

Federal 8-89-7 #1 Natural Gas Well Project  
Transportation Management Plan  
SG Interests I Ltd.

The following transportation management plan is preliminary and as of the date of this writing (11/14/2013), it is based primarily on transportation information contained in the Surface Use Plan of Operations submitted to the Bureau of Land Management in March of 2013. SG Interests anticipates revising this plan over the course of the federal permitting process. The final plan as accepted by the Bureau of Land Management and the USDA Forest Service will be provided to the Colorado Oil and Gas Conservation Commission when available. SG Interests expects to include in this final plan input from stakeholders in the area such as the City of Glenwood Springs, Garfield County, local school districts, emergency responders, and others.

The following directions are used to access the well site. From the intersection of National Forest System Road (NFSR) 300 with Garfield County Road 117/NFSR 300 go approximately 5.7 miles to well access road (NFSR 301/301.2C). The gate is approximately 0.2 miles along NFSR 301.1. For additional information see figure 1.

Forest System Roads will be maintained as per USDA Forest Service specifications. SG Interests I, Ltd. will obtain a Road Use Permit from the Forest Service and any necessary performance and reclamation bonds as they pertain to roads prior to beginning drilling operations. If any roadwork is required, a work schedule will be submitted to the White River District Ranger before any work is started. The right-of-way width of existing roads will be maintained as they presently exist unless authority to widen is given by the White River District Ranger. Any damage to Forest System Roads, resulting from permittee's use will be repaired immediately. The operator will use water for dust control on Forest System Road 300. All conditions of the Road Use Permit will be followed by SG Interests I, Ltd.

All roads used in conjunction with this project will be maintained in as good or better condition as they were pre-project. SG will consider Gold Book and BLM Best Management Practices when improving or maintaining existing roads. Operations will cease, excepting emergencies, during periods when mud and silt cannot be contained within the road prism, or when construction specification cannot be achieved because of wet or frozen ground conditions. Vehicles will not be towed through the mud.

The operator will schedule heavy traffic periods, such as moving the rig in or out, to take place during the week if possible and not on weekends or holidays. All construction signage will be in compliance with the Manual of Uniform Traffic Control Devices. The operator will post warning signs on County Road 117 (4 Mile Road) and National Forest System Road 300 to alert the public of heavy truck traffic. The operator will use flagmen as necessary during drilling and related equipment moves on and off the drill site when utilizing public roads.

The proposed development will primarily utilize an existing improved Forest System Road, NFSR 300. One (1) new access road is proposed and will be constructed and maintained using the same design standards as the existing Forest System Roads. Total new road construction within the proposed project is limited to approximately 250' long x 30' wide Road gradient will be maintained at grades of 2.87% for the majority of

the proposed area Turnouts will not be necessary along the roadway for this project. In flat areas, 3:1 (horizontal to vertical) cut ditches will provide drainage on both sides of the road. If necessary, energy dissipaters, such as cobble, will be placed within the ditch to retard water velocities. As necessary, water bars or dips will be installed to allow drainage to pass across the road in a controlled fashion. Frequency of bars and dips will be determined using site specific criteria.

A portion of the existing graded Forest Service Road, which is located off of Forest Service System Road 300, will require reconstruction. The existing road to be reconstructed is approximately 1.6 miles (8,448 ft.) in length (see figures 1, 2, 3, 4, 5, and 6). The following reconstructive measures will be implemented:

- All culverts will have flared end sections or rock inlet and outlet protection.
- All existing culverts will be extended, cleaned-out, and repaired if necessary.
- Catchment basins with rock armored outfalls as appropriate will be constructed at the culvert ends.
- The culvert diameter will be 18" constructed of corrugated metal.

All construction will require erosion and stormwater control structures. A stormwater permit is to be obtained from the Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division. Structures will be designed to minimize run-on and run-off events. Primarily berms, silt fencing, and ditches will be utilized. A detention pond will be installed on the west side of the pad, which will be sized based on field conditions post construction. All roads will have side barrow ditches or a single inside ditch for side hill sections. The well site plat includes the BMP's to be utilized for site specific concerns. The preferred treatment for fill slope, disturbed areas, and runoff control will be promptly seeding and revegetating the slopes and disturbed areas. Seed mixes will be per Forest Service direction and will be weed free. Cattle guards/fence cuts will be installed as per the Forest Service instruction. Culverts will be placed or upgraded as required by the Forest Service. Culverts will be designed for a minimum 25-year storm frequency with an allowable head that does not overlap the roadway or cause damage. The culvert diameter will be 18" constructed of corrugated metal (see figures 7 and 8).

Topsoil removed from the new well access road area will be separated and stored with the topsoil that was salvaged from the well pad area. The cut and fill areas resulting from creation of a level driving surface will be reclaimed as quickly as possible by returning topsoil to these areas and seeding them. Where practicable, SG Interests I, Ltd. will scatter woody vegetation over disturbed surfaces during reclamation to serve as mulch and to stabilize the surface.

During the course of work there may be periods of inclement weather that may have an effect on the control of dust on and off the well site. This could be due to long dry spells or periods of strong winds or both. If the above or similar conditions are encountered and have an effect on air quality SG Interests I, Ltd. will apply water to disturbed areas as necessary to suppress dust.