

BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE
Documentation of Land Use Plan Compliance and NEPA Adequacy (DNA)
DOI-BLM-P010-2010-73-DNA

Resources	Not Present on Site	No Impacts	May Be Impacts	Mitigation Included	BLM Reviewer	Date
Air Quality			X	X	Hydrologist /s/ Michael McGee	3/16/10
Soil			X	X		
Watershed Hydrology			X	X		
Floodplains	X					
Water Quality - Surface			X	X	/s/ John S. Simitz geologist	4/14/2010
Water Quality - Ground			X	X		
Cultural Resources	X				/s/Rebecca L. Hill 10-R-026A	15Mar2010
Native American Religious Concerns	X					
Paleontology	X					
Areas of Critical Environmental Concern	X				/s/J H Parman	3/12/10
Farmlands, Prime or Unique	X				/s/ Adam Ortega	3/24/10
Rights-of-Way			X	X		
Invasive, Non-native Species			X	X	/s/ Adam Ortega	3/24/10
Vegetation			X	X		
Livestock Grazing			X	X		
Threatened or Endangered Species	X					
Special Status Species	X				/s/ Randy Howard	3/15/2010
Wildlife			X	X		
Wetlands/Riparian Zones	X					
Wild and Scenic Rivers	X				/s/ Bill Murry Outdoor Rec Planner	3/22/10
Wilderness	X					
Recreation		X				
Visual Resources			X	X		
Cave/Karst			X	X		
Environmental Justice		X			/s/ Jared Reese Nat. Resource Spec.	3/16/2010
Public Health and Safety		X				
Wastes, Hazardous or Solid		X				
Solid Mineral Resources		X			/s/ Jerry Dutchover	03/15/10
Fluid Mineral Resources		X			/s/ John S. Simitz	4/14/2010

Decision For [DOI-BLM-P010-2010-73-DNA:

Based upon the analysis, the Proposed Action is approved. This includes Perseus 10 Federal Com #3H, described in the location in the attached document.

Rationale: The Bureau of Land Management staff has reviewed the environmental assessment, DOI-BLM-NM-510-07-184, and previously identified site-specific mitigation measures to avoid or minimize surface impacts resulting from the construction of this project. The well pads will remain as long term impacts. The cumulative impacts to the environment from existing and new development have been identified.

The proposed Action is in conformance with the Roswell Resource Management Plan, as amended. This authorization is subject to appeal under 43 CFR Part 4 and 43 CFR 3165. Any request for administrative review of this DR must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, 1474 Rodeo Road, Santa Fe, NM 87505, no later than 20 business days after this DR is received or considered to have been received.

Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

Approved by:

/s/ Angel Mayes

04/29/2010

Date

Angel Mayes, Assistant Field Manager, Lands & Minerals

Pecos District
ROSWELL FIELD OFFICE
Documentation of Land Use Plan Compliance
And NEPA Adequacy (DNA)
DOI-BLM-P010-2010-73-DNA

Roswell Field Office;

Applicant:

Chesapeake Operating, Inc.
P.O. Box 18496
Oklahoma City, OK 73154-0496

Lease No.: NM-105885

Action Type: Application for Permit to Drill

Well Name: Perseus 10 Federal Com #3H

Location of Proposed Action:

Surface Location - 1980' FNL & 200' FEL,
Bottom Hole Location – 1980' FNL & 330' FWL
Section 10, T. 15 S., R. 31 E., Chaves County, New Mexico, NMPM.

Description of Proposed Action: Chesapeake Operating Inc. submitted an Application for Permit to Drill (APD) on February 16, 2010 to drill the Perseus 10 Federal Com #3H oil well. The well will be drilled on state surface with a closed loop system. The construction of the proposed well pad would be 340' X 275' and the well pad is located within the analyzed 600' X 600' archaeological surveyed area. There will be a need for an on-lease access road that will measure approximately 200' X 30' which will access the southeast portion of the proposed well location. The road would have a driving surface width (travel way) of 14 feet, with a maximum 30-foot wide surface disturbance area for the road construction. All other existing access roads would be maintained in a good or better condition than those existing at commencement of operations. No off-lease right-of-way is required.

