

**BRUCE CREEK MINE AND CRUSHING AND MILLING PLANTS**

**NORTHPORT, WASHINGTON**

**SEPA ENVIRONMENTAL CHECKLIST**

**APRIL 8, 2013**

**JUL 22 2013**

DEPARTMENT OF ECOLOGY  
EASTERN REGIONAL OFFICE

**Prepared By:**

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**Northport, WA**

**Prepared For:**

**Washington Department of Ecology**

**Eastern Regional Office**

**Spokane, WA**

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## **WAC 197-11-960 Environmental checklist.**

### ENVIRONMENTAL CHECKLIST

#### ***Purpose of checklist:***

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

#### ***Instructions for applicants:***

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

#### ***Use of checklist for nonproject proposals:***

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A Background

**1. Name of Proposed Project, If Applicable**

Bruce Creek Mine, Crushing Plant, and Milling Plant.

**2. Name of Applicant**

ALBAR Industrial Minerals Ltd.

**3. Address and Phone Number of Applicant and Contact Person**

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**4. Date checklist prepared:**

April 8, 2013

**5. Agency requesting checklist:**

Washington Department of Ecology, Eastern Regional Office,  
Spokane, Washington

**6. Proposed timing or schedule (including phasing, if applicable):**

Bruce Creek Mine: Initiation of construction of access roads, the mine, and associated facilities is proposed for May 2013. Construction is estimated to be complete by June 30, 2013.

Crushing Plant: Initiation of construction of the crushing plant is proposed for May 2013. Construction is estimated to be complete by July 30, 2013:

Milling Plant: Initiation of construction of the milling plant is proposed for May 2013. Construction is estimated to be complete by August 30, 2013.

The mine, crushing plant, and milling plant are intended to operate for 15 years, based on projected ore reserves at the mine. Accordingly, mining and related operations would be discontinued in 2028.

**7. Plans for Future Additions, Expansion, or Further Activity**

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Activities will not begin until after SEPA Review has been completed and necessary permits are obtained.

Bruce Creek Mine: A 40-acre tract immediately south of the proposed Bruce Creek Mine site will be explored for economically feasible ore extraction. If sufficient ore reserves are located, the applicant intends to mine this area in the future. This would also extend the operating life of the Crushing Plant and Milling Plant.

**8. Environmental Information**

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- Washington Department of Archaeology and Historic Preservation, Historic Property Review, Letter dated August 15, 2012.
- Cascade Earth Sciences, Inc., Mine Drainage Calculations.
- AECOM, Acute Toxicity Test of Barite to the Rainbow Trout (*Oncorhynchus mykiss*) Under Static Test Conditions, Report dated July 9, 2012.
- ALS Environmental, TCLP test results for Bruce Creek Mine barite sample, laboratory report dated May 8, 2012.

**9. Pending Applications**

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

ALBAR is not aware of any pending applications or other proposals affecting the proposed project properties.

**10. Government Approvals or Permits**

List any government approvals or permits that will be needed for your proposal, if known.

- Town of Northport Building Permit (Crushing Plant and Milling Plant)
- Stevens County Building Permit (Mine)
- Stevens County Road Approach Permit (Mine)
- Washington State Department of Ecology Air Quality Notice of Construction Permit (all sites)
- Washington State Department of Ecology, Construction Stormwater Permit
- Washington State Department of Ecology, Industrial Stormwater General Permit
- Washington State Department of Health, Septic Permit (Crushing Plant)
- Washington State Department of Health, Class A Water System Operating Permit (Mine)
- Washington State Department of Natural Resources, Reclamation Permit (Mine)

**Milling Site:** Prior to ground disturbance, materials staging, or traffic, soil sampling will be conducted for the presence of elevated levels of lead and arsenic. Depending on findings, remedial action may be conducted prior to operations.

**Mine Site:**  
 MSHA Requirements  
 DNR Forest Practices Approval  
 DNR Mine Reclamation Permit  
 NE Tri-County Health Septic System Approval  
 Stevens County site analysis  
 Stevens County Placement Permit  
 DOH Well Site Inspection  
 DOH Group B Water System  
 Ecology State Waste Discharge  
 Ecology Well Site Notice of Intent (NOI)

**Crushing Site:**  
 DNR Forest Practices Approval  
 NE Tri-County Health Septic System Approval  
 DOH Well Site Inspection  
 DOH Group B Water System  
 Stevens County Administrative Conditional Use Permit  
 Stevens County Site Analysis  
 Stevens County Placement Permit  
 Ecology Well Site NOI

**11. Description of Proposal**

**Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

The proposed project consists of three primary components: the Bruce Creek Mine, a Crushing Plant, and a Milling Plant. Barite ore from the Bruce Creek Mine will be transported by truck to the Crushing Plant located on the west side of the Columbia River from the town of Northport. Barite ore from the Crushing Plant will be transported approximately 1 mile by truck to the Milling Plant located within the town of Northport adjacent to the Burlington Northern Santa Fe Railroad lines. Milled product will be shipped to customers by rail.

The applicant selected the Bruce Creek Mine site due to the presence of the Bruce Creek deposit, which is estimated to contain approximately 1.2 million tons of barite ore. This quantity of ore makes the deposit economically feasible to mine. In addition, the site is relatively close to land that can be developed for crushing and milling facilities, and it is close to transportation infrastructure for shipping product. Barite is an important mineral used for a variety of industrial processes. Barite is used most extensively as a weighting agent in drilling fluids employed by the oil and natural gas industry. It is also used as an additive for products such as foam, ink, paints and primers, plastics, and alloys.

Bruce Creek Mine

The proposed mine is an underground barite mine. The site will include underground mine workings, an access road, an ore stockpile area, a waste rock stockpile area, a septic system and drinking water well, an electrical substation, a backup generator and associated fuel storage tank, and semi-permanent trailers for offices and employee facilities. The mine site is located on two 40-acre parcels; surface facilities will be located on 7.63 acres of this area. Attachment A contains the Bruce Creek Mine Plan, which provides additional detail on the mine facilities and design features.

Crushing Plant

The proposed crushing plant will consist of a raw material (barite ore) storage area; a feed hopper-jaw crusher-cone crusher assembly that will yield minus ¾ inch ore material; two finished goods stockpile areas; and driveways for truck access. The crushing plant site covers an area of approximately 3.5 acres. Attachment B contains the site layout for the Crushing Plant.

Mine Site: Semi-permanent trailers used for office and shop.

61,000 tons of waste rock generation anticipated and used as underground mine backfill.

*May contract out for crushing at crushing site.*

Milling Plant

The proposed milling plant will consist of incoming truck scales and an associated scale shed; two ore stockpile areas; a mill building containing a feed hopper, Raymond mill, and cyclone; two storage silos for milled ore; a bagging building containing a conveyor from the storage silos, a bagging machine, and equipment for preparing bagged ore for shipment; a product storage building; and driveways for truck access and railcar loading operations. The Milling Plant site covers an area of approximately 8 acres. Attachment C contains the site layout for the Milling Plant.

*a trailer may be placed at milling site for office space.*

**12. Location of the proposal.**

**Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

Figure 1 illustrates the general locations of the proposed project facilities. Figures 2, 3, and 4 present site layouts of the Bruce Creek Mine, the Crusher Plant, and the Milling Plant, respectively.

Bruce Creek Mine

The applicant currently controls two 40-acre parcels where the mine will be developed. These parcels are:

- Parcel A: (County parcel number 2321320) Lot 2 Section 5 Township 37 N Range 39E. The address of this parcel is: 1581 Dead Medicine Road, Evans, Washington, 99126.
- Parcel B: (2321601) southwest quarter of the northeast quarter of Section 5 Township 37N Range 39E. Except beginning at the east quarter of corner of Section 5, per Land Corner Record Book 3, Page 10 under Auditors File No. 449886; thence North 00E44'45" west 694.31 feet to the south-north 1/64 corner of Sections 5 and 4, from which the northeast corner of Section 5, per Land Corner Record, Book 3, Page 1, under Auditors File No. 449877, bears north 00E44'45" west 2082.95 feet; thence west to the point of intersection with the line that is a prolongation of an extension fence line of the treated round wood post and four strands of barbed wire, which has a direction of north 00E50' west and which is also an extension of the fence line per Boundary Line Agreement, under Auditors File No. 20000010161; thence south to the east-west center line of Section 5 to the said east quarter corner of Section 5. See Attachment D.

Crushing Plant

The Crushing Plant will be located on the west side of the Columbia River near the town of Northport, and includes:

- All of the portion of the northeast quarter of Section 36, Township 40, north of Range 39 E.W.M. lying north of the old State Highway No. 22.

