

Smoky Canyon Mine
Panel B Modification

IDI-012890, IDI-26843

Environmental Assessment #:
DOI-BLM-ID-I000-2010-0001-EA

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INTRODUCTION

Background:

The J.R. Simplot Company (Simplot) submitted a mine plan modification to the BLM on November 25, 2009, in order to modify the approved operations at the Smoky Canyon Mine. Simplot's proposed modification to the Panel B pit design consists of a layback of the existing Panel B pit wall. **See Figure 1.** All new disturbances would be located on two federal phosphate leases administered by the BLM: I-012890 and I-26843. Both leases are located on National Forest System land within the Caribou-Targhee National Forest (CTNF).

The United States Department of the Interior (DOI) manages the mineral estate belonging to the United States. For non-energy leasable minerals like phosphate, BLM is the designated agency within the DOI that is responsible for minerals management functions on most Federal lands, including National Forest System lands. In the case of this proposal, the land surface is managed by the United States Department of Agriculture, Forest Service (USFS). Regulations at 43 CFR 3590.2 (a) direct BLM to "consult with the agency having jurisdiction over the lands with respect to the surface protection and reclamation aspects". The USFS is responsible for surface management of National Forest System lands. The inter-disciplinary team of resource specialists was provided by the Caribou-Targhee National Forest.

The BLM will use this Environmental Assessment to determine whether or not to approve the mine plan modification. The USFS will use this EA to consider the proposed surface uses and provide a recommendation to the BLM regarding those surface uses and provide applicable site specific conditions of approval.

Purpose of and Need for Action:

Simplot is currently mining the final permitted phase of Panels B and C and is in the early phase of mining Panels F and G at the Smoky Canyon Mine. The purpose and need of Simplot's proposed action is to recover economically viable phosphate resource from the existing leases located immediately adjacent to and continuous with the current Panel B pit boundary. At the time of the 2002 Final SEIS and ROD, Simplot's approved Mine and Reclamation Plan included recovery of the economically viable phosphate ore known at that time. Simplot has identified additional economically recoverable ore that is on lease and contiguous with the currently permitted pit boundary. Simplot has recovered more ore than anticipated from the upper benches of Panel B which has allowed Simplot to pursue the recovery of additional ore from this area at similar average costs.

Location of Proposed Action:

The Smoky Canyon Mine is located in Caribou County, Idaho, approximately 10 air miles west of Afton, Wyoming. The mine is located on the east slope of the Webster Range. Specifically, Panel B is located on the north end of the mine, north of the office complex and south of Smoky Creek. **See Figure 2.**

Conformance with Applicable Land Use Plan:

Simplot's proposal was reviewed with respect to conformance to existing Land Use Plans. Both the BLM's Land Use Plan and the USFS Land Use Plans are applicable to the proposed modification.

The 1988 Pocatello Resource Management Plan allows a lessee or designated operator to mine phosphate on Federal Phosphate Leases (1988 ROD p. 2; 1988 Pocatello RMP p. 32, 3-4 to 3-5, and 4-24). It is typical for approved mine and reclamation plans to be adjusted in order to accommodate the incorporation of new information that affects mining and reclamation considerations. Pits and other surface disturbance boundaries may need to be modified to accommodate the latest geologic information available regarding ore reserves. The Code of Federal Regulations allow for modifications which adjust for changes in conditions or correct for oversights (43 CFR 3590.2 (a) and 43 CFR 3592.2 (d)(1)). Reclamation and environmental control measures may also need to be adjusted based on new conditions, including the results of monitoring. These modifications or adjustments are considered to be standard practice and are anticipated when BLM conducts NEPA analysis and approves and implements a decision to allow mining.

The 2003 Revised Forest Plan for the Caribou National Forest allows for exploration and development of phosphate leases following an adaptive approach utilizing Best Management Practices with changes over time as monitoring and research indicate. Mining is subject to mitigation measures contained primarily in the Revised Forest Plan, as well as site-specific mitigation measures developed during NEPA review of the MRP. The Revised Forest Plan includes specific goals, objectives, standards, and guidelines that pertain to phosphate mining activity (Revised Forest Plan 4-82 to 4-85) on the Caribou-Targhee National Forest. The proposed modification has been reviewed and is in conformance with the 2003 RFP.

Relationship to Statutes, Regulations, or Other Plans:

The Smoky Canyon Mine was originally authorized by a 1982 Environmental Impact Statement (EIS) and Record of Decision (ROD) which approved the mine. The conditions of approval required Simplot to submit detailed mine plans of each panel prior to mining. In June of 1999, Simplot submitted to the BLM a detailed Mine and Reclamation Plan for Panels B and C. In part because new information had surfaced regarding selenium releases from phosphate mining a supplemental EIS (SEIS) was conducted. In 2002, the BLM completed the *Smoky Canyon Mine, Panels B&C Final SEIS* and Record of Decision which evaluated and approved the Mine and Reclamation Plan for Panels B and C.

The 2002 SEIS involved a total area of 835 acres, of which 618 acres would be new disturbance for mining Panels B and C and external overburden storage. The difference or remaining 217 acres of disturbance was for backfilling and reclamation of existing mine disturbance in Panel A. Portions of the mine that are backfilled with seleniferous materials have the potential to affect water quality and other resources. Of the 835 acres of disturbance, the area containing

seleniferous overburden material would have a footprint of 722 acres. These acres are part of Panels A, B, C, and the external overburden fill. A total of 822 acres of the 835 acres disturbed would be reclaimed and revegetated, leaving approximately 13 acres of highwall unreclaimed.

In 2008, the BLM authorized mining operations in Panels F and G at the Smoky Canyon Mine. These two panels are located several miles to the south of the proposed modification; however, these panels are relevant to the cumulative effects. The Mine and Reclamation Plan for Panels F and G, and alternatives were analyzed in the 2007 *Smoky Canyon Mine, Panels F & G Final EIS*. This EA tiers to the existing analysis in the 2002 *Smoky Canyon Mine, Panels B & C Final SEIS* and the 2007 *Smoky Canyon Mine, Panels F & G Final EIS*. Both documents are available electronically at the Pocatello Field Office.

THE PROPOSED ACTION AND ALTERNATIVE(S)

Description of Proposed Action:

Simplot has proposed to incorporate 18 additional, undisturbed acres into the currently approved Panel B Mine and Reclamation Plan in the form of a pit wall layback on the northeast end of the existing Panel B pit where Simplot is currently mining. This would not be a separate pit; rather it would essentially become part of the existing Panel B pit. **See Figure 1.** Generally, it is a crescent shaped addition to the pit. The aerial extent of the layback would be 18 acres. The largest change in the highwall location would be approximately 510 feet, but most areas of layback would be less.

As a result of making the pit larger, the roads inside the pit boundaries would be realigned and would allow Simplot to backfill a greater amount of seleniferous overburden than previously approved. The result is a 20 acre reduction in the seleniferous foot print of the existing Panel B external overburden fill. **See Figure 1.**

The overall disturbance at Panels B and C analyzed in the 2002 Final SEIS was 618 acres. The same 618 acres was approved in the subsequent ROD. Since then, in an effort to minimize impacts, Simplot has created as little disturbance as possible. Actual disturbance at Panels B and C at the end of 2008 was 448 acres. Simplot's projected disturbance to complete the mining in Panel B under the existing approvals is 83 acres. The sum would be 531 acres of disturbance. When the proposed 18 acres is added, the total is 549 acres; 69 acres less disturbance than currently approved. In addition, Simplot has also reduced the total seleniferous footprint of the mine. This modification reduces the seleniferous footprint by 2 acres, but when combined with previous modifications, the seleniferous footprint of Panels B & C would be reduced by a total of 171 acres.

The process of mining of the layback would not change from the process analyzed in the 2002 Final SEIS and approved in the ROD. As described in detail in the 2002 Final SEIS (SEIS p. 2-15 to 2-30) mining would take place using the existing access roads, office/shop facilities, equipment, roads, mill facilities, tailings facilities, and slurry pipeline facilities. Topsoil would be stripped prior to mining and reused in reclamation according to the existing Mine and

Reclamation Plan. Overburden or waste rock would be handled according to the existing Mine and Reclamation Plan. Some of the overburden would be permanently stored in an external waste rock facility, known as the Panel B External Fill, and some of the overburden would be placed back into the mined-out layback as backfill. Ore would be stockpiled at the mill, then processed and shipped via the existing slurry line to the Don Plant in Pocatello, Idaho, where various fertilizer products are manufactured.

Reclamation would also be to the same as already approved. The proposed modification would be completely backfilled and reclaimed. There would be no remaining exposed highwalls. The reclamation cover would remain as 4 feet of chert covered by 1-3 feet of topsoil. The backfill would be sloped to drain off of the pit in the least amount of distance. **See Figure 3.** As mitigation in the 2002 Final SEIS, Simplot is required to construct runoff recharge areas within the Panel B pit to mitigate potential groundwater impacts. Construction and design of the runoff recharge areas would not change from the previous approval. Runoff and sediment control would not change.

Existing environmental protection measures as described in the 2002 Final SEIS (SEIS p. 2-37 to 2-41, 2-60 to 2-66, Appendix 2B) would not change and will still apply where appropriate to the proposed layback.

