



## **OXY USA Inc.**

### **SURFACE USE PLAN OF OPERATIONS**

#### **Hells Gulch Federal 26-11 Pad**

**Surface Location: NESW, Section 26, Township 8S, Range 92W, 6<sup>th</sup> PM**

**Mesa County, CO**

**Mineral Lease No. COC 66918**

**Mineral Lease No. COC 66723**

#### **Overview**

OXY USA Inc. ("Oxy") is proposing to drill two wells from the existing Hells Gulch Federal 26-11 pad located on lands owned by USDA Forest Service ("Forest Service"). The proposed wells will reach Federal minerals. The Rifle Ranger District has surface management responsibilities for Forest Service lands and the BLM Colorado River Valley Field Office has responsibility for managing all Federal minerals. An Environmental Assessment ("EA"), "Laramie Energy Hells Gulch North, Phase 2", is dated May, 2008. Oxy is requesting that the permits to drill for the two proposed wells be reviewed and approved under a Categorical Exclusion since no additional ground disturbance will be required to drill the two proposed wells from the existing pad which was reviewed and approved as part of the EA identified above.

#### **1. Existing Roads**

- A. The Hells Gulch 26-11 pad site is located approximately 9 miles south of the town of Silt in Mesa County, Colorado.
- B. Access roads: Refer to topographical map "Access Road 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 topographical map "Access Road Map" for directions to the site.
- F. The access road to the pad site that crosses Forest Service surface is gated and will remain closed to the general public, except during the period of the winter exclusion.
- G. During drilling, completions, operations and maintenance activities, all vehicles and equipment that have extensive contact with the ground (e.g., frac'ing trailers) require power washing prior to entering the project area for the first time, and as necessary (i.e., if they acquire new dirt or mud while off the National Forest) prior to subsequent trips.

#### **2. Access Road and Well Pad Construction**

- A. There will be no new well pad constructed at this site. The authorized officer of the Forest Service will be contacted 48 hours prior to commencement of construction related activities, such as construction of the drilling pit, installation of production facilities, and associated flow lines and final pad preparation for drilling activities.
- B. There will be no new access road constructed. The existing access road for the Hells Gulch Federal 26-11 pad is on Federally owned surface and was constructed to be compatible with the anticipated load traffic; refer to the "Construction Layout Drawing 1 of 2" plat. The access road from CR 342 crosses BLM surface and private surface.
- C. Gates, cattle guards or fence cuts: None required.
- D. Road maintenance: During the drilling and production phase of 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 existing pad access from the existing road is graveled. There is an existing gas gathering line and an existing produced waterline.
- 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 stockpiled in a

berm along the northern edge of the well pad to provide stormwater control and provide topsoil for interim and final reclamation efforts. 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. There will be a stormwater drainage with wattles located at the four "corners" of the well pad, a catch basin at the northwest corner and two catch basins at the southwest corner, and rock channels; refer to "Construction Layout Drawing 1 of 2." 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.

- G. Dust will be controlled on the roads and locations during construction and drilling by periodic watering of the roads and locations.
- H. 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.
- I. If the wells are producers, access roads will be maintained as necessary to prevent soil erosion and to accommodate year-round traffic.
- J. If either or both of the wells scheduled to be drilled on the Hells Gulch 26-11 pad are dry holes or non-producers, Oxy will follow the procedures of the COGCC, Forest Service and BLM for plugging and abandonment of the well site(s). All surface production equipment would be removed and the entire well pad will be restored to its original "as found" condition.
- K. Surface disturbance will be limited to the proposed location shown; refer to "Location Drawing."
- L. Vehicle traffic during the construction phase of the project would include the transportation of heavy equipment, daily workforce commuting, daily operation of construction equipment, transportation of drilling equipment, and transportation of completions equipment. During the drilling and completion work phase with duration of approximately 45 days it is estimated that there would be an average of 3 medium and heavy-truck round trips per day and 12 light vehicles per day. The majority of vehicle traffic would occur during active operations with most vehicle trips occurring during business hours. The Annual Operating Plan will be updated as appropriate to account for the traffic associated with the drilling and completions operations.
- M. Road and/or pipeline rights-of-way: No additional access road and/or pipeline ROWs will be required. Oxy has obtained the necessary access road and pipeline ROWs, which have been constructed.