Milling Plant

The Milling Plant will be located within the town of Northport, and includes:

- The part of the northwest quarter of Section 4 and that part of the northeast quarter of Section 5 of Township 39 North, Range 40 East, in Stevens County, Washington, described as follows: Beginning at the intersection of the centerlines of Third Street and Columbia Avenue; thence on Third Street; thence north 27°11'57" west, along said right-of-way line, 25.00 feet to a point 15.00 feet from centerline of the Burlington Northern Railroad and the true point of beginning, said point being a point on curve of a non-tangent curve, concave to the southeast, the center of which bears south 24°20'19" east, 1895.08 feet; thence northeasterly along the arc of said curve, parallel with and 15.00 feet from said railroad, 90.98 feet, through a central angle of 02°45'03" to a point of tangency opposite centerline station 2234+71.4; thence along the arc of said curve parallel with and 15.00 feet from said railroad, 128.50 feet, through a central angle of 02°35'00" to the point of tangency opposite the centerline station 2246+00.6; thence north 70°59'44" east, parallel with and 15.00 feet from said railroad, 87.01 feet to the westerly right-of-way line of State Route 25, thence south 06°52'30" east, along said right-of-way line, 141.88 feet to the point of curve of a 758.60 feet radius curve to the right; thence along the arc of said curve, along said right-of-way line, 69.36 feet, through a central angle of 05°14'18" to a point on curve; thence south 62°50'34" west, along the north line of the alley and the alley extended northeasterly in Blocks 1, 2 and 3 of the Original Town Site of Northport according to plat thereof recorded in Volume A, page 49, 1261.12 feet to easterly right-of-way line of Third Street; thence north 27° 11'57" west, 332.01 feet to the true point of beginning.
- The Milling Plant will be located on County parcel numbers 0418100 and 1014147.
- The address of the Milling Plan is 113 3<sup>rd</sup> Street, Northport, Washington 99157.

**B ENVIRONMENTAL ELEMENTS**

**1. Earth**

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . .

Bruce Creek Mine

The mine site is situated on and beneath lands characterized as rolling hills with rock outcrops and flat land. Topographic maps of the mine site are included in Attachment D.

Crushing Plant

The Crushing Plant site is flat.

Milling Plant

The Milling Plant site is flat.

- b. What is the steepest slope on the site (approximate percent slope)?

Bruce Creek Mine

The steepest slope at the mine site is approximately 65 percent. See the topographic maps in Attachment D.

Crushing Plant

There are no slopes at the Crushing Plant site.

Milling Plant

There are no slopes at the Milling Plant site.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Bruce Creek Mine

The table below summarizes the soil types at the mine site (NRCS 2013). See Attachment E for soil survey information.

Soil Type	Approximate Percent of Site
Aits loam, 40 to 65 percent slopes	21%
Aits stony loam, 0 to 40 percent slopes	6%
Donavan stony loam, 0 to 30 percent slopes	20%
Garrison loam, 5 to 15 percent slopes	5%
Peone silt loam, drained	6%
Spens extremely gravelly loamy sand, 30 to 65 percent slopes	6%
Stevens channery silt loam, 8 to 25 percent slopes	21%
Stevens-Rock outcrop complex, 25 to 40 percent slopes	4%
Stevens-Rock outcrop complex, 40 to 65 percent slopes	11%

Crushing Plant

The Crushing Plant site is underlain by Bisbee loamy fine sand, 0 to 15 percent slopes (NRCS 2013).

Milling Plant

The Milling Plant site is underlain by Hagen sandy loam, 0 to 15 percent slopes (NRCS 2013). The natural soil surface at this site is covered with sawdust, clay, and gravel.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There are no visual indications or known history of unstable soils at the Bruce Creek Mine, Crusher Plant, or Milling Plant sites.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Bruce Creek Mine

The mine road will be graded, and waste rock from the underground mine will be used for road ballast. Waste rock will also be used to build a structural base for the ore stockpile. A reclamation plan for the site will be developed and will indicate areas of grading and filling following the closure of the mine. Eventually, the applicant intends to backfill mined workings with waste rock.

Crushing Plant

The Crushing Plant site will be graded to achieve a level site. Approximately 9,000 cubic yards of fill will be imported to the site. The fill will consist of waste rock from the mine and limestone. A berm will be constructed around the site using this same material.

Milling Plant

The Milling Plant site is presently graded level and meets project needs. Approximately 4,000 cubic yards of waste rock and limestone will be imported to the site.

Fill used for road ballast, base for crushing equipment and to construct a berm around the crushing site.

Fill may be temporarily stockpiled.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion is not expected from clearing, construction, or use of the mine site, Crushing Plant, or Milling Plant. Erosion and stormwater control systems will be constructed at the mine. These systems include ditches, rock check dams, and a stormwater infiltration area.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The table below summarizes the areas and types of impervious surfaces at the project facilities.

Location	Type(s) of Impervious Surface	Impervious Surface Acreage	Impervious Surface%
Bruce Creek Mine	Waste rock, 2 trailers for offices & shop	4.1	0.05%
Crushing Plant	Waste rock/limestone 1 Trailer for Office	3.5	100%
Milling Plant	Waste rock/limestone, asphalt & concrete Mill & Storage Buildings	4.0	50%

**Mine Site:** Building coverage is 900 square feet. Impervious surface is 5%  
**Crushing Site:** Building coverage is 450 square feet. Impervious surface is 100%  
**Mill Site:** Building coverage is 7,320 square feet, 50%

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Bruce Creek Mine

Construction: Standard Best Management Practices (BMPs) for erosion control will be implemented during construction activities and operations at the mine site. Berms will be built on the south side of the access road to ensure that site runoff does not enter Bruce Creek.

Crushing and Milling Plants

No erosion during construction and operation of the Crushing Plant and Milling Plant is anticipated.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Construction Emissions

During the construction phase at all three sites, particulate emissions are expected from grading operations, aggregate handling, and/or heavy equipment. The heavy diesel equipment will produce tailpipe emissions that include hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, and carbon dioxide. Construction emissions for the Bruce Creek Mine, the Crushing Plant, and the Milling Plant have been estimated. Emission estimates for construction activities can be found in Attachment F.

Bruce Creek Mine

Normal operation of the Bruce Creek Mine will include particulate emissions from unpaved roads, the ore stockpile, and blasting. Emissions from the diesel generators and non-road heavy equipment will include hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, and carbon dioxide. Facility emissions have been estimated. Emission estimates for the Bruce Creek Mine can be found in Attachment F.

Crushing Plant

Normal operation of the Crushing Plant will include particulate emissions from the raw material storage pile, the finished goods stockpile, and crushing/screening operations. Emissions from the diesel generators and non-road heavy equipment will include hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, and carbon dioxide. Facility emissions have been estimated. Emission estimates for the Crushing Plant can be found in Attachment F.

Milling Plant

Normal operation of the Milling Plant will include particulate emissions from the ore storage pile. Emissions from non-road heavy equipment will include hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, and carbon dioxide. Facility emissions have been estimated. Emission estimates for the Milling Plant can be found in Attachment F.

Lead and arsenic contamination may be present in property soils primarily attributed to the historic Le Roi/Northport metal smelter operations and may become air born due to dust caused from ground disturbance. Soil sampling is required and depending on findings, remedial action may be conducted prior to operations.

Greenhouse gas emissions will result from the combustion of diesel fuel. Stationary sources of greenhouse gas emissions are the generators located at the Bruce Creek Mine and the Crushing Plant. Mobile sources of greenhouse gas emissions include the heavy equipment operated at each site. Carbon dioxide emissions are the only significant greenhouse gas emitted from any of the operations.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no off-site sources of emissions or odor that are expected to affect the proposed project.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Bruce Creek Mine

Due to lack of public utilities, the mine will require diesel-fired electric generation. The applicant intends to work with Avista Utilities to install a transformer and electrical connection for mine facilities, which would eliminate the need for diesel-fired generators. The applicant will apply water and chemical dust suppressant to the unpaved roads to control fugitive dust emissions.

Crushing Plant

Due to lack of public utilities, the Crushing Plant will require diesel fired electric generation. The applicant intends to work with Avista Utilities to install an electrical connection at the Crushing Plant, which would eliminate the need for diesel fired generators. The applicant will use two spray bars on the crushing operation and one spray bar on the screening operation to control fugitive dust emissions.

Milling Plant

ALBAR will use a cyclone and baghouse to control dust emissions from the Raymond mill. The roller mill will be enclosed in a building with no emissions to the atmosphere. The applicant will store the finished product in two enclosed structures (silos) to mitigate dust emissions. A baghouse will be installed to control dust emissions from bagging operations. Additionally, the bagging operations will be enclosed in a building with no emissions to the atmosphere. All conveying operations associated with bagged product loadout will also be enclosed in a building with no emissions to the atmosphere.

Soil sampling is required and depending on findings, remedial action may be required prior to conducting operations.

3. Water

a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Bruce Creek Mine

Bruce Creek flows across the southern parcel of the mine site. Based on review of topographic maps, Bruce Creek has no outlet and disappears into agricultural land approximately 1.5 miles downstream of the site.

Crushing Plant

The Crushing Plant site is located approximately 0.35 miles from western bank of the Columbia River. No surface water bodies exist on the site.

Milling Plant

The Milling Plant site is located approximately 200 feet from the eastern bank of the Columbia River. No surface water bodies exist on the site.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Bruce Creek Mine

Bruce Creek flows across the southern parcel of the mine site, at a minimum distance of approximately 110 feet from surface facilities at the mine site. See Attachment D.

Crushing and Milling Plants

Work performed over, in, or adjacent to any surface waters will not be required for construction or operation of the Crushing Plant and Milling Plant.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill or dredged material will be placed in, or removed from, surface waters or wetlands for construction or operation of the proposed project.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Water for dust control, spray bars, other processes will be purchased from the City of Colville.

