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## CHAPTER 2

### 2 OPTIONS ANALYSIS

This chapter discusses the project options that have been considered by FGMI in preparing its applications for various state and federal permits. Options analysis involves many factors, including engineering feasibility, environmental concerns, and construction and operating costs.

Four sections comprise this chapter. Section 2.1 identifies and describes the criteria used to evaluate options. Section 2.2 determines the options to be considered to determine whether the project would "significantly affect the human environment." The section discusses how options were screened and evaluated, and how the preferred options were selected. Section 2.3 presents the details of the applicant's proposed project. Finally, Section 2.4 addresses the no-action alternative.

In reviewing this chapter, the reader should understand the relationship among the terms "component," and "option." A complete mining project, such as the proposed True North, has several *components*, each a necessary part of an entire viable project; for example, the mine, location of development rock stockpiles, or the access haul route. For each component, there may be one or more *options*, or choices; for example, the specific access route for hauling ore to the Fort Knox Mill. The term "alternative" is used in the discussion for the access haul road route component, rather than "option," because it had already gained wide use in this project. In this regard then, "alternative" is used as a synonym for "option."

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## **2.1 OPTIONS EVALUATION CRITERIA**

The True North project would consist of several components, including the open pit mine, development rock dumps, ore stockpile, growth medium stockpiles, access haulage, processing method, maintenance complex, power supply, water supply, and general infrastructure including access roads. Some components have only one logical option (for example, location of the mine pit is determined by the location of the ore body), while others (such as location for development rock and growth medium stockpiles) have more than one option. To determine which array of options would constitute the best entire project, it was necessary to identify a set of criteria to use in evaluating the options.

The development of the criteria was based largely on certain planning and design conditions primarily dictated by the size, nature, and location of the ore body, site topography, environmental considerations, and economics. The major criteria identified for options analysis were as follows:

Project life	Current projection 2.5 to 3 years (based on reserves in Hindenburg and East pits)
Work force requirements	100 to 110 employees. No living accommodations on site. No cafeteria.
Operating period	24 hours per day, 365 days per year
Mining method	Open pit
Production rate	An average of 3.5 million tons of ore per year produced at a rate of approximately 10,000 tpd
Development rock	Approximately 20,000 tpd. Strip ratio 2:1
Development rock stockpiles	16 Million tons
Ore stockpile	100,000 tons
Growth medium stockpiles	350,000 cy. (All material suitable for establishing a viable vegetative cover consistent with the designated post-mining land use)
Electrical requirement	480 V, three-phase power
Fuel storage capacity	Diesel — 20,000 gallons Heating oil — 10,000 gallons Used oil — 10,000 gallons Unleaded gasoline — 14,000 gallons Propane — 2 tanks @ 100 lbs.

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Water supply	Approximately 500 to 600 gpd
Access roads	Mine access road -- 100-foot ROW (50-foot either side of centerline) Mine haul road -- 80-foot ROW Exploration access road -- 30-foot ROW
Environmental constraints	Ability to meet all federal, state, and municipal permitting requirements

In addition to these options evaluation criteria, other specific criteria were developed for analyzing individual component options, such as processing method and access route. The criteria are discussed in greater detail below.

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## **2.2 OPTIONS IDENTIFICATION AND EVALUATION PROCESS**

Identifying and evaluating options is a process of linking feasible and logical component options into a complete project. Further, by determining the significance of the environmental impacts of the options, the best combination of options can be identified for a complete project.

The first step in the process is to identify the major components necessary for a complete project. For the True North project the major components for which reasonable options may be identified are different than those for most Alaska mining projects because True North is located near existing infrastructure and potentially conflicting land uses. Six components often considered major for mining projects thus were not judged to be major for the True North project. These were mining method; location of development rock, overburden, ore, and growth medium stockpiles; maintenance complex location; power supply; water supply; and employee housing. These are discussed below.

*Mining method* -- The mining method identified was open pit, as opposed to underground mining, because of the nature of the ore body. The ore is at or near the surface, and its fractured nature would make the shoring up required for underground mining a difficult and costly process. Gold is scattered randomly throughout the ore body rather than concentrated in thick veins conducive to underground mining. Therefore, underground mining was not considered a feasible option.

*Development rock, overburden, ore, and growth medium stockpiles* -- Because of the location of the ore body high on a ridge, there would be adequate room for these stockpiles close to the pits. No creeks would be blocked, and only lower value wildlife habitat and wetlands would be affected. No other reasonable environmental or economic options were identified.