A. Conformance with the Land Use Plan (LUP) and Consistency with Related Subordinate Implementation Plans:

1. Authority for these actions is the Mineral Leasing Act of February 25, 1920, as amended.
2. Roswell Approved Resource Management Plan and Record of Decision, October 1997.
3. The proposed action does not conflict with any known State or local planning, ordinance or zoning.

B. Identify the applicable NEPA document(s) and other related documents that cover the proposed action.

1. RFO EA #: NM-510-07-184

Date Approved: 12/12/2007

C. NEPA Adequacy Criteria:

1. Is the current proposed action substantially the same action as previously analyzed? Yes. The proposed action that was previously approved is the same as the APD.
2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, interests, resource values and circumstances? Yes. The proposed action was adequately analyzed by the RFO Interdisciplinary Team and the environmental concerns, interests, resource values and circumstances in the existing NEPA document were appropriately analyzed for the current proposed action.
3. Is the existing analysis adequate and are the conclusions adequate in light of any new information or circumstances? Can you reasonably conclude that all new information and all new circumstances are insignificant with regard to analysis on the proposed action? Yes. The APD does not have any new information that would require the reevaluation of the proposed action.
4. Do the methodology and analytical approach used in the existing NEPA document(s) continue to be appropriate for the current proposed action? Yes. The existing environmental assessment used in the analysis of the proposed action is still decisive in the evaluation of all the resources and it is still acceptable for the current proposed action.
5. Are the direct and indirect impacts of the current proposed action substantially unchanged for those identified in the existing NEPA document(s)? Does the existing NEPA document sufficiently analyze site-specific impacts related to the current proposed action? Yes. The existing environmental assessment used to analyze the proposed action was specifically structured to evaluate site-specific direct and indirect impacts of the current proposed action.
6. Can you conclude without additional analysis or information that the cumulative impacts that would result from the implementation of the current proposed action are substantially unchanged from those analyzed in the existing NEPA document(s)? Yes. The cumulative impacts were addressed in the existing environmental assessment and are fundamentally unchanged in the existing NEPA document.
7. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action? Yes. The public involvement encompasses the representative groups (operators, ranchers, allottees, and general public) who have significant interest in the development of the Application for Permit to Drill or Reenter (APD).

D. Interdisciplinary Analysis: Identify those team members conducting or participating in the preparation of this worksheet. See attached DNA Checklist.

E. Mitigation Measure:

The provisions for the approval of the DNA include the Roswell Field Office requirements as defined in the following exhibits; Exhibit A - Location Map, Pecos District-RFO - Conditions of Approval , for the approved APD.

Conclusion:

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the existing NEPA documentation fully covers the proposed action. This constitutes BLM's compliance with the requirement of NEPA.

Prepared by:

/s/ Jared Reese

04/28/2010

Date

Jared Reese, Natural Resource Specialist

/s/ J. H. Parman

04/28/2010

Date

J.H. Parman, NEPA Coordinator

Approved by:

