

**SPECIAL, EXCEPTIONAL, CRITICAL, OR UNIQUE INSPECTION  
WHARF RESOURCES**

OPERATOR: Wharf Resources (USA) Inc.  
PERMIT NUMBER: Pending Permit Application  
INSPECTION TYPE: S & U Determination  
DATES: September 30, 2010; October 26, 2010  
TIME: 8:30 am – 1:22 pm MDT (9-30)  
12:45 – 4:30 pm MDT (10-26)  
CONDITIONS: Sunny, low 60's (9-30); snowy, high 20's (10-26)  
INSPECTORS: Mike Lees, Mike Cepak, Eric Holm, Bobbie Hudson, Mark Keenihan  
ACCOMPANIED BY: Stan Michals (Game, Fish, and Parks), Ken Nelson, Ron Waterland (Wharf), Vicki Franzen, Todd Kenner, and Crystal Hocking (RESPEC)

In accordance with ARSD 74:29:10:08(1), inspections of Wharf Resources' proposed large scale gold mining expansion were conducted on September 30 and October 26, 2010. The inspections were conducted to determine whether the lands described in the recently submitted Request for Determination of Special, Exceptional, Critical, or Unique Lands and Notice of Intent to Operate should be included on the preliminary list.

The legal location of the proposed operation is as follows:

Sections 1,2,3,6 and 12; T4N-R2E, and Section 33; T5N-R2E, Lawrence County.

September 20, 2010

The inspectors, accompanied by Stan Michals (GF&P), met Ron Waterland and Ken Nelson (Wharf) at 8:30 am MDT in the Wharf conference room. The group was soon joined by Wharf's RESPEC consultants Crystal Hocking, Vicki Franzen, and Todd Kenner. After brief introductions, Ken Nelson presented an overview of Wharf's Request for Determination and Notice of Intent. Mr. Nelson identified the area covered by the Request for Determination as portions of Foley Ridge, Green Mountain, Bald Mountain, the eastern base of Terry Peak, and a discrete parcel immediately north of Pad 4 (contiguous with the existing Wharf Process Area) in Section 33; T5N-R2E. He also showed proposed changes to State Highway 473 and the construction of the haul road from Golden Reward to Wharf.

Mike Cepak explained the proposed areas of disturbance within the Golden Reward permit boundary (i.e., portions of Liberty and Harmony pits, Cemetery Ridge, and portions of the former Golden Reward Process Area) would also need to be considered

under the Request for Determination. This was necessary as the bulk of the Golden Reward site had been released of reclamation liability and bond. He also broached the subject of whether the entire Golden Reward permit area should be considered under the Request for Determination given the fact that proposed mine expansion may involve changing the post-mine land use of some or all portions of the Golden Reward site (Note: in a subsequent telephone conversation on October 4, 2010, Mike Cepak informed Ron Waterland and Ken Nelson that a Request for Determination was not necessary for lands at Golden Reward which will have the post mine land use changed but that will not be re-disturbed.) Wharf agreed to submit a revised Request for Determination that incorporates all areas of proposed disturbance within the Golden Reward permit area.

Mike Lees broached the subject of whether all adjacent landowners within 500 feet of the determination area, including the area around Golden Reward, were identified in the Request for Determination. In response, Ron Waterland explained that the proposed area of determination extends 500 feet beyond areas of proposed disturbance (proposed permitted affected area) and all landowners within 500 feet of the proposed mining operation (i.e., disturbance areas) have been identified in the Request for Determination. We then had a brief discussion of whether the 500 foot requirement should be applied to the proposed disturbed boundary or the determination boundary. ARSD 74:29:10:03 (4) states that surface owners within 500 feet of the proposed mining operation should be identified. SDCL45-6B-3(8)11 defines a mining operation as the development or extraction of a mineral from its natural sources on affected land. Therefore, we agreed Wharf was obligated to provide copies of the Request only to landowners within 500 feet of proposed disturbance.

Stan Michals asked about aspen groves and riparian habitat within the proposed expansion area. Mr. Michals considers these areas to be critical resources, but does not intend to nominate the area of determination for inclusion on the preliminary list of special and unique lands. Rather, he expressed his intent to “elevate the value” of these areas, and address their protection and restoration within the large scale mine permit application.

Department staff asked about the proposed small disturbance area just to the north of the Liberty Pit and the Nevada Gulch Road. Ken Nelson said Wharf originally planned to mine the area, but it will no longer be affected. The area will be removed from the Request for Determination map. Department staff also told Wharf it appears that there are some differences between the baseline data boundary and the Request for Determination boundary. Ron Waterland said the new baseline boundary is the same as the Request for Determination boundary.

