

HJR

60

Recommending that the western watershed of Glacier Bay National Monument be removed from the effects of S. 2371

COMMITTEE REPORT

HOUSE

3/8/76

Mr. Speaker:

Date 3-12-76

The Committee on RESOURCES has had HJR 60

under consideration. A Majority of the members of the Committee

recommends it DO PASS

recommends it DO NOT PASS

recommends it DO PASS WITH ATTACHED AMENDMENT(S)

recommends it BE REPLACED WITH CS FOR _____ AND THAT

CS FOR _____ DO PASS

"and" recommends it BE REFERRED TO THE _____

COMMITTEE

reports it back WITHOUT RECOMMENDATION

"other"

Members signing the Majority report:

Richard A. Anderson _____

Leslie C. Hunt _____

Members NOT concurring in the Majority report:

_____ recommends:

_____ recommends:

_____ recommends:

_____ recommends:

_____ recommends:

Richard A. Anderson Chairman

TEXT OF STATEMENT
by
RICHARD D. ELLETT

to

THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

RE: S.2371

*... distributed as another
membership service by the
American Mining Congress*

Senator Metcalf and distinguished members of the Committee.

I am Richard D. Ellett, Vice President, Exploration, of Newmont Mining Corporation, and a Vice President of its wholly-owned subsidiary, Newmont Exploration Limited. I greatly appreciate the opportunity which you have given me to testify today concerning Senate Bill 2371 as it would affect the Brady Glacier Deposit.

For many years Newmont has held an undivided interest in the Brady Glacier Deposit under a long term mining lease of patented mining claims located and patented under the Mining Laws of the United States as authorized by the Act of June 22, 1936 (U.S. Stat. 1817). Through exploration and drilling programs conducted over the past 15 years, it has been established that approximately one billion pounds of nickel and 600 million pounds of copper are contained within the area of these claims. To the best of our knowledge the deposit represents the largest known nickel deposit within the United States. The deposit has been defined by numerous holes (82) drilled through many hundreds of feet of ice from the surface of the glacier. The

investigation has indicated substantial additional reserves exist in adjacent areas where surface conditions make further drilling hazardous, so that further exploration must be conducted from underground openings.

Newmont has given the U.S.G.S. and U.S. Bureau of Mines complete access to its findings, and as you are aware, those agencies are presently engaged in a study of the mineral potential of the Fairweather Range of the Glacier Bay National Monument and the Brady Glacier Deposit. We are confident that their investigation will confirm the Brady Glacier nickel reserves and the Fairweather Range as a mineral district.

Newmont and its partners have expended millions of dollars in exploring the Brady Glacier Deposit. This investment is the best evidence that this Committee could ask for, that the most experienced mining companies consider the Brady Glacier Deposit to be of considerable value and even greater potential.

You are aware that the Brady Glacier Deposit lies on the east flank of the Fairweather Range, near the western edge of the Brady Glacier, about 12 miles north of Dixon Harbor. If plans to develop the operation materialize, the Deposit will be mined from underground through a three mile tunnel collared in a small valley on the western side of the Glacier. The beneficiation plant, waste dumps, tailings storage, shops and other ancillary facilities will

be located near the tunnel portal, and connected by road to a town-site, power plant and dock facility in Dixon Harbor. The facilities are located near the Gulf of Alaska, approximately 30 miles west of Glacier Bay, in an area infrequently visited by tourists or for that matter by local fishermen or resident populations. It is probable the only manner in which the facilities could be viewed would be from the air.

The strategic importance of the Brady Glacier Deposit, in my mind, must be given consideration. The U.S. Bureau of Mines have indicated that the known economic resources of nickel in the United States will be exhausted within the next 15 years. Approximately 74% of the United States' supply of nickel already has to be obtained from foreign sources. 63% of the imports are from Canada. As present foreign deposits become depleted an increasing portion of the country's supply will have to be obtained from tropical laterite deposits now in prospect in the Southwestern Pacific and the Caribbean. The political risks to our nickel supply are thus likely to increase.