/s/ Angel Mayes

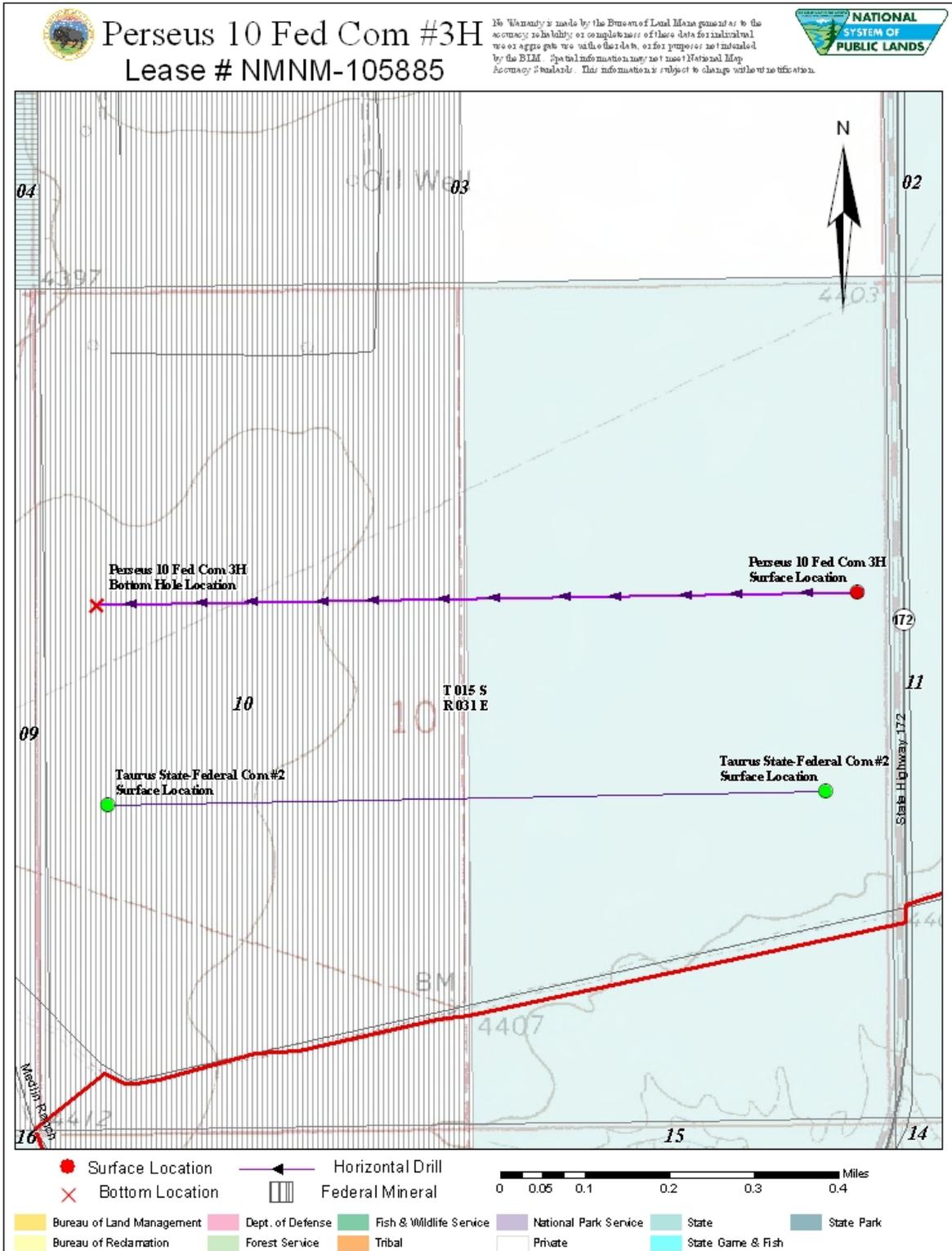
04/29/2010

Date

Angel Mayes, Assistant Field Manager, Lands & Minerals

Exhibit A

Well Location



**PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL**

April 29, 2010

**OPERATORS NAME: Chesapeake Operating LLC
LEASE NO.: NM- 105885
WELL NAME & NO: Perseus 10 Federal Com #3H
SURFACE HOLE FOOTAGE: 1980' FNL & 200' FEL
BOTTOM HOLE LOCATION: 1980' FNL & 330' FWL
LOCATION: Section 10, T. 15 S., R. 31 E., NMPM
COUNTY: Chaves County, New Mexico**

GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where

noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (575) 627-0272 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil adjacent to the constructed well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad.

C. CLOSED SYSTEMS OR STEEL TANKS:

A closed system or steel tanks will be used in lieu of reserve pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need.

E. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The on lease access road shall be constructed to access the northeast corner of the well pad.