During the meeting, department staff also asked Wharf to resume monitoring of surface water site SS-05 at Golden Reward. SS-05 is in Nevada Gulch north of Pet Hill. This

site was added as it would monitor water quality downgradient of mining in the Terry Cemetery area.

We discussed a list of completeness items that the department has developed during its initial review of the Request for Determination. Department staff said the Request for Determination needs to be amended to include the area north of Pad No. 4 and the Golden Reward areas to be disturbed. Also, a revised review agency address list was given to Wharf personnel. Wharf was reminded that copies of the Request for Determination need to be sent by certified mail to the review agencies. The map in the Request cannot be confidential and draft and a final version of a letter from GEI must be included instead of a draft version. Finally, in the discussion of the land being ecologically fragile, impacts to sensitive plants such as mountain huckleberry and *pyrola picta*, sensitive wildlife such as raptors, and the potential for acid rock drainage must be addressed.

Area North of Leach Pad No. 4. The meeting portion of the inspection ended at 9:45 am MDT. At this point, we loaded into Wharf and department vehicles, and drove to the proposed expansion area immediately north of Wharf's Pad 4 (just northwest of the Wharf office complex). Ken Nelson explained that proposed disturbance may involve construction of a new leach pad. The proposed area of disturbance extends approximately 500 feet north of Pad 4, and does not extend northward beyond the Ragged Top Mine access road (Photo 1). The area is predominately a mature ponderosa pine forest with scattered patches of aspen and bur oak. Understory species noted include oregon grape, timothy, and juniper. None of the species noted are threatened, endangered, or sensitive.

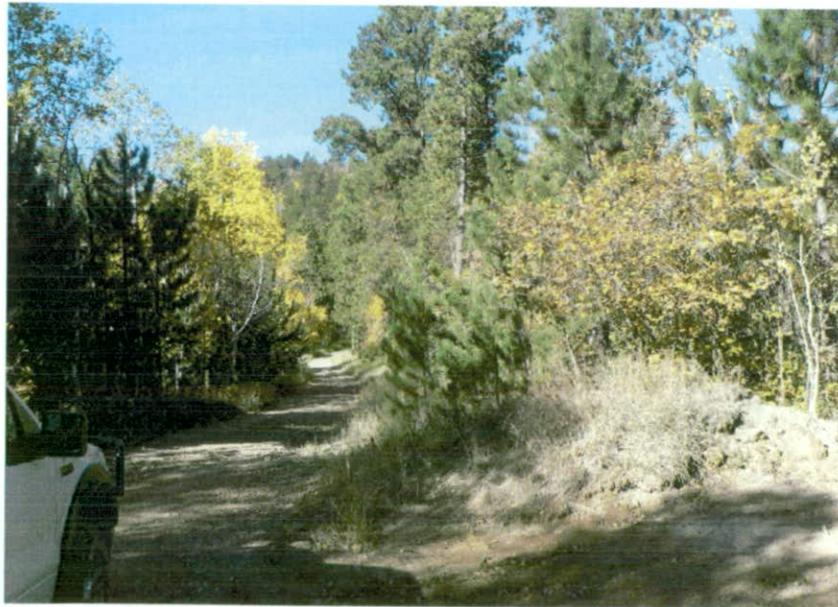


Photo 1 – Proposed expansion area in Section 33, north of Wharf's Pad 4. Taken along the axis of the Ragged Top Mine access road, facing west.

Hydrologically speaking, the proposed disturbance area is immediately up gradient of McKinley Gulch. The area north of the Ragged Top Mine access road drains northward into Long Valley. We inspected PW-2, Wharf's new production well, which is located just north of the proposed pad disturbance area (Photo 2). The well is screened in the Madison Formation, and will be used to provide potable water for the mine site.



Photo 2 – PW-2, just north of the Ragged Top Mine Access Road, taken facing north.

Foley Ridge Pushback. We then entered the restricted mine operation area and ascended Foley Ridge (Photo 3), and drove along the southern mine permit boundary on a trail just above the west end of former (backfilled) Portland Pit highwall in the old Maria Pit area. We stopped along the trail just south of the 33V/Polo denitrification area and noted that the new Portland Denitrification Pad liner was installed. Vegetation in this previously disturbed reclaimed area consisted of wheatgrasses, timothy, and alfalfa. None of the species noted are threatened, endangered, or sensitive.