No surface water withdrawals or diversions will be required for construction or operation of the proposed project.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The Bruce Creek Mine, Crushing Plant, and Milling Plant will not be located within a 100-year floodplain (FEMA 2013).

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No discharges of waste materials to surface waters will occur during construction or operation of the proposed project.

b. Ground:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Bruce Creek Mine

Test drilling at the mine did not encounter groundwater at depths up to 275 below ground surface. The maximum mine depth planned is 275 feet; therefore, it is anticipated that groundwater will not be need to pumped from the mine workings and discharged. A drinking water well will be installed at the mine to serve the mine site facilities.

Crushing and Milling Plants

No groundwater will be withdrawn or discharged during construction and operation of the Crushing Plant and the Milling Plant.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Bruce Creek Mine

A septic system exists, and will be used by ALBAR employees, at the mine site. The system is approved for up to 24 employees per day. No industrial wastes will be discharged to the ground. Runoff

Water for dust control, spray bars, other processes will be purchased from the City of Colville.

**Mine site:** A well for potable water will be drilled. Ground water withdrawals will be limited to 5,000 gallons per day for industrial uses.

If well water cannot be obtained, applicant will work with DOH for potable water supply.

from waste rock and ore stockpiles will be controlled (see Part C1 below, and Attachment G).

Crushing Plant

A septic system will be installed at the Crushing Plant site, and will have sufficient capacity to serve the four employees working at the site. No industrial wastes will be discharged to the ground.

Milling Plant

The Milling Plant has an existing septic system, designed for use by up to 26 people per day. No industrial wastes will be discharged to the ground.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Bruce Creek Mine

No mine process water will be used at the site. The average annual precipitation for Northport, WA is 19.45 inches per year (WRCC 2013). All water runoff is expected to be storm water which will naturally infiltrate onsite. All storm water runoff from impervious or surfaces onsite (such as the waste rock stockpile and gravel areas) will be controlled and diverted to an infiltration area. A berm will be placed to prevent any storm water from entering Bruce Creek.

The applicant will apply for an industrial storm water construction permit.

Crushing Plant

The only water source used in the crushing process will be water spray bars to clean the product from the screens. This water will be directly collected in an infiltration area. All other water runoff is expected to be storm water which will naturally infiltrate onsite.

The applicant will apply for an industrial storm water construction permit.

Milling Plant

No water will be used in the milling site process. All water runoff will be storm water and will be expected to naturally infiltrate onsite.

The applicant will apply for an industrial storm water construction permit.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Bruce Creek Mine

There will be no waste materials onsite that could enter groundwater or surface waters. Onsite waste materials will generally include waste rock, which will be temporarily stored in a stockpile until it used for mine backfill or gravel at the mine, crushing, and/or milling sites. All mined product material that is removed from the mine will be shipped to Northport. See Attachment G for ore toxicity and leaching potential test results.

Crushing Plant

There will be no waste material at the crusher site. The incoming material (from the mine site) is 100 percent of the product. Therefore, any waste of this material will reduce the product volume.

Milling Plant

There will be no waste material at the milling site. The incoming material (from the crushing site) is 100 percent of the product. All material entering the plant is product that needs to be milled to meet the market specification. The mill site is designed as a dust free plant because any waste of this material would reduce the final product volume.

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Bruce Creek Mine

Standard BMPs will be implemented during construction and operation to reduce and/or control water runoff. These BMPs will include water runoff collection to allow for onsite natural infiltration, prevent water runoff offsite, and prevent water runoff from impacting Bruce Creek.

Crushing Plant

Standard BMPs will be implemented during construction and operation to reduce and/or control water runoff. These BMPs will include water runoff collection to allow for onsite natural infiltration and prevent water runoff offsite.

Milling Plant

Standard BMPs will be implemented during construction and operation to reduce and/or control water runoff. These BMPs will include water runoff collection to allow for onsite natural infiltration and prevent water runoff offsite.

4. Plants

a. Check or circle types of vegetation found on the site:

Bruce Creek Mine

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation: weeds

Crushing Plant

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation: weeds

Milling Plant

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation: weeds

b. What kind and amount of vegetation will be removed or altered?

Bruce Creek Mine

The total surface disturbance will be 7.63 acres, which includes up to 7.63 acres of open grasses and shrubs, according to aerial imagery on Google Earth and site visits. In addition, the site has sparse cover pine trees at the stockpile area.

Crushing Plant

The total surface area disturbance will be 3.5 acres, which consists of open grasses and shrubs, according to aerial imagery on Google Earth and site visits.

Milling Plant

The milling site is a previously disturbed site with sparse, weedy vegetation and has been a working industrial site dating back as early as the 1950's. No vegetation will be removed.

- c. List threatened or endangered species known to be on or near the site.

Bruce Creek Mine

There are no known records or observed threatened or endangered plant species on or near the site.

Crushing Plant

There are no known records or observed threatened or endangered plant species on or near the site.

Milling Plant

There are no known records or observed threatened or endangered plant species on or near the site.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Bruce Creek Mine

Native plants will be used to enhance the site.

Crushing Plant

Native plants will be used to enhance the site where possible.

Milling Plant

Since the site was cleared in the 1950's there are very few native plants on the site.

However, the applicant will enhance the site by planting grass and shrubs.

**5. Animals**

- a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds,  
other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring,  
shellfish, other:

Bruce Creek Mine

The following birds and animals have been observed at or near the mine site: hawk, robin, wild turkey, deer, elk, moose, and trout (in Bruce Creek).

Crushing Plant

The following birds and animals have been observed at or near the Crushing Plant site: wild turkey and deer.

Milling Plant

This site is within the developed area of the Town of Northport, and no wild animals have been observed on the site. The site is likely occasionally used by song birds.

- b. List any threatened or endangered species known to be on or near the site.

Bruce Creek Mine

The Washington Department of Fish and Wildlife (WDFW) records indicate there are no known occurrences or priority habitats of federally-listed threatened or endangered species on or near the mine site (WDFW 2013).

Crushing Plant

WDFW records indicate the Crushing Plant site is habitat for the federally listed threatened grizzly bear (*Ursus arctos*) and the federally listed endangered gray wolf (*Canis lupus*) (WDFW 2013).

Milling Plant

WDFW records indicate that there are no known occurrences or priority habitats for federally-listed threatened or endangered species on or near the Milling Plant site (WDFW 2013).

- c. Is the site part of a migration route? If so, explain.

None of the proposed project facilities are part of a wildlife migration route.

Within the Pacific Flyway

- d. Proposed measures to preserve or enhance wildlife, if any:

The mine site and Crushing Plant site will be fenced to restrict wildlife access.

**6. Energy and natural resources**

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Bruce Creek Mine

Mine facilities will use electricity from two onsite 600-KVA generators for the first two years of operation to provide power for the offices and lighting. The applicant intends to work with Avista Utilities to establish an electrical connection at the site after two years of operation. No other public energy or natural resources will be required at the mine site.

Crushing Plant

A 600-KVA onsite generator will supply electricity for this site. The applicant intends to work with Avista Utilities to establish and electrical connection at the site in the future. No other public energy or natural resources will be required at the Crushing Plant.

Milling Plant

Electricity needs at this site will supplied by Avista Utilities through an existing connection. No other public energy or natural resources will be required at the Milling Plant.

- b. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.

None of the proposed project facilities will affect the use of solar energy by adjacent properties.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The proposed project will incorporate the use of high efficiency lighting and vehicles, to the extent practicable.

**7. Environmental health**

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Diesel will be stored in a 500 gallon above ground storage tank.

Diesel will not be stored. A diesel fueling truck will deliver fuel to the generator daily.

Bruce Creek Mine

Potential environmental health hazards at the mine site include dust generation, noise, explosives storage and use, and storage and use of diesel fuel. These potential hazards are addressed below.

- Dust generation: blasting and vehicle traffic will generate dust at the mine site. Dust generation will be controlled by applying water and magnesium chloride to roads on the site.
- Noise: blasting and vehicle traffic will generate noise at the mine site. All employees will be required to wear ear protection at the site.
- Explosives storage and use: explosives will be used in the mine and will be stored in an approved explosives magazine on the surface until the underground workings are developed. The explosives magazine will be moved the underground workings when sufficient space is available. All explosives use and storage will comply with Mine Safety and Health Administration (30 CFR 56) and Bureau of Alcohol, Tobacco, Firearms, and Explosives (Title 18 USC 1102) regulations.
- Diesel fuel use and storage. Diesel fuel for the onsite back-up generator will be stored in a 500-gallon above-ground tank at the mine site. The tank will have secondary containment and leak detection monitoring protocols to prevent a release of diesel fuel to the ground surface.

Crushing Plant

Potential environmental health hazards at the Crushing Plant include dust generation and noise. These potential hazards are addressed below.

- Dust generation: ore crushing operations and vehicle traffic will generate dust at the site. Dust generation will be controlled by applying water and magnesium chloride to roads on the site.
- Noise: ore crushing operations and vehicle traffic will generate noise at the mine site. All employees will be required to wear ear protection at the site.