### **3. Location of Existing Wells**

- A. As of January 9, 2012, there were approximately 40 wells identified by the COGCC GIS map within a one-mile radius of the proposed well. Refer to "Hells Gulch 26-11 Pad: Wells Within 1-Mile Radius."

### **4. Location of Existing and/or Proposed Facilities**

- A. Production facilities will be placed to allow maximum 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, 1 drilling pit, 1-400 bbl water tank, 1 cavity pump, 1-6" gas pipeline, 1 4-pack separators, 1 electric motor, 2 LACT units, 2 water pipelines, 1 gas or diesel motor, 1 electric generator, 1 temporary flare for drilling and/or completions operations, 1 gas compressor and 1 fuel tank. Refer to "Location Drawing" and "Construction Layout Drawing 1 of 2."
- B. A communications repeater tower will be temporarily installed on the northwest corner of the pad (Refer to "Construction Layout Drawing 1 of 2") in order to maintain communications between the Oxy Grand Junction office and remote oil and gas locations. During drilling and completions operations the repeater tower will be located near the edge of the pad to provide sufficient room for the rigs, equipment and workflow. After drilling and completions operations and prior to the onset of the reclamation process, the repeater will be permanently moved closer to the meter/treater so that it is not located in the reclaimed area. The repeater tower will be located in a 10' x 10' fenced area to ensure the area is not disturbed by wildlife. For additional information regarding the communication tower repeater, refer to the enclosed correspondence dated 7/12/11 from Twin Eagle Consulting, LLC.
- 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 or as provided by

an approved alternative method. A copy of the meter calibration reports will be submitted to the Field Office. Gas meter runs for this well 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 and a produced waterline which follow 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 natural color selected to minimize contrast with adjacent vegetation or rock outcrops. The color shall be Federal Color 34095. 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 after all the production equipment is installed. The Authorized Officer, upon request, may grant an extension of this time period due to inclement weather.

## **5. Location and Type of Water Supply**

- A. Water for use during drilling would be purchased from an adjudicated water source. Approximately 12,000 barrels of water would be needed for the drilling process for both wells. Drilling water would be reused on subsequent wells as much as possible. Oxy would arrange for water acquisition through a contractor whose source of water is under contract through the West Divide Water conservancy District (West Divide). Each month Oxy, or its contracted water hauler, would provide West Divide with a quantitative diversion record which documents the volume of water used from the Last Chance Ditch. West Divide then augments the water used back to the Colorado River. West Divide's replacement/augmentation water is obtained from Ruedi Reservoir and/or Green Mountain Reservoir, which are managed by the Bureau of Reclamation (BOR). West Divide has three contracts in place with the BOR for Ruedi and Green Mountain Reservoirs:
  - 1. Ruedi Round I contract (Contract #2-07-70-W0547) executed in May, 1982. As described on page 18 of the *Final Programmatic Biological Opinion (PBO) for Bureau of Reclamation's Operations and Depletions, Other Depletions, and Funding and Implementation of Recovery Program Actions in the Upper Colorado River above the Confluence with the Gunnison River* (PBO), Round I depletions from Ruedi Reservoir qualify as "existing depletions" and are therefore addressed under the PBO and Section 7 Consultation that preceded the PBO.
  - 2. West Divide's second contract is a Ruedi Round II contract (Contract #039F6C0025) executed in June, 2003. As described on page 18 of the PBO, Round II depletions from Ruedi Reservoir also qualify as "existing depletions" and are therefore addressed under the PBO and Section 7 Consultation that preceded the PBO.
  - 3. West Divide's third contract is for Green Mountain Reservoir water (Contract #8-07-60-W0726) executed in October 1998. As described on page 18 of the PBO, Green Mountain Reservoir depletions also qualify as "existing depletions" and are therefore addressed under the PBO and Section 7 Consultation that preceded the PBO.
- B. Based on this information, the water that West Divide depletes from Ruedi and Green Mountain Reservoirs in order to augment Colorado River water (which includes the water that Oxy would be using for the Hells Gulch 26-11 pad) has undergone Section 7 Consultation and is addressed under an existing U.S. Fish and Wildlife Service (USFWS) programmatic Biological Opinion.
- C. Water trucks will be used to transport the water using existing access roads to the location. 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 have been used (excess fill, stormwater, BMPs, etc.). Additional gravel or pit lining material (if required) will be obtained from commercial sources.