Ken Nelson described the proposed disturbance along this portion of the ridge (i.e., roughly 3,000 feet of ridgeline from the Flossie area by the 33-V/Polo denitrification area to the Deep Portland Pit) as a 50 to 80 foot pushback of the existing highwall. Since the existing highwall is several hundred feet north of the crest of Foley Ridge, the 50 to 80 foot expansion will not “break through” the ridgeline. This is significant given the fact that the ridge serves as a visual and acoustical barrier, effectively isolating the Barefoot Condominiums and the northern ski slopes of Terry Peak from most of the mine

operation. Foley Ridge impacts will span from the Flossie area (western extent) to junction of Highway 473 and Wharf Road (eastern extent). Nelson described proposed disturbance between the Flossie area and the Deep Portland Pit as “deep and skinny”. Wharf is targeting ore down to the 5,960 elevation level, with lateral disturbance of vegetation generally only extending approximately 50 feet south of the existing trail that runs along the top of the highwall.



Photo 3 – Foley Ridge, taken from the trail just above the backfilled Portland Pit facing east.

We continued eastward along a logging trail on the ridge, stopping at 10:30 am just above (south of) the Deep Portland Pit. We took background radiation measurements in this area, which were between 30 to 40  $\mu\text{R/hr}$ . Wharf is currently removing the pine trees killed by pine beetles in this area. The long, thin swath of proposed pushback disturbance is predominantly a mature ponderosa pine forest with scattered areas of aspen and spruce (Photo 4). Understory species noted include bracken fern, timothy, and mountain brome. None of the species noted are threatened, endangered, or sensitive. Department staff asked about mountain huckleberry in this area. Crystal Hocking of RESPEC said there are some mountain huckleberry plants (approximately 500 plants) to the south of the proposed disturbed area that will not be affected by the mining operation.

Ken Nelson mentioned Wharf employees discovered two historic mine openings near the crest of Foley Ridge, generally south of the Deep Portland Pit. He mentioned that 2000 tons of material had been backfilled into one of the openings, possibly an old shrinkage stope, and that the opening was still open.

Department staff asked Ron Waterland about the Canada thistle infestation along the logging trail. Ron said Mid-Dakota finally arrived at the site last week to do this year's weed spraying. As a result, only a few areas were sprayed since it was so late in the growing season. He said that starting next year, Wharf will do its own weed spraying. James Pietila has obtained a weed sprayer license, and another certified weed sprayer will be hired to assist Mr. Pietila.

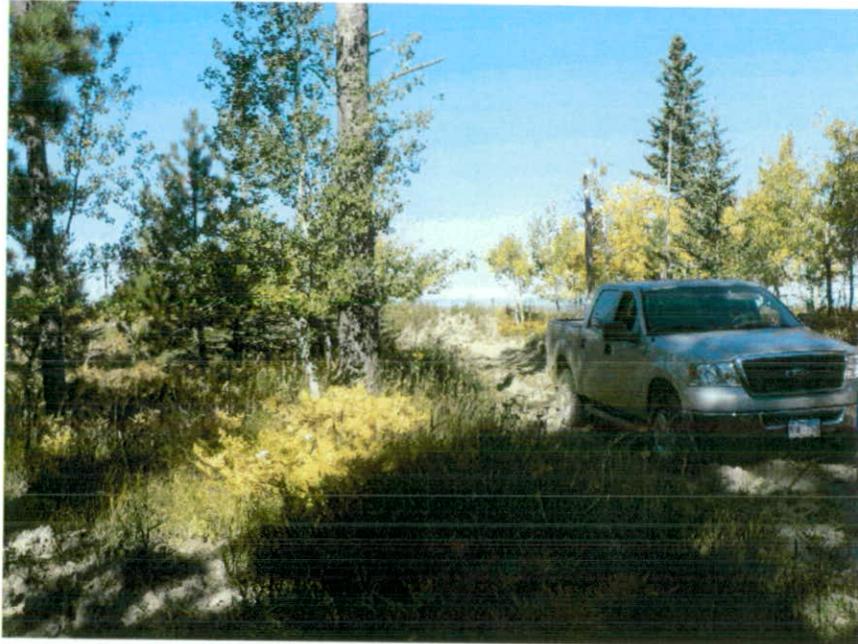


Photo 4 – Foley Ridge, taken from the trail just above the Deep Portland Pit highwall facing northwest.

