d(2), PART 2 THE QUARTZ HILL EXPERIENCE

By Chris Hesse 1 and Gene Smith 2

In the fall of 1974, geologists from United States Borax & Chemical Corporation (now U.S. Borax Inc.) engaged in a regional geochemical reconnaissance of Southeast Alaska, discovered a large, low-grade molybdenum mineral deposit on the mainland approximately 45 miles east of Ketchikan. Located about equidistant from two important salmon streams flowing into Boca de Quadra and Wilson Arm fjords, the

ACCESS ORE BODY RIMARY CRUSHER UPPLEMENTAL WATER SUPPL ORE CONVEYOR TUNNEL WATER SUPPLY TUNNEL CREEK PLANT SITE TAILINGS PIPELINE DOCK TUNNEL TAILINGS PIPELINE-ONNEL CREEK SITE

Quartz Hill Project Development Plan.

Quartz Hill Molybdenum Project soon became embroiled in a classic struggle between land rights advocates on one side and environmental preservationists on the other.

The Quartz Hill Project eventually came to figure prominently in the negotiations leading to the passage of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980.

In the summer of 1971, U.S. Borax had gone to Southeast Alaska, in spite of its environmental sensitivity, because it knew the area had promising mineral potential. The company believed that if it took great care to protect the environment and meet all of its legal obligations, it would be treated fairly and justly. This was only a few months prior to the passage of the Alaska Natives Claims Settlement Act that contained Section 17(d)(2), from which the so-called d(2) legislation derived.

This Section states that the Secretary of the Interior is to withdraw *up to*, but *not to exceed*, 80 million acres of unreserved public lands that are suitable for additions to, or creation as, units of the National Parks, National Wildlife Refuge, National Wilderness and Wild and Scenic River systems. These lands were to be withdrawn within nine months of enactment. They were not to be lands in Southeast Alaska, as almost all

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of Southeast was being studied under the Tongass Land Use Management Plan, a joint Forest Service/community land use study.

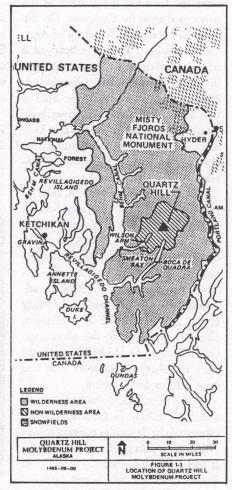
At Quartz Hill, initial test drilling in January of 1975 confirmed the continuity of the mineralization and a full-scale exploration program was commenced in the summer of 1975. By 1976, the existence of a huge, low-grade deposit of molybdenite mineralization had been established, and planning for development, environmental studies and permitting began. U.S. Borax announced the mineral discovery in March of 1976. Opposition to the project, organized by various environmental groups, began shortly thereafter.

In January of 1977, at the start of the 95th session of Congress, Congressman Morris Udall and others introduced H.R. 39, the original d(2) bill. This would have placed 146.5 million acres into Wilderness, including the Misty Fjords area in which Quartz Hill is located. The "Alaska Coalition," a group of environmental organizations spearheaded by the Sierra Club, took credit for making Southeast Alaska part of H.R. 39.

Meanwhile, the exploration drilling program being conducted at Quartz Hill under Forest Service regulation, solely via helicopter access, was continuing to bear fruit. Results indicated that underground bulk sampling of the deposit, as part of a full-scale feasibility study, was warranted to prove up the deposit. U.S. Borax applied to the Forest Service in March of 1976 for

a Special Use Permit to construct an access road up the Keta River Valley from Boca de Quadra for purposes of conducting the bulk sampling program and shipping out a sample of approximately 5,000 tons.

After an Environmental Impact Statement and a lengthy administrative process, the permit was granted in November of 1977. Subsequent appeals by the Sierra Club Legal Defense Fund and associated fishing groups were denied.



Location Map for the Quartz Hill Molybdenum Project.

Prompted by Congress' failure to pass H.R. 39, President Carter, by Presidential Proclamation on December 1, 1978, placed 56 million acres of Alaska into the Misty Fjords National Monument, including over 2 million acres in the Tongass National Forest around Quartz Hill. This was done under obscure provisions of the Antiquities Act. Carter's announced purpose was to preserve the land-use designation of the concerned areas for Congress. On the same day, Assistant Secretary of Agriculture, Rupert Cutler, employed a seldom-used right of review to overturn the decisions of his Forest Service administrators by canceling the Special Use Permit for the Keta River bulk sample access road. He ruled that U.S. Borax be limited to helicopter access until it had made the decision to develop the mineral deposit.

Also, on December 1, 1978, Interior Secretary Cecil D. Andrus used Section 204(b)(1) of the Federal Land Policy Management Act (FLPMA) to withdraw 11.2 million acres of Alaska, including Misty Fjords. This was followed on January 4, 1979 by an administrative proposal to place the Misty Fjords area into RARE II wilderness, completely ignoring the aforementioned Tongass Land Use Management Plan and the years of work that had gone into its development.

By this time, U.S. Borax had invested about \$7 million in Quartz Hill and estimated the deposit to contain at least 700 million tons grading 0.15% MoS₂. It had a major, apparently world-class deposit, but one which was now encumbered by National Monument designation, proposed for Wilderness and

closed to new mineral entry. The company was prohibited from continuing the drilling of those claims on which drilling had not been completed. This meant that the future, if any, would be limited to those claims on which there were already outcrops and/or drill hole intercepts constituting discovery of a valuable mineral, in accordance with the General Mining Law of 1872.

Borax was also stopped from acquisition of millsite claims or land use permits for mill and power plant sites, overburden and mill tailings disposal, utility rights-of- way and all the other land uses necessary for the development and exploitation of a major mineral deposit.

The company regarded these actions as a clear and significant threat to its ability to develop Quartz Hill and felt



A helicopter slings an exploration drill into place at Quartz Hill in 1975

that its legitimate rights under the Mining Law had been usurped by means of discriminatory and abusive use of power.

U.S. Borax could have initiated litigation in an attempt to recover its rights but chose instead to seek resolution during the 96th Congress. A difficult period followed for the Company, during which it was forced to assume a high-profile position in Washington as it argued its case. This attracted the further attentions of the national environmental groups.

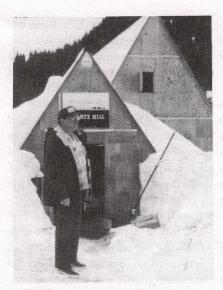
After a two-year struggle to educate Congress as to the potential economic importance of the Quartz Hill deposit and to promote protection