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Comments: My name is Robert (Rick) Richins and I reside at 1709 East Silverspot Lane in Boise, Idaho. I am a retired Environmental Consultant with over 45 years of mining experience, supported by a B.S. in Zoology and an M.S. in Environmental Science and Chemistry.

During these 45 years, I have spent time working on environmental issues at Stibnite since 1976, working on major environmental impact statements, EAs, water quality management, mine waste management, and rehabilitation and reclamation studies and evaluation. I am very familiar with the site and environmental conditions that have resulted from the long history of mining at the site.

My comments on the DEIS follow. While the DEIS is a large document, no additional time should be provided for public comment. Sufficient meaningful public input has already been provided, and it is time to bring the DEIS process to completion. Local communities and the State of Idaho need this very important project.

## **Executive Summary**

Concerning the Purpose and Need, in addition to the statements for the USFS and USA CE, there should also be statements for the USEPA (IDHW-DOE) concerning the need for the ROD to issue a potential NPDES (IPDES) permit, and for the general public in terms of local need for jobs and environmental cleanup at the site. This project will have a significant positive impact on the local economy and jobs, including connected actions, like line power to the general project area.

Also, there should be some discussion of the Idaho Joint Review Process and its role in the EIS process and related permitting for the Stibnite Gold Project (SOP). This process is considered very positive in the overall permitting process as it helps to consolidate an otherwise complicated and diverse and time-consuming process by highlighting timeframes and milestones, and regulatory interrelationships.

Many reviewers will only read the Executive Summary. This discussion needs to better highlight the differences between Alternatives 1 and 2 in more detail, especially the long-term environmental management features of Alternative 2. This centralized water treatment component is a major feature of the DEIS and the environmental analysis. Alternative 5 is inconsistent with the 1872 Mining Law and the concept of "practicability" as defined in the Corps 404 process, which I will discuss the more detail later in my comments.

## Chapter I: Purpose and Need

See earlier comments for the Executive Summary. I am aware of the significant efforts by Midas Gold Company (Midas) to involve the Nez Perce Tribal Council and technical staff in numerous exploration project design and environmental monitoring programs. Contacts of other affected Tribal interests were also made by Midas. This effort should be highlighted in summary fashion in terms of Tribal Participation.

Why isn't the related NPDES (IPDES) permit decision listed in this chapter? An issue which should be listed in the discussion is the commitment by Midas to reclaim and rehabilitate the project area as part of the mine plan in a comprehensive manner. This "cleanup" likely would not be conducted if the site is not economically mined. The current adverse environmental conditions at the site have remained for many years, with only "piecemeal" fixes attempted by responsible parties and federal and state cleanup programs being conducted with mixed results.

Also, the list of issues is noticeably absent of public scoping comments related to socioeconomic benefits of jobs

and infrastructure improvements associated with the Project. These resources are significant and should be identified in the Executive Summary.

Chapters 2 and 3: Alternatives Including Proposed Action and Affected Environment

The SGP Plan of Restoration and Operations is unique in that restoration is a central theme of the proposal. The restoration element should be displayed as a "component" of a functioning mine project. It should be noted in the writeup that this restoration is not a component of Alternative 5: No Action.

EPA and other agencies have spent over \$4 million on "pollutant-specific sources" of contamination like the Stibnite Mill removal (Superior Mining Heap Leach) to reclamation and water management features of the Hecla Heap Leach. Other mitigation has included the Meadow Creek tailings keyway and surface water diversions around the Bradley tailings to eliminate a major source of arsenic in the drainage. These programs were effective in individual source control, but not a comprehensive areawide drainage watershed management program, like

Midas plans for the Proposed Action (reference the company's overall restoration plan). Alternative 1 involves removal and reuse of spent ore from early Hecla and Superior Mine operations and reprocessing of historic Bradley Tailings underlying the SODA. This would be an effective cleanup remining and reuse operation, consistent with national remining and reuse policy. Final placement of process wastes in a constructed tailings storage facility is a preferred alternative. It is the basis for Alternative 2 described later in this letter

The antimony concentrate would be shipped offsite for refining. One possible process facility was previously located in Montana and should be considered. The following facts should be considered for the nationally "strategic" antimony by-product.