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

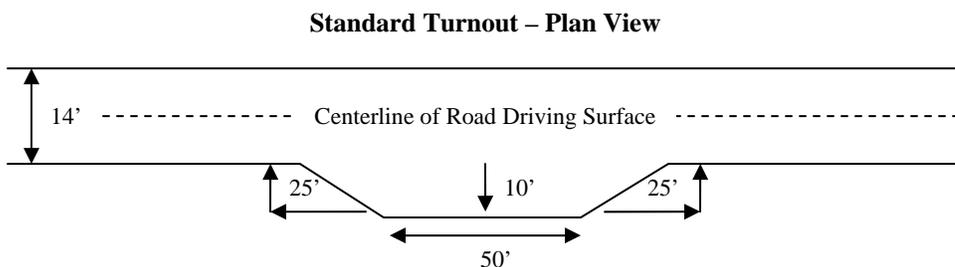
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

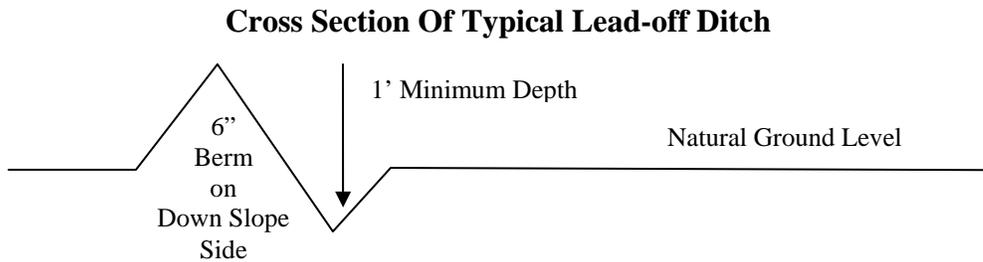
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula For Spacing Interval Of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at any deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

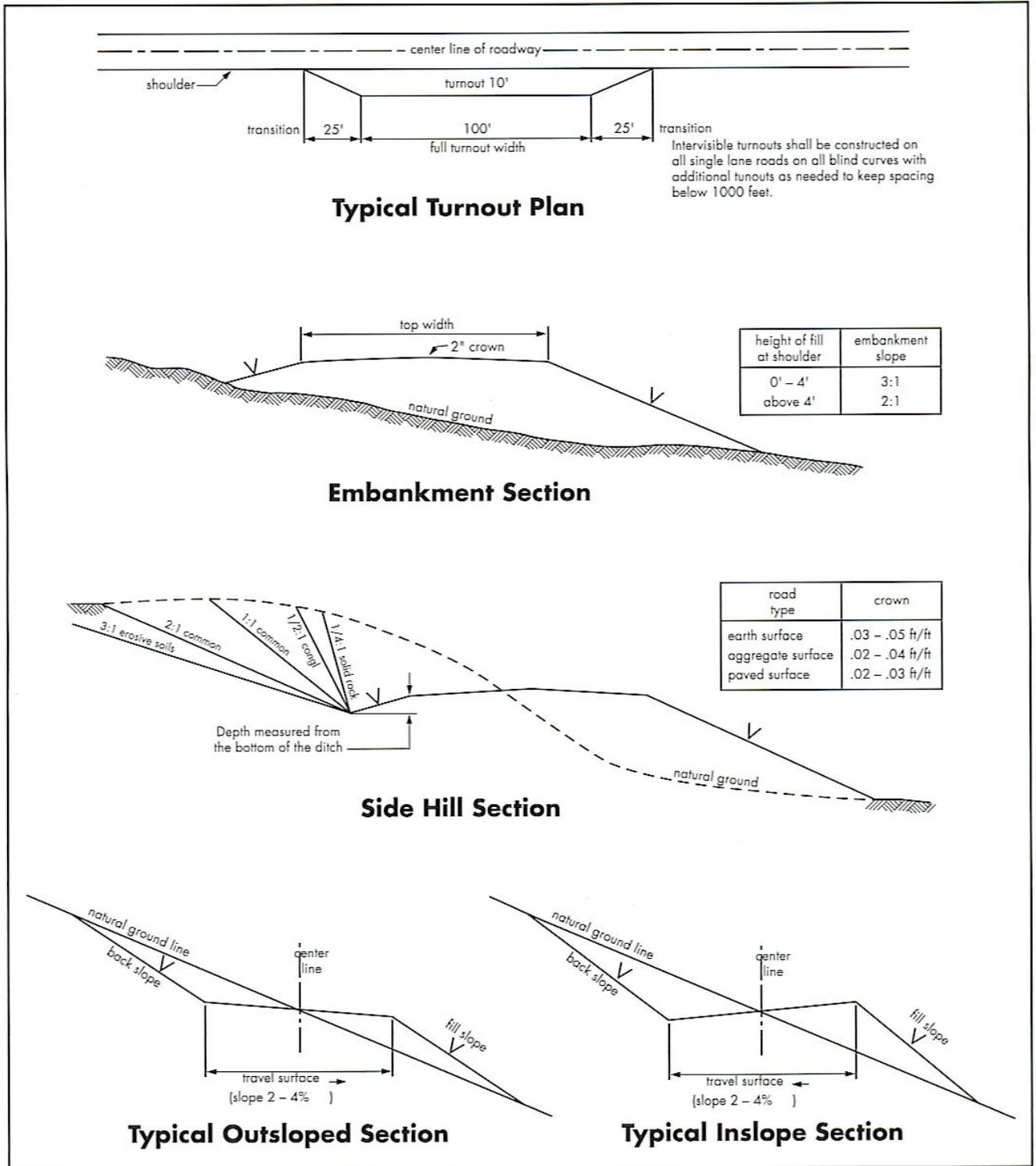
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



V. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 420-2832. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.
2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

BOPE Tests

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.
6. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion.
7. Fresh water gel will be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING

1. The 11-3/4 inch usable water protection casing string(s) shall be set at approximately 400 feet in competent bedrock.

If not the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 ft or greater) encountered and cemented to the surface.

- a. If cement does not circulate to the surface, the Roswell Field Office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 - d. If cement falls back, remedial action will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing if set is **sufficient to circulate to the surface**. If cement does not circulate see B.1.a-d above.
 3. The minimum required fill of cement behind the **5-1/2** inch production casing is **sufficient to tie back 200 feet into the 8-5/8 inch intermediate casing set at approximately 3950 feet**. If cement does not circulate, a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
 5. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

C. PRESSURE CONTROL

1. Before drilling below the **11-3/4** inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the **8-5/8** inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
2. Before drilling below the **11-3/4** inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the **8-5/8** inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.
3. The BOPE shall be installed before drilling below the **11-3/4** inch surface casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
 - a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - b. The tests shall be done by an independent service company.

- c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
- d. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.
- e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

VI. PRODUCTION

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, Juniper Green (Standard Environmental Color Chart June 2008).

VRM Facility Requirement

Low-profile tanks not greater than eight-feet-high shall be used.

VII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses. Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting). The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete workover operations, it may be

necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

- a) Upon abandonment of the well and/or when the access road is no longer in service, a Notice of Intent for Final Abandonment with the proposed surface restoration procedure must be submitted for approval.
- b) On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the Private Surface Land Owner agreements and a copy of the release is to be submitted upon abandonment.
- c) Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a 4-inch pipe, 10 feet in length, 4 feet above ground and embedded in cement as specified by the authorized officer. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).
- d) Surface Reclamation must be completed within 6 months of well plugging. If the operator proposes to modify the plans for surface reclamation approved on the APD, the operator must attach these modifications to the Subsequent Report of Plug and Abandon using Sundry Notices and Reports on Wells, Form 3160-5.

IX. PIPELINE PROTECTION REQUIREMENT

Precautionary measures shall be taken by the operator during construction of the access road to protect existing pipelines that the access road will cross over. An earthen berm; 2 feet high by 3 feet wide and 14 feet across the access road travelway (2' X 3' X 14'), shall be constructed over existing pipelines. The operator shall be held responsible for any damage to existing pipelines. If the pipeline is ruptured and/or damaged the operator shall immediately cease construction operations and repair the pipeline. The operator shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.