Milling Plant

Potential environmental health hazards at the Milling Plant include dust generation and noise. These potential hazards are addressed below.

- Dust generation: vehicle traffic will generate dust at the site. Dust generation will be controlled by applying water and magnesium chloride to roads on the site.
- Noise: milling operations and vehicle traffic will generate noise at the mine site. All employees will be required to wear ear protection at the site.

Lead and arsenic contamination may be present in property soils primarily attributed to the historic Le Roi/Northport metal smelter operations and may become air born due to dust caused from ground disturbance. Soil sampling is required and depending on findings, remedial action may be conducted prior to operations.

- 1) Describe special emergency services that might be required.

No special public emergency services will be required for any of the proposed project facilities beyond those specified in Section 16 of this Environmental Checklist. The applicant intends to enter into an agreement with the Kellog Mine for specialized underground mine rescue support.

- 2) Proposed measures to reduce or control environmental health hazards, if any:

See the BMPs for potential health hazards described above.

## 8. Noise

- 1) What types of noise exist in the area that may affect your project (for example: traffic, equipment, operation, other)?

There are no sources of noise that will affect the proposed project at any of the facility sites.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

### Bruce Creek Mine

Construction: Noise will be generated at the mine site by construction vehicles, site clearing, and demolition of the existing building.

Operation: Noise will be generated by mine blasting operations, ore loading operations, ore transport trucks (six per day, 8:00 a.m. to 5:00 p.m., Monday through Friday), generators, and personal vehicles of employees.

### Crushing Plant

Construction: Noise will be generated by construction vehicles and site clearing.

Operation: Noise will be generated by operation of the ore crushing equipment, ore transport trucks, generators, and personal vehicles of employees. Noise generation will occur between 8:00 a.m. and 4:00 p.m., Monday through Friday, between the months of May and October.

### Milling Plant

Construction: Noise will be generated by construction vehicles and new building construction.

Operation: Noise will be generated from the milling and bagging equipment, product loading on railcars, ore transport trucks, and personal vehicles of employees. The Milling Plant will operate between 8:00 a.m. and 4:00 p.m., Monday through Friday

- 3) Proposed measures to reduce or control noise impacts, if any:

Bruce Creek Mine

Engineered noise attenuation controls will be implemented during blasting. With the exception of the initial blasting operations in a 10-foot square area, blasting operations will be underground, and therefore, blasting-generated noise will be attenuated.

Crushing Mill

Engineered noise attenuation controls will be used on the crushing and loading equipment. A 6-foot high berm will be constructed around the site and will partially attenuate noise generated at the site.

Milling Plant

Noise will be partially attenuated because the milling and bagging equipment will be contained within buildings. The loader exhaust system will be modified to reduce noise.

9. Land and shoreline use

- a. What is the current use of the site and adjacent properties?

Bruce Creek Mine

The current use of the mine site is seasonal livestock grazing. Adjacent properties include undeveloped land and one private residence, located ¼ mile to the west of the site property line.

Crushing Plant

The Crushing Plant site is undeveloped, and therefore there is no existing land use of this property. Adjacent property is owned by the Town of Northport and is mostly undeveloped. The Northport International Raceway is adjacent to west side of the Crushing Plant site.

Milling Plant

The Milling Plant site is currently vacant but was used for a sawmill operation between the 1950s and 1995, and later as a sawdust transfer station between 1996 and 2004. Adjacent property uses include private residences, and the Burlington Northern Santa Fe railroad.

b. Has the site been used for agriculture? If so, describe.

None of the proposed project facilities are located on lands that have been used for crop propagation.

c. Describe any structures on the site.

Bruce Creek Mine

There is an existing septic system at the site. An old building also exists, but will be removed during site construction. This building measures approximately 20 feet by 30 feet and is composed primarily of wood, tin, and drywall.

Crushing Plant

There are no existing structures at the site.

Milling Plant

A 60- by 80-foot building, truck scale, scale shed, and two 32-foot high silos exist at the Milling Plant site. All structures are currently not in use.

d. Will any structures be demolished? If so, what?

Bruce Creek Mine

One existing building will be demolished at the site during site construction.

Crushing Plant

No buildings will be demolished at the site.

Milling Plant

No existing buildings will be demolished at the site.

e. What is the current zoning classification of the site?

Bruce Creek Mine

The mine site is zoned Rural 20.

Crushing Plant

The site is zoned Rural 20.

Milling Plant

The site is zoned Industrial.

f. What is the current comprehensive plan designation of the site?

Bruce Creek Mine

The Stevens County comprehensive plan designation for the site is Rural.

Crushing Plant

The Stevens County comprehensive plan designation for the site is Rural.

Milling Plant

There is no county comprehensive plan designation for the site; it is located within the limits of the Town of Northport.

- g. If applicable, what is the current shoreline master program designation of the site?

None of the project facilities are located in areas subject to a shoreline master program.

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

None of the project facilities are located in designated environmentally sensitive areas.

- i. Approximately how many people would reside or work in the completed project?

Bruce Creek Mine

Nine employees will work at the mine site. There will be no onsite residents.

Crushing Plant

Four employees will work at the Crushing Plant. There will be no onsite residents.

Milling Plant

Sixteen employees will work at the Milling Plant. There will be no onsite residents.

- j. Approximately how many people would the completed project displace?

The project will not displace any people.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

The project will not displace any people; therefore, no measures to avoid or reduce displacement are necessary.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The applicant has selected project facility sites to be compatible with existing surrounding land uses and comprehensive plan designations.

**10. Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

The proposed project will not require any new housing.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

The proposed project will not eliminate any existing or new housing.

- c. Proposed measures to reduce or control housing impacts, if any:

The proposed project will not create any housing impacts.

**11. Aesthetics**

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Bruce Creek Mine

The tallest structure at the mine site will be the office trailers, with a maximum height of 18 feet.

Crushing Plant

The tallest structure at the Crushing Plant site will be the stacking conveyer, which will be 40 feet in height. An office trailer, with a maximum height of 18 feet, will also be located at the site.

Milling Plant

The applicant intends to construct one new building on the Milling Plant site. This building will be 30 feet in height and will represent that tallest structure on the site.

- b. What views in the immediate vicinity would be altered or obstructed?

No existing views will be altered or obstructed by any of the proposed project facilities.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

No aesthetic impacts are anticipated from the proposed project facilities.

**12. Light and glare**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Bruce Creek Mine

Three yard lights will installed at the mine site for security purposes. The lights will be used at night. There will be no sources of glare at the mine site.

Crushing Plant

There will be no lights or sources of glare at the Crushing Plant site.

Milling Plant

Six yard lights are currently installed and operational at the Milling Plant site. The lights are used at night for security purposes.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

The lights for the proposed project facilities will not pose a safety hazard or interfere with views.

- c. What existing off-site sources of light or glare may affect your proposal?

There are no existing offsite sources of light or glare that will affect the proposed project.

- d. Proposed measures to reduce or control light and glare impacts, if any:

All new lights for the proposed project will utilize non-glare bulbs and will be cast downward to reduce light pollution to off-property areas.

**13. Recreation**

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Bruce Creek Mine

The mine site is on private property, and access restrictions will be posted to discourage trespassing associated with hunting or off-road vehicle use. There are no known public recreational resources or activities in the immediate vicinity of the mine.

Crushing Plant

There are no recreational uses of the Crushing Plant site. The Northport International Raceway is located immediately to the west of the Crushing Plant site; however, project operations are not anticipated to have an effect on access to or operations at the raceway.

Milling Plant

There are no recreational uses of the Milling Plant site.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed project would not displace any existing recreational uses.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The proposed project would not reduce or eliminate any recreation resources or opportunities.

**14. Historic and cultural preservation**

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

There are no known places or objects listed or proposed for listing, on any national, state, or local preservation registers at or near the mine site, Crushing Plant, or Milling Plant. The mine site and the Milling Plant site have been disturbed since the 1950s. The Washington Department of Archaeology and Historic Preservation has reviewed the proposed project areas under the provisions of Section 106 of the National Historic Preservation Act, and determined that no historic properties will be affected by the proposed project. See Attachment H.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no landmarks or evidence of features exhibiting historic, archaeological, scientific, or cultural importance at or near the mine site, Crushing Plant, or Milling Plant. The Washington Department of Archaeology and Historic Preservation has reviewed the proposed project areas under the provisions of Section 106 of the National Historic Preservation Act, and determined that no historic properties will be affected by the proposed project. See Attachment H.

- c. Proposed measures to reduce or control impacts, if any:

Measures to reduce or control impacts to historic and/or cultural resources are not required for the proposed project.

### 15. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

#### Bruce Creek Mine

Construction and ore transport trucks will access the mine site via State Route 25, Williams Lake Road, and Dead Medicine Road.

#### Crushing Plant

Construction and ore transport trucks will access the Crushing Plant via State Route 25 and Sheep Creek Road.

#### Milling Plant

Construction and ore transport trucks will access the Milling Plant via State Route 25, and 3<sup>rd</sup> Street within the Town of Northport. Product shipment from the Milling Plant will be via existing rail.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

There is no public transit service at any of the project facilities. The nearest transit service is in the Town of Colville, approximately 40 road miles to the south of the Town of Northport.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

#### Bruce Creek Mine

Parking space for 10 vehicles will be developed at the mine site. The project will not eliminate any existing parking spaces.