[bull] One common definition of "critical minerals" is that they are integral to the national defense, aerospace, or energy industry, but are threatened by supply disruption due to limited domestic production. Antimony is a critical metal that occurs naturally in the earth's crust. China supplies 90% of the world total production (Wikipedia.org).

[bull] Five primary uses of antimony include: Flame retardant, batteries and alloys, plastic stabilizers, military ordinances, and ammunition uses, and catalysts. It is also used in semi-conductors and components of motor vehicles. About 75% of the antimony consumed in the U.S. is used in a variety of industrial applications primarily as a flame retardant in televisions, computers, optical cables, circuit boards, switches and semiconductors, and the manufacture of polyester (USGS Fact Sheet, 2000).

[bull] Antimony rarely occurs in its native metallic form in the environment. It is mined as Stibnite (SBS3). Known Stibnite deposits occur in Idaho, Montana, Nevada, and Alaska. There is no active antimony mining in the U.S. and no strategic antimony stockpile.

[bull] In 2010, the U.S. consumption was approximately 27,000 metric tons of antimony. Net import reliance was about 87%. The U.S. imports about 73% of its antimony from China. Other major producers include Bolivia, Russia, South Africa, and Tajikistan. One primary smelter in the U.S. located at Thompson Falls, Montana produces antimony; its ore supply is two mines in Mexico.

[bull] In China, the world's leading antimony producer, the government has continued to shut down and open mines and smelters to effectively control supply and cost of the metal. Between May, 2007 and May, 2012, the price of antimony increased from a low of about \$2.25 per pound, to as high as \$8.50 per pound, ultimately settling in at about \$6.50 per pound (metalprices.com). In 2011 for example, the price rose to \$6.80 per pound when the Chinese government reported the Hunan Province, which accounts for 60% of the world antimony supply, now has only a very limited mine life remaining after more than 110 years of continuous mining (U.S. Geological Survey, Mineral Commodity Summaries, January 2012).

[bull] The British Geological Survey's Risk List, a supply risk index for chemical elements which are of economic value, showed antimony as the element with the highest risk of supply disruption based on: scarcity, production concentration, reserve base distribution, and governance (BGS, 2011). Given these facts, antimony clearly qualifies as a "critical mineral" and it is necessary to re-establish the domestic production, manufacturing, recycling, and workforce capabilities in the U.S.

For all action alternatives, including the Proposed Action, cyanide neutralization would be used to treat the tailings before transport to the TSF. This should be accomplished according to procedures outlined in the ICMI for the manufacturing, transport and use of cyanide, and IDEQ Rules for Ore Processing by Cyanidation. Page 2-34 of the DEIS indicates there is no schedule for changing the Idaho regulatory requirements to performance-based criteria. Governor Little should be requested to establish a definitive timeline for this rulemaking, consistent with the schedule for the FEIS and ROD.

Alternatives 2-5 should be subjected to an analysis on "practicability" at this stage of alternatives development. In this case, practicability refers to the alternatives being feasible for costs (feasible in terms of capital and operating), water quality and environmental benefits, and technology. Alternatives should not be considered if they are not practicable. Alternative 5 (No Action) is not practicable and should not be selected in the FEIS. In addition to the 1872 Mining Law considerations, practicability criteria should be a part of the final analysis of alternatives. Accordingly, the FEIS should be staffed with mining economic expertise. Alternative 2 is the environmentally preferred alternative, as developed by Midas during the DEIS process (pages ES-13, DEIS). Improvements over Alternative 1 include the liner system for the TSP, rapid infiltration basins for pit water and effluent from a centralized water treatment plant, and other water management features. The feasibility of a water treatment plant at the site has not been evaluated in detail in the DEIS. It should only be considered as part of the IPDES permitting process along with other water management options, based on final water balance and treatability considerations. Centralized water treatment has long-term environmental management requirements, which are beyond the scope of the DEIS. Water treatment by a centralized water treatment plant in perpetuity may not be practicable at the site. Feasibility should consider environmental benefits, economics, and logistics.