*Maintenance complex* -- In a similar vein to the stockpiles locations, a maintenance complex sited just south of the pits adjacent to the existing access

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road did not appear to have other reasonable environmental or economic options.

*Power supply* -- With a spur of the existing GVEA power grid located approximately 2 miles from the mine site atop Pedro Dome, and with the ability to site a powerline to the mine site close to a road right of way (ROW), on-site power generation did not make environmental or economic sense.

*Water supply* -- With the limited need for water, and no nearby surface water supply, drilling a well made more environmental or economic sense than damming a more distant creek and installing a pipeline and pumping system.

*Employee housing* -- With existing road access and a location near the population center of Fairbanks, onsite employee housing did not make environmental or economic sense.

Fixed by the location of the ore body, the mine site itself could not have any options.

Because of the technical, environmental, and economic advantages of the six component options discussed above, they were selected as the preferred options.

Five major True North project components were identified, however, for which reasonable competing options exist. These were ore processing and siting; ore transfer method; ore transfer routing; Steese Highway crossing; and hours of access hauling operation. Options identification for these five major components, and evaluation of these options, are discussed below.

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## **2.2.1 OPTIONS IDENTIFICATION AND EVALUATION**

After the five major components were identified, individual options for those components were identified and analyzed in an evaluation process to eliminate unfeasible or illogical options, to investigate in greater detail when more than one feasible and logical option existed, and to select a preferred option. Following is a description that process.

### **2.2.1.1. PROCESSING AND SITING**

Three options for processing True North ore were considered.

- On site heap leach
- On-site stand-alone mill
- Off-site mill

**On-Site Heap Leach** -- Constructing a stand-alone cyanide heap leach facility would require significant additional acreage and surface disturbance for ore crushing and construction of leach pads, solution ponds, and recovery facilities for the approximately 7.2 million tons of processed ore. The solution ponds would contain sodium cyanide which is essential to the heap leach process. Large quantities of water would be required. Water would have to be obtained from water wells or water storage impoundments and pumping facilities built in surrounding drainages. Visual impacts would be increased because of the solution ponds as well as creation of large mounds of stacked ore on the heaps. There would be an overall increase of traffic from Fairbanks to the Cleary Summit area because of the additional process employees needed on site and the shipment of reagents.

**On-Site Stand Alone Mill** -- Construction of a conventional stand-alone cyanide vat leach mill would require additional surface disturbance for the mill buildings, leach tanks, reagent storage areas, stockpile areas, and ore crushing and support facilities. A mill would require construction of both a fresh water supply dam and a separate tailing disposal impoundment for the approximately

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7.2 million tons of processed ore. Large quantities of water would be required from water wells or year-round water storage impoundments and pumping facilities built in surrounding drainages. There would be an overall increase of traffic from Fairbanks to the Cleary Summit area because of the additional mill employees needed on site and the shipment of reagents.

**Off-Site Mill** -- A conventional cyanide vat leach mill facility exists at the Fort Knox Mine within approximately 12.5 road miles of the True North ore deposit. This option would require no processing component at the True North Mine site. Ore would be trucked to the Fort Knox Mill for processing. The ore would be treated and tailings material deposited within an existing zero discharge facility. No additional disturbance would be necessary on the True North Mine site to accommodate a mill and ancillary facilities. No additional disturbance would be required in the surrounding drainages for development of a water supply system and tailings storage, thus minimizing the potential impacts to surface and groundwater.

**EVALUATION - EVALUATION OF THE THREE OPTIONS** indicated that both the heap leach and vat leach mill options would require development of significant on-site infrastructure while the Fort Knox Mill option would cause the fewest on-site impacts and make best use of nearby existing permitted facilities. The latter option, however, raised its own major issue of ore transfer to the Fort Knox Mill. While this ore transfer issue would cause impacts because of nearby conflicting land uses, many of these impacts could be mitigated. From overall environmental and economic perspectives, therefore, the Fort Knox Mill appeared the most favorable and was selected as FGMI's preferred option for the ore processing and siting component.

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#### **2.2.1.2. ORE TRANSFER METHOD**

Four options for transferring ore from the True North Mine site to the Fort Knox Mill were considered.