#### Crushing Plant

Parking space for six vehicles will be developed at the Crushing Plant. The project will not eliminate any existing parking spaces.

#### Milling Plant

Parking space for 20 vehicles will developed at the Milling Plant. The project will not eliminate any existing parking spaces.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Bruce Creek Mine

The applicant intends to improve the private access road from Dead Medicine Road onto the mine site to accommodate construction vehicles and equipment, and ore transport trucks. The applicant is also working with Stevens County to pave and widen Dead Medicine Road between the mine site and Williams Lake Road.

Crushing Plant

No new roads or road improvements will be required to access the Crushing Plant. An approach driveway accessing Sheep Creek Road will be constructed on private property.

Milling Plant

No new roads, road improvements, or driveways will be required at the Milling Plant.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Bagged product from the Milling Plant will be shipped via rail on the Burlington Northern Santa Fe railroad lines within the Town of Northport. The project will not use or affect any water or air transportation facilities.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Bruce Creek Mine

Approximately nine personal vehicle trips to and from the site per day will occur as employee transportation, Monday through Friday. An estimated six ore transport truck trips to and from the site per day will occur, Monday through Friday. Peak traffic volumes will occur at the start and end of each working day.

Crushing Plant

Approximately four personal vehicle trips to and from the site per day will occur as employee transportation, Monday through Friday. An estimated six ore transport truck trips to and from the site per day will occur, Monday through Friday during the period of May 1 to October 30. Peak traffic volumes will occur at the start and end of each working day.

Milling Plant

Approximately 16 personal vehicle trips to and from the site per day will occur as employee transportation, Monday through Friday. Two ore transport trucks will make three round trips daily, Monday through Friday, between the Crushing Plant and Milling

Plant. Peak traffic volumes will occur at the start and end of each working day.

- g. Proposed measures to reduce or control transportation impacts, if any:

The applicant will maintain a traffic safety program, including traffic safety training for ore transport truck drivers.

**16. Public services**

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Bruce Creek Mine

The availability of fire protection and emergency services will be required at the mine site. Development of the mine will not result in new or increased needs for local health care, schools, or other public services.

Crushing Plant

The availability of fire protection and emergency services will be required at the Crushing Plant. No new or increased needs for local health care, schools, or other public services will be required.

Milling Plant

The availability of fire protection and emergency services will be required at the Milling Plant. No new or increased needs for local health care, schools, or other public services will be required.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

The applicant will employ staff trained in first aid at the mine, Crushing Plant, and Milling Plant. Two emergency medical technicians will also be on staff and will be available to all facilities. The applicant will maintain a formal safety program, including designated safety officers at all facilities.

**17. Utilities**

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

Bruce Creek Mine

No public utilities are present at the mine site.

Crushing Plant

No public utilities are present at the Crushing Plant site.

Water for operations and dust control will be provided by the City of Colville. Potable water will be a Class A water system.

Milling Plant

The Milling Plant is presently served by Avista Utilities (electricity), Town of Northport (water), and Century Link (telephone).

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Bruce Creek Mine

The applicant intends to work with Avista Utilities to install a transformer and electrical connection for mine facilities. An existing Avista power line crosses the site.

Crushing Plant

The applicant intends to work with Avista Utilities to install an electrical connection at the Crushing Plant.

Milling Plant

The applicant will utilize existing electricity, water, and telephone utilities at the Milling Plant. No new utilities will be required at the site.

A well for potable water will be drilled.

**References Cited in Checklist**

Federal Emergency Management Agency (FEMA), 2013, Map Service Center, Flood Plain Maps for Stevens County, Accessed online at <https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1> March 27, 2013.

Natural Resources Conservation Service (NRCS), 2013, Web Soil Survey for Stevens County, Accessed online at <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> March 13, 2013.

Washington Department of Fish and Wildlife (WDFW), 2013, Priority Habitats and Species, Stevens County, Accessed online at <http://wdfw.wa.gov/mapping/phs/> March 15, 2013.

Western Regional Climate Center (WRCC), 2013. Period of Record Monthly Climate Summary for Northport Washington (455946) from 1/1/1920 to 12/31/2005. Accessed online at <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wanort> March 24, 2013.

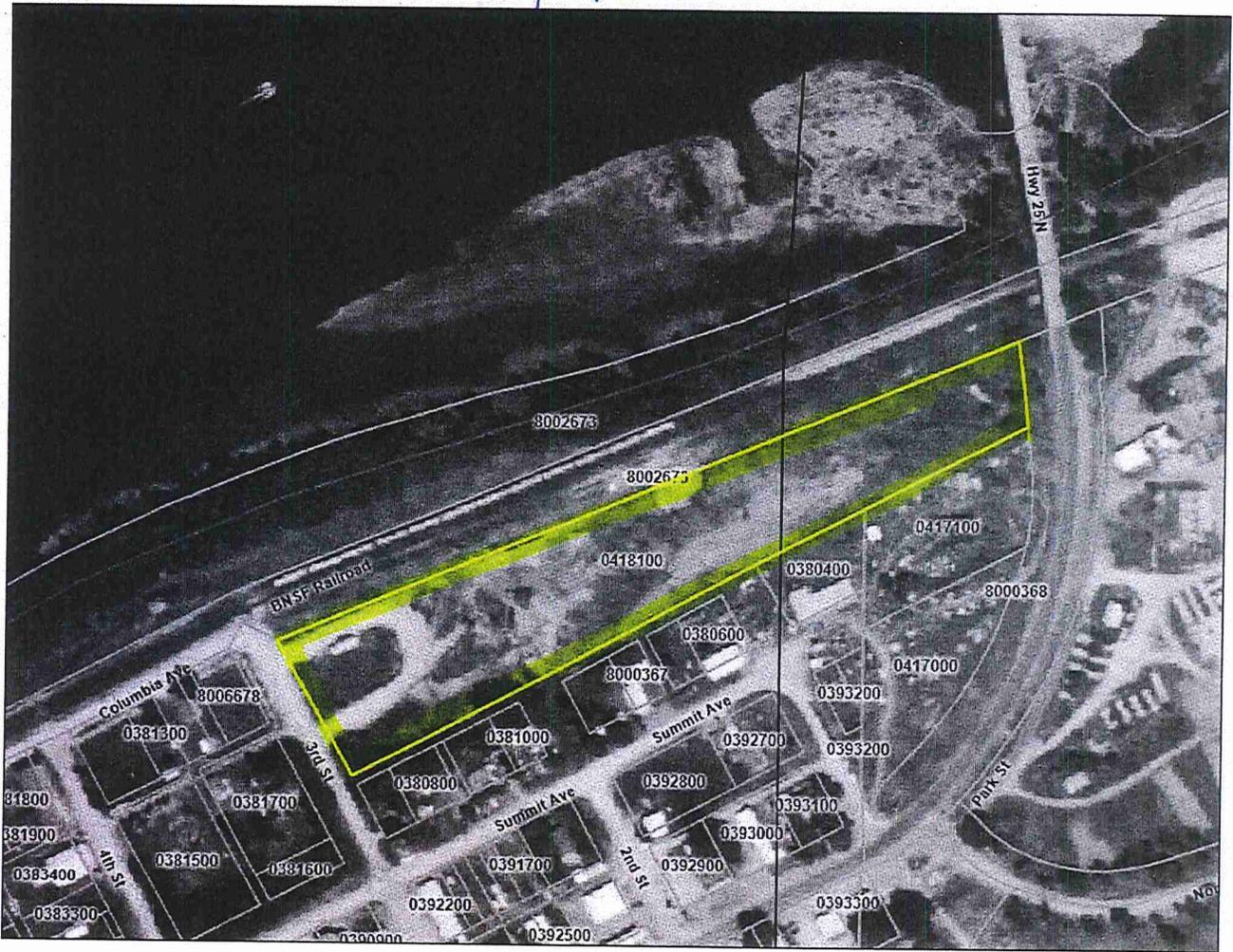
**C. Signature**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Ronald J. Syh