Other improvements could be realized as part of the FEIS process. As the feasibility study proceeds, it is possible that advances in mining sequencing may provide opportunities for additional benefits, like backfill of mine pits with associated reductions or the elimination of development rock storage facilities. This could further improve Alternative 2 as the environmentally preferred alternative.

Alternative 3 would involve moving the tailings disposal component of the project into the undisturbed East Fork of the South Fork of the Salmon River (EFSFSR) subdrainage. This alternative should be evaluated in terms of the "practicability" concept described earlier in my contents. It would require at least two additional years of environmental baseline information, whereas there is a preponderance of environmental history in the Meadow Creek subdrainage. The alternative is not economically feasible, would require massive new evaluation of the project feasibility, would result in a basically pristine area being impacted, logistically require reevaluation, and is not environmentally preferred.

Alternative 4 involves improvements to the EFSFSR primary access route from Yellow Pine to the site. The level of new road construction is considered major. The route has a history of landslides and avalanches, accidental spills, and is not considered operationally practical.

The water quality analysis in the document, which is the premier issue of the DEIS, presents a very thorough and source-related analysis of the conditions at the site. Previous historic mining and natural phenomenon like wildfires and major rain on snow precipitation events and associated runoff have impacted historic water quality, both surface and groundwater at the drainages to be impacted by new mining and site rehabilitation.

Potential impacts to wetlands will be major, but mostly mitigated. According to the DEIS, most all these resources are "impaired", to be addressed in the final reclamation and closure plan implementation. It is important in the DEIS that the effects be analyzed and measured after proposed mitigation is applied. From a water quality standpoint, it is also key that no current, contemplated, or likely future applications for public water supply intakes or wells in the zones where metals levels currently exceed standards exist or are planned by the Project.

Under all the action alternatives, the migratory fish barrier at the Yellow Pine pit lake would be removed and not continue to impact fish populations. This is a very beneficial effect, which would not be recognized under Alternative 5.

## **Environmental Consequences**

Certain of the anticipated environmental consequences are described in the previous sections. Others are discussed below.

Many previous environmental studies have characterized the site. In 2000 URS conducted a Site Characterization and Risk Assessment Report assessing whether chemical or physical stressors pose unacceptable risks to the environment or public health at Stibnite. The risk was shown to be "unlikely" for all categories of populations exposed. No populations of fish, wildlife or humans were shown as having a likely risk.

The analysis showed that water quality substantially improved between 1997 and 1999 as a result of the Bradley tailings diversion and associated onsite reclamation. Subsequent baseline studies and federally USGS sponsored evaluations have shown that focus on environmental improvement in the study area with respect to project alternatives should remain on tailings and development rock management in the formation of alternatives. This was the focus of the environmental design that Midas highlighted in the SGP Plan of Restoration and Operations.

Alternative 3 would require construction of significant surface water diversion channels in a previously undisturbed watershed. Alternative 4 would not require public access via the Burnt Log Road component. However, significant improvements to the Yellow Pine road along the EFSFSR waterway would be needed with related adverse impacts to water quality and fisheries.

Midas owns all existing groundwater wells and permanent groundwater rights at the mine site. Development of these rights would not affect groundwater rights and only have a negligible effect on surface water rights of nearby streams. By removing, reprocessing, and properly disposing of legacy mining materials, several existing sources of metals leaching would be eliminated. This applies to all the action alternatives. Alternative 4 would negatively impact a new sub-basin at the project site.

Discharge limits for antimony and arsenic would be incorporated into the reuse permit, or IPDES permit issued for the RIBs. Passive waste treatment would ensure these limits are achieved and improve local water quality for all the action alternatives.

It is significant that the analysis for the action alternatives shows that the long-term pH for the pit lake is predicted to be moderately alkaline (8.0-8.4), indicating the PAG wall rock would not cause acid rock drainage (ARD). Other potential water quality impacts associated with pit water are discussed in this section of the DEIS.