Green Mountain. We next turned around, and drove back toward the west along the southern permit boundary trail. We exited the restricted operations area and drove east along Wharf Road to the intersection of Wharf Road and the southern permit boundary. We parked along Wharf Road, and then walked part way up the west side of Green Mountain. From this vantage point, Ken Nelson drew the group's attention to the far eastern end of Foley Ridge (Photo 5), immediately across the road from us. Unlike the "deep and skinny" disturbance proposed along most of Foley Ridge, the disturbance proposed for the eastern end of the ridge is more extensive. Nelson explained that the 500 x 600-foot eastern extent of Foley Ridge, (i.e., the portion of the ridge between the mine manager's house and Wharf Road) will be removed by the proposed mining operation from the existing highway south to the volunteer fire department's garage. This will increase visibility of the mine operation from portions of the Terry Peak ski area. The "A frame" house currently occupied by mine manager Bill Shand and several other houses will be removed (Photo 6). The new highway will tie into the existing road to Barefoot Condominiums somewhere between the two houses.

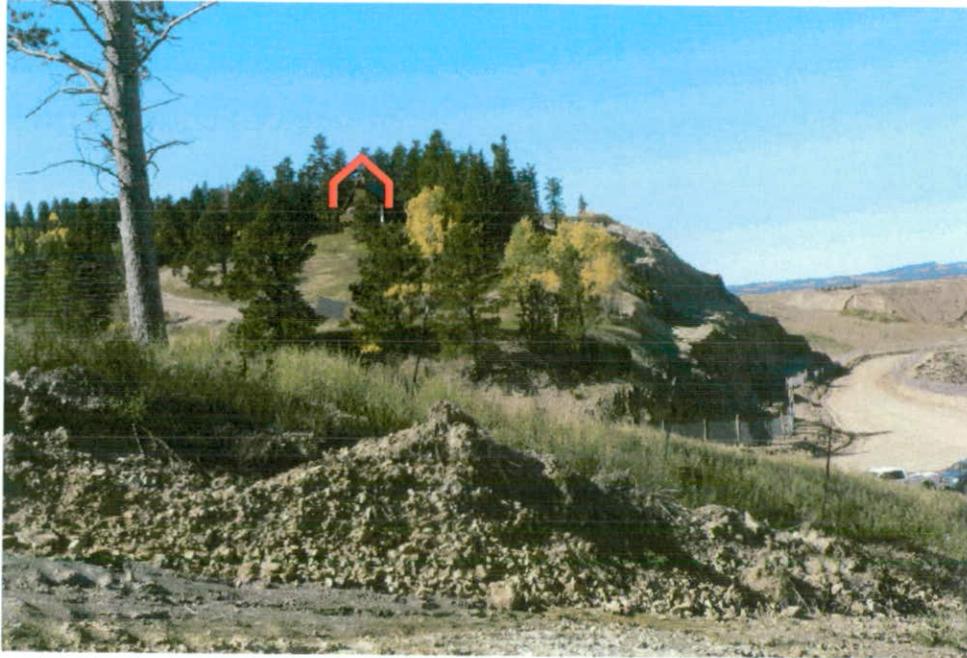


Photo 5 – Eastern end of Foley Ridge as seen from just across the road on Green Mt., facing west. The mine manager’s house is outlined in red.

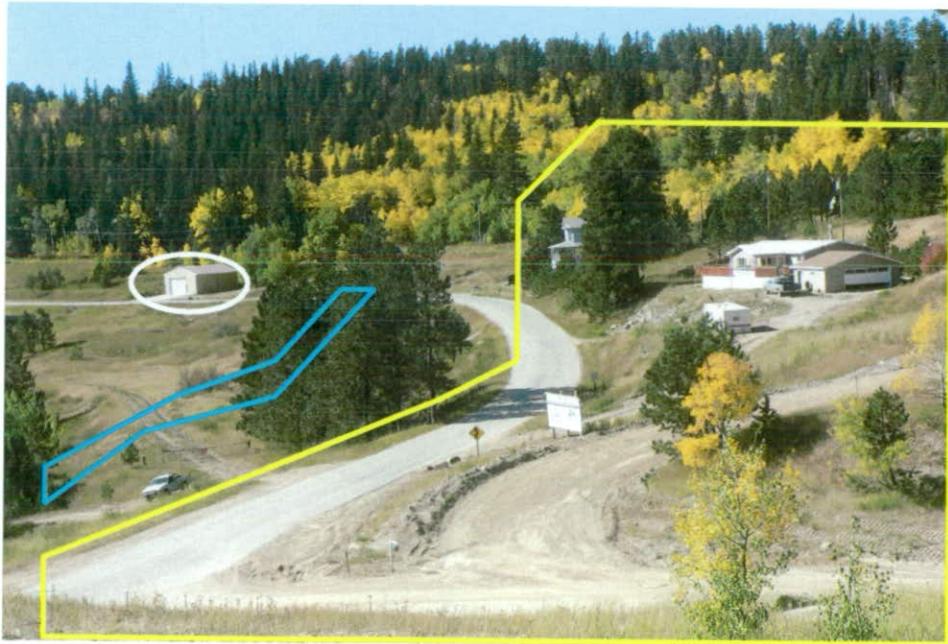


Photo 6 – Yellow line shows approximate extent of proposed mining. Terry Volunteer Fire Dept. garage (circled) will not be affected. Blue line shows approximate location of new road to Barefoot Condominiums.