Environmental monitoring associated with the Panel B and C Mine and Reclamation Plan would continue according to the most recently updated and approved plan at the Smoky Canyon Mine (April 1, 2009, Smoky Canyon Mine Environmental Monitoring Program Plan). As described in detail in that plan, the approved monitoring program includes surface water, groundwater, storm water, BMP effectiveness, wetland, soil suitability, and reclamation vegetation monitoring.

The proposed modification contains a volume of ore roughly equivalent to about six months of production. Phosphate ore is not uniform in grade or the other elements considered in processing and is covered by differing thicknesses of overburden. It may take several years to mine out the proposed layback. Backfilling would take place as close as possible behind the mining activity as the final stages of Panel B are mined. Reclamation would take place as soon as possible behind backfilling. Some portions of the layback are scheduled to receive backfill from the very final stage of Panel B, and therefore it may take up to 4 years for mining and final reclamation to be completed on portions of the backfill (Gentry 2010).

In addition to the environmental protection measures included in the existing approved Panels B & C Mine and Reclamation Plan, the layback would be subject to the following conditions of approval which are incorporated in order to minimize potential impacts of this Proposed Action:

1. Harvesting of merchantable timber within the 18 acre layback area must be pre-approved and coordinated with the Caribou-Targhee National Forest.
2. In order to minimize potential impacts to migratory birds, all logging must be timed to take place prior to the onset of the nesting season in March or after August when the season has concluded. If that is not possible, then bird nest surveys must be completed by Simplot and any tree with a nest felled prior to nesting season.

Description of the No Action Alternative:

Under the No Action Alternative, the BLM would not approve the modification to the existing Panels B & C Mine and Reclamation Plan. Simplot would not add the 18 acre layback to the Panel B pit design. There would be no disturbance on the 18 acre layback area. None of the effects of disturbing those 18 acres would take place. The existing, approved mine panels would continue to be mined and reclaimed, according to the approved Mine and Reclamation Plans until the currently permitted ore reserves are exhausted, at which point mining and milling operations at the Smoky Canyon Mine would cease. The current impacts of mining in Panels B and C would continue until the panels are mined out.

Selection of the No Action Alternative would not nullify any existing approvals or cancel any phosphate leases. A phosphate lease grants the lessee the exclusive right and privilege to explore for and mine the phosphate deposit on the leased lands, subject to the conditions provided in the lease. It also gives the lessee the right to use such surface of the leased lands as may be necessary for the development of the phosphate resource. Phosphate leases are not cancelable by the United States, except by due process in the case where the lessee does not meet the terms and conditions of the lease. The No Action Alternative does not imply that the resource would never be developed, only that it would not be developed under this proposal. As the rights to mine the leased phosphate deposits have been acquired, if the No Action Alternative were selected, another proposal to mine the resource could be submitted in the future.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section provides a description of the general environmental setting and resources within that setting that could be affected by the proposed action and alternative(s). In addition, the section presents an analysis of the direct, indirect, and cumulative environmental impacts likely to result from the implementation of the various alternatives.

General Setting:

The J.R. Simplot Company currently operates the Smoky Canyon Mine, located in Caribou County, Idaho. It is located approximately 10 air miles west of Afton, Wyoming. At the existing mine Simplot recovers phosphate ore, where it is reduced in a mill to a slurry and transported via pipeline to their processing plant in Pocatello, Idaho, where it is further processed into fertilizer products. Existing facilities at the Smoky Canyon Mine include an access road, office/shop complex, mill and tailings ponds, ore stockpiles, open pits, backfilled pits, external overburden disposal sites, power lines, tailings pipelines, the slurry pipeline, and ancillary facilities such as sediment control structures, storage yards, equipment fueling areas and parking areas.

At the end of 2008, approximately 2065 acres have been disturbed and 1160 acres have been reclaimed (Smoky Canyon Mine, 2008 Operations Report) across the entire Smoky Canyon Mine. The operations at Panels B and C have been approved to disturb up to 618 acres, of which

448 acres were disturbed by the end of 2008. Under current approvals, Simplot estimates that it will take approximately 83 more acres of disturbance to complete mining of Panel B.

Resources Considered in the Impact Analysis:

The results of the assessment indicate that not all of the resources considered area present or would be impacted by the Proposed Action and No Action Alternative. See Table 1. Only those resources that are present and affected are discussed in the following narratives.

Table 1. Resources Considered in the Impact Analysis				
Resource	Not Present	Present Not Impacted	Present Impacted	Rationale
Access		x		The modification would not change or effect access to public lands. Currently public motorized access is restricted due to proximity to the mine. Access would continue to be restricted to protect the safety of the public, but would be restored following mining and reclamation.
Air Quality			x	Impacts are disclosed under Environmental Consequences, Air Quality.
Noise			x	Impacts are disclosed under Environmental Consequences, Noise
Areas of Critical Environmental Concern (ACEC's)	x			There are no ACEC's within the project area.
Cultural Resource	x			The area was surveyed (Gray 2000; SEIS Figure 4.16-4) and there were no cultural resources in the project area.
Economic and Social Values			x	Impacts are disclosed under Environmental Consequences, Economic and Social Values.
Environmental Justice	x			No minority groups are located in the area of Smoky Canyon Mine so there would be no disproportionately high and adverse effects on minority or low-income populations under EO 12898.
Existing and Potential Land Uses		x		The project is located on NFS lands which are adjacent to the current mine. Currently these lands have restricted motorized travel. There would be no change in existing or potential land use.
Fisheries		x		No streams are located within the 18 acre area. Protection measures are in place to minimize sediment generation and from leached contaminants. See Water Quality impact analysis.
Floodplains	x			The project area would not be located on a floodplain.
Invasive, Non-Native Species		x		Existing weed identification and control programs at the mine would be continued and extended to this project area (Simplot 2009a).
Mineral Resources			x	Impacts are disclosed under Environmental Consequences, Mineral Resources.
Migratory Birds		x		Mitigation contained in the proposed action would minimize any potential impacts. Timber removal would be timed to minimize potential impacts to migratory birds.
Native American Religious Concerns	x			There would be no known impacts to Native American religious sites, or traditional cultural places. (SEIS p. 4-116)
Paleontological Resources		x		Vertebrate fossils may be present in the Phosphoria Formation, but those fossils are widespread in the formation

				and are not located just in this location. In addition, measures are in place where if uncovered during mining, vertebrate fossils would be protected. (April 1, 2009, Smoky Canyon Mine Environmental Monitoring Program Plan) Mining would not impact the resource.
Prime and Unique Farmlands	x			The project is not located on Prime and Unique Farmlands
Soil Resources			x	Impacts are disclosed under Environmental Consequences, Soil Resources.
Threatened, Endangered, and Sensitive Species			x	Impacts are disclosed under Environmental Consequences, TES Species.
Range Resources			x	Impacts are disclosed under Environmental Consequences, Range.
Recreational Use	x			Recreational uses in the project area could be dispersed camping or hunting. However, due to proximity to the existing pit these uses are not occurring and would not be impacted.
Tribal Treaty Rights and Interests			x	Impacts are disclosed under Environmental Consequences, Tribal Treaty Rights and Interests. .
Vegetation			x	Impacts are disclosed under Environmental Consequences, Vegetation.
Visual Resources			x	Impacts are disclosed under Environmental Consequences, Visual.
Wastes, Hazardous and Solid		x		Hazardous and solid wastes would be generated by the expansion as part of the mine operations, however, they are handled according existing laws and regulations and have appropriate spill prevention plans.
Water Quality (Surface and Ground)			x	Impacts are disclosed under Environmental Consequences, Water Quality.
Wetland and Riparian Zones	x			The area was surveyed and no wetlands are located in the project area. (SEIS 3-92)
Wild and Scenic Rivers	x			There are no Wild and Scenic Rivers in the project area. (SEIS p. 3-130)
Wild Horse and Burro HMAs	x			There are no Wild Horse and Burro HMAs in the project area.
Wilderness/Inventoried Roadless Areas	x			The project is not located in Wilderness or in an Inventories Roadless Area (SEIS 4-108)
Wildlife Resources			x	Impacts are disclosed under Affected Environment and Environmental Consequences, Wildlife

Air Quality

Affected Environment:

The 2002 Final SEIS provides a description of the local climate, air quality monitoring data and sources of air quality contaminants in the area (SEIS 3-19 to 3-22). Currently, the Smoky Canyon Mine is in operation. Those operations create some, but very little effects to the existing air quality. Ore from the mine is processed in the mill. The mill is a stationary source of pollutants. The mine operates under a permit issued by Idaho Department of Environmental Quality (IDEQ) originally in 1983. Using the analysis in the 2002 Final SEIS it can be estimated

that current air emissions from the mine operations are minimal; approximately 6% of applicable standards (SEIS 4-15 to 4-17).

In addition to stationary sources of pollutants there are also fugitive and mobile sources. The SEIS analysis indicates that current fugitive pollutants would be below nuisance thresholds for dust and airborne selenium. Current mobile emissions are a combination of both dust from mine traffic and from the combustion of diesel fuel. They are summarized in Table 4.2-1 of the 2002 SEIS.

