

Appendix F
Transportation Plan

Transportation Plan Questar Year-Round Drilling Proposal

Questar proposes to have three well pads occupied during each winter. Two rigs will be drilling on each pad during the period November 15 through May 1. Following are the anticipated traffic and activity associated with this drilling:

1. Each rig will have the following personnel on location 24 hours per day. Each person will have a vehicle, but would typically not leave location on most days.
 - a. Drilling Foreman
 - b. Toolpusher
 - c. Mud Engineer
 - d. Directional Driller, when needed
 - e. MWD Technician, when needed
 - f. Mud Logger
 - g. Top Drive Operator

2. Each rig will typically have two six-man crews, each working a 12-hour shift. Shift changes are generally at 6:00 a.m. and 6:00 p.m.

3. Rig traffic. The following heavy truck traffic will be required for each rig:
 - a. Fuel Tankers – 4 per week
 - b. Casing Haulers – 12 total trips per drilling well
 - c. Mud Haulers – 6 per week
 - d. Cementers – 24 total trips per drilling well
 - e. Water Trucks – 14 per week, unless on-site water wells are permitted
 - f. Downhole tool delivery – 1 per week
 - g. Construction and roustabouts – 7 per week
 - h. Barite and cement bins, water tanks – 8 total trips per drilling well

This totals 40 heavy truck round trips per week, or an approximate 50% decrease over normal vehicle count for a single drilling rig pad.

4. Other rig traffic. Other traffic will be bit and other miscellaneous suppliers and electricians, welders and other service vendors. The vehicles will be pickup trucks and other small trucks. These vehicle trips will average 9 per day per pad for each of the 3 pads being drilled over each winter.

5. Vehicles required for emergencies. These cannot be predicted or quantified, but must be included in this plan.

Questar commits to the following to minimize traffic and activity impacts:

1. Busing of rig crews. Three buses will be maintained for the purpose of getting rig crews to and from the rigs. Each bus will accommodate 10-15 passengers and gear. A bus will be assigned to each pad and will make 2 round trips per day at shift change. This equates to 42 total round trips per week compared to more than 500 weekly round trips without busing. The shift changes are currently at 6:00 a.m. and 6:00 p.m.; however, shifts will be adjusted if necessary during strutting season to avoid traffic on roads in the vicinity of occupied leks between midnight and 9:00 a.m.
2. Vehicle staging area. Parking for rig crew vehicles is proposed at the Gobbler's Knob Compressor Station or at a location near or in Boulder, Wyoming
3. It is rare that a crew member would miss the bus, but if that should happen, Questar will notify the BLM and the crew member would take their vehicle to the well pad to eliminate a second bus round trip. Questar will not tolerate repeated instances of missing the bus.

4. If highway closures or other contingencies make temporary bus schedule changes or extra bus trips necessary, Questar will verbally notify and coordinate such changes with BLM.
5. As much as possible, equipment and bulk supplies will be delivered and stored on the well pads prior to November 15. This will reduce deliveries of storable equipment and supplies during the winter by approximately 40%.
6. As part of normal operational winter maintenance, roads will be plowed the minimum amount necessary to allow safe navigation. Care will be taken to provide areas along the sides of roads which are unrestricted by high snow banks, or knockouts provided, in order to allow free movement of wildlife across roads. Questar will coordinate plowing with BLM and the Wyoming Game & Fish Department (WGFD).
7. Questar will coordinate with BLM on the need for and timing of sage grouse winter concentration surveys. Any sage grouse winter concentration surveys will be performed by a qualified biologist to collect data for a possible research study.
8. The 2000 Record of Decision "no traffic" restriction will be observed between the hours of midnight and 9:00 a.m. during sage grouse mating season (March 1 – May 15) in areas in the vicinity of occupied leks.
9. Periodic field surveys of sage grouse nesting areas will be conducted as appropriate.
10. All project-related personnel and vendors will be advised personally and by mail of traffic and activity restrictions and rules of conduct while on the mesa. These will include, but are not limited to,
 - a. Any timing restrictions imposed on traffic during sage grouse mating season
 - b. No stopping to observe wildlife
 - c. No harassment of wildlife
 - d. No discharging of guns or loose dogs
11. The southern access road will be the primary access route. Northern access will be used only for winter drilling pads located on the north end of Questar's leasehold.
12. A laminated sheet entitled "Code of Conduct during Winter Drilling Activity" will be required to be carried in each contractor and vendor vehicle. The sheets will also provide instruction on the types of human activity that create stress in wildlife.
13. If traffic counters are appropriate, placement of the counters will be coordinated with BLM. The counters will not differentiate between traffic associated with drilling activity and that associated with normal producing well operations addressed in the 2000 Record of Decision.

Questar proposes the following measures to enforce activity reductions during the period November 15 through April 30:

1. Prominent signs will be posted at the field entrances with language such as "Access Restricted to Authorized Personnel Only."
2. Specified times will be set with all contractors and vendors for non-critical rig visits.
3. Speed limits will be posted and included in the "Code of Conduct during Winter Drilling Activity."

This plan does not address normal operational activities for producing wells or routine field visits by Questar management, field superintendents and safety personnel which are covered under the 2000 Record of Decision, though Questar will strive to minimize winter trips.