We hiked along a logging/exploration trail around Green Mountain's southern slope, eventually reaching the eastern side of the peak. Some old prospect pits were noted along the trail. This area is predominately a mature ponderosa pine forest with scattered patches of aspen, birch, and spruce (Photo 7). Understory species noted include bracken fern, oregon grape, juniper, asters, wild strawberry, and thimbleberry. None of the species noted are threatened, endangered, or sensitive. Wharf was also logging this area to removed pine trees killed by pine beetles. Some of the remaining pine trees showed evidence of insect impacts.

Ken Nelson explained the remaining (i.e., southern) half of Green Mountain would be excavated down to the Precambrian contact, in like manner to how the northern half of the mountain was removed during excavation of the Trojan Pit. The bottom of the pit would be below the level of Highway 473 in this area. Waste rock from this area would be placed into the existing Trojan pit to the north. Removing Green Mountain would increase visibility of the eastern portion of the Wharf from Terry Peak. Nelson also pointed out the western slope of Bald Mountain (Photo 8). Wharf plans to mine a portion of the western slope under its expansion project. From a distance, the vegetation on Bald Mountain appeared to be very similar to that of Green Mountain.

While in the area Ron Waterland and Stan Michals began to discuss some adits or mine shafts that had been discovered in the area during logging. The shafts had been covered with a tarp to prevent bats from entering the openings and Wharf had planned to close the shafts. Mr. Michals and Mr. Waterland made an attempt to find one of the shafts that had been located along the edge of the road but the area was so heavily wooded that they did not find it.



Photo 7 – Summit of Green Mt., taken from the east side, facing west.



Photo 8 – The western slope of Bald Mt. (background) taken from the eastern slope of Green Mt., facing east.



Photo 9 – Nevada Gulch, just north of the Blue Chairlift base, facing east.

Haul Road Route. At approximately 12:00 pm, the inspection group drove down Highway 473 to the Terry Peak Blue Chair parking lot (i.e., in the upper reaches of Nevada Gulch), where we viewed Green Mountain from its southern base. Vegetation varies from wheat and blue grasses and ox-eye daises around the parking lot and the bottom of the gulch to ponderosa pines and aspens along the hill sides. None of the species noted are threatened, endangered, or sensitive.

Ken Nelson explained the new haul road, connecting expansion areas at the Golden Reward site with the Wharf Process Area, will run parallel to the power lines and the highway present in this part of Nevada Gulch (Photo 9). The company plans to construct the road after lowering Green Mountain by approximately 200 feet. The haul road will be constructed away from Nevada Gulch Creek. Some natural acid rock drainage was noted in the creek in the parking lot area.

Golden Reward Crusher/Shop Area. We then drove down Nevada Gulch to the Golden Reward Mine area. Along the way, we noted relic ore bins along the north side of the highway that were mentioned in the cultural and archaeological survey for Golden Reward's Mine Permit No. 450. Wharf personnel said the ore bins will not be disturbed by the proposed mining operation.

We drove up Fantail Gulch, arriving at the former Golden Reward crusher and truck shop area (Photo 10). Vegetation in this previously disturbed reclaimed area consists of hard fescue, wheatgrasses, and rocky mountain penstemon. None of the species noted are threatened, endangered, or sensitive. From this vantage Ken Nelson pointed out the proposed areas of impact along the western walls of the Liberty (Photo 11) and Harmony (Photo 12) pits, the process area, and Cemetery Ridge (Photo 13). The current Harmony Pit highwall will be removed and the current West Liberty Pit highwall will be pushed back and reduced. During final reclamation, the red chair lift will be extended through or around the previous Harmony Pit highwall into the former leach pad which will become a condominium development area.

Mr. Nelson also pointed out the portion of Bald Mountain (western slope) that they plan to disturb (Photo 14), and the route of the haul road from the mine into Nevada Gulch. (Photo 15). The haul road will go between the Terry Cemetery and the twin knobs in the Liberty Pit into Nevada Gulch.



Photo 10 – Former Golden Reward Shop and Leach Pad Area, taken facing northeast.



Photo 11 – West Liberty Pit highwall, taken from Golden Reward Crusher and Shop Area, facing northwest.