Prudently discounting the Brady Deposit ore extensions that have a high geologic probability, this single deposit could eventually sustain production rates of approximately 40 million pounds of nickel per year for about 15 years. Such production from this deposit would have a favorable impact on the country's balance

of payment equal to 1.2 billion dollars, at today's nickel price, over the first 15 years of the mine's operation. As evidenced by the Canadian producers' recent increase of 20 cents per pound of nickel, the contribution of a Brady Glacier operation to the balance of payments would in all likelihood be greater as nickel demand and prices increase in the future. Surely the present energy crisis and the experience of cartel pricing by the oil producing nations are ample justification for moving cautiously in locking up other strategic minerals of which our country has limited supplies.

I am here today not only to urge that the Brady Glacier nickel-copper deposit be exempted from S.2371, but equally importantly to solicit your assistance in passage of legislation in favor of our 1971 proposal to the Park Service for a corridor between Dixon Harbor and the tunnel site. The corridor would contain all infrastructures necessary for the mining operation. It would be situated in a remote portion of the Monument, not visible from the Glacier Bay center of activity. Newmont and its partners appreciate and are sympathetic with this Committee's concern with the potential impact on the environment near a mining operation. A mining operation in the Monument must comply with all applicable laws, regulations, and standards dealing with the protection of the environment. Any impact from a Brady Glacier operation would be restricted to the immediate

vicinity of the operation and within the described corridor. A mining operation, in the general scheme of things, has a limited life. Upon the completion of operation all structures could be removed and effective efforts made to restore the area to a condition compatible with its undisturbed surroundings. The recuperative powers of the area would in a reasonable time eliminate most remaining evidence of the operation.

This Committee has an apparently difficult choice to make in determining whether a present or future mining operation is compatible with the environment of a particular National Monument. But I venture to suggest that the difficulty is less on Brady Glacier: an underground operation in a restricted, hidden and remote portion of the Monument will not be inconsistent with the purposes for which Congress created the Monument. The conditions, environment and the minerals should be given separate and real consideration.

I repeat my recognition of this Committee's responsibility to protect areas of wilderness for future generations and applaud its efforts on behalf of all of us who love those regions. However, there is also a responsibility on the Congress and on my profession to make available to the nation a resource base of critical and strategic minerals, necessary to ensure that our nation and its economy are not to be hostage to a hostile world. Brady Glacier may not become an economic and mineable orebody for many years to come. Today, however,

decisions are being taken that can prevent the mine from ever serving our inevitable needs. A concentration of minerals making a viable deposit is an anomaly in nature, equally as unique as our National Monuments. Legislation that precludes its development can have as great or greater impact on the quality of life for future generations as any wilderness area maintained so wisely for their benefit. I submit that, soundly planned, both contributions to our national interests can be realized.

Thank you.

94TH CONGRESS
1ST SESSION

S. 2371

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 18 (legislative day, SEPTEMBER 11), 1975

Mr. MERCALF (for himself, Mr. CRANSTON, Mr. HATFIELD, Mr. JACKSON, Mr. JOHNSTON, and Mr. TUNNEY), introduced the following bill; which was read twice and referred to the Committee on Interior and Insular Affairs

A BILL

To provide for the regulation of mining activity within, and to repeal the application of mining laws to, areas of the National Park System, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That in order to preserve the benefit of present and future
4 generations the pristine beauty of areas of the National Park
5 System, and to further the purposes of the National Environ-
6 mental Policy Act of 1969 (83 Stat. 852; 42 U.S.C. 4321
7 et seq.), surface use of mineral land locations within any
8 areas of the National Park System is subject to such rules
9 and regulations as may be prescribed and published by the

1 Secretary of the Interior as he deems necessary or desirable
2 for the protection and management of those areas.

3 SEC. 2. The following Acts are amended or repealed
4 as indicated:

5 (a) the first proviso of section 3 of the Act of May
6 22, 1902 (32 Stat. 203; 16 U.S.C. 123), relating to
7 Crater Lake National Park, is amended by deleting the
8 words "and to the location of mining claims and the
9 working of same";