Date Submitted: 2-15-2013

Milling site

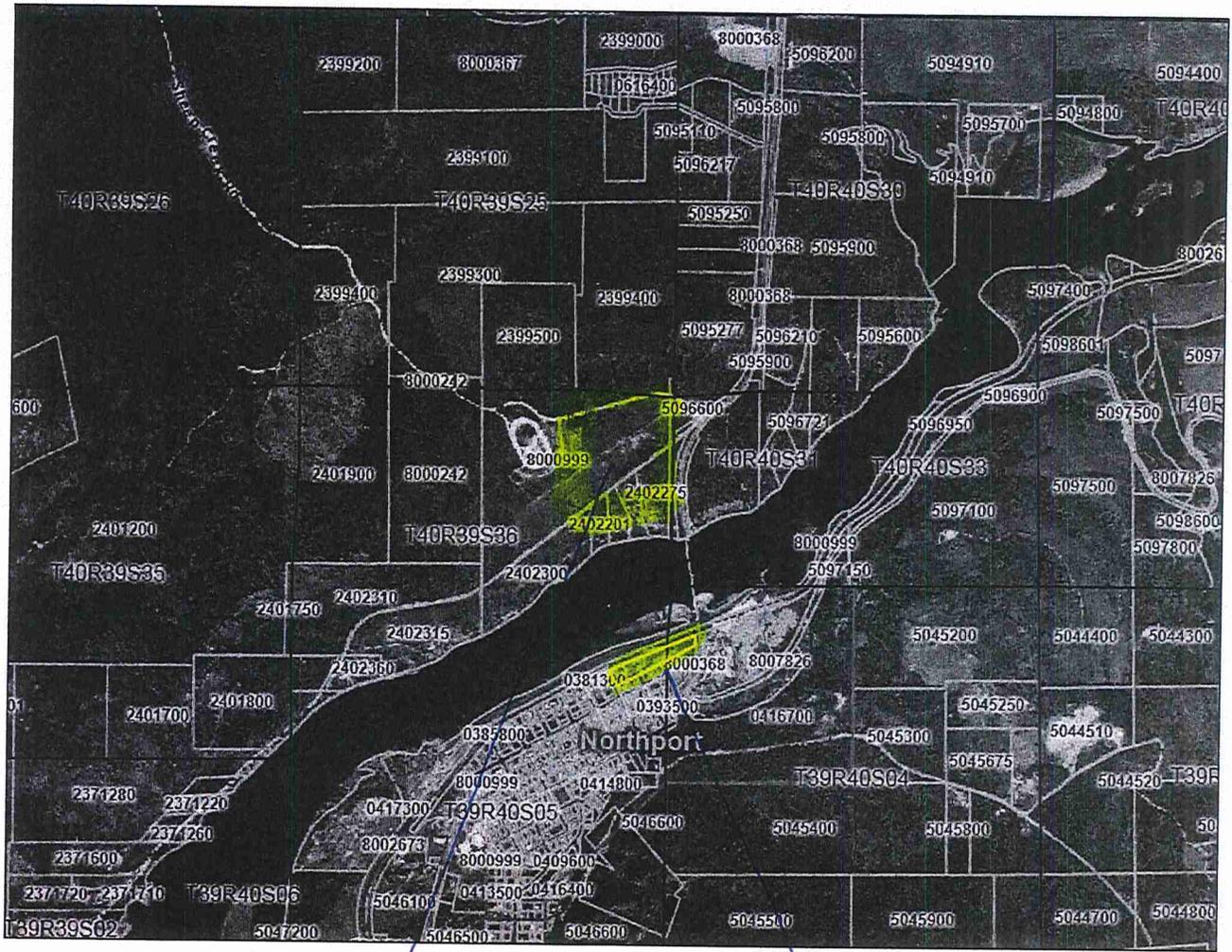


**Parcels**

**Parcel** 0418100

**Address** 113 3RD ST, NORTHPORT 99157

**DOR** 24 - Commercial - Lumber and Wood



Crushing site

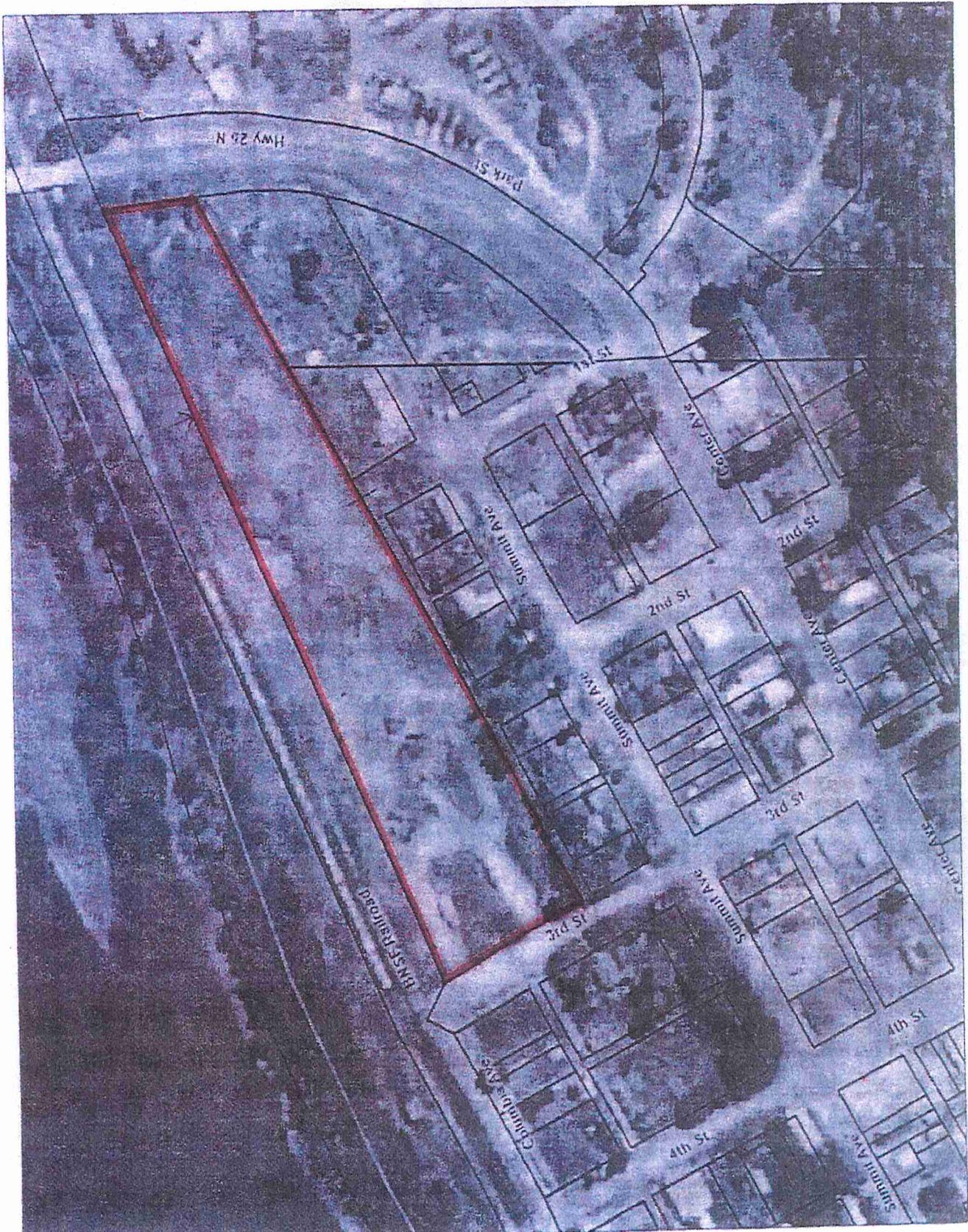
Milling site

**Parcels**

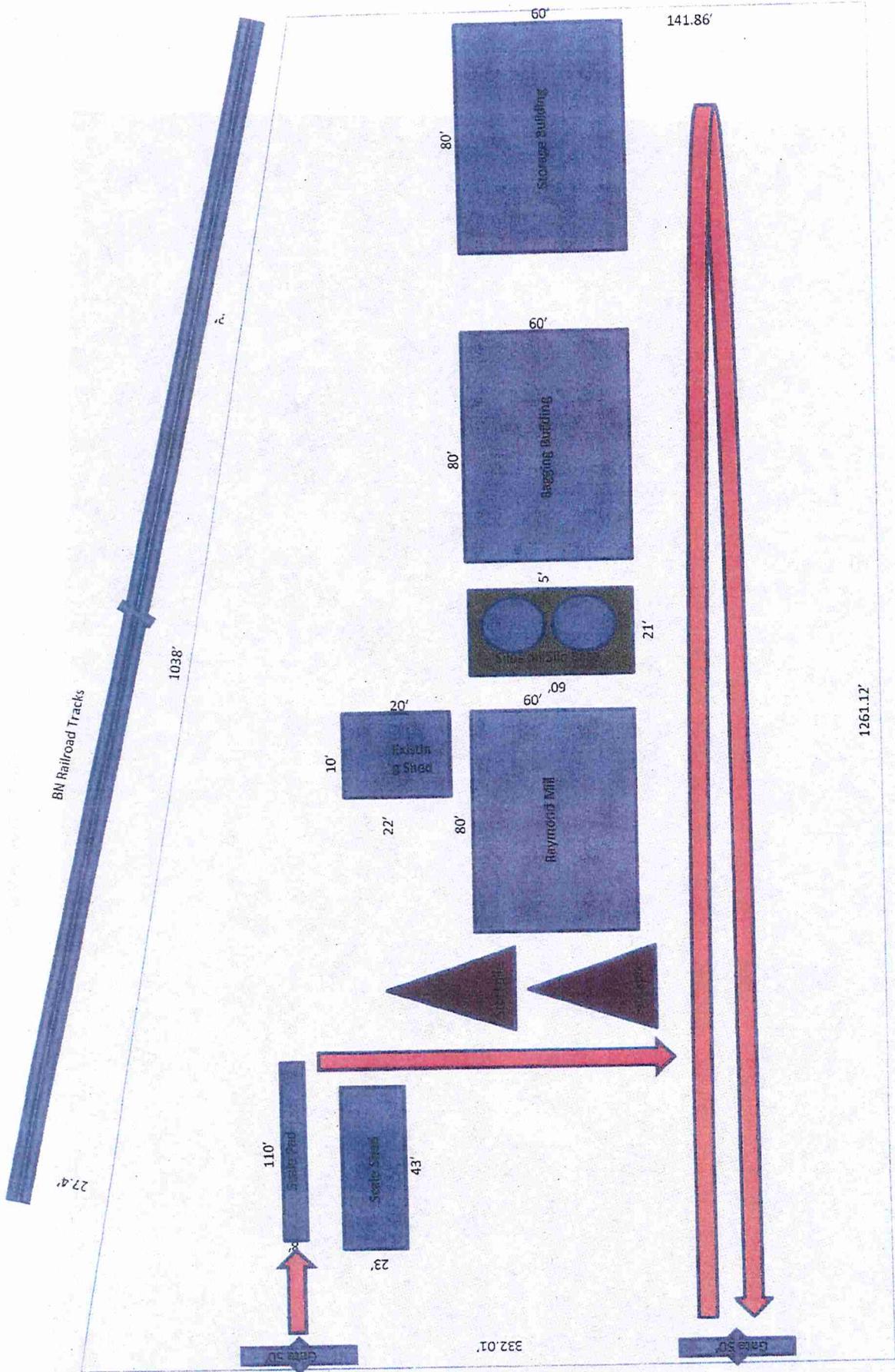