Environmental Consequences:

Proposed Action:

Direct and Indirect Impacts:

Under the Proposed Action, mining rates and mill throughput would remain constant. Effluent from the mill would not change and mine operations would remain in compliance and well below the applicable standards.

The Proposed Action would not add to the fugitive and mobile pollutant sources of Panel B, rather it would intermittently move them to the proposed expansion. Haul distances and mining processes would not change substantially so fugitive pollutants would not increase and would remain below nuisance levels.

Impacts to air quality would not increase from the current low-levels; however, impacts from the stationary, mobile, and fugitive sources would be expected to continue for approximately six months longer in time. Therefore, the impact to air quality from the proposed action would be minimal.

Cumulative Effects:

The Cumulative Effects Area (CEA) includes all portions of the Smoky Canyon Mine and the adjacent portions of the CTNF. Outside of mine area, air quality over CTNF is generally good (FEIS p. 5-10) and would not typically add impacts to the mine related impacts. However, there could be unforeseen impacts from events such as wildfire. Since the Mine and Reclamation Plan for Panels B&C was approved in 2002, BLM has also approved a Mine and Reclamation Plan for Panels F and G, located on the southern end of the Smoky Canyon Mine. Simplot currently mines in both areas at once. The approved operations at Panels F and G are predicted to comply with all applicable state and federal air quality standards (FEIS 5-13). Operations at Panels F and G will not change emissions from the mill. Emissions will remain approximately 6% of the applicable standard. Operations at Panels F and G would also create mobile and fugitive sources of emissions.

The current, proposed, and future stationary sources of Air Quality impacts would not change from existing conditions. Mill throughput and emissions remain constant. Mining of Panel F

and G extends the stationary emissions by approximately 14 years and the proposed action would add about six months to that. The cumulative effect would be minimal.

Current mobile and fugitive sources of air quality impacts include operations in Panel B and Panel F. The proposed action of mining 18 additional acres would not add to or change the fugitive and mobile emissions from Panel B. In general, mobile and fugitive sources would be shifted to the south after the operations at Panel B and the proposed action are complete. The Proposed Action would extend the time in which operations in Panel B overlap with the operations in Panel F. The operations in Panel B are about 5 miles from Panel F. It is estimated that dust from mining operations would settle in approximately 1 mile (FEIS 5-13). Even though the Proposed Action would increase the period of overlap by about six months, due to the distance between the panels, it is not likely that the low-level impacts would add together or increase. Therefore, the cumulative impact would be minimal.

No Action Alternative:

Direct, Indirect, and Cumulative Impacts:

The current mine affects air quality to a small degree. Air Quality was analyzed in both the 2002 SEIS and 2007 FEIS. The mill would continue to operate and emissions would remain at about 6% of the applicable standards. Fugitive and mobile sources of impacts would continue at existing rates and would remain below nuisance thresholds. Current impacts would continue for approximately 14 more years or about six months less than the Proposed Action. The mill would cease emissions as the permitted ore is depleted. Fugitive and mobile impacts would cease as reclamation is completed. Successful reclamation would limit post-mining fugitive emissions.

With respect to air quality, the cumulative impacts of the Smoky Canyon Mine would not change from those analyzed in the 2007 FEIS (FEIS 5-10 to 5-14). There would be no additional impacts to air quality that would add to the past, existing or future conditions.

Noise

Affected Environment:

Simplot is currently mining in Panel B and Panel F. The 2002 Final SEIS provides a description of predicted noise from mining in Panels B and C (SEIS 4-18 to 4-20). Noise levels depend on distance and other factors. Noise associated with each aspect of the existing operation was measured for analysis in the 2002 SEIS and 2007 FEIS. Haul trucks were the loudest activity. Blasting represents non-repetitive, high-pressure, low-intensity noise. Noise is absorbed or masked by surrounding topography and foliage. Generally, current mining activities are in the Loud category as defined by the EPA. Various noise levels for background and mining activities are described and listed in the 2007 FEIS (FEIS 3-32 to 3-36).

Environmental Consequences:

Proposed Action

Direct and Indirect Impacts:

This modification would not change the mining practices which create noise. The mining process would stay the same so the noise levels would not increase. The noise impacts would be no different than under the existing conditions. Noise levels would not appreciably change in location. The Proposed Action would create the same noise as the existing conditions and this noise would occur on an intermittent basis over the period of time the expansion is mined. The impact would be negligible.

Cumulative Effects:

The CEA includes all active and future portions of the Smoky Canyon Mine. As described above, the proposed action would only change the duration of noise impacts from Panel B.

Since the Mine and Reclamation Plan for Panels B and C was approved in 2002, BLM has also approved a Mine and Reclamation Plan for Panels F and G, located on the southern end of the Smoky Canyon Mine. Mining is expected at Panels F and G for approximately 14 more years. The Proposed Action would likely be completed prior to mining in Panel G. The period when both Panels B and F are mined at the same time may last approximately 4 years. Because of the distance between Panel B and Panel F, the noise created in either location would not add together and become louder, but the existing noise in both locations would continue.

Noise levels would not increase. The duration of noise from panel B would increase, but the duration of noise from Panel F would not change. The cumulative impact of the Proposed Action would be minimal.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

The current mine creates noise. Noise affects were analyzed in both the 2002 SEIS and 2007 FEIS. Noise from haul trucks, blasting, and other equipment and activities would continue at the mine for approximately 14 more years or about six months less than the Proposed Action. Noise from the mining operation would cease as reclamation is completed. As areas are returned by the BLM and USFS to multiple-use, it is likely that a small amount of noise would be generated by recreational users.

Cumulative noise impacts from the Smoky Canyon Mine, determined to be negligible, would not change from those described in the 2007 FEIS (FEIS 5-10 to 5-13). There would be no additional noise that would add to the existing or future conditions.

Economic and Social Values

Affected Environment:

The proposed modification is located immediately adjacent to Panel B. Simplot is also mining in Panel F. The economic effects of the mine cannot be separated by Panel and are instead reflective of the entire mine operation. *The 2007 Smoky Canyon Mine, Panels F & G, Final EIS* describes the economic effects that the mine has on the local and regional economy (FEIS 3-217 to 3-249). In summary, the mine provides employment; purchases goods and services; provides local, state, and federal tax base; pays royalties; and creates a product which is valuable to the agriculture industry and the economy. In addition, the employees at the mine use the services in Afton, WY; make purchases; and pay state and local taxes.

Environmental Consequences:

Proposed Action

Direct and Indirect Impacts:

The proposed modification contains a volume of ore roughly equivalent to about six months of production. Thus, the modification would extend the current life of mine by approximately six months. Those economic effects that are currently occurring as a result of the active mine would continue to occur for about six months. More royalties would be paid to the federal Government, salaries would continue to be paid, taxes would continue to be paid, goods and services would continue to be purchased by the mine. The employees would also continue to use services, make purchases and pay state and local taxes.

Cumulative Impacts:

The economic effects of the proposed modification are an extension of the current economic effects of the mine. With the approval of Panels F and G in 2008, there are sufficient permitted reserves at the mine for about 14 more years. The social and economic effects of the proposed action would add to the 14 years estimated impacts. While there would be six more months of beneficial impacts to the local economy, this is an extension of those impacts is not an appreciable *change* from the existing condition.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

The mine currently provides employment; purchases goods and services; provides local, state, and federal tax base; pays royalties; and creates a products which are valuable to the agriculture industry and the economy. The employees would also continue to use services, make purchases and pay state and local taxes. These economic impacts would continue for approximately 14 more years or about six months less than the Proposed Action.

The No Action Alternative would not cumulatively add to the existing and future economic and social impacts of the mine as described in the 2007 FEIS (FEIS p. 5-78, 5-79).

Mineral Resources

Affected Environment:

The 2002 Final EIS assessed the impacts of Mine and Reclamation Plan for Panels B and C to the phosphate mineral resource. The plan proposed by Simplot and later approved by BLM included recovery of the economically viable ore reserves known at that time. The approved Mine and Reclamation plan includes mining of approximately 93 million tons of phosphate rock and overburden combined.

Regulations at 43 CFR 3590.0-1 and 3594.1 direct BLM to encourage the maximum recovery of the mineral resource, while ensuring the protection of the environment and other natural resources. Maximizing recovery promotes the wise use of resources. Selectively mining only the most profitable portions of a deposit and abandoning those resources that are less profitable could lead to a situation where mining creates a disturbance and then quickly moves to an undeveloped lease, thereby cycling the disturbance and impacts more quickly into those undeveloped areas than it otherwise would.

Environmental Consequences:

Proposed Action

Direct and Indirect Impacts:

Approval of the proposed modification would not affect any other minerals except phosphate.

Approval of the modification to the Panels B and C Mine and Reclamation Plan would increase ore recovery of the Panel B and C Mine and Reclamation Plan by approximately 10% percent thereby recovering the available phosphate resource in the Western Phosphate Field.

The conditions which determine the economic viability of the ore have changed since the 2002 Final SEIS was completed. Simplot has recovered a greater than expected volume of ore from the upper benches of Panel B. This has indirectly reduced Simplot's cost of mining. The lower cost makes previously uneconomic and deeper ore become viable. The proposed modification has a slightly higher strip ratio than is typical at the mine. Simplot would recover the higher-cost ore to offset the lower-cost ore. The result would be maximizing the recovery of the economic phosphate resource relative to the amount of disturbance. This would bring about a beneficial impact to the phosphate resource in the form of maximizing recovery.

