water 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 or removal to an approved disposal site.

8. Ancillary Facilities

- A. Self-contained skid-mounted trailers may be used on site during drilling operations to house essential personnel. The projected drilling start date for the 697-15B pad is March 1, 2013, and a location for placement of the TEH (Temporary Employee Housing) trailers will be determined at a date closer to the start of pad construction. The trailers will be in accordance with the Garfield County Land Use Regulations for temporary employee housing. Potable water will be provided by water haulers certified by the Colorado Department of Public Health & Environment. Refer to the "Construction Layout Drawing 2 of 5."

9. Well Site Layout

- A. The attached survey plats specify the drill site layout as staked. Refer to "Construction Layout Drawing 3 of 5" for a cut and fill diagram of the proposed drill pad, location of reserve pit and blooie pit and access road entry points. Refer to "Construction Layout Drawing 5 of 5" for cross section diagrams. Refer to "Construction Layout Drawing 2 of 5" for the drilling rig location and layout, and the topsoil material stockpiles.
- B. The "Multi-Well Plan" plat outlines the bottom hole locations for the sixteen proposed wells. At this time there is no plan to add more wells to this pad; however, this is subject to change depending on business plans.

- C. Appropriate topsoil berms, sediment traps and stormwater ditches and drainages will be installed. Oxy will be installing, monitoring and adapting appropriate stormwater BMPs (Best Management Practices). Soil material and topsoil material will not be pushed over side slopes or into drainages. All soil material and topsoil material will be placed so that it can be retrieved and reused.
- D. The 16 proposed wells to be drilled on the proposed 697-15B pad are:
 - 1. Oxy Federal 697-15-34
 - 2. Oxy Federal 697-15-34A
 - 3. Oxy Federal 697-15-36A
 - 4. Oxy Federal 697-15-36B
 - 5. Oxy Federal 697-15-42A
 - 6. Oxy Federal 697-15-42B
 - 7. Oxy Federal 697-15-44A
 - 8. Oxy Federal 697-15-44B
 - 9. Oxy Federal 697-15-49
 - 10. Oxy Federal 697-15-50
 - 11. Oxy Federal 697-15-51
 - 12. Oxy Federal 697-15-52
 - 13. Oxy Federal 697-15-57
 - 14. Oxy Federal 697-15-59
 - 15. Oxy Federal 697-15-60
 - 16. Cascade Creek 697-15-28B
- E. All wells will be identified with a well sign which includes the following information: operator name, API number, legal description, GPS coordinates, elevation, Oxy emergency number, and local emergency dispatch number.
- F. The pad location will be 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.
- G. Depth and width of stockpiles will vary with availability and stormwater requirements.
- H. The proposed well pad is located within a rangeland vegetative community per the COGCC Natural Resources Conservation Service (NRCS) map. The soil name is Parachute and the ecological site is Brushy Loam.
- I. In general, materials will be moved and returned according to a last-out/first-in philosophy. No excessive rock was identified at the Notice of Staking on-site visit.
- J. The flare ditch (blooie pit) will be constructed as an unlined pit.
- K. Compaction and construction of the berms surrounding the tank or tank batteries will be designed to prevent lateral movement of fluids through the utilized materials, prior to storage of fluids.
- L. The proposed drilling rig for the 697-15B pad will be an H&P 330 rig, which has a self-contained flare container.

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, Grand Junction Field Office, forty-eight hours before starting reclamation work that involves earth-moving equipment, and again upon completion of restoration measures.
- C. After completion activities, Oxy 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 recontoured and erosion prevention methods will be incorporated. Any excess topsoil will be salvaged for recontouring and revegetation use. On Federal lands, the recommended Bureau of Land Management seed mix will be used on all disturbed areas. On private land, seed mixes meeting landowner-intended range management practices will be utilized. Refer to "Construction Layout Drawing 4 of 5" for the area expected to be reclaimed after drilling and completion operations.
- D. Oxy will follow and adhere to the Noxious and Invasive Weed Management Plan for Oil and Gas Operators published from the Grand Junction Field Office of the BLM and the Grand Valley Ranger District for the U.S. Forest Service dated March, 2007.
- E. 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.

- F. All stormwater BMPs will be installed, inspected and maintained as required by Oxy Stormwater Discharge Permit and Management Plan in compliance with CDPHE regulations.

11. Surface Ownership

- A. The surface owner of the 697-15B well pad and of all lands crossed by roads to access the 697-15B well pad is OXY USA WTP LP.
- B. The operator (OXY USA WTP LP) 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, OXY USA WTP LP.

12. Other Information

- A. A Limited-Results Cultural Resource Survey was conducted on the proposed pad site, access road and well tie pipeline and was filed with the appropriate BLM office. Plant and wildlife surveys of the proposed drill sites, access roads and other facilities on Federal lands have been or will be conducted and a report filed with the appropriate BLM office.
- B. 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.
- C. Oxy will be fully responsible for the actions of the subcontractors.
- D. A copy of the approved APD and Conditions of Approval will be on location during drilling and completion operations.
- E. The 697-15B pad is located within a Division of Wildlife black bear area; the Oxy "Wildlife and Domestic Animals Policy" BMP is attached.
- F. The shape files for the 697-15B pad were emailed to Julia Christiansen at the BLM Grand Junction Field Office on January 17, 2012.



Lessee's or Operator's Representative and Certification

**Cascade Creek 697-15B Pad
Federal Lease COC-56300**

**Bond #9312774
BLM Bond #ESB0136**

A) Representative:

Chris Clark
Regulatory Lead
OXY USA WTP LP/OXY USA Inc.
760 Horizon Drive, Suite 101
Grand Junction, CO 81506
970.263.3651 Office
970.263.3694 Fax
970.462.8375 Cell

B) Field Representative:

Warner Meece
Production Coordinator
OXY USA WTP LP/OXY USA Inc.
970.985.3004 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 13th day of January, 2012.

Name: Chris Clark
Title: Regulatory Lead
Address: 760 Horizon Drive, Suite 101, Grand Junction, CO 81506
Telephone: 970.263.3651
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Field Representative (if not above signatory)

Name: Warner Meece
Title: Production Coordinator
Telephone: 970.985.3004
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By: 

Chris Clark