- Off-Highway Trucks
- Over-Highway Trucks
- Conveyor
- Railroad

**Off-Highway Trucks** -- Off highway trucks, between 85 and 100 tons, could carry large volumes of ore and therefore would decrease the number of trips necessary to move the required tonnage. Off highway trucks would have several disadvantages, however. Their large size relative to other traffic expected to share the same roads would create a safety hazard because ore trucks would be required to cross the Steese Highway. Off-highway trucks also would be louder, causing greater noise impacts to existing residences.

**Over-Highway Trucks** -- By carefully specifying the design for over-highway tractor-trailers specifically for the True North project, it is possible to increase payloads above those of conventional over-highway trucks. While the 60- to 70-ton payloads would still be less than for off-highway trucks (85 to 100 tons), this design would reduce the number of round trips required on a daily basis. Because these would be more conventional trucks, safety concerns for other road traffic would be substantially reduced. Also, over-highway trucks would be quieter, thus reducing noise impacts to existing residences.

**Conveyor** -- Practical experience over four years of operation of a relatively short conveyor system at the Fort Knox Mine indicates this would be a less than viable option. A conveyor from the True North Mine to the Fort Knox Mill would need to be approximately 12 miles long and traverse varying topography. In addition, a conveyor would have to bridge the Steese Highway. Operation of long conveyors at low temperatures is very difficult at best. Multiple transfer

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points would be required with attendant motor drive units, bag houses to capture fugitive dust emissions, and the ever-pervasive spillage of material would add to the already significant problems associated with operating a conveyor in this environment.

Constant, background noise from the carrier rollers likely would be a source of concern at existing residences. A conveyor likely would become an attractive nuisance, thereby becoming a safety concern and liability to the company. At 12 miles in length, over varying topography, there would be no practical way of preventing pedestrians, hikers, bikers, snowmachiners or just curious tourists from climbing in, on, and under the conveyor structure, risking being caught in the moving machinery. The conveyor also could present problems by inhibiting terrestrial wildlife movements across its route.

**Railroad** -- A railroad option would be every expensive to construct and operate with no significant advantages. Railroads are efficient at moving large volumes over long distances. The small scale of the True North Project, 2.5 to 3 years at only 10,000 tpd, simply could not support the capital investment and operating cost of a rail transportation system. The costs and logistical problems of dealing with a rail system not connected to an existing rail center (e.g., the Alaska Railroad in Fairbanks) would be very substantial. The maintenance facility (locomotive and ore cars), switch yard, ore loading and unloading facilities, roadbed maintenance crews, and transfer facilities for equipment would require additional land and a large capital investment.

Railroads by their nature have severe grade limitations. The grades between the True North Mine and the Fort Knox Mill would require that a longer right-of-way be disturbed. Trains would be noisy and still require lights at night. The Steese Highway would still have to be crossed. If crossed at grade level, warning lights, whistles, and gates would be required, with a substantially longer period of time to clear the crossing than would trucks. The cost of constructing a train tunnel or bridge for this option would be considerably higher than for trucks.

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An improved road, likely the existing Pedro Dome / True North Road, would still be required for access to the True North Mine by employees, and for supply of parts, fuel, ammonium nitrate, etc. because such items could not be transferred easily to rail cars.

**Evaluation** - Evaluation of the four options indicated that trucking ore to the Fort Mill appeared to be the most environmentally sound and economic method. Past experience with operation of a conveyor system at Fort Knox, the necessity for a 12-mile long conveyor, likely problems with fugitive emissions, spillage, constant noise, and trespass all mitigated against the conveyor option. Of the two trucking options, using specially designed highway trucks that could still carry substantial payloads, but which would be quieter and have fewer safety concerns, appeared superior to using larger off highway trucks. The project simply could not support the train option, which would be logistically complicated and provide no significant advantages over trucking. Thus, moving ore by over highway trucks was selected as FGMI's preferred option.

#### **2.2.1.3. ORE TRANSPORT ROUTE**

Eight route alternatives were considered for trucking ore from the True North Mine to the Fort Knox Mill (Fig. 2.2-1). Several of these were considered on the basis of public comment and suggestions. These routes are described below, with an analysis of each alternative. Table 2.2-2 contains the route lengths and route estimated costs assuming a grade level crossing of the Steese Highway.