Cumulative Effects:

The cumulative effects area would be the phosphate reserve of the Western Phosphate field.

Using the analysis in the 2007 FEIS (FEIS 5-1 to 5-10), it can be estimated that the total economically recoverable phosphate reserve is about one billion tons or about 80% of the reserves in the Western Phosphate field. The total past phosphate ore production from Southeastern Idaho through 2004 is estimated to be about 261 million tons or about one quarter of the 1977 estimate of total economically recoverable ore reserves.

Over the next 15 years about 90 million tons of total phosphate ore production, or an average annual production of about 6 million tons, is projected from Southeastern Idaho.

Approval of this modification would further utilize the phosphate resource of the Western Phosphate field by a small amount; about 0.3%.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

The existing mine plan for Panels B and C would recover only the ore determined economically recoverable in 2002 and would not recover the ore determined economically recoverable under the current conditions. Due to the small size and volume of ore associated with the Proposed Action, it is unlikely that the ore would be economically viable as a stand-alone operation. It is likely that this volume of ore would never be recovered.

The cumulative impact to the phosphate resource from the existing and future operations at the Smoky Canyon Mine would not change from the cumulative impact analysis in the 2007 FEIS (FEIS p. 5-1 to 5-10). Production at the mine would continue as approved and not all of the viable resource would be recovered.

Soil Resources

Affected Environment:

The 2002 SEIS analyzed a disturbance of 618 acres at Panels B and C. As of 2008 approximately 448 acres have been disturbed and 83 more acres of disturbance are anticipated to complete Panels B and C. Operations have also started in Panel F. The 2002 SEIS (SEIS p. 3-61 to 3-83) describes the types of soils mapped adjacent to the project area, their suitability as growth media and potential for erosion.

The mining process typically includes removal of timber, followed by clearing of brush, followed by salvage of existing topsoil. Topsoil is both collected and placed directly onto reclaimed areas as growth media or it is placed in stockpiles and stored for future use. Stockpiles are subject to erosion control measures to minimize loss of topsoil.

The 2002 SEIS indicates that, as a result of mining, the physical characteristics and fertility of the existing topsoil could be affected by compaction and stockpiling. Soil fertility could be negatively impacted by soil mixing. Simplot currently incorporates, according to the approved Mine and Reclamation Plan, mining practices which maximize the soil production such as

roughening graded slopes, incorporating slash into growth medium, timing soil salvage to optimize revegetation success (SEIS Appendix 2B).

The 2002 SEIS also indicates that soil could be lost through erosion that could occur in areas of new disturbance. Roads, overburden piles, and drainage ditches could also be a source of erosion and sediment generation at the existing operation at Panels B and C (SEIS 4-75). Currently Simplot employs measures to control erosion. These measures include run-on/runoff control, sediment control, soil stabilization, revegetation by the first fall after earthwork, and other measures discussed in detail in Appendix 2B of the 2002 SEIS. Currently, all indications suggest that the measures employed to reduce erosion and minimize sediment generation are effective.

Environmental Consequences:

Proposed Action

Direct and Indirect Impacts:

The proposed action would not change the existing mine methodology, reclamation practices, or soil protection measures. The proposed action would result in the excavation and re-use of the existing topsoil from 18 acres of previously undisturbed land. Currently, Simplot employs practices to maximize soil production and minimize impacts to soil fertility. The current practices used to reduce erosion appear effective. Therefore, the impacts to the soil resource through loss or change of characteristics would be minimal.

Cumulative Impacts:

The cumulative impacts area would be the entire mine site. The total acreage of disturbance at the mine, as of the end of 2008, is approximately 2065 acres and of those 1160.1 acres have been reclaimed (Simplot 2009b). According to the current approvals, all current and future mining at the site will incorporate the same or similar measures to minimize erosion and sediment generation. Because Simplot is effectively employing measures to minimize erosion and maximize soil productivity, and because the 18 acres of proposed disturbance represents a small fraction of past, present and future disturbances at the mine, the impacts are minimal.

If the proposed 18 additional acres are disturbed and are added to the above impacts, the impacts would be minimal.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed. According to approved plans, Simplot would continue to salvage and re-use the existing topsoil and employ measures minimize soil loss and maximize soil production. Mining

would continue in Panel B, but would be completed about six months sooner than the Proposed Action. Mining at Panels F and G would continue according to approved plans. Under the No Action Alternative, there would be no additional impact to the soil resource. There would be no cumulative effect beyond the cumulative effect of the present and future operations. The cumulative impact to soil resources is described in the 2007 FEIS (FEIS p.5-37 to 5-31).

Threatened, Endangered, and Sensitive Species

Affected Environment:

Special status wildlife species evaluated in this document include threatened, endangered, and candidate species listed under the Endangered Species Act (ESA); USFS-sensitive species; and USFS Management Indicator Species (MIS).

The following species that may occur in the project area are currently listed as threatened or endangered (January 2010 Technical Report):

Canada lynx (<i>Lynx canadensis</i>)	Threatened
Ute ladies' tresses (<i>Spiranthes diluvialis</i>)	Threatened
Slick-spot peppergrass (<i>Lepidium papilliferum</i>)	Threatened

The 2002 SEIS discusses Canada lynx and their habitat (SEIS p. 3-111 to 3-112). There is no lynx habitat in the proposed modification area, but some portions of the Caribou-Targhee National Forest may provide linkage for lynx movement between areas of suitable habitat. The modification area was surveyed for lynx and other carnivores and no evidence of lynx was found. The 2002 SEIS discusses Ute ladies' tresses and its habitat (SEIS p. 3-109 to 3-110). The project area was surveyed for Ute ladies' tresses for the 2002 SEIS and none were found. Furthermore, the project area does not contain suitable habitat and the species is no longer federally listed in Soda Springs Ranger District (BLM and USFS. 2010). The 2002 SEIS discusses slick-spot peppergrass and its habitat (SEIS p. 3-110). No occurrences of either the species or the habitat are known in the area and they are no longer federally listed in Caribou County (BLM and USFS. 2010).

In addition to the federally listed species under the ESA, there are also numerous USFS-designated sensitive species, MIS species, and species which require special consideration under direction in the 2003 Revised Forest Plan that could be located in the area. A complete list is provided in the January 2010 Technical Report.

The modification area was covered by both vegetation and wildlife surveys conducted for the 2002 SEIS (SEIS p. 3-84 to 3-86, Figure 3.5-1; Maxim 2000b). Most of these species are either not present and/or their habitat is not present (January 2010 Technical Report). The proposed action area does provide habitat for three sensitive species: great gray owl, boreal owl, and the flammulated owl. These three species and their habitat are described in the 2002 SEIS (SEIS p. 3-119 to 3-121). In previous surveys, flammulated owls have been detected in the general area of the modification. No great gray owls or boreal owls have been detected. As determined in the

2002 SEIS the modification area provides marginal boreal owl habitat and potential great gray owl habitat.

Environmental Consequences:

Proposed Action

Direct and Indirect Impacts:

There would be no impact to any federally listed species except the Canada lynx. The 2002 SEIS evaluated potential impacts from the 618 acre disturbance of the Panels B and C Mine and Reclamation Plan (SEIS p. 4-98, 4-99). While there is no evidence of lynx in the area, they may use the area as a travel corridor. The proposed project is located immediately adjacent to Panel B and includes the same habitat types as those that existed in Panel B area prior to mining (SEIS p. Figure 3.5-1). There would be a 3% increase in the amount of habitat disturbed.

A Biological Assessment was prepared for the 2002 SEIS and approval. At that time the U.S. Fish and Wildlife Service concurred with the findings. The Biological Assessment indicates (USFS 2001) that approval of Panels B and C could affect Canada lynx, but is not likely to adversely affect the Canada lynx. According to that concurrence, if there are changes to the project the BLM is to contact the U.S. Fish and Wildlife Service so they may verify that the concurrence is still valid. This modification constituted such a change. The U.S. Fish and Wildlife Service has been notified of the proposed changes and has concluded that the findings in the existing BA are still valid. Those documents are located in the project record.

The proposed modification could also affect three USFS designated sensitive species: great gray owl, boreal owl, and the flammulated owl. The 2002 SEIS analyzed impacts to these three species (SEIS p. 4-102, 4-103). The 2002 SEIS indicates that any current occupants may be displaced by mining of Panels B and C. In addition, some foraging habitat for great grey owls could be reduced, but no known nesting areas would be impacted. In the case of this modification, there would be a 3% overall increase in habitat disturbed. The change in area of mine disturbance compared to available habitat would be negligible to that analyzed by the 2002 SEIS. Consequently, the relatively small increase in habitat disturbance would not change the displacement-type impacts described in the SEIS and therefore the impacts from the proposed action would be negligible.

