30-005-64152

BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE
Documentation of Land Use Plan Compliance and NEPA Adequacy (DNA)
DOI-BLM-NM-P010-2011-206-DNA

Resources	Not Present on Site	No Impacts	May Be Impacts	Mitigation Included	BLM Reviewer	Date
Air Quality			X	X	Hydrologist /s/ Michael McGee	10/3/2011
Soil			X	X		
Watershed Hydrology			X	X		
Floodplains	X					
Water Quality - Surface			X	X		
Water Quality - Ground			X	X	/s/ John S. Simitz Geologist	10/03/20110
Cultural Resources	X				/s/ Jeremy Iliff Archaeologist 09-5001A	10/6/2011
Native American Religious Concerns	X					
Paleontology	X					
Areas of Critical Environmental Concern	X				/s/ Glen Garnand	10/4/2011
Farmlands. Prime or Unique		X			/s/ Vanessa G. Bussell	10/05/2011
Rights-of-Way		X				
Invasive. Non-native Species			X	X	/s/ Helen Miller Range Management Specialist	10/05/2011
Vegetation			X	X		
Livestock Grazing			X	X		
Threatened or Endangered Species	X				/s/ D Baggao	10/3/2011
Special Status Species	X					
Wildlife			X	X		
Wetlands/Riparian Zones	X					
Wild and Scenic Rivers	X				/s/Bill Murry Outdoor Rec Planner	10/3/2011
Wilderness	X					
Recreation		X				
Visual Resources			X	X		
Cave/Karst		X			/s/Bill Murry for Michael J. Bilbo Cave Specailist	10/5/2011
Environmental Justice		X			/s/ Jared Reese Nat. Resource Spec.	10/4/2011
Public Health and Safety		X				
Wastes, Hazardous or Solid		X				
Solid Mineral Resources		X			/s/ Al Collar geologist	10/5/2011
Fluid Mineral Resources		X			/s/ John S. Simitz Geologist	10/03/2011

Decision For [DOI-BLM- NM-P010-2011-206-DNA]

Based upon the analysis, the Proposed Action is approved. This includes the Calgary Federal #3, described below.

Calgary Federal #3 – Located at SL: NE¼NE¼; 990' FNL & 330' FEL, & BHL: NE¼NW¼; 965' FNL & 1650' FWL; Section 25, T. 15S., R. 28E.

The location will be constructed with a 325'ft wide x 300'ft long well pad with a 30'ft x 30'ft kick out, within a 600'ft wide x 600'ft long area of analysis centered on the footages of the center hole. The access road would be 347'ft long x 30'ft wide, aggregating approximately 2.5 acres of total new surface disturbance for both pad and access road. The well will be horizontally drilled on Federal(BLM) surface.

The Bureau of Land Management's approval of the APDs does not relieve the lessee and operator from obtaining required authorizations from the private surface owner.

Rationale: The Bureau of Land Management staff has reviewed the environmental assessment, DOI-BLM-NM-P010-2009-23-EA 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, P.O. Box 27115, Santa Fe, NM 87502-0115, 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:

Angel Mayes Date 10-13-11

Angel Mayes, Assistant Field Manager, Lands & Minerals

Pecos District
ROSWELL FIELD OFFICE
Documentation of Land Use Plan Compliance
And NEPA Adequacy (DNA)
DOI-BLM-NM-P010-2011-206–DNA

Roswell Field Office;

Applicant: Mack Energy Corporation
Lease No.: NM - 4433
Action Type: APD Resubmittal
Well Name: Calgary Federal #3
Location of Proposed Action: (Surface Hole): 990 ' FNL & 330' FEL, (Bottom Hole): 965' FNL & 1650' FWL, Section 25, T. 15 S., R. 28 E., Chaves County, New Mexico, NMPM.

Description of Proposed Action: The proposed APD Resubmittal was previously approved as a vertical well. The only change that would occur to the approved plan of development for this well is that it will now be drilled as a horizontal well. An access road and well pad would be constructed and the gas well would be drilled.

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 #: DOI-BLM-NM-P010-2009-23-EA Date Approved: 2/27/2009

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 resubmittal.

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 appropriate 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 resubmittal 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 , of the approved APD.

Conclusion:

Based on the review documented above, I conclude that this proposal (preferred action) 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.