10 (b) section 4 of the Act of February 26, 1917 (39
11 Stat. 938; 16 U.S.C. 350), relating to Mount McKinley
12 National Park, is hereby repealed;

13 (c) section 2 of the Act of January 26, 1931 (46
14 Stat. 1043; 16 U.S.C. 350a), relating to Mount Mc-
15 Kinley National Park, is hereby repealed;

16 (d) the Act of June 13, 1933 (48 Stat. 139; 16
17 U.S.C. 447), relating to Death Valley National Monu-
18 ment, is hereby repealed;

19 (e) the Act of June 22, 1936 (49 Stat. 1817),
20 relating to Glacier Bay National Monument, is hereby
21 repealed;

22 (f) section 3 of the Act of August 18, 1941 (55
23 Stat. 631; 16 U.S.C. 450y-2), relating to Coronado
24 National Memorial, is amended by replacing the semi-
25 colon in subsection (a) with a period and deleting the

1 prefix "(a)", the word "and" immediately preceding
2 subsection (b), and subsection (b); and

3 (g) the Act of October 27, 1941 (55 Stat. 745; 16
4 U.S.C. 450z), relating to Organ Pipe Cactus National
5 Monument, is hereby repealed.

6 SEC. 3. For a period of three years after the date of en-
7 actment of this Act, the surface of any land included within
8 any mining claim located or patented subject to any of the
9 Acts amended or repealed by section 2 of this Act shall not
10 be disturbed for purposes of mineral exploration or develop-
11 ment.

12 SEC. 4. The requirements for annual expenditures on
13 mining claims imposed by Revised Statute 2324 (30 U.S.C.
14 28) shall not apply to any claim subject to section 3 of this
15 Act during the time such claim is subject to such section.

16 SEC. 5. Within ninety days after the date of enactment
17 of this Act, the Secretary of the Interior shall submit to the
18 Congress an estimate of the funds and manpower needed to
19 determine the validity of any mining claims within Death
20 Valley and Glacier Bay National Monuments, together with
21 recommendations as to whether any valid claims should be
22 acquired by the United States.

23 SEC. 6. Within one year after the date of enactment of
24 this Act, the Secretary of the Interior shall submit to the
25 Congress an estimate of the funds and manpower needed to

1 determine the validity of any mining claims within Crater
2 Lake and Mount McKinley National Parks, and Coronado
3 and Organ Pipe Cactus National Monuments, together with
4 recommendations as to whether any valid claims should be
5 acquired by the United States.

91ST CONGRESS
1ST SESSION

S. 2371

A BILL

To provide for the regulation of mining activity within, and to repeal the application of mining laws to, areas of the National Park System, and for other purposes.

By Mr. METCALF, Mr. CRANSTON, Mr. HARRIS,
Mr. JACKSON, Mr. JOHNSON, and Mr.
TUNNEY

SEPTEMBER 18 (Legislative day, SEPTEMBER 11), 1975
Read twice and referred to the Committee on Interior
and Insular Affairs



United States Department of the Interior

BUREAU OF MINES
P.O. Box 550
Juneau, Alaska 99802

January 29, 1976

RECEIVED

FEB 2 1976

FEDERAL LAND USE
PLANNING COMMISSION

Burton W. Silcock, Federal Co-Chairman
Federal-State Land Use Planning Commission
for Alaska
433 W. 4th Avenue, Suite 400
Anchorage, Alaska 99501

Dear Mr. Silcock:

As you requested via telephone, enclosed is a brief summary, prepared by Art Kimball of the Status of Mineral Evaluation--Wilderness Studies in Glacier Bay National Monument. Also enclosed at John Mulligan's request is a copy of a memorandum prepared by John setting forth reasons for proposed Monument boundary changes.