Cumulative Impacts:

The cumulative effects area would be the entire mine. The total acreage of disturbance at the mine, as of the end of 2008, is approximately 2065 acres and of those 1160.1 acres have been reclaimed (Simplot 2009b). Future mining at Smoky Canyon will take place in Panels F and G. Operations at Panels F and G are approved to disturb approximately 1,450 acres. Those impacts to species listed under the Endangered Species Act and other USFS sensitive and MIS species are described in the 2007 FEIS (FEIS 142-151). The operations at Panels F and G would not jeopardize the continued existence of gray wolf, and may affect but is not likely adversely affect

the Canada lynx and bald eagle. Futures operations would also have affects to several sensitive and MIS species due to habitat disturbance.

The proposed action would add less than 0.5% new area to the existing and future mine impacts. Because of the relatively small scope of the proposed action, the cumulative increase in impacts would be negligible.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed. There would be no change to the impacts to threatened, endangered, candidate, sensitive, or MIS species from the existing operations. Mining would continue in Panel B, but would be completed about six months sooner than the Proposed Action. Mining at Panels F and G would continue according to approved plans.

There would be no additional disturbance. There would be no additive affect to the past, present and future conditions. There would be no change in impact to threatened, endangered, sensitive, MIS or special status species from the permitted conditions. The cumulative effects would be the same as those analyzed in the 2007 FEIS (FEIS p. 5-45 to 5-51).

Range

Affected Environment:

The proposed modification lies within the Pole Canyon Grazing Allotment. The 2002 SEIS describes conditions within the allotment (SEIS p. 3-127 to 3-129). The 18 acres of proposed disturbance represents less than 0.5 percent of the 12,658-acre allotment.

At the Smoky Canyon Mine, cattle are currently restricted from grazing on reclamation vegetation until it is returned to multiple uses by the surface management agency. In order to prevent reclamation vegetation from uptake and accumulation of contaminants, including selenium, from the overburden [either in the backfills or external fills], Simplot currently constructs a cover of chert and topsoil, according to approved plans, that is sufficient to prevent reclamation vegetation from accumulating these contaminants.

Environmental Consequences:

Direct and Indirect Impacts:

Based on the very small size of the proposed disturbance compared to the existing allotment size, there would be only a slight reduction in the number of suitable grazing acres so an adjustment to the permitted number of animal months would not be necessary. The impact to the grazing allotment would be negligible.

Seleniferous overburden disposal areas would be covered with chert and topsoil to prevent selenium uptake by plants according to current practices, making potential exposure to grazing livestock unlikely. The proposed modification would not change the cover or its effectiveness in limiting uptake of selenium. Impacts to grazing caused by contaminants from the proposed action would be negligible.

Cumulative Impacts:

As of the end of 2008, approximately 2065 acres have been disturbed and 1160.1 acres have been reclaimed (Simplot 2009b) across the entire Smoky Canyon Mine. The current operations at Panels B and C were analyzed to disturb 618 acres, all of which are in the Pole Canyon sheep allotment. The expected impacts to that allotment are described in the 2002 SEIS (SEIS p. 4-105 to 4-107) and do not include a reduction in animal months permitted. The proposed action would add approximately 3% new disturbance, but would not add appreciably to the existing impacts.

Mining in Panels F and G was approved in 2008. The total approved disturbance is 1450 acres. Mining in Panels F and G would affect 6 grazing allotments. Those effects are described in detail in the 2007 FEIS (FEIS p. 4-476 to 4-188). The 18 acres of disturbance associated with the proposed action would not affect any of those six allotments and would not add to the impacts of mining Panels F and G.

Historic portions of the Smoky Canyon Mine were reclaimed with a variety of methodologies that range from seeding directly in seleniferous overburden to topsoil only reclamation to chert plus topsoil and some areas are now reclaimed with chert plus clay (fine-grained material from the Dinwoody Formation) with topsoil. Some of the vegetation from the oldest reclamation contains elevated contaminant levels accumulated from the overburden. The extent of the existing issues is being addressed through the Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA) process. In the case of this proposed action, the seleniferous overburden would be reclaimed with the current cover design to minimize uptake of contaminants by vegetation. There would be no additional impacts to the existing condition at the Smoky Canyon Mine.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed under the approved Mine and Reclamation Plan. Disturbance would not increase within the Pole Canyon Grazing allotment. Mining would continue in Panel B, but would be completed about six months sooner than the Proposed Action. Mining at Panels F and G would continue according to approved plans.

Tribal Treaty Rights and Interests

Affected Environment

The 1868 Fort Bridger Treaty, between the United States and the Shoshone and Bannock Tribes, reserves the Tribes' right to hunt, fish, gather, and exercise other traditional uses and practices on unoccupied federal lands. In addition to these rights, the Shoshone-Bannock have the right to graze tribal livestock and cut timber for tribal use on those lands of the original Fort Hall reservation that were ceded to the Federal government under the Agreement of February 5, 1898, ratified by the Act of June 6, 1900.

The federal government has a unique trust relationship with federally-recognized American Indian Tribes including the Shoshone-Bannock Tribes. BLM has a responsibility and obligation to consider and consult on potential effects to natural resources related to the Tribes' treaty rights or cultural use. The proposed project area is located on unoccupied federal lands outside of the ceded boundary. Therefore, tribal treaty rights, as defined, are applicable.

Environmental Consequences:

Proposed Action

Direct and Indirect Impacts

Public access to the area, including the 18-acres proposed for mining under the Proposed Action, is currently restricted due to safety concerns, a restriction that extends to the sovereign nation of the Shoshone-Bannock. Under the Proposed Action, the restriction would remain in place and the Tribes would temporarily not have access to these public lands that may contain natural resources that the Tribes might use for exercising traditional cultural practices. In the short-term, any resources that may have been available to the Tribes on this land would have been either removed (e.g., traditionally used plant species) or displaced (e.g., traditionally used wildfire species). Once mining and reclamation has been completed (approximately four years) access to the area would be restored. Wildlife species are would return to the area and be available for tribal uses and, if reclamation is successful and natural succession returns the area to a natural vegetative condition, these resources may again be useful for exercising traditional cultural practices.

Cumulative Impacts

Past, present and reasonably foreseeable mining activity at the Smokey Canyon mine has or will result in the temporary loss of access to an estimated 3,370 acres outside the ceded boundary of the original Ft Hall Reservation. The Proposed Action will not contribute further to the collective impact since access restrictions to the 18-acre area were instituted in the context of prior approvals, and as such, contributed to access restrictions in the past and present, but would not in the reasonably foreseeable future. As mining operations are concluded and portions of the mine are concurrently reclaimed, access to the area would be incrementally restored, thereby eliminating cumulative impacts associated with Tribal access to these lands.

The implementation of the proposed action would contribute temporarily to the collective impact to vegetation and wildlife, because natural vegetative communities that the Tribes may use for

tradition purposes including aspen and conifer stands, and mixed shrubs would be removed during the mining process. In addition, wildlife species that would normally inhabit the proposed expansion location and could be hunted by the Tribes would be displaced adding to displacement associated with past and present mining activity.

Although the Proposed Action would contribute to these cumulative impacts, the scope of the impact would be relatively small contributing less than 1 % in terms of acreage. Therefore, the proposed action would not affect, influence, or contribute to any substantial change or increase in the collective impact. Further, the impacts would be temporary. Once mining on the 18-acre area has been concluded and reclamation has been completed (approximately four years), access to this area of the mine would be restored, natural succession should restore natural vegetative communities, and wildlife should return to area enabling the Tribes to exercise their rights under the Fort Bridger Treaty.

No Action alternative

Direct, Indirect, and Cumulative Impacts:

Under the No Action alternative, the 18-acre area would not be mined and there would be no additional impacts to resources used by the Tribes. However, access to the area would continue to be restricted until such a time as mining in adjacent areas has been concluded and reclamation has been completed.

The No Action alternative would not further add to cumulative impacts to Tribal Treaty Rights and Interests because mining of the 18-acre area would not take place. No native plant communities would be further affected and wildlife should not be displaced from the area. Access restrictions to the area would, however, remain in place until mining and reclamation have been completed.

Vegetation Resources

Affected Environment:

The proposed action is immediately adjacent to the existing operations of Panels B and C. The operations at Panels B and C have been approved to disturb up to 618 acres, of which 448 acres were disturbed by the end of 2008. The timber has been removed from all 618 permitted acres. The vegetation types on those acres were surveyed for the 2002 SEIS. The current approval for Panels B and C allows disturbance of 14 acres of aspen, 531 acres of conifer, 30 acres of mixed shrub, 30 acres of sagebrush, and 13 acres of aspen/conifer. Of the 618 total acres approved for disturbance, Panel B pit is approved to disturb 172 acres composed of conifer (~85%), mixed shrub (~10%), and some aspen (~5%) (Maxim 2000 p. 12, 13).

Currently, Simplot reclaims areas according to the approved Mine and Reclamation Plan. This typically includes fertilizer, and seeding with grass and forbs. Natural succession will take place as native plants out-compete the seeded reclamation. The goal of reclamation is to stabilize the

soil and establish native grasses and forbs. The current reclamation seed mix (USFS 2008) contains native grasses, forbs, and some annual grasses for short-term soil stabilization.

Numerous measures are taken to enhance vegetation success such as using approved seed mixes, seeding by first fall after earthwork, limiting livestock grazing on reclaimed surfaces (SEIS p. 2-37), and monitoring and controlling weeds with chemicals. In 2009, aspen and lodgepole pine, and a variety of forbs, have been planted in a pilot project on 10.8 acres of Panel C reclamation in accordance with existing approvals. Based on the results of the 2009 planting, trees may be planted on Panel B reclamation.