**Parcel** 0418100

**Address** 113 3RD ST. NORTHPORT 99157

**DOR** 24 - Commercial - Lumber and Wood



ALBAR MILLING  
SITE LOCATION



-  Indicates 16' Roadway
-  Indicates 50' Gate
-  Indicates Stockpile Area
-  Indicates Silo

GTON

Northport

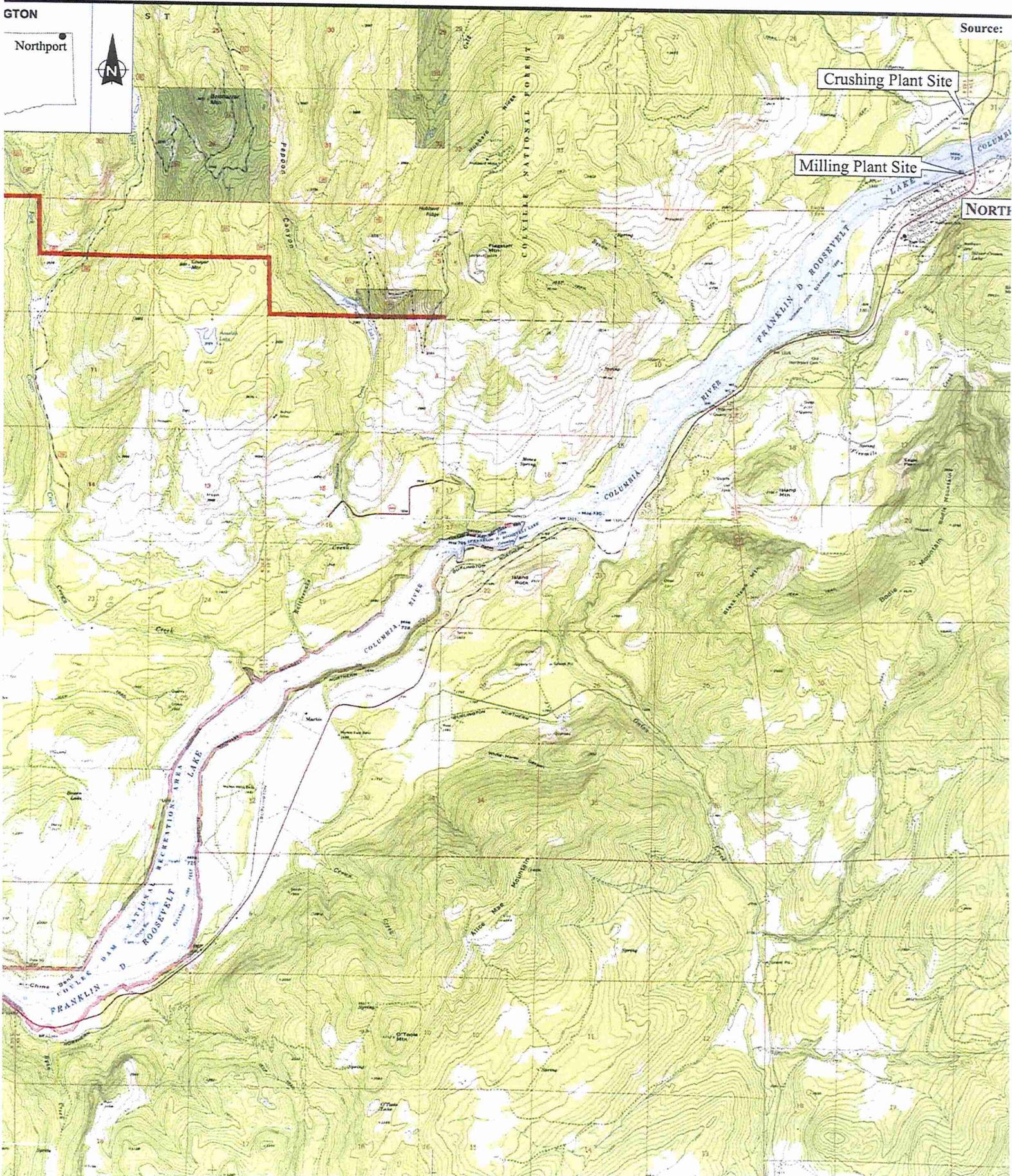


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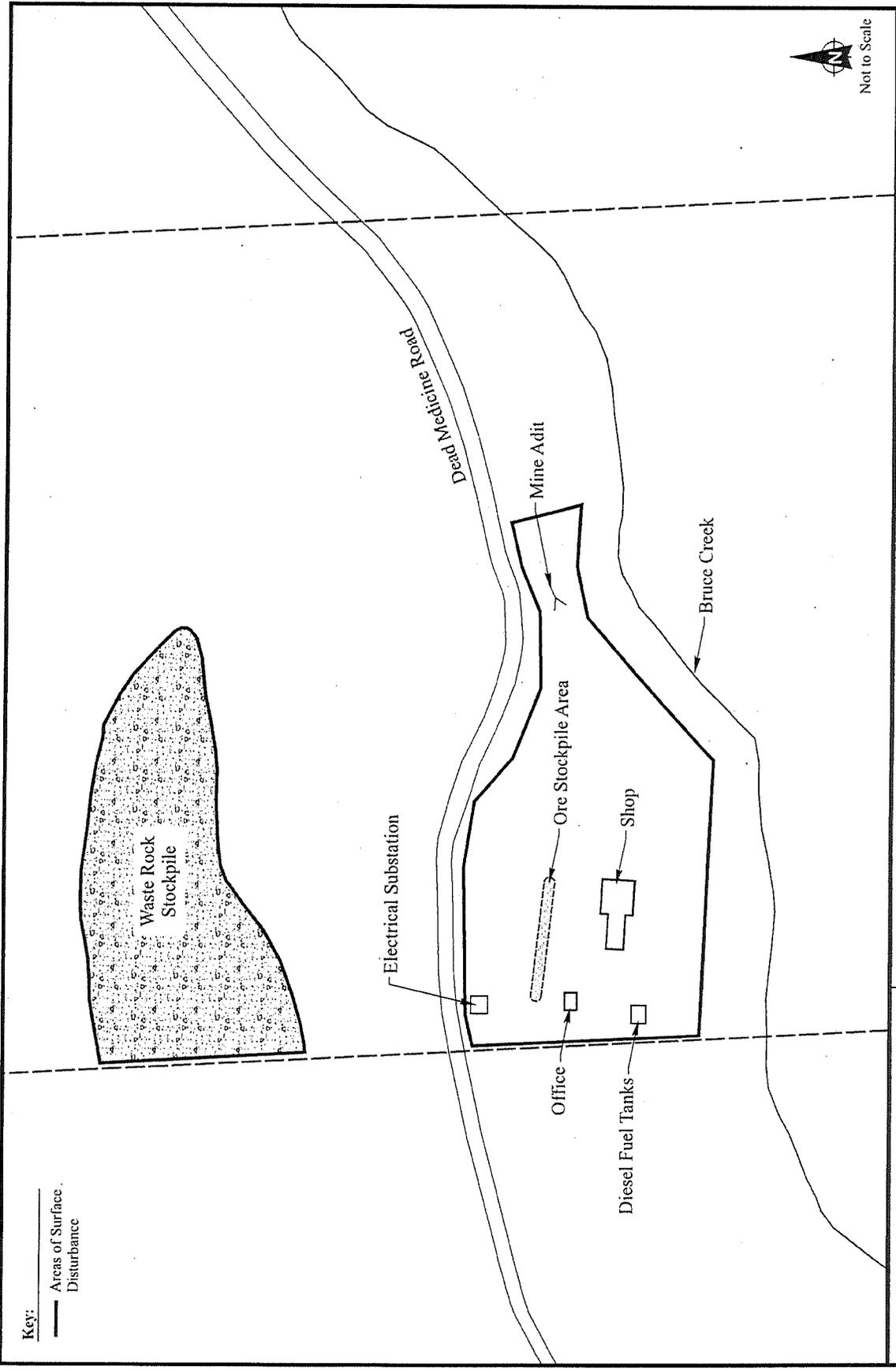
Crushing Plant Site