Photo 12 – Harmony Pit highwall, taken from Golden Reward Crusher and Shop Area, facing southwest.



Photo 13 – Cemetery Ridge, taken from Golden Reward Crusher and Shop Area, facing north.

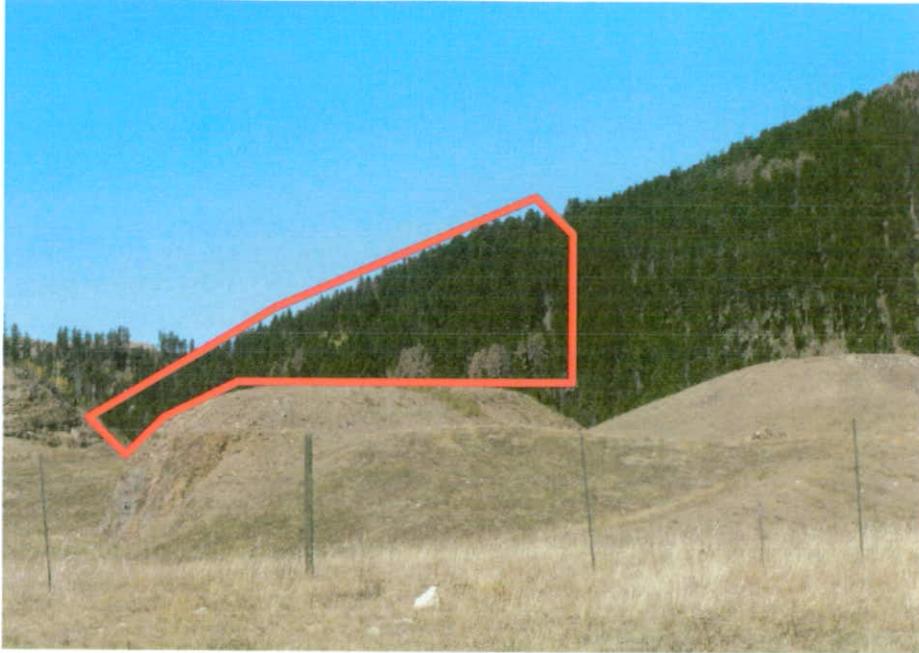


Photo 14 – Bald Mt. (background) with Liberty Pit knobs (foreground), taken from Golden Reward Process Area, facing northwest. The outlined portion of the mountain is the proposed disturbance area.



Photo 15 – Circled area shows route of new haul road from Golden Reward Mine.



Photo 16 – Exploration drill hole on Cemetery Ridge with Terry Peak in background, taken facing southwest.

Cemetery Ridge. We next drove across Fantail Gulch and along an old reclaimed haul road to Cemetery Ridge. In Fantail Gulch, Mike Cepak pointed out the former location of an interpretive (historic) marker that denoted the site of Calamity Jane's death in the former town of Terry. Vegetation in this area varied from hard fescue and wheatgrasses on the reclaimed haul road to ponderosa pine, aspen, spruce, and some apple and plum trees on the adjacent hill sides. None of the species noted are threatened, endangered, or sensitive.

Evidence of exploration drilling was present along the reclaimed haul road (Photo 16). Drill cuttings around a recently drilled hole were predominantly Precambrian rock (Photo 17). Based on the relatively shallow depth of the Precambrian contact under Cemetery Ridge, Ken Nelson concluded that the maximum depth of proposed mining would remain well above the elevation of Highway 473 in Nevada Gulch. The width of mining in this area would be about 200 feet. The ridge line would be reduced, and there are no homes on the opposite side of the ridge that would be impacted.



Photo 17 – Drill cuttings (predominantly Precambrian basement rock) from exploration drill hole on Cemetery Ridge.

Mr. Nelson also explained Wharf's probable mine plan, which involves moving Terry Cemetery to a different location. The Terry Cemetery Association has approached Wharf about moving the cemetery prior to any mining activity. We attempted to drive along the old Terry Cemetery Road along the ridge top to the cemetery, but were blocked by a drill rig on the crest of the ridge. Vegetation on the ridge top consisted of a mature ponderosa pine forest, with oregon grape, juniper, timothy, and smooth brome as understory species. None of the species noted are threatened, endangered, or sensitive. We walked around the rig, and toured the cemetery (Photo 18). Ken Nelson commented that moving the cemetery would involve relocating approximately 240 grave sites (Photo 19), a number of which are unmarked (Photo 20).



Photo 18 – Terry Cemetery, taken facing north.



Photo 19 – Grave at Terry Cemetery.



Photo 20 – Unmarked grave at Terry Cemetery.

We ended the September 30 inspection at 1:22 pm MDT.