<b>Table 2.2-2 Alternative route lengths and approximate costs</b>		
<b>Alternative</b>	<b>Length</b>	<b>Approximate Cost</b>
1	9.2	13.1
2	9.2	14.5
3	10.6	16.3
4	13.1	20.8
5	9.8	15.3
6	11.0	17.8
7	12.9	20.8
8	13.1	20.8

Some suggestions by the public for other routes were reviewed and dropped without further consideration because they either were clearly impractical from environmental or economic perspectives, raised more issues than they solved, or were simply impractical. Examples include a tunnel all the way from the True North Mine to the Fort Knox Mill, and a road linking the True North Mine to the Elliott Highway.

**Alternative 1** -- South Pedro Dome Route / Fairbanks Creek Road / Fish Creek Road / Barnes Creek Road (9.2 miles)

This alternative follows the existing south Pedro Dome route on the Pedro Dome / True North Road, and then Fairbanks Creek, Fish Creek, and Barnes Creek roads, and uses the existing Steese Highway and Fairbanks Creek Road intersection at the top of Cleary Summit.

**Alternative 2** -- South Pedro Dome Route / Bypass # 1 / Fish Creek and Barnes Creek roads (9.2 miles)

This alternative is the same as Alternative 1, except a bypass below Fairbanks Creek Road near the Skiland residences would be used. This option would follow the same route as Alternative 1 along the existing Pedro Dome / True North Road on the south side of Pedro Dome, leaving it on the southeast side of

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the ridgeline south of the existing Cleary Summit Subdivision just west of Cleary Summit, and would descend eastward to a new intersection with the Steese Highway approximately 792 feet southwest of its existing intersection with the Pedro Dome / True North Road at the top of Cleary Summit. This would be a 90 degree intersection in a straight section of the Steese. The road then would contour the hillside on the east side of the Steese for a distance of approximately 500 feet and then climb at a six percent grade to intersect Fish Creek Road near its present intersection with Fairbanks Creek Road.

**Alternative 3** -- South Pedro Dome Route / Bypass # 2 / Fish Creek and Barnes Creek roads (10.6 miles)

This alternative would follow the same route as Alternative 1 along the existing Pedro Dome / True North Road on the south side of Pedro Dome, leaving this road on the south side of the ridgeline immediately southwest of the Cleary Summit Subdivision and descend eastward to a straight section of the Steese Highway at a new intersection located approximately 150 feet in elevation below and approximately 2,400 feet southwest of the existing intersection of the Steese Highway with the Pedro Dome / True North Road at the top of Cleary Summit. The route would cross the Steese Highway at a 90 degree angle in a straight stretch of the Steese. On the east side of the Steese Highway the road would climb eastward up the northwest and northern sides of the Twin Creek drainage, around the head of the drainage, and then around the west and south sides of a 2,400<sup>+</sup>-foot hill before joining Fish Creek Road at the head of the Deadwood Creek drainage.

**Alternative 4** -- South Pedro Dome Route / Cleary # 1 / Barnes Creek Road (13.1 miles)

This alternative would leave the existing Pedro Dome / True North Road on the northwest side of Pedro Dome, cross the headwaters of Dome Creek, and wind downward generally south and east for approximately four miles at a six percent grade to cross Granite Creek. It would reach the Steese Highway at a new intersection near the Felix Pedro Monument. The intersection would be at a 90

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degree angle in a straight stretch of the Steese. The road then would parallel the Steese to the northeast and cross Goldstream Creek, and then would climb the northwest side of the Deadwood Creek drainage at a six percent grade, turn south around the head of the drainage, and then east and southeast to join the existing Barnes Creek Road near its junction with the GVEA Fort Knox transmission line.

**Alternative 5** -- North Pedro Dome Route / Bypass # 2 / Fish Creek and Barnes Creek roads (9.8 miles)

This alternative is the applicant's preferred alternative, and is the same as Alternative 3 except that a new road would be constructed along the north flank of Pedro Dome in lieu of using the existing south Pedro Dome route along the Pedro Dome / True North Road. The route would use the Pedro Dome / True North Road southwest of the Cleary Summit Subdivision for approximately 2,500 feet before descending eastward towards the Steese.

**Alternative 6** -- South Pedro Dome Route / South Skoogy / Barnes Creek Road (11.0 miles)

This alternative would leave the existing south Pedro Dome route on the southwest side of Pedro Dome and descend south and east to a crossing of the Steese Highway at approximately mile 18. It then would climb and contour around the northern side of Deadwood Creek, and then head south, east and southeast to intercept Barnes Creek Road.