Milling Plant Site

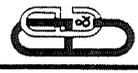
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**Key:**  
 — Areas of Surface Disturbance

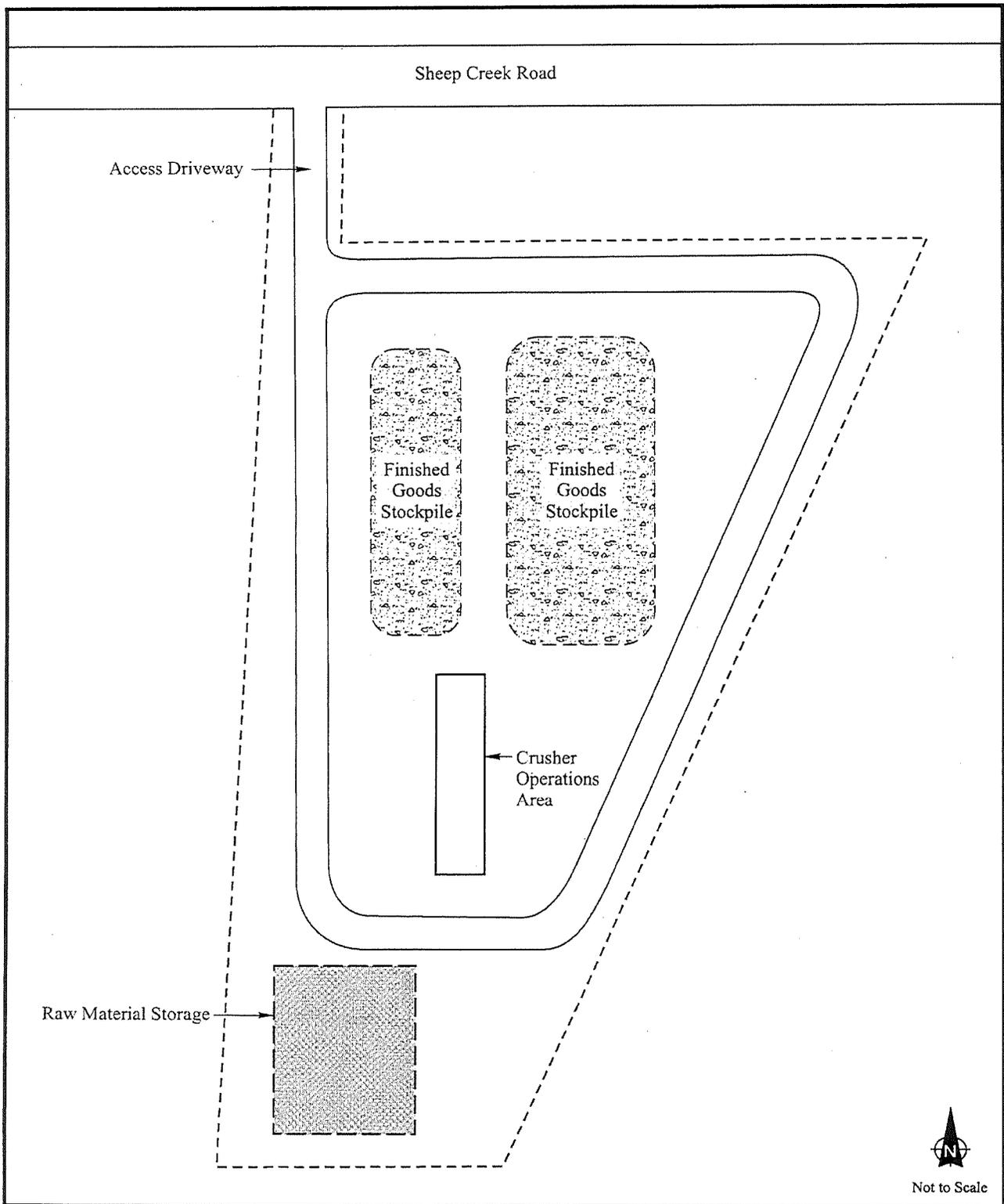


**ecology and environment, inc.**  
 Global Specialists in the Environment  
 Seattle, Washington

**BRUCE CREEK MINE**  
**ALBAR INDUSTRIAL METALS, LTD.**  
 Stevens County, Washington

**Figure 2**  
**PROPOSED BRUCE CREEK MINE LAYOUT**

Date: 3/28/13  
 Drawn by: AES  
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Not to Scale



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Global Specialists in the Environment  
Seattle, Washington

**BRUCE CREEK MINE**  
**ALBAR INDUSTRIAL METALS, LTD.**  
Stevens County, Washington

**Figure3**  
**PROPOSED CRUSHING PLANT LAYOUT**

Date: 3-28-13	Drawn by: AES	10:004353000101\fig 3
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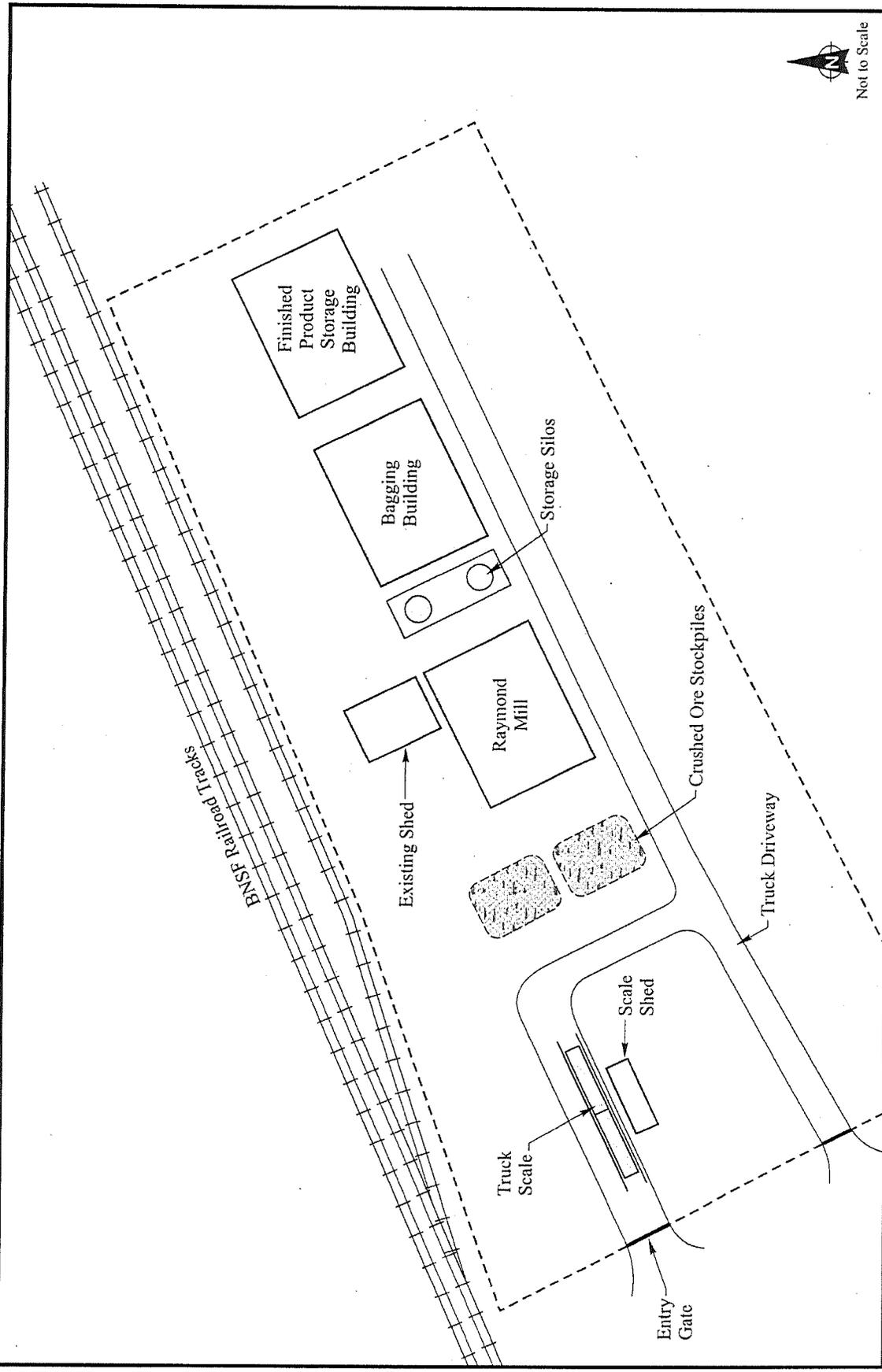


Figure 4  
**PROPOSED MILLING PLANT LAYOUT**

BRUCE CREEK MINE  
 ALBAR INDUSTRIAL METALS, LTD.  
 Stevens County, Washington

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 Global Specialists in the Environment  
 Seattle, Washington

Date: 3/28/13  
 Drawn by: AES  
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