#### October 26, 2010

Mike Cepak, Eric Holm, Mark Keenihan, Roberta Hudson, and Mike Lees (DENR), accompanied by Stan Michals (GF&P), met Ron Waterland and Ken Nelson (Wharf) at 12:45 pm MDT in the Wharf conference room. We briefly discussed the status of the Request for Determination submission. Ron Waterland mentioned that Crystal Hocking of RESPEC planned to submit the completed application packet and supporting information later that afternoon (Note: the department received the revised application packet on October 27, 2010). Ken Nelson mentioned that Wharf's archeological consultants had not been able to find any historic information regarding the Terry Cemetery.

During the meeting, department staff also broached the subject of the carbon treatment plant and new water supply technical revision. Ron Waterland said he was sending Kelli Buscher drawings for the carbon treatment plant. He added Wharf wants to start work on the new water supply system next week. In fact, the foundation for the warehouse expansion that will house a chlorinator for the water supply system has already been completed. Also, work on the flumes at the toe of the Ross Valley and Reliance

Depositories has already started. Mike Cepak said the department would try to do a partial approval on these aspects of the technical revision in the near future.

Bald Mountain. Following the brief meeting in the conference room, Ken Nelson, the department inspectors, and Stan Michals drove to the gate near the junction of Wharf Road and Richmond Hill Road, where we entered into the controlled mine traffic area. We drove across the backfilled Trojan Pit, and then accessed a logging trail on the western slope of Bald Mountain. Wharf was logging this area to removed pine trees killed by pine beetles.

As mentioned during the September 30 inspection, Wharf plans to mine only a portion of this slope. We drove approximately 600 feet up the trail, parked the vehicles, and continued to walk along the western slope of Bald Mountain. From the vantage of the logging trail, we could look down and see Highway 473 approximately 300 feet to the southwest (Photo 21). Ken Nelson explained that the logging trail approximately coincides with the top of the proposed pit highwall. The pit will extend down to the current highway which will be relocated to the south. We continued along the trail toward the east, reaching the eastern-most extent of the proposed pit, approximately 100 feet past the intersection of a power line and the logging trail. We could see many of the Terry Peak ski trails from the proposed mining area (Photo 22). This mining area will be visible from the ski area.

Some old prospect pits were noted along the slope. This area is predominately a mature ponderosa pine forest with scattered patches of aspen and spruce. Understory species noted include oregon grape and juniper. None of the species noted are threatened, endangered, or sensitive.



Photo 21 – Highway 473 as seen from the west end of Bald Mountain with Green Mountain in the Background, taken facing west.



Photo 22 – Terry Peak as seen from the west end of Bald Mountain, taken facing south.

We returned to the vehicles, and began driving back across the Trojan Pit. On the way back to the gate, we stopped to view the rim between the Deep Portland and Trojan pits. This area, which until recently was the main access road to the mine site and the location of the old Trojan School House, has been excavated down approximately 100 feet in the past year.

East Foley Ridge. At 2:15 pm we drove up the eastern end of Foley Ridge, stopping approximately 100 feet west of the Mine Manager's residence (Photo 23) at a locked gate. We continued walking westward along the ridge (Photo 24), halting just above the border between the Portland Pit (Photo 25) and Deep Portland Pit (Photo 26). Mr. Nelson explained that mining the target horizon under Foley Ridge would involve moving around 40 million tons of material that was previously backfilled along the base of the Portland Pit highwall. He added that the existing highwall would be laid back 50 to 75 feet to the south.

This area is predominately a mature ponderosa pine forest with scattered patches of aspen and spruce. Understory species noted include kinnikinnik, timothy, wheatgrasses, and tansy. None of the species noted are threatened, endangered, or sensitive.



Photo 23 – Wharf Mine Manager's residence on the far east end of Foley Ridge, taken facing east.



Photo 24 – Eastern portion of Foley Ridge, taken facing west.



Photo 25 – Backfilled Portland Pit in foreground as seen from atop the east end of Foley Ridge, taken facing northwest.



Photo 26 – Deep Portland Pit as seen from atop the east end of Foley Ridge, taken facing north.

Harmony Hill. After inspecting the eastern end of Foley Ridge, we drove down Highway 473 to the Golden Reward Mine's main entrance. At 2:40 pm MDT, we drove up Fantail Gulch, around Harmony Hill (Photo 27) to the base of the Red Chairlift. Nelson explained that removal of the entire Harmony Hill would be proposed under the impending expansion permit application. He also mentioned that the Red Chair would probably be re-routed down the draw and along an existing trail between the Harmony and Liberty highwalls, facilitating a much longer set of ski runs on the south side of Terry Peak.

