



United States
Department of
Agriculture

Forest
Service

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Ontonagon/Bergland Ranger
District

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Dear Forest Neighbor:

The Ottawa National Forest is preparing to conduct an environmental analysis for mineral prospecting on National Forest System (NFS) land. An environmental analysis is triggered when the Forest Service receives notification from the U.S. Department of Interior - Bureau of Land Management (BLM) that they have received a prospecting permit application to explore for minerals that are federally owned beneath NFS land. The role of the Forest Service in this process is to ensure that a permit contains the necessary stipulations to properly protect the environment without unnecessarily restricting operations. The BLM is a cooperating agency during this process, and is responsible for issuing the permit upon completion of the Forest Service’s environmental analysis. The permit would be issued to Trans Superior Resources, Inc.

This letter is being mailed to you because you have shown an interest in the Ottawa and its natural resources, or you live in close proximity to the project area. The objective of this letter is to provide you with basic information on the proposed project and to request your comments on this proposal.

Project Location: The project is located on the Bergland Ranger District in the Township of Matchwood in Ontonagon County, and includes about 720 acres of NFS land. There are two parcels of interest: the specific legal descriptions are presented in Table 1, and the project location is illustrated on the attached map. The analysis area is about 6.5 miles northeast of Bergland, and approximately 2.5 miles west of the Norwich Bluff. Forest Roads 630 and 400 are the main access routes through the project area.

Table 1 – Legal Land Descriptions in the Project Area

Land descriptions of the Sections of T49N, R41W in the project area.			
T49N, R41W	Section	Land Description	Acres
	4	NE; S1/2NW	240
	5	SW	160
	8	N1/2	320
Total Acres	720		

Existing Condition: The project area has a long history of logging, which has had impacts on the landscape, some of which are still visible. The vegetation generally consists of northern hardwoods, with inclusions of other species, such as aspen, birch, and various conifers. The



project area has a variety of landscapes. These landscapes include nearly level to gently rolling plains, interspersed with steep topography; steep and deeply cut stream valleys; and areas where bedrock is close to the surface with many rock outcrops. Much of the landscape was created by past glaciers; however, in some areas the underlying bedrock determines the type of landscape that is visible. Bush Creek, Cascade Creeks, and an unnamed stream to Cascade Creek flow through the project area and are tributaries to the West Branch Ontonagon River.

The types of bedrock in the project area include both igneous and metamorphic rocks, interspersed with sedimentary rocks. Igneous rocks were created by volcanic deposits; metamorphic rocks were created from existing rock which was then exposed to extreme heat and pressure; while sedimentary rocks were created from consolidation of layers of sediment.

There are some recreational points of interest within and in the vicinity of the project area. The Pioneer multi-use trail bisects the project area in a north to south orientation, and the Cascade Falls hiking trail is in the southeast corner of the southern parcel. Additionally, the North Country National Scenic Trail travels in a northwesterly-southeasterly orientation between the two parcels of interest; however the trail is outside of the project area.

Forest Service Direction: The Forest Service Manual for Minerals and Geology states that “The mission of the Forest Service in minerals management is to encourage, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the Nation” (FSM 2800, page 3).

Forest Plan Direction: Planning for this project must occur in a manner which incorporates the strategic purposes of the Ottawa National Forest’s Land and Resource Management Plan (Forest Plan). Development of this project must also follow the guidance contained in the Forest Plan. The Forest Plan (p. 2-10) goals pertaining to minerals and geology specifically state to “Provide mineral resources to support economic growth through environmentally sound development on National Forest System lands.” Forestwide objectives with respect to minerals and geology are to: “Generally, permit surface-disturbing exploration (including core drilling) in most areas, except within or adjacent to developed recreation sites during the recreation use season. Permit exploration especially where there is a potential to discover minerals of compelling domestic significance (as defined by U.S. Department of the Interior).” This direction is located on p. 2-35 of the Forest Plan.

The project area encompasses portions of Management Areas (MAs) 6.1 and 6.2. Management area 6.1 is classified as a “semi-primitive, non-motorized” recreational environment, while MA 6.2 is categorized as a “semi-primitive, motorized” recreational environment. Both of these areas are available for mineral exploration per the Forest Plan.

Purpose and Need for the Project: The purpose of this proposal is to implement Forest Service Policy and the 2006 Forest Plan direction, by documenting concerns, effects, stipulations and conditions of occupancy for surface disturbing exploration of federal minerals in the analysis area and to be able to recommend to consent, or deny permit applications that are received within the prescribed timeframes.

An interdisciplinary team (ID Team) that includes specialists for geology, soils, hydrology, botany, recreation, wildlife, transportation, silviculture, and heritage resources will look at

inventory data and mapping, in combination with site visits to understand the current forest conditions and to analyze the possible effects of the proposed project. The proposed action is designed to follow direction given in the Forest Service Manual and the 2006 Forest Plan. The ID Team will also develop a detailed set of stipulations that would provide the necessary protections for the Ottawa's resources.

The need for the analysis is based on the application received by the BLM and forwarded to the Forest Service for prospecting for federal minerals. The Forest Service is required to consent or deny the issuance of prospecting permit applications from the BLM within one year if no environmental assessment has been completed (FSM 2822.03, R9 RO Supplement). The Forest Service and BLM will make their decisions based on the same environmental assessment.

Proposed Actions: The action proposed for this project is a determination of where within the project area a recommendation for consent would be given, and what stipulations would be a part of any prospecting permits in the project area. An example of stipulations for mineral exploration is provided in Attachment 1. An additional piece to the proposed action includes the necessary special use permits for occupancy of the land surface, and for use of roads if those roads are not open on the Motor Vehicle Use Map. While these stipulations cover many of the types of mineral exploration projects on the Ottawa, additional stipulations may be added or modified based on the specific site conditions of the project. The following activities are proposed to help achieve the purpose and need within the project area:

- Determine which lands within the project area could be authorized consent for hardrock¹ mineral exploration; and
- Determine what stipulations to include with the recommendation to consent to permit.

Through geologic mapping and use of aerial geophysics, areas may be found that are of potential geological interest. Of these, ground geophysics can be used to further refine those areas. Identifying targets from geophysical surveys may indicate areas of further interest to the applicant, in which core drilling may be used to verify or disprove the presence of mineral formation.

Trans Superior Resources, Inc. is expected to use a variety of methods to determine if there is an economical ore body, and these can include geophysical surveying, geochemical surveying, and core drilling. The Exploration Plan that Trans Superior Resources, Inc. submitted identified surveying and core drilling as their actions for this project. The company anticipates establishing approximately 15 drill sites to sample the mineral component. They are seeking gold, nickel, cobalt, and platinum group metals as a part of the permit application. Each drilling site occupies approximately 5,000 square feet, and the estimated affected acreage from the combined drilling sites would be less than two acres in size. After the project is completed, those impacts to the roads or ground surface that could result in resource concerns would be corrected.

¹ **Hardrock minerals** include, but are not limited to the following minerals: gold, silver, platinum, copper, lead, zinc, magnesium, nickel, tungsten, barite, feldspar, fluor spar, uranium, and uncommon varieties of sand, gravel, and stone. The Portage Lake Volcanics are the major bedrock unit found in the project area. This unit runs in a band that reaches from the boundary between Michigan and Wisconsin and extends up to the most northern point of the Keweenaw Peninsula. This type of bedrock has been known to contain hardrock minerals of economic value, such as copper and silver.

The mineral exploration activities that Trans Superior Resources, Inc. could utilize are described below.

- A. *Geophysical Surveys:*** A variety of geophysical surveys can be performed to gain an indirect assessment of what minerals are present below the surface. Ground survey locations are identified based on target areas and accessibility, and may be set up in a linear or grid type fashion. The survey lines are marked with numbered, wooden stakes. There may be one or a few person crews working with the geophysicist to walk the lines, take readings, and carry equipment. Sometimes, when survey lines diverge from the road, brush may be cut when it is too dense to carry equipment through. The widths of these survey lines typically are about three feet. Several possible different types of surveys may be used to determine if there is an economical mineral source beneath the surface.
- B. *Geochemical Surveys:*** Soil samples may be taken from a geochemical survey area for analysis. Variations in the content of soils may indicate an area of mineralization. Samples are taken at various depths with hand augers or shovels.
- C. *Core Drilling:*** Exploratory drilling may occur if the results of the initial geologic investigations and geophysical surveys indicate that a mineral deposit may exist. Any and all core drilling that occurs on the Ottawa National Forest is subject to the Michigan's Mineral Well Operations Regulations, Part 625. The following activities are associated with core drilling.
- ***Access:*** Access roads approximately 15 feet in width are needed to transport the drill rig to the site and to provide access for a water truck, fuel truck, and personnel associated with the drilling operation. Turnarounds are needed for the transportation vehicles and water truck. Storage space is needed for equipment and core log transfer. Existing roads or trails are used wherever possible. Turnarounds and storage space are located along the access routes and are approximately 30 by 30 feet. Any road construction that may occur is set to the lowest standard possible for access and to protect resources. Temporarily opened or constructed roads are closed after use.
 - ***Drill pad:*** A drilling pad may be approximately 70 feet by 70 feet where the drill rig is set up. This area would be cleared of all vegetation that would obstruct the setting up of the drill rig. The drill rig covers an area of 20 feet by 8 feet, is 8 feet high, and has a mast height of 10 feet. The exploratory hole is no more than a few inches in diameter and would be drilled from the rig. The site also includes temporary storage for drill pipe and core boxes, a garbage can for trash disposal, propane to keep the water from freezing (during winter operations), and absorbent materials under the rig to be used to clean up any spills from refueling.
 - ***Sump pit:*** A sump pit may be constructed and ranges from five to ten feet deep, with an approximate surface area of 10 feet by 20 feet. The sump pit is used to store and recirculate water for drilling. They are required to be located and lined according to Michigan's Mineral Well Operations Regulations, Part 625, which includes a minimum of four feet of vertical isolation between the bottom of the pit and the top of water table. The types of materials being drilled and depths may dictate the need for