RFO DNA Template 12/12/2008

Prepared by:

Jared Reese, Nat. Resource Spec. - Surface Protection Date 10/11/11

Glen Garnand, NEPA Coordinator Date 10/12/11

Approved by:

Angel Mayes, Assistant Field Manager, Lands & Minerals Date 10-13-11

EXHIBIT A
Project Location Map

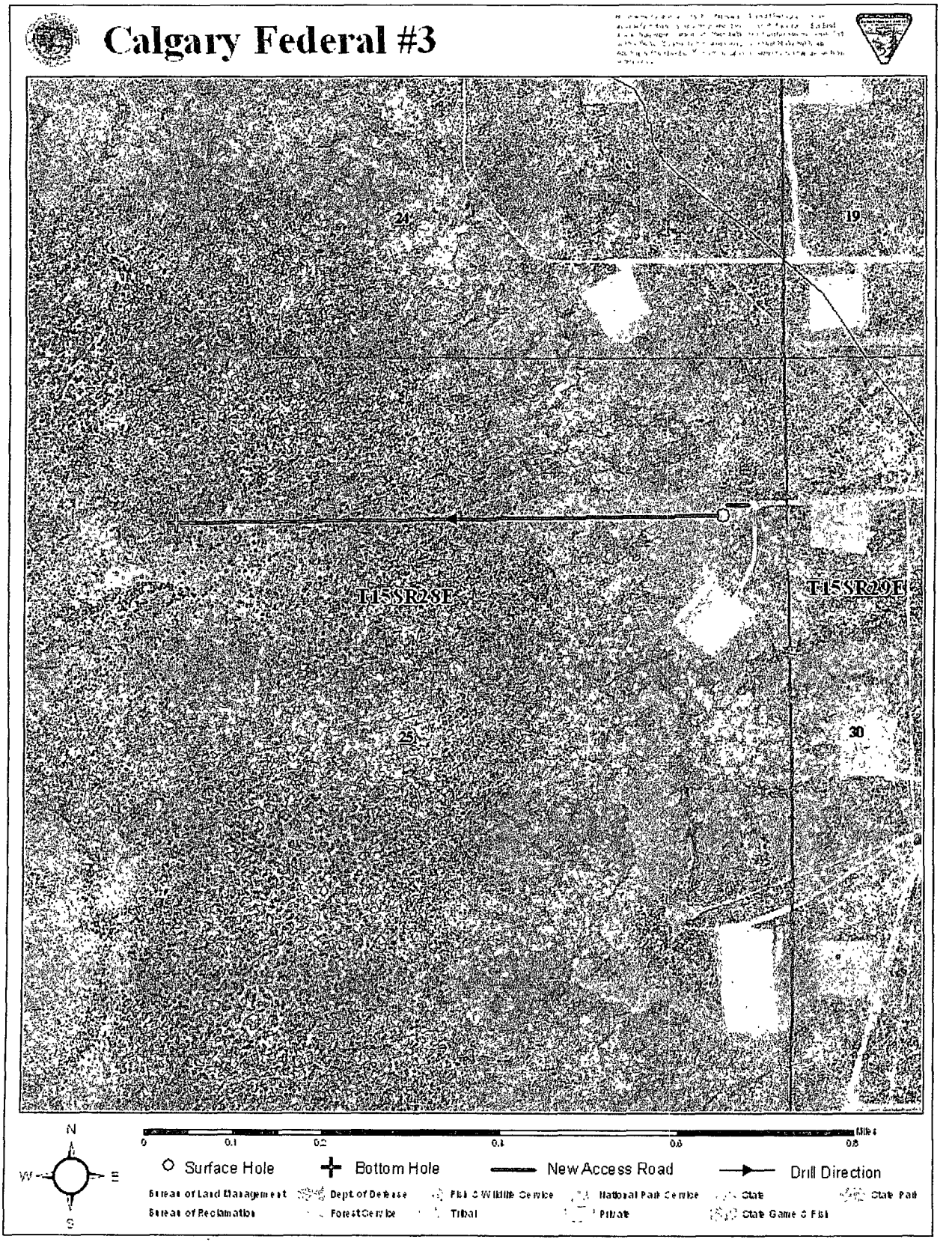


EXHIBIT B
PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL

October 11, 2011

OPERATORS NAME: **Mack Energy Corporation**
LEASE NO.: **NM- 4433**
WELL NAME & NO: **Calgary Federal #3**
SURFACE HOLE FOOTAGE: **990' FNL & 330 FEL**
BOTTOM HOLE LOCATION: **965' FNL & 1650 FWL**
LOCATION: **Section 25, T. 15S., R. 28E.**
COUNTY: **Chaves**

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.