**Alternative 7** -- South Pedro Dome Route / North Skoogy / Barnes Creek Road (12.9 miles)

This alternative would follow the existing Pedro Dome / True North Road on the south side of Pedro Dome, leaving this road on the south side of the ridgeline immediately west of the Cleary Summit Subdivision. It would descend south and then swing sharply northwest and southwest around the head of Skoogy Gulch, generally continuing south to cross the Steese at approximately mile 18 at the

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same location as Alternative 6. On the east side of the Steese it would follow the same route as Alternative 6.

**Alternative 8** -- South Pedro Dome Route / Cleary # 2 / Barnes Creek Road (13.1 miles)

This alternative would follow the same route as Alternative 4 to the west flank of Pedro Dome, then head south with two switchbacks to descend to the Steese Highway on the south side of Steamboat Creek. Crossing the Steese at Steamboat Creek the route would climb steadily eastward in a relatively straight line to Barnes Creek Road.

**Preliminary Evaluation** - A initial screening of all eight alternatives was made to eliminate those that were clearly inferior, or that did not offer any substantial advantages over other reasonable alternatives.

New road construction / upgrading -- All the options would require varying degrees of new road construction and/or improvement to existing roads. Only Alternative 1 would not require any new road construction. On the west side of the Steese Alternatives 1, 2, 3, and 7 would require reconstruction of most or all of the Pedro Dome / True North Road. Alternatives 4, 6, and 8 would require reconstruction of only approximately 1.5 miles of the same road as far as the southwest flank of Pedro Dome. Alternative 5, the applicant's preferred alternative, would require construction of an approximately 2.5-mile new road around the north side of Pedro Dome.

Alternatives 2, 3, and 5 would require relatively short road construction distances between the Pedro Dome / True North Road and the Steese Highway.

Alternatives 4, 6, 7, and 8 would require a considerable distance of new road, much of which would descend to a substantially lower altitude than Alternatives 2, 3, and 5.

On the East side of the Steese Alternatives 2, 3, and 5 again would require relatively short distances of construction before reaching Fish Creek Road.

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Alternatives 4, 6, 7, and 8 all would require considerably more new road construction before climbing back to Barnes Creek Road.

On the east side of the Steese, options 1, 2, 3, and 5 would use the existing Fish Creek Road as far as the present junction with Barnes Creek Road. Alternatives 6, and 7 would intersect the road system at approximately the junction of Fish Creek and Barnes Creek roads. From that point all six would require upgrading approximately 1.1 miles of the existing Barnes Creek Road as far as the GVEA Fort Knox transmission line. From this point a new, approximately 2.9-mile road would be constructed at a seven percent grade around the head of Barnes Creek that would descend the Barnes Creek drainage to tie into the top of the existing Fort Knox low grade stockpile. Alternatives 4 and 8 would not require upgrading the approximately 1.1 miles of the existing Barnes Creek Road as would the other six options because they intersect the existing road system near the head of the Barnes Creek drainage.

**Alternative 1** -- At 9.2 miles in length this alternative, with alternative 2, would be one of the two shortest routes. It would cost approximately \$13.1 million. Ore truck traffic on this route would go through the existing Cleary Summit Subdivision and be closer to the Skiland Subdivision residences than any other alternative. This route would be 40 feet lower in elevation and approximately 330 feet away from the closest Skiland area residence. Light and noise impacts would be highest with this alternative because of its proximity to the local residences. The existing Steese Highway intersection sight distances do not meet DOT/PF standards and pose a significant safety hazard for a grade level crossing. An overpass was considered and discarded as a potential safety hazard due to potential ice build under the overpass and on a curve.

This alternative was dropped early from further consideration because of its close proximity to residents of the Cleary Summit and Skiland subdivisions, and the technical problems associate with a grade level crossing or an overpass.

**Alternative 2** -- At 9.2 miles in length this alternative, with alternative 1, would be one of the two shortest routes. It would cost approximately \$14.5 million.

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Sight distances at a Steese grade level crossing would meet DOT/PF standards, and this route would be approximately 190 feet away from and 40 feet below Alternative 1 on Fairbanks Creek Road, or approximately 520 feet away from the nearest Skiland residence. Light and noise impacts would exist, but would be less than for Alternative 1.