From my read of the DEIS, wetlands disturbance and related USACOE permitting will be a central theme and critical path of project permitting. It is significant that Alternative 3 will result in approximately 244 acres of mine site and vicinity previously not modified by human activity being highly disturbed. This would affect wetlands and waterway functions through sedimentation and erosion into wetlands and riparian areas. Blowout Creek would continue to contribute sediment and erosion to downstream waters and wetlands. A Compensatory Mitigation

Plan would be required for all action alternatives.

The proposed EFSFSR fish tunnel under Alternatives 1, 2, and 3 would provide passage for all four special status fish species, according to the DEIS. This is considered a very beneficial impact. Alternative 2 could also involve a centralized water treatment plant. Onsite limestone quarrying would reduce vehicular trips to the site, and associated transport needs for water treatment chemicals would not increase transportation requirements appreciably.

A traffic management plan would be required as part of the FEIS and ROD. This would include road closures affecting public and mine traffic access. This would address use by residents and recreationists, which is a major concern among scoping commentors. Contributions to employment levels in the study area by the Project will be important and must be considered in evaluating all the alternatives displayed in the DEIS. Indicators are described on Page 4.21-1 of the report.

The overall statewide income impact is estimated at over \$110 million during the 3-year construction phase, with about \$28 million per year for Valley and Adams County residents. Outside of Idaho, the Project is projected to support over \$215 million in all types of income (direct, indirect, and induced). The action alternatives would result in an increase of about 438 new residents, requiring an increase in housing demand of up to 200 homes. It will be important the SGP planning process be closely coordinated with local/county planning organizations to anticipate housing and infrastructure requirements in advance of their needs. This level of cooperation would serve to mitigate major boom or bust cycles between the construction, operational, and closure and post-closure manpower needs.

Midas policy for "local hire preference" would be an effective mitigation element for the SGP. Projected wages and salaries significantly exceed the median for Valley and Adams Counties. Unemployment in Valley and Adams Counties is estimated at 5.2% and 6.7%, respectively. The per capita income is \$49,630 for Valley County, and \$37,452 for Adams County. Based on the projected total annual direct cost, the average salary of all SGP employees (including management staff) is calculated to be \$90,600. This is a fully burdened wage which accounts for employee health and other benefits. This represents a "family supporting wage" for local residents/workers. It is expected that most local construction workers would be adequately qualified and/or trainable.

Financial assurance for final reclamation and water management should be an important consideration of the FEIS. This should not be duplicative but should represent a consolidated total project surety. That is to say IDL, IDEQ and USFS financial assurance should not be separate programs which overlap and duplicate each other. The method of "insuring" should also be flexible, including such options as: trust funds, self-bonding, letters of credit, surety bonds, bond pools, insurance, and others. Closure costs should be developed and regularly updated by Midas based on various reclamation applications, price escalation, agency administration costs, contractor profit, and mobilization and demobilization costs by outside contractors.

I support the company's proposed Alternative 2 for construction, operation, and closure of the SGP. The commitment to reprocess, reclaim and rehabilitate certain components of the project, like the Bradley tailings pile, is a novel approach to mining. It should be commended. This commitment is also consistent with EPA's National Hardrock Mining document, and is extensive covering all reasonable component options to form the environmentally preferred alternative.

Since a major issue addressed in the company's plan is rehabilitation of an existing wetland resources at a Brownfield site, I suggest the general concept of practicability be used in the final evaluation of alternatives, like is used in the USACOE 404(b)(I) process. As such, both environmental, technological, and economic criteria are part of the process. Alternatives 3 and 5 are not practicable and therefore, should not be carried forward in the FEIS. Project economics conducted by a qualified mining economist/engineer should be a key element of the

FEIS alternatives evaluation. Idaho and the country needs responsible mining. Alternative 2 is a very responsible proposal. The USFS should move forward to expeditiously complete the FEIS

Thank you for the opportunity to comment on the DEIS. I especially appreciate the major efforts of the USFS and Midas to make the project evaluation so transparent and meaningful.