## **7. Methods for Handling Waste**

- A. A semi-closed loop system will be used during drilling operations. Cuttings will be contained on the location in the lined reserve or cuttings pit.
- B. Produced fluids: Liquid hydrocarbons and produced water produced during production operations will be confined to flowback tanks for a period not to exceed 90 days. The produced water may also be recycled and used for drilling, completion or frac'ing activities for a different location. Excess water will be trucked to disposal wells and/or trucked to a licensed and approved commercial disposal facility.
- C. 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.
- D. 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 be it burned on location. The well pad site and access road will be kept free of trash and debris at all times.
- E. Any spills of oil, gas, salt water (produced 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.
- F. A semi-closed loop system will be used and a drilling pit measuring approximately 195' x 35' x 12' deep will be on the well pad. Because continuous operations occur 24/7 during drilling and completions activities, fencing is installed on three sides of the pit. The pit will be lined. If activities are suspended for greater than 30 days, any standing fluids will be removed from the pit and Oxy will erect fencing on all sides of the pit and will also consider installing bird deterrent devices such as flagging. All locations are monitored at least monthly during suspended operations.

## **8. Ancillary Facilities**

- A. Self-contained travel-type trailers may be used on site during drilling and completions operations to house 16 or less essential personnel. The trailers will be in accordance with the Mesa County Land Use Regulations for temporary employee housing (TEH). Potable water will be provided by water haulers certified by the Colorado Department of Public Health & Environment. For a similar pad TEH set-up, refer to the "Proposed TEH Placement" drawing.

## **9. Well Site Layout**

- A. The attached survey plats specify the drill site layout as staked. Refer to "Construction Layout Drawing 1 of 2" for a cut and fill diagram of the proposed drill pad, location of reserve pit and access road entry points. Refer to "Construction Layout Drawing 2 of 2" for cross section diagrams.
- B. The "Multi-Well Plan" plat outlines the bottom hole locations for the two 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, catch basins, sediment traps, rock channels, and stormwater ditches and drainages with wattles 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 two proposed wells to be drilled on the existing Hells Gulch 26-11 pad are:
  - a. Hells Gulch Federal 26-11C
  - b. Hells Gulch Federal 35-03A
- E. All wells will be identified with a well sign which includes the following information: operator name, API number, lease 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 field observation. Per the COGCC Natural Resources Conservation Service (NRCS) map and the NRCS website, "Mapping for this survey area is still in progress."
- I. In general, materials will be moved and returned according to a last-out/first-in philosophy.
- J. 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.
- K. The proposed drilling rig for the Hells Gulch 26-11 pad has not been determined at this time; however, it will be equipped with a self-contained flare container.