This alternative was dropped because of concern by local residents that there would be too much noise from the route's tie in to Fairbanks Creek Road at its junction with Fish Creek Road almost immediately in front of Skiland residences.

**Alternative 3** -- This route would be 10.6 miles in length and cost approximately \$16.3 million. The alignment would be approximately 200 feet below and 1,100 feet away from the nearest residence in the Skiland Subdivision and would tie into Fish Creek Road approximately 2,500 feet south of the nearest Skiland residence. In addition to moving the alignment further down slope from the residences, it would travel south and east around a major topographic feature that would further serve to minimize the traffic noise and visual impacts from traffic. This route lessens the grade down slope of the neighboring residences and therefore would lower the noise they would experience due to loaded trucks coming up the grade. The alignments and grades also are laid out to direct vehicle headlights away from Cleary Summit residences. The route would cross the Steese Highway corridor in a straight stretch that would provide reasonable conditions for construction of an underpass with exit and entrance ramps for access to and from the Steese.

Because this route would generate less noise and fewer light impacts than the first two alternatives, because the grades were reasonable, and because the crossing location provided reasonable conditions for construction of an underpass, this alternative was retained for further evaluation.

**Alternative 4** -- This 13.1-mile route, at a cost of approximately \$20.8 million, would be one of the two longest alternatives, dropping a considerable distance in elevation before climbing back to Barnes Creek Road. The route would pass within approximately 3,700 feet of Fairbanks Creek Road at its closest approach,

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but would be hidden from view by Skiland residents behind the same large topographic feature as Alternatives 3 and 5 as they approach Fish Creek Road. An estimated 8.3 miles of new road would have to be constructed. While this option would be well removed from the residences on Cleary Summit, it would pass the vicinity of other residences on the hillside behind Pedro's Monument.

Sight distances at the Steese crossing would meet ADOT/PF standards. Due to the limited ability to control and maintain private access in this area, however, crossing the Steese Highway in the vicinity of the Pedro Monument, a major tourist destination, would increase interaction with pedestrian traffic, thereby decreasing safety and increasing liability. This route also would require more extensive engineering and construction to address expansive afeis problems in the vicinity of the Steese crossing. The sinuous nature of the alignment, and the loss and gain in elevation, would require greater time for ore trucks to make a round trip, thereby substantially increasing operational costs.

This route would have the advantage of little noise or light impacts on Cleary Summit residents, but these impacts would be shifted to residents living near the Pedro Monument.

To retain at least one alternative as a substantial distance from Cleary Summit, this alternative was kept for further evaluation.

**Alternative 5** -- This 9.8-mile and approximately \$15.3 million alternative is the same as Alternative 3 except that it would use a new road on the north flank of Pedro Dome. This would be somewhat shorter than the south Pedro route and would provide an additional noise and light buffer for residences in the Skoogy Gulch area and below. It also would negate the need to reconstruct the Pedro Dome / True North Road which would increase the visual impacts on Cleary Summit residents. For these reasons, and for those described above for Alternative 3, this alternative was retained for further evaluation.

**Alternatives 6 and 8** -- These 11.0- and 13.1-mile alternatives, costing approximately \$17.8 million and \$20.8 million, respectively, roughly parallel Alternative 4 at a distance from Cleary Summit, and both are relatively similar to

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that alternative with neither showing any particular advantage over Alternative 4. They are both relatively long, costly, and lose and gain considerable altitude.

Alternative 8 would have the advantage of little noise or light impacts on Cleary Summit residents, but those impacts would be shifted to residents living near the Steese crossing. Minor & Associates (2000b) found that projected noise level increases from potential ore trucks at seven receptors near the proposed Alternative 8 Steese crossing would be similar to those from ore trucks using Alternative 5 on residents at Cleary Summit. Unlike Alternative 5, however, in one case the increase would be significant. Thus, Alternative 8 would only shift, not eliminate, impacts.

Because Alternative 4 was retained for further evaluation and because neither of these alternatives provided clear advantages over alternative 4, both were dropped from further consideration.

**Alternative 7** -- This 12.9-mile and approximately \$20.8 route differs from Alternative 6 only on the west side of the Steese. It would drop steeply from the Pedro Dome / True North Road to the Steese in the Skoogy Gulch area. It would pass relatively close to residences in the area and cause noise and light impacts with no discernable advantage over other alternatives retained for further evaluation. Therefore, it was dropped from further consideration.