If, during any phase of the construction, operation, maintenance, or termination of the authorization, any oil or other pollutant should be discharged, impacting Federal land, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the operator, regardless of fault. Upon failure of the operator to control, dispose of, or clean up such discharge on or affecting Federal land, or to repair all damages to Federal land resulting therefrom, the authorized officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the operator. Such action by the authorized officer shall not relieve the holder of any liability or responsibility.

As stated in 43 CFR 3162.3-2, at no time does the issuance of this APD imply permission to conduct any associated activities off the approved pad area. All surface disturbing activities associated with the drilling of these wells will be restricted to the approved areas

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 (505) 627-0247 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 in shallow rows 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. The topsoil will not be used to construct the containment structure or earthen dike that is constructed and maintained on the outside boundaries of the constructed well pad.

C. CLOSED LOOP SYSTEMS: No reserve pit will be used.

Steel tanks are required for drilling operations: No Pits Allowed.

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

D. FEDERAL MINERAL MATERIALS PIT:

Payment shall be made to the BLM prior to removal of any federal mineral materials from any Federal site. Call the Roswell Field Office at (505) 627-0236.

E. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material will 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.

F. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The on lease access road shall be constructed to access the North side 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 will 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.

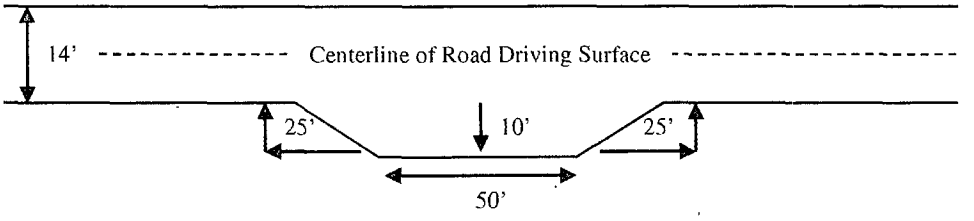
Ditching

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:

Standard Turnout – Plan View

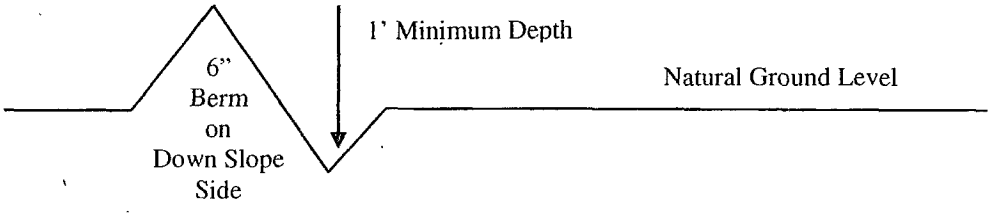


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping 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.

Cross Section Of Typical 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 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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. Gates or cattlegaurds on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the authorized officer.

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

Fence Requirement

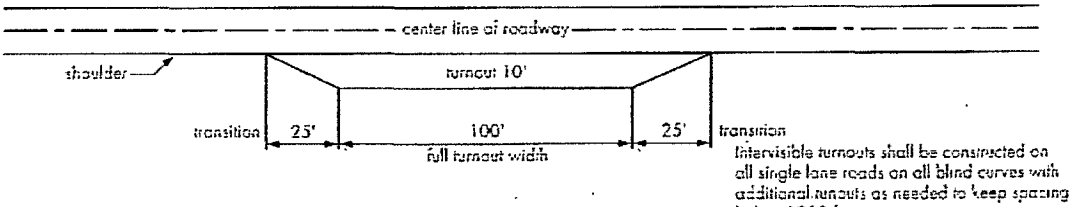
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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

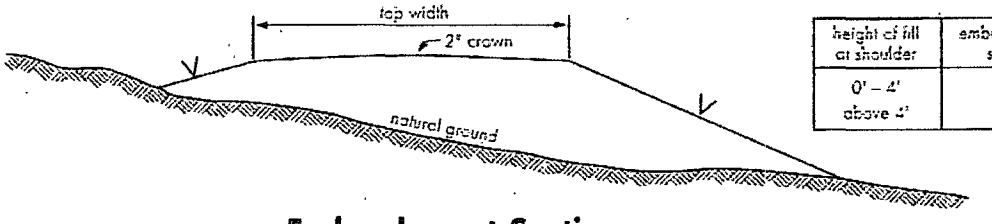
Public Access

Public access along this road will not be restricted by the holder without specific written approval being granted by the authorized officer. Gates or cattlegaurds on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the authorized officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections

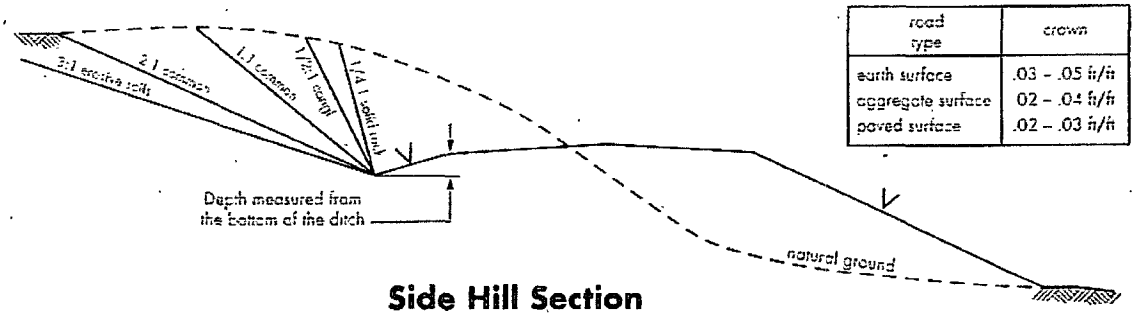


Typical Turnout Plan



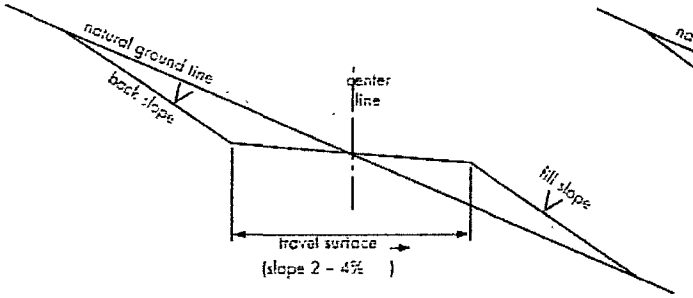
height of fill at shoulder	embankment slope
0' – 4'	3:1
above 4'	2:1

Embankment Section

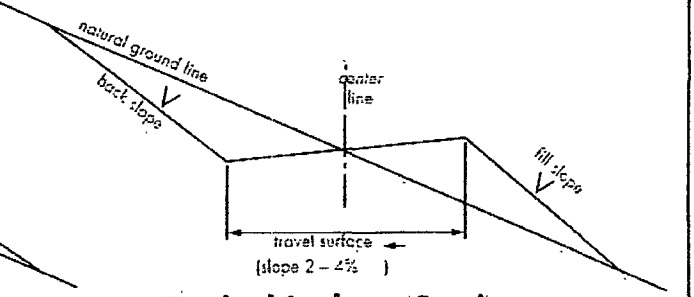


road type	crown
earth surface	.03 – .05 ft/ft
aggregate surface	02 – .04 ft/ft
paved surface	.02 – .03 ft/ft

Side Hill Section



Typical Outsloped Section



Typical Inslope Section

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
c. BOPE Tests

A follow-up report on Form 3160-5 confirming the date and time of the actual spud shall be submitted to this office within 5 working days from the date of spud.

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. **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.**

6. Fresh water 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 **8 5/8** inch usable water protection casing string(s) shall be set at approximately **450** feet opposite competent bedrock.

If not competent the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 feet 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 **5-1/2** inch production casing is **sufficient to circulate to the surface.** If cement does not circulate to the surface, 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.

3. 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.

4. 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 **8-5/8** 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.

2. Before drilling below the **8-5/8** inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi.

3. The BOPE shall be installed before drilling below the **8-5/8** inch surface casing shoe 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 24 hours in advance for a representative to witness the tests.

b. 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.

c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

d. 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.

e. Testing must be done in a safe workman like manner. Hard line connections shall be required.

f. The requested variance to test the BOPE prior to **drilling below the 8-5/8 inch surface casing** to the reduced pressure of **1000** psi using the rig pumps is approved.