## 10. Plans for Surface Reclamation

- A. Upon completion of drilling and completions operations, 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 Forest Service, White River Field Office in Silt, forty-eight hours before starting reclamation work that involves earth-moving equipment, and again upon completion of restoration measures.
- C. In accordance with the COGCC 1000 series rules for drilling pit closure, Oxy will close and reclaim all drilling pits no later than six months (noncrop lands) after drilling and completion activities conclude, unless the COGCC permits an exception. Exception requests shall be submitted to the COGCC on a Form 4 sundry requesting approval. Prior to closure, Oxy will sample and characterize all E&P waste within the pit. Oxy will coordinate the beneficial reuse, treatment, and/or disposal of all E&P waste found within the reserve pit. After the pit fluid level has been removed, Oxy will remove the pit liner to be staged on the pad for sampling and offsite disposal. Oxy utilizes a 3<sup>rd</sup> party environmental consultant to assist with characterizing the liner for transport to an approval disposal facility. Prior to transport, the disposal facility will provide Oxy with a waste manifest for the liner. Once the pit liner has been removed, Oxy's contractor will begin mixing and stabilizing the remaining material found within the pit. Once mixing has been completed, Oxy will collect a minimum of four (4) pit bottom samples from below the pit liner to be analyzed for Table 910-1 soil analytical concentrations of concern. Also, one (1) mixed material composite sample will be collected to be analyzed for Table 910-1. These samples will identify if additional actions need to be taken due to environmental impacts from the reserve pit. Samples will be compared to applicable COGCC Table 910-1 regulated levels. Oxy will follow applicable COGCC guidance regarding constituents that don't commonly meet Table 910-1 concentration levels, such as Arsenic, pH, SAR, EC, and TPH and file the necessary sundries to document Oxy's disposal methods. If there are no exceedances, then Oxy will prepare a pit closure memorandum to file, with a determination that no further documentation is required for submittal to the COGCC. If arsenic (As) is found to be in exceedance to the Table 910-1, Oxy will submit a form 4 sundry notice to the COGCC requesting a different standard for As based on available background samples. If pH, EC, SAR, or any combination of the three is found to be an exceedance, Oxy will cap the pit with a minimum of 3 feet of native material to ensure a sufficient agronomic zone. After the pit is capped, Oxy will collect one composite sample of the pit to be analyzed for Table 910-1. After the cap passes for Table 910-1, Oxy will submit a Sundry notice to the COGCC with the steps taken to ensure a sufficient agronomic zone. Depending on the operational use of the pad, the pit top or cap will be graded to be level with the working surface of the pad, or the cap will be seeded with a surface owner approved weed-free seed mix and managed for weeds. The reclaimed pit surface will be monitored for stormwater run-on/off control, noxious weeds, and subsidence. Corrective action will be implemented if issues are identified.
- D. After completion activities, Oxy will reduce the size of the well pads 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. The recommended Forest Service seed mix will be used on all disturbed areas. Refer to "Production Schematic" for the area expected to be reclaimed after drilling and completion operations.
- E. Oxy will follow and adhere to the attached "Revisions to BLM Energy Office Revegetation Requirements" dated May 1, 2008, specifically for Table 1-3, Mixed Mountain Shrubland, Including Oakbrush, for the subject well pad, and will follow and adhere to "Attachment 3, Standard Surface Use Conditions of Approval - Reclamation" attached to the revised revegetation requirements. Site specific COAs will be attached when the APDs are approved.

- F. Oxy will regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the Glenwood Springs Energy Office *Noxious and Invasive Weed Management Plan for Oil and Gas Operators* dated March, 2007. .

#### **11. Surface Ownership**

- A. The surface owner of the Hells Gulch 26-11 well pad and is the USDA Forest Service.
- B. The operator (OXY USA Inc.) hereby certifies that a copy of the Surface Use Plan of Operations has been provided to the surface owner of the well site location.

#### **12. Other Information**

- A. This lease is subject to the December 1 through April 30 timing stipulation for big game winter range; this stipulation precludes drilling and construction activities but allows normal maintenance and operations to continue during authorized work hours.
- 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 Hells Gulch 26-11 pad is located outside the Collbran Watershed District.
- F. The Hells Gulch 26-11 pad is located within a Division of Wildlife black bear area; the Oxy "Wildlife and Domestic Animals Policy" BMP is attached.
- G. The shape files for the Hells Gulch 26-11 pad were emailed to Faith Gall the BLM on 2/8/2012.



**Lessee's or Operator's Representative and Certification**

**Hells Gulch Federal 26-11 Pad**

**Lease No. COC 66918**

**Lease No. COC 66723**

**Bond #9312774**

**BLM Bond #ES0136**

**A) Representative:**

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**B) Field Representative:**

Greet Gatlin  
Production Coordinator  
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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 8<sup>th</sup> day of February, 2012.

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Field Representative (if not above signatory)

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By: \_\_\_\_\_

Chris Clark