This area is predominately a mature ponderosa pine forest with scattered patches of aspen and spruce. Understory species noted include juniper. None of the species noted are threatened, endangered, or sensitive. However, there are three populations of mountain huckleberry just to the west of Harmony Hill along undisturbed portions of the ski area. Because of the snow cover, we were unable to view the huckleberry plants. The huckleberry plants are close to the extreme western end of the proposed disturbed area. There are between 100 and 300 huckleberry plants in each of the three areas. Wharf will need to ensure that these plants are not disturbed during the mining operation. There is also one white veined wintergreen plant to the southwest that will not be disturbed by the mining operation.

Liberty Highwall. We next followed the path of the old railroad grade to the north and drove along the base of Terry Peak until we reached a vantage just above the Liberty Highwall. Ken Nelson mentioned that Wharf intends to mine in the Harmony and Liberty target areas between the months of April and November, outside of the normal timeframe for recreational skiing. He also commented that mining the Harmony-Liberty target area would likely take around two years.

This area is predominately a mature ponderosa pine forest with scattered patches of aspen and spruce. Understory species noted include oregon grape, raspberry, chokecherry, juniper, and tansy. None of the species noted are threatened, endangered, or sensitive.

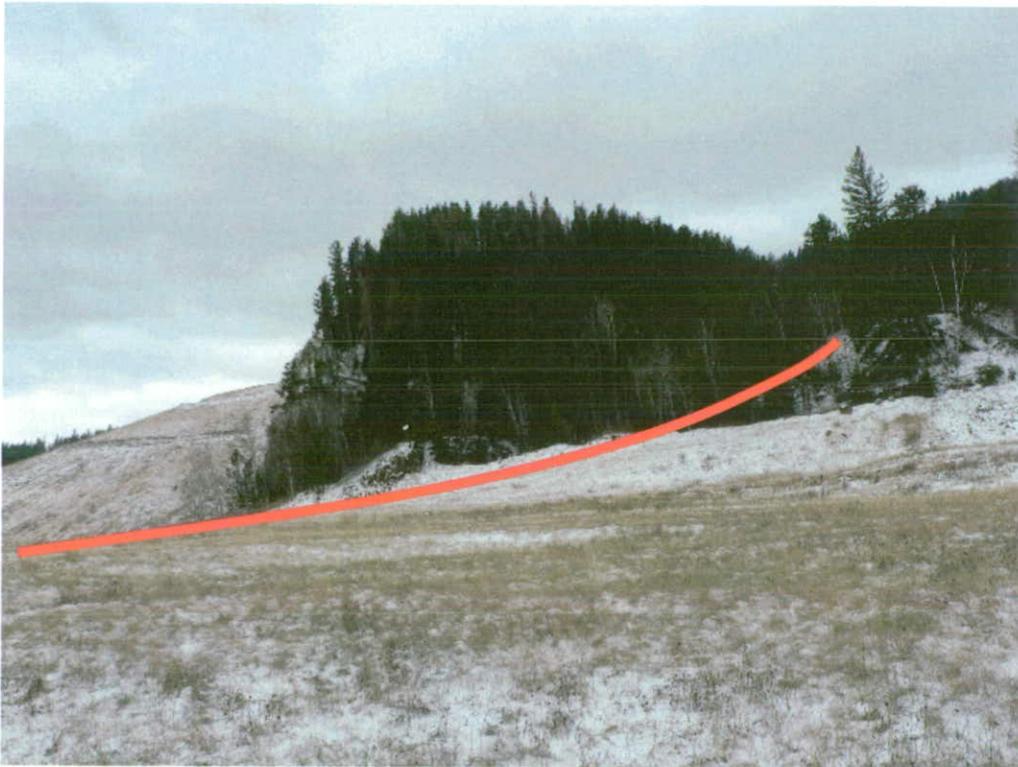


Photo 27 – Harmony Hill, taken from the floor of south Liberty Pit, taken facing south. The Red line marks the approximate possible future route of the Red Chairlift’s lower extension.

We next drove into the southern portion of the Liberty Pit, stopping to view the Liberty and Harmony target areas from below (Photo 28). An old mine dump was noted between the Harmony and Liberty Pits. The proposed Liberty Pit pushback will involve removing approximately 40 feet of material from the top of Liberty Ridge and push the highwall back to the west so that the final slope would be about 3:1 (H:V).



Photo 28 – Liberty Highwall, taken from the floor of south Liberty Pit, facing west.

The inspection ended at 3:23 pm MDT.

Inspectors: \s/

Date: 11-10-10