In order to minimize the potential for reclamation vegetation to accumulate contaminants from the overburden, seleniferous external overburden fills and backfills are covered with chert and topsoil cover according to current approvals. The cover is sufficiently thick to separate the reclamation vegetation roots from the seleniferous overburden.

Environmental Consequences:

Direct and Indirect Impacts:

The entire area of the proposed modification was surveyed and mapped for the 2002 SEIS (Maxim 2000 p. 12, 13; SEIS 3-85). Visual examination of survey results from the 2002 SEIS (Figure 3.5-1) indicate the 18 acres of new disturbance would impact the same three vegetation types as those approved for disturbance in Panel B: conifer, mixed shrub, and aspen. The proposed modification would increase the amount of each vegetation type from that already approved for Panel B by approximately 6 acres. The impact would be a change in vegetation type from those currently existing to that of the grasses and forbs of the reclamation seed mix. The same measures would be taken to maximize revegetation success and minimize changes in vegetation cover. More recent seed mixes would be used compared to some historic reclamation (BLM 2002, page 17; FS 2008). The total acres logged would increase from 618 to 636; an increase of about 3%.

Under the Proposed Action, harvesting of merchantable timber within the 18 acre layback area would be coordinated with the Caribou-Targhee National Forest and paid for by Simplot so the value of the timber would not be lost.

Based on the small area of impact, the continued protection against selenium uptake, and continued use of measures to maximize revegetation success, and compensation for the value of the timber, the impact from the proposed action to vegetation would be minimal.

Cumulative Effects:

The cumulative impact area would be the entire mine site. The total acreage of disturbance at the mine, as of the end of 2008, is approximately 2065 acres and of those 1160.1 acres have been reclaimed (Simplot 2009b). Future mining at Smoky Canyon will take place in Panels F and G. Operations at Panels F and G are approved to disturb approximately 1,450 acres. Those impacts to vegetation are described in the 2007 FEIS (FEIS p. 4-122 to 4-131). The impact mainly

includes conversion of the existing vegetation types to the reclamation seed mix. Future mine reclamation at Panels F and G also includes construction of a reclamation cover which will minimize any potential for selenium uptake by reclamation vegetation.

The proposed action would add less than 1% more area to the existing and future mine impacts. Because the Proposed action would not increase the potential for reclamation vegetation to uptake selenium and because of the small size of the proposed action compared to the permitted disturbance, the cumulative increase in impacts would be negligible.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed. Mining would proceed according to the approved plans, but would not increase by 18 acres. Panel B would not be expanded to include disturbance of 18 acres of conifer, mixed shrub, and aspen. Mining at Panels F and G would continue according to approved plans.

Under this alternative there would be no new disturbance. There would be no cumulative impacts so the existing cumulative impacts from the mine to vegetation resources analyzed in the 2007 FEIS (FEIS p. 5-41 to 5-44) would remain unchanged.

Visual Resources

Affected Environment:

The existing mining activity in the proposed action area includes active mining operations of Panels B and Panel F and reclaimed areas in Panel C. There are pits, pit walls, roads, buildings, power lines, and overburden fills. The proposed action, like the existing disturbance, is located in an area where the USFS Visual Quality Objective (VQO) is listed as Partial Retention (PR) which indicates that human activity may be evident, but must remain subordinate to the landscape. Impacts become less evident over time as reclamation is established. Although Panel B does not meet the VQO in the short term, the existing operations are in compliance with the 2003 RFP which indicates that phosphate mining is not required to meet the VQO (RFP p. 4-9). Current Panel F operations are in a VQO listed as Modification which allows human activity such as mining to dominate the landscape as long as elements of the existing landscape are retained. While Panel F operations do not meet the VQO, the operations are in compliance with the 2003 RFP because of the methods used to reduce impacts and reclaim the site.

Environmental Consequences:

Direct and Indirect Impacts:

The impacts would be very similar to those described in the 2002 SEIS (SEIS 4-110 to 4-116) except much smaller in scale. Visual impacts would result from clearing the vegetation, including timber, from the 18 acre site. The proposed action would add approximately 3% more

area to the Panel B and C approved disturbance. Impacts would also result from creating bare earth and pit walls. As backfilling, reclamation, and revegetation take place, the visual impacts would become less obvious. The short-term impact of visible mining would last several years over the 18 acre area. The longer term impact of vegetation removal and re-vegetation would be similar to that described in the 2002 SEIS. The impacts will comply with the 2003 RFP. Based on the small area that would be disturbed compared to the large area of disturbance already permitted, the visual impact would be minimal.

Cumulative Impacts:

The cumulative impact area includes the entire permitted area of the Smoky Canyon Mine site. The total area permitted for disturbance at Smoky Canyon Mine is about 3886 acres, including historic mine panels, current mining in Panel B, future mining in Panels F and G, and the tailings ponds. Impacts to visual resources from the current and future operations are described in the 2002 SEIS and 2007 FEIS (FEIS p. 4-209 to 4-216). The impacts from the proposed action are similar in nature and include: vegetation removal, road construction, and creation of pits and other facilities. The proposed action would add less than 0.5% new area to the existing and future permitted area. Compliance with existing VQO's and the 2003 RFP will not change. The proposed disturbance would add to the existing visual impacts, but because of the small area of proposed disturbance compared to the permitted area the increase would be negligible.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed. Mining would proceed according to the approved plans and would have some impact to the visual resources, but they would not increase by 18 acres. Mining would continue in Panel B. Mining at Panels F and G would continue according to approved plans.

There would be no new disturbance. There would be no new impacts to add to the permitted past, current, or future impacts visual resources. The existing cumulative impacts described in the 2007 FEIS (FEIS p. 5-69 to 5-71) would not change.

Water Quality

Affected Environment:

The proposed action is an extension of the existing mine and specifically the Panel B pit. Panel B was permitted to disturb 618 acres. Actual disturbance at Panels B and C at the end of 2008 was 448 acres. Simplot's projected disturbance to complete the mining in Panel B under the existing approvals is 83 acres. The sum would be 531 acres of disturbance. If the proposed 18 acres is added, the total would be 549 acres.

There is no surface water, streams or springs, in the proposed action area. Smoky Creek is located approximately ¼ mile north of the proposed expansion, and the headwaters of Roberts

Creek are located approximately ¼ mile to the south. The proposed disturbance is located in both the Smoky Creek and Roberts Creek drainages. Both creeks flow to Tygee Creek which flows to the Salt River.

Mining has the potential to affect surface and groundwater quality. Effects could be from the addition of sediment load or by the leaching of contaminants. Contaminants could reach the surface water via seeps at the base of overburden fill or by leachate infiltrating into the groundwater system.

Past mining practices have resulted in contaminants, including selenium, leaching from seleniferous overburden and leaching into the surface water and groundwater system. This has occurred at portions of the Smoky Canyon Mine and other phosphate mines in the region. These releases are being addressed through the CERCLA process. All publicly available data, reports, and other information generated at the Smoky Canyon Mine through the CERCLA process is maintained and available at the USFS Soda Springs Ranger District Office, in Soda Springs, Idaho. At the Smoky Canyon mine, selenium and other contaminants have been documented in both surface and groundwater. In many cases the selenium and other contaminant concentrations are above applicable regulatory standards. Pole Canyon Creek, flowing across historic portions of the mine, has been affected by the Pole Canyon overburden fill. Surface water has also been affected by groundwater emanating from two spring complexes, Hoopes Spring and South Fork of Sage Creek Spring, in the southern portion of the mine and several seeps emanating from external overburden fills. Likely sources of contaminants to the groundwater are the Pole Canyon overburden fill and the past operations at Panel E. There may be other sources, including Panel A; however, they have not yet been definitively identified.

Actions in response to the water quality issues at the mine have been taken under CERCLA and other authorities. Some of those actions are as follows. Pole Canyon Creek has been diverted around the overburden fill so that the creek and fill are no longer in contact. Monitoring data indicates that this action has corrected the effects to Pole Canyon Creek. The diversion is also anticipated to reduce contaminant loading to the groundwater. Two different pilot water treatment studies are ongoing. The reclamation cover used at Panel E has been improved to minimize infiltration into backfill. Examination of the site, potential sources, and control measures is ongoing. The proposed action does not change any of the regulatory authorities associated with the remedial process, any ongoing studies, or any actions proposed in the future.

Simplot is currently mining Panel B. Panel C has been completed and reclaimed. The 2002 SEIS describes the potential impacts of mining in Panels B and C. The 2002 SEIS indicates that the mining of Panels B and C could affect **surface water** quality. Sediment could be introduced to surface water. There is potential for external overburden to generate seeps containing leached chemical contaminants such as selenium. However, in accordance with the approved Mine and Reclamation Plan, Simplot currently employs multiple measures to control erosion and sediment generation. These include use of sediment collection basins, silt fences, vegetation, and control of run-on and runoff. The active pits are designed so that they do not discharge to surface water. In addition, in order to prevent infiltration and seepage, Simplot also employs 12 measures including capping the external overburden, and preparing ground underneath the overburden piles prior to construction (SEIS 4-31 to 4-35).