D. MUD PROGRAM REQUIREMENTS:

The drilling operations of this well will be conducted in accordance with the Onshore Oil and Gas Order No. 2 as provided in 43 CFR 3164.1. This includes well control equipment and its testing, mud system and associated equipment, and the casing and cementing.

a. Sufficient quantities of mud materials shall be maintained at the well site, at all times, for the purpose of assuring well control.

b. A mud test shall be performed at least every 24 hours after mudding up to determine, as applicable density, viscosity, gel strength, filtration, and PH.

c. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

E. SPECIAL STIPULATION:

If frac ponds are necessary submit for approval a right-of-way application or sundry notice (Form 3160-5) to the BLM, Roswell Field Office 2909 West Second, Roswell, NM 88201. If frac pond is located on private/State surface and support the enhanced production of federal minerals BLM approval is necessary.

The frac pond will only be authorized to contain freshwater and testing of water quality is required. Additives are not allowed without consent of the authorized officer. If at any time the water in the frac pond becomes polluted with salts or other contaminants, use of the frac pond will cease and desist, and all liquids will be removed from the frac pond and disposed of properly. Mineral materials extracted during construction of the frac pond will be stored on-location and/or used for constructing the frac pond.

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.

A containment structure or earthen dike shall be constructed and maintained on the north, west, and south sides of the outside boundary of the well pad in order to protect the nearby playa to the west. If the well pad is constructed into a cut on a slope then the uphill side of the well pad will not require the construction of the containment structure or earthen dike, but the construction of the containment structure or dike will be required on the remaining three sides of the well pad which will extend into the uphill portion of the well pad. The containment structure or earthen dike is required so that if oilfield waste contaminant or product contaminant were leaked, spilled, and or released upon the well pad the oilfield waste contaminant or product contaminant shall be contained on the well pad and not enter into the nearby playa. The containment structure or earthen dike shall be constructed

two (2) feet high (the containment structure or earthen dike can be constructed higher than the two (2) feet high minimum). The containment structure or earthen dike shall be constructed and maintained during the drilling phase, the production phase and for the life of the well. During interim reclamation, if the surface area of the constructed well pad is reduced then the original constructed containment structure or earthen dike and a portion of the constructed well pad will be excavated and removed. During interim reclamation, the containment structure or earthen dike will then be re-constructed on the outside boundaries of the reduced in size constructed well pad.

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 and 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 interim 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.

PECOS DISTRICT
SEED MIX FOR

The following Soils or Soil associations may represent these ecological sites: Alama-Poquita, Alama-Reeves. Anthony sandy loam, Berino, Blakeney-Ima, Cacique, Dona Ana, Glendale-Harkey, Harkey sandy loam. Karro loam, Kermit-Berino fine sands, Mobeetie fine sandy loam, Pajarito-Bluepoint, Poquita, Potter-Simona complex, Sharvana-Redona. Simona. Simona-Bippus complex. Sotim-Berino, Sotim-Simona association. moderately undulating. Tonuco loamy sands,Vinton

Ecological Site: Shallow Sand SD-3
Ecological Site: Sandy SD-3

April 4. 2006

Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Black grama or Blue grama.	*(Bouteloua eriopoda)* *(Bouteloua gracilis)*	3.0
Sideoats grama	*(Bouteloua curtipendula)*	2.0
Sand dropseed or Mesa dropseed or Spike dropseed	*(Sporobolus cryptandrus)* *(S. flexuosus)* *(S. contractus)*	1.5
Desert or Scarlet Globemallow	*(Sphaeralcea ambigua)* or *(S. coccinea)*	1.0
Croton	*(Croton* spp.*)*	1.0
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE		8.5

Certified Weed Free Seed

IF ONE SPECIES IS NOT AVAILABLE.
INCREASE ALL OTHERS PROPORTIONATELY

Use no less than 4 species. including 1 forb

No less than 8.5 pounds pls per acre shall be applied

APPROVED: /s/ Douglas J. Burger
District Manager- Pecos District

C. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS
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). A 4-inch pipe, 10 feet in length, shall be installed 4 feet above ground and embedded in cement. 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) 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.

X. WILDLIFE

Netting storage tanks and installation of cones on separator stacks would alleviate losses of wildlife species. Interim reclamation and final rehabilitation through revegetation would return to wildlife previous levels.