an additional sump pit. Where sumps cannot be constructed, portable tanks may be used to circulate the drilling fluid.

- Water Source: Water is used as a lubricant in the drilling operation. Surface water close to the drill site would be the likely water source. The water could be pumped directly to the drill site, or be delivered to the drill site in a water tank, from a local water source. If the site is near a freshwater source, hoses may be laid from the water source to the site, and a pump may be near the surface water. Other materials, such as bentonite (a clay mineral) and calcium chloride may be used to improve drilling performance.
- Drilling Equipment and Operation: Typical drilling equipment might include a skid mounted diamond drilling rig, weighing approximately 12,000 pounds. Other equipment needed at the site may include trailer hauled supplies, such as fuel, rods, and several hundred feet of hose. Other vehicles at the site include trucks for personnel access, all-terrain vehicles (ATV)s, a tractor for hauling, a variety of equipment such as a bulldozer, backhoe, or excavator for digging the sump pit, and water truck for transporting freshwater. An illustration of a drilling rig is provided in Photo 1.



If a permit is issued by the BLM, the permittee is authorized to conduct exploratory drilling. Mining is *not* a part of the activities involved with prospecting. Exploratory drilling is done to determine if an ore body exists, and if so, the extent and location. Before mining can be considered, an ore body must be located and defined. A recommendation by the Ottawa of consent to permit prospecting does *not* imply a right to lease or mine.

A Special Stipulation² is included with any consent to permit for prospecting on federal minerals; it is sometimes referred to as the “second consent” stipulation. The required stipulation indicates that there is *no implied consent* to lease or mine. If a valuable discovery is made, the applicant may apply for a Preference Right Lease (PRL) and a new, separate environmental analysis would be conducted to determine recommendations for consent or denial of that authorization.

Commenting Process: To ensure that we have opportunity to consider your comments before the ID Team analyzes the project area and proposed action, your comments should be submitted within 30 days from the date of this letter. These comments will be reviewed and used to determine whether or not there are any unresolved conflicts with this proposed action. Any comments received on this proposal are part of the public record and available for public review upon request.

Please address your comments to Susanne M. Adams, Ontonagon Bergland District Ranger, Ontonagon Ranger District at 1209 Rockland Road, Ontonagon, Michigan 49953. For those who wish to hand deliver or provide oral comments, the office hours are 8:00 am to 4:00 pm Eastern Standard Time Monday through Friday (except Federal holidays). Oral comments must be provided at the above listed office or by telephone at (906) 884-2411 during those hours. Alternatively, comments may be submitted by facsimile at (906) 852-3618 or by e-mail at: comments-eastern-ottawa@fs.fed.us (please put “Comments on the Federal Hardrock Minerals Prospecting Project” in the subject line).

²**Special Stipulation**, (FSM 2822.1, R9 RO Supplement, Exhibit 1): “Pursuant to the provisions of the Act of March 4, 1917 (16 USC 520), Section 402 of the Re-Organization Plan No. 3 of July 16 1946 (60 Stat. 1097, 1099), the Act of August 7, 1947 (30 USC 352), and the National Environmental Policy Act of 1969 (42 USC 4321 et seq.) as said authorities have been or may hereafter be amended, no mineral development of any type is authorized hereby, and consent to the issuance of this prospecting permit as required by law and regulation (43 CFR 3507.11 (d)) and (43 CFR 3507.19 (c)) is given subject to the express stipulation that no mineral lease may be issued for the land under permit without the prior consent of the Forest Service, USDA and the proper rendition of an environmental analysis in accordance with the National Environmental Policy Act of 1969, the findings of which shall determine whether and under what terms and conditions for the protection of the land involved the lease may issue.”

If you have any questions or would like more information about this project, please contact LeAnn S. Colburn, Environmental Coordinator at (906) 852-3500, ext. 21 at the Ottawa National Forest Kenton Ranger District Office, or Caleb Butcher, Forest Geologist at (906) 932-1330, ext. 308 at the Ironwood Supervisor's Office.

Respectfully,



SUSANNE M. ADAMS

Ontonagon Bergland District Ranger

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