R. S. Warfield

R. S. Warfield

Enclosures



United States Department of the Interior

BUREAU OF MINES
P.O. Box 550
Juneau, Alaska 99802

January 29, 1976

Memorandum

To : Supervisory Mining Engineer, Alaska Field Operation Center

From : Mining Engineer, Alaska Field Operation Center

Subject: Status of Wilderness Studies in Glacier Bay National Monument

Wilderness studies began in Glacier Bay National Monument in late July 1975 with 3 weeks of joint Bureau of Mines-Geological Survey field investigation. The Bureau examined, sampled and mapped mineral deposits and occurrences, investigated stained and altered zones, and revisited sites of geochemical rock and stream sediment samples having higher than average metal values. The Geological Survey extended regional geologic mapping, examined layered gabbroic plutons in the Fairweather Range with which nickel-copper deposits are closely associated, and resampled stream sediment collection sites to verify anomalous values, and to correlate 1966 geochemical results with those of 1975 analyzed by new methods.

Previous Bureau of Mines mineral investigations include reconnaissance of beach sands along the Pacific side of the Monument in the late 50's and investigation of Muir Inlet molybdenite deposits during World War II. Previous U.S. Geological Survey mineral investigations were conducted in the Monument in 1966 at the request of the National Park Service in order to provide factual information for future Monument planning and include the results of earlier geological survey studies in several areas of the Monument.

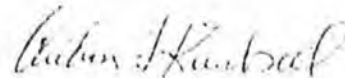
The 1966 Geological Survey investigation comprised examination of mineral deposits, systematic geochemical rock and stream sediment sampling, and reconnaissance geologic mapping. This work was largely confined to Glacier Bay proper, east of the Fairweather Range. Nearly 90 mineral deposits and occurrences were identified, more than 50 of which were discovered during the 1966 study. Fifteen, 7 previously known and 8 discovered in 1966 are considered to have the best economic potential. The Brady Glacier nickel deposit, the most important known deposit in the Monument, is considered viable under present economic conditions.

Page 2 - Status of Wilderness Studies in Glacier Bay National Monument:

The Brady Glacier nickel deposit one of the largest nickel deposits in the United States is peripheral to a large layered gabbroic stock in the high Fairweather Range. Other similar stocks are known, one of which has not been visited but is known from morainal float to contain significant quantities of nickel, copper, chromium, vanadium, cobalt and platinum group metals. At least 75 miles of stock contact exists much of which has not been adequately explored or even visited.

Beach deposits of ilmenite and magnetite bearing sands containing small amounts of platinum group metals situated along the Pacific shore west of the Fairweather fault are probably derived from the gabbroic stocks and associated ultramafic rocks. Placer gold has been mined from sections of the beach. More than 160 placer claims distributed along the beach for more than 30 miles are considered active. Depth, width and grade have not been established. Submerged deposits may also exist.

Wilderness Studies are scheduled for two more field seasons, to be followed with a report in early 1978. Investigations to be conducted during the next two seasons comprise 1) further geologic mapping and mineral deposit investigation in the Fairweather Range particularly along the periphery of the layered gabbroic plutons, 2) evaluation of beach sands as to depth, width, extent, and grade, 3) further examination of known deposits elsewhere in the Monument particularly some of those among the 15 "best" previously discussed, 4) airborne magnetometer surveys of the whole Monument, 5) gravity surveys particularly along the contact zones of the layered mafic plutons, which will include ice depth measurement by radar.



Arthur L. Kimball



United States Department of the Interior

BUREAU OF MINES
P.O. Box 550
Juneau, Alaska 99802

January 14, 1976

Memorandum

To: Will Dare, Chief--Office of Environmental Coordination,
BuMines, Washington, D.C.

From: Chief, Alaska Field Operation Center

Subject: Reasons for keeping the western part of Glacier Bay Monument
open for mineral entry

The Brady Glacier nickel deposits are considered economic under present conditions. Their full extent remains undetermined. The Brady Glacier deposit lies in mafic and ultramafic rocks peripheral to a large, layered baggroic stock 17 miles long by 8 miles wide that is exposed through a vertical range of more than 10,000 feet. This stock and two similar stocks within the Fairweather Range and in Glacier Bay National Monument have a combined contact length of at least 75 miles. Most of this area has not been prospected adequately, if at all, because of difficult access, extreme relief, poor weather, avalanche hazards, etc. The possibility of finding other similar deposits is good. At least 200 square miles in the northern part of the Fairweather Range (in the Monument) are geologically unmapped. Little of the remaining western area of the Monument has been adequately studied.

The Fairweather stock, the most northerly, has not been visited but has been observed from the air and float from its western flank obtained from moraines contained up to 0.5% each of copper, nickel and chromium, and significant values in platinum, vanadium and cobalt.

These three stocks in the Monument are aligned with several similar mafic to ultramafic bodies on Chichagof and Yakobi Islands on a north 30° west trend. Close genetic relationship throughout this is certainly implied. At least one of these bodies, Bohemia Basin on Yakobi Island, has significant nickel deposits associated with it. Exposures of layered mafic rocks are found from below sea level to an elevation of 15000 feet. Most contacts of the stocks with intruded amphybolite and mica schists are steep to vertical. The bottom of the layered sequence is not exposed in any of the stocks so far as known. Total layered stratigraphy known in the largest stock (Crillon-LaPerouse) is 32,000 feet.

The United States has only one operating nickel mine, near Riddle, Oregon. Important nickel deposits are situated in the following areas withdrawn or under consideration for withdrawal: Glacier Bay, West Chichagof-Yakobi Island, the Lake Superior Canoe Area and the Stillwater complex of Montana.

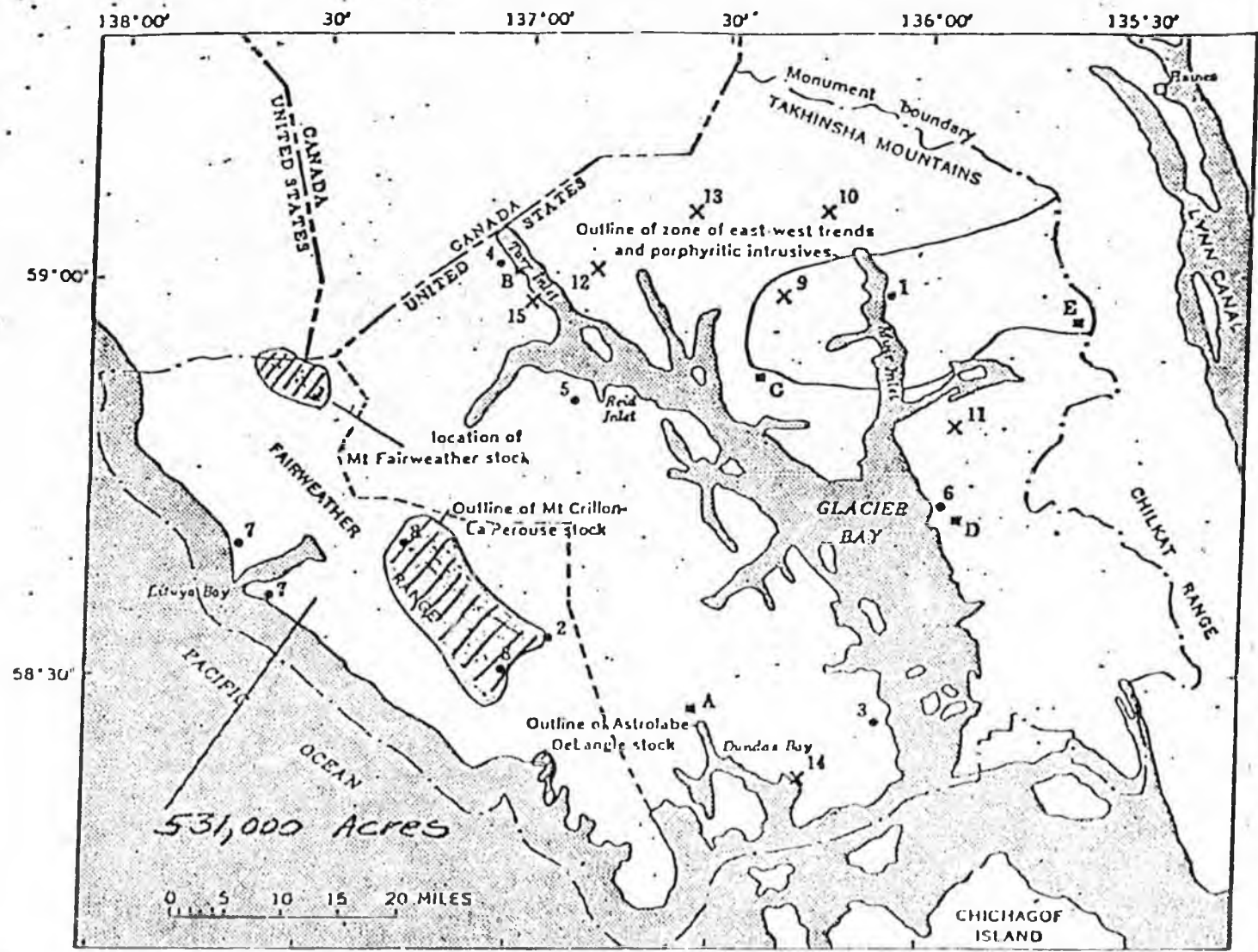
The mafic and ultramafic layered stocks in the Fairweather Range are the probable source of the beach deposits to the west containing ilmenite and magnetite sands, and which also contain gold and platinum group metals. More than 160 active placer claims hold beach deposits distributed along at least 30 miles of the outer coast within the Monument. At least \$75,000 in gold was produced when gold was valued at \$20.67 per troy ounce. The width and depth of the beach deposits has not been determined. Width may be up to 2000 or 3000 feet in some places on land and more if submerged deposits exist. Some ground back of the beach is probably covered with glacial moraine, particularly where peripheral to the Fairweather and laPerouse Glaciers. Presence of moraine doesn't necessarily preclude the existence of beach deposits beneath.