Simplot currently collects monitoring data at the mine site. The following surface water sampling locations are related to the Panels B & C Mine and Reclamation Plan: Upper Smoky Creek, Middle Smoky Creek, Lower Smoky Creek, Lower Smoky Spring, and Upper Roberts Creek. The *Smoky Canyon Mine, 2008 Annual Environmental Monitoring Report* indicates that operations conducted under the existing Mine and Reclamation Plan for Panels B and C have not led to surface water impacts; either via sediment or from chemical contaminants.

The mine currently pumps and uses **groundwater** from the Wells Formation. The water is used at the mill, for culinary purposes, and for dust abatement. The 2002 SEIS indicated that there would be no measureable impact on flows from springs emanating from the hydraulically unconnected Thaynes and Dinwoody Formations. This includes all of the springs immediately west of Smoky Canyon Mine and the springs located along the range north of the mine.

The overburden removed during current operations is partly backfilled into mined out portions of Panel B and in part permanently stored in the external fill. The existing backfill and external fills are subject to infiltration of meteoric water and has the potential to leach contaminants, including selenium. The leachate could percolate downward and enter the Wells Formation aquifer (SEIS 4-47). The 2002 SEIS estimated potential impact to groundwater that could occur from the operations at Panels B and C.

The HELP model was used, in the 2002 SEIS, to estimate the amount of infiltration going into and through the backfill and external fills (i.e., the rate of leachate entering the groundwater) (SEIS p. 4-39 and 4-40). The rate at which material infiltrates is controlled by the material properties of the cover. Column leach tests were used to estimate the concentration of contaminants in the leachate (SEIS p. 4-40 to 4-42). The thickness of fill ranged from 0 feet at fill margins to 200 feet thick in Panel A. On average, the fill was assumed to be 100 feet thick. Impacts to groundwater quality were determined for various locations using the MODFLOW and Mt3DMS computer codes or numeric models (SEIS p. 4-46 to 4-48). The model assumed uniform contaminant concentrations regardless of thickness of backfill. The impacts predicted by the model were strongly controlled by several factors. Changes in the rate of infiltration and changes in the area of seleniferous footprint strongly affect the impacts. The larger the area of seleniferous fill, the larger the area of the impacted groundwater. Also, the smaller the area of seleniferous fills, the smaller the area of impacted groundwater (SEIS p. 4-54). There was no data available to quantify how impacts to groundwater would vary with the thickness of the backfill or external overburden fills. (SEIS p. 4-62).

Where possible, Simplot has reduced the seleniferous footprint of the operations at Panels B and C. Current conditions are that the final seleniferous footprint is 171 acres less than previously analyzed. This means that there are 171 less acres of seleniferous material subject to potential long-term leaching.

As part of the approved federal Environmental Monitoring Plan and state monitoring requirements at Smoky Canyon Mine, Simplot collects groundwater monitoring data. The following groundwater sampling locations are relevant to the operations at Panels B and C: the consent order monitoring well, the industrial well, and the culinary well. Lower Smoky Spring

also reflects groundwater in the Wells Formation and it was discussed above as surface water. The 2002 SEIS predicted impacts to groundwater in the Wells Formation aquifer based on a scenario of completed mining and reclamation. The mine has not yet reached this point. The current groundwater monitoring results represent the present condition in which the mine panels are open to meteoric water [and leaching] rather than the long-term impacts predicted in the 2002 SEIS.

Between its construction in Fall 2003 and 2008, selenium in the consent order well fluctuated between 0.003 mg/l and 0.006 mg/l (Simplot 2008). This is several times below the predicted long-term impacts. Data depicting selenium in the industrial well appear to indicate an upward trend in selenium concentration with climate related selenium peaks which may be correlated to specific precipitation events and the open backfills (Simplot 2008). Data from the culinary well indicate increases in selenium concentration due to mining (Simplot 2008). In addition, there are peaks that were at or in excess of the regulatory standard and were also above the groundwater impacts predicted by the 2002 SEIS. Like at the industrial well, some of these peaks in selenium concentration may be may be correlated to specific precipitation events falling on the open backfills.

However, the impacts in the preceding paragraph have occurred prior to the full reclamation assumed in the 2002 SEIS. Per the applicable state and federal requirements, Simplot has conducted an investigation into the selenium increases in the culinary well. As determined in Simplot's investigation, the culinary well has been monitoring impacts to groundwater in the Rex Chert in addition to the impacts in the Wells Formation aquifer (Simplot 2009c). Since the investigation, the culinary well has been plugged and abandoned in an effort to eliminate the pathway between the Rex Chert and Wells Formation. The abandonment of the culinary well was initiated in November 2009 and completed in December 2009. The most current available industrial well monitoring data from fall 2009 to January 2010 data indicate elevated selenium followed by a decrease in selenium concentration that appears to correspond to the abandonment of the culinary well (Simplot 2010). The existing data do not, at this time, appear to indicate that the mitigation measures employed during operations at the existing panels are insufficient or ineffective relative to the predictions of the 2002 SEIS. Operations at Panels B and C appear to be in compliance with applicable groundwater regulations.

Environmental Consequences:

Direct and Indirect Impacts:

The proposed action does not change any of the regulatory authorities associate with remedial CERCLA actions, any ongoing studies, or any remedial actions proposed in the future.

The proposed action would add 18 new acres of disturbance to Panel B. This would increase the area available for erosion. As discussed above, Simplot is currently employing measures to minimize erosion and sediment generation. Available monitoring data indicates that the protection measures are effective and currently there are no impacts to surface water associated with operations at Panels B and C. Therefore, there would be no significant erosion or sediment impact from approving the proposed action which employs the same protection measures.

The proposed action would not change the rate of groundwater extracted by the mine for use. Currently, there are no known impacts that have been created by the pumping of groundwater. The proposed action would extend the need to pump groundwater for approximately six months. Because there are no known impacts of the current pumping the impact of continued pumping would be negligible.

The configuration of the modification would allow greater backfill than was analyzed in the 2002 SEIS and currently approved. The seleniferous area of external backfill would decrease by 20 acres. So the area and volume of material which could potentially create surface seepage with leached contaminants would decrease. All of the 12 measures employed to limit seepage (SEIS 4-31 to 4-35) would remain the same and have been determined effective. Thus, the impacts to surface water from seepage of leachate would be negligible.

The proposed modification would not change the mining process. Overburden mined from the pits would still be placed into the pit as backfill and in the external overburden fill. Fill would still be subject to infiltration and leaching. The proposed expansion would be reclaimed using the same approved reclamation cover. Thus there would be no change in the rate of infiltration. No new geologic units would be mined. Thus, there would be no change in the potential to release contaminants. As was the case in the 2002 SEIS, there is still no data to quantify the effect of increased thickness on predicted contaminant concentrations in leachate. There could be a slight increase in the maximum thickness of backfill, but the average thickness is not expected to materially change. Thus, using the same assumptions as in the 2002 SEIS, the concentration of contaminants in the leachate is not expected to change.

The modification would create a net decrease of 2 acres in the area subject to infiltration and leaching at Smoky Canyon Mine. The pit would increase by 18 acres, but the seleniferous external overburden fill would decrease by 20 acres. When combined with other past modifications, there are 171 less seleniferous acres than analyzed and approved in the SEIS.

Because the rate of infiltration would not change, the concentration of contaminants would not change, and the seleniferous area subject to infiltration would decrease, the predicted impacts to groundwater quality would be the same or less than those predicted in the 2002 SEIS and therefore when combined with Panels B and C there would be negligible impact to groundwater.

Cumulative Impacts:

The cumulative impact area for water quality analysis is the current and future mine site. Currently, the existing conditions at the Panels B and C operations include some impacts to groundwater that are within existing predictions and applicable water quality standards. As shown above, the impacts to water quality from the proposed actions would be negligible and would not add to the existing conditions. There are currently water quality issues and exceedences at other portions of the mine related to past operations. They are being addressed through the CERCLA process. The proposed action would not affect the CERCLA process. Future mining would take place in panels F and G. Simplot is currently in the early stages of mining in Panel F. Mining is expected to continue in Panels F and G for about 14 additional

years. The analysis in the 2007 FEIS predicted compliance with applicable surface and groundwater quality standards (FEIS 4-97, 4-98). The 2007 FEIS (FEIS p. 5-14 to 5-25) indicates that groundwater from the Panel B area would not mix with groundwater from the area of Panels F and G. Therefore, any impacts from the proposed action would not add to any impacts from panels F and G.

Because the proposed action would not change the remediation of past conditions, would not add to existing conditions at Panels B and C, and would not add to future impacts at Panels F and G, the cumulative effect of the proposed action would be negligible.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed. Mining would proceed according to the approved plans, but would not increase by 18 acres. Implementation of approved environmental protection measures to minimize impacts to surface water and groundwater would continue and monitoring would continue. Impacts would likely be the same or less than predicted in the 2002 SEIS. The CERCLA remedial process would continue. Mining at Panels F and G would continue according to approved plans.

Wildlife

Affected Environment:

The proposed action is located immediately adjacent to the operations at Panels B and C. The operations at Panels B and C have been approved to disturb up to 618 acres, of which 448 acres were disturbed by the end of 2008. The timber has been removed from all 618 permitted acres. Wildlife surveys were conducted on the proposed modification area for the 2002 SEIS. The 2002 SEIS discusses the habitat present and the species present in the area of Panels B and C. Figure 3.7-1 in the 2002 SEIS indicates the proposal is not within critical big game winter range. The major vegetation communities and habitats found within the project area do not represent unique habitats that are not widely available in the general vicinity.

The 2002 SEIS (SEIS p. 4-86 to 4-91) indicates that big game do not inhabit disturbed area during mining and are displaced locally until the area is reclaimed and vegetation is established. It is common to see big game adjacent to active operations and on reclaimed areas of the mine. Predators or other species which hunt over large areas are likely affected very little. Currently, bat use of the area may be decreased.

According to approved plans, Simplot currently employs measures to minimize exposure of wildlife to selenium; either through vegetation as forage or surface water. All of Panel B and C reclamation contains chert and topsoil covers which minimize the potential for vegetation to uptake selenium. The active pits are designed so that they do not discharge to surface water. In addition, in order to prevent infiltration and seepage, Simplot also employs 12 measures including capping the external overburden, and preparing ground underneath the overburden

piles prior to construction (SEIS 4-31 to 4-35). As discussed in the Water Quality section above, monitoring indicates that these measures are effective.

Environmental Consequences:

Direct and Indirect Impacts:

The proposed action would increase disturbance by 18 acres. The 18 acres of new disturbance would impact the same three vegetation types and habitats as those approved for disturbance in Panel B: conifer, mixed shrub, and aspen. The proposed modification would increase the amount of each of the three habitats disturbed at Panel B by approximately 6 acres. The addition of 18 new acres of disturbance to the large area already disturbed or permitted would not appreciably change the current impacts caused by disturbance. The effects would be minimal.

Available monitoring data indicates that the protection measures are effective and currently there are no impacts to surface water associated with operations at Panels B and C. The cover systems currently constructed to protect forage from selenium would be employed over the proposed modification. Therefore, exposure of wildlife to selenium or other contaminants would not appreciably change from existing conditions. The effects would be negligible.

The proposed action contains mitigation measures specific to minimizing impacts to migratory birds (See description on page 4), therefore the impacts would likely be minimal.

Cumulative Impacts:

The cumulative impacts area would be the entire mine site. The total area permitted for disturbance at Smoky Canyon Mine is about 3886 acres. The total acreage of disturbance at the mine, as of the end of 2008, is approximately 2065 acres and of those 1160.1 acres have been reclaimed (Simplot 2009b). Future operations will take place in Panels F and G over approximately 14 years. Those impacts to wildlife are described in the 2007 FEIS (FEIS p. 4-122 to 4-131). The proposed action would add less than 0.5 % more area to the existing and future mine. Because of the small size of the proposed expansion compared to the permitted acreage, the existing effects would not appreciably change. The cumulative impacts would be negligible.

No Action Alternative

Direct, Indirect, and Cumulative Impacts:

Simplot would continue operations in Panel B. It is estimated that 83 more acres will be disturbed. Mining would proceed according to the approved plans, but would not increase by 18 acres. There would be no additional disturbance of habitat or displacement.

Under the No Action Alternative, there would be no additional acreage added to the current and future permitted disturbance. There would be no cumulative effect. The existing cumulative

impacts to wildlife would not change from those described in the 2007 FEIS (FEIS p. 5-45 to 5-51).

CONSULTATION AND COORDINATION

Persons and Agencies Consulted:

The project area is located completely on federal phosphate leases administered by BLM. The leases are within the Caribou-Targhee National Forest. Regulations at 43 CFR 3590.2 (a) direct BLM to “consult with the agency having jurisdiction over the lands with respect to the surface protection and reclamation aspects”. The BLM and USFS jointly reviewed Simplot’s proposal using resource specialists provided by the Caribou-Targhee National Forest prior to conducting this EA. The USFS will provide a recommendation to BLM prior to BLM’s decision.

A Biological Assessment was prepared for the 2002 SEIS and approval of Panels B and C. At that time the U.S. Fish and Wildlife Service concurred with the findings in the BA. Since a change has been proposed to the operations and Panels B and C, the BLM has notified the U.S. Fish and Wildlife Service in order to validate the existing concurrence. The U.S. Fish and Wildlife Service has determined that Endangered Species Act consultation does not need to be reinitiated.

List of preparers:

Bill Stout	Geologist	BLM Pocatello Field Office
Diane Wheeler	Geologist	Caribou-Targhee National Forest
Ann Keysor	Wildlife Biologist	Caribou-Targhee National Forest
Rose Lehman	Botanist	Caribou-Targhee National Forest
Bill Volk	Geologist	BLM Pocatello Field Office
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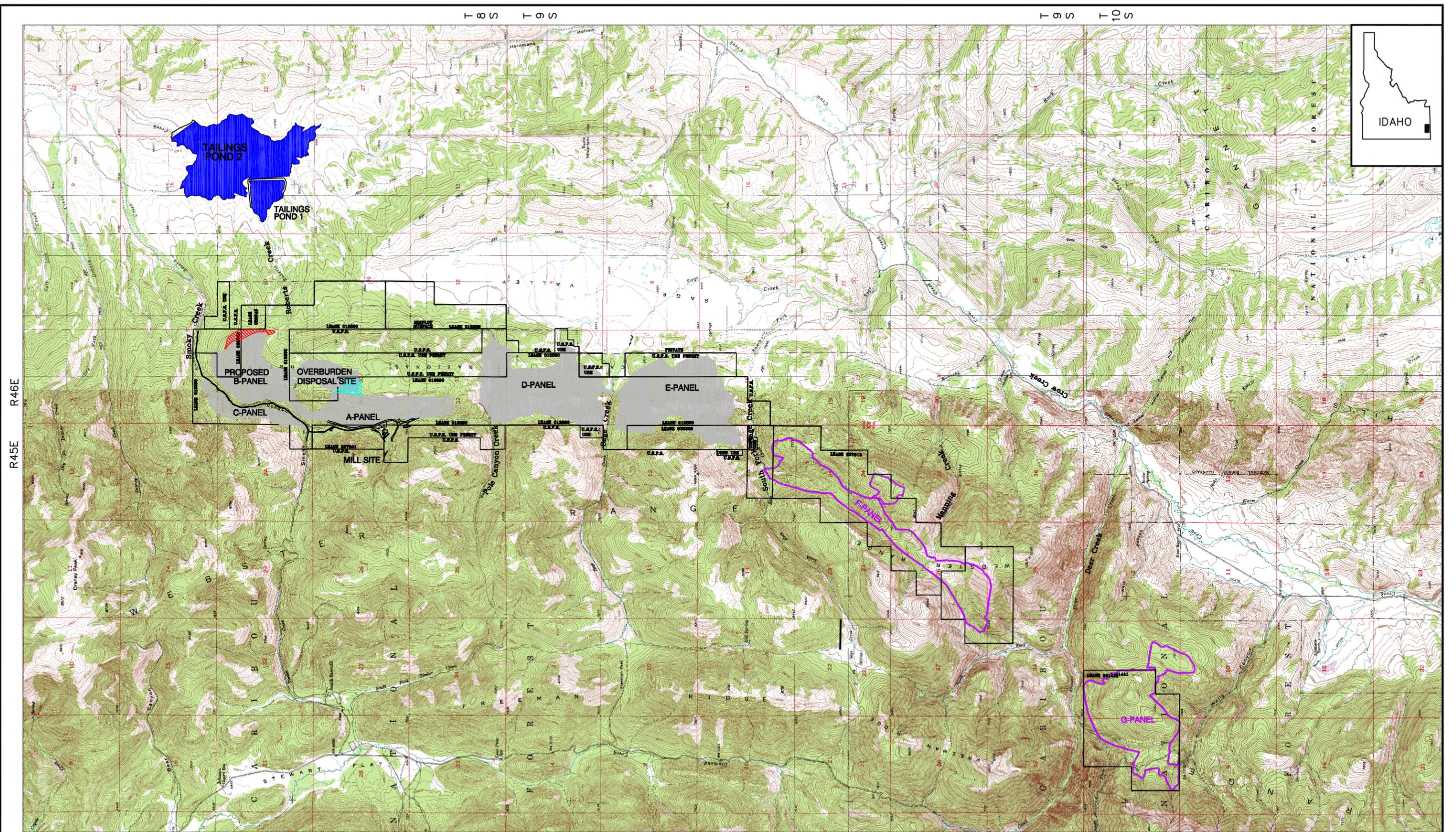
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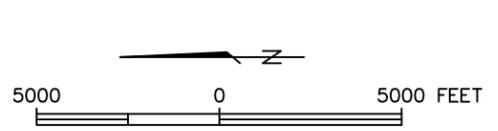
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EXPLANATION	
	Proposed Mine Disturbance
	Tailing Ponds
	Nonseleniferous Material
	Existing Mine Disturbance Existing
	Panels F & G Permitted Disturbance
	Lease and Special Use Permit Boundaries

FIGURE 2
PROPOSED ACTION AND PERMITTED MINE FACILITIES
PANEL B MODIFICATION
SIMPLOT SMOKY CANYON MINE PANELS B&C