Two maps are enclosed. One shows the relationship of the proposed boundary (dashed line) to the ultramafic stocks. The other shows the relationship with the Yakobi Island and Mirror Harbor stocks.

John J. Mulligan

Enclosure

MINERAL RESOURCES OF GLACIER BAY NATIONAL MONUMENT, ALASKA



KEY TO LOCALITIES SHOWN ON MAP

- | | |
|---------------------------|-------------------------------------|
| 1. The Nunatak Muir Inlet | 11. White Glacier |
| 2. Brady Glacier | 12. South of Rendu Glacier |
| 3. Alaska Chief | 13. Gable Mountain |
| 4. Margerie Glacier | 14. Altered zone east of Dundas Bay |
| 5. Reid Inlet | 15. West of Tarr Inlet |
| 6. Sandy Cove | A. Main arm of Dundas Bay |
| 7. Lituya Bay placers | B. West shore of Tarr Inlet |
| 8. Mount Crillon gabbro | C. Mount Merriam |
| 9. Bruce Hills | D. Miller Peak-Sandy Cove |
| 10. Mount Brack | E. Upper Eerg Creek |

FIGURE 1.—Map of Glacier Bay National Monument, Alaska, showing selected mineral deposits, geochemical anomalies, and outlines of some areas favorable for mineral deposits. •, previously known deposits with economic potential; X, deposits of possible economic interest found by USGS investigations; □, geochemical anomalies.

percent MoS₂ and 91,500,000 tons of material averaging 0.080 percent MoS₂ and that the fault-zone deposit contained 640,000 tons of material averaging 0.169 percent MoS₂. Twenhofel's grade estimates are based mainly on channel samples and may be more representative than ours; none of his samples were analyzed for copper.

Three diamond-drill holes drilled by the American Exploration & Mining Co. in 1966 explored parts of the deposits be-

tween 400 feet above sea level and 300 feet below sea level. These cores are reported to indicate grades of MoS₂ similar to those in our and Twenhofel's samples.

The Nunatak molybdenum prospect contains a large reserve of low-grade molybdenum ore, and if the current trend in price and demand for molybdenum continue, it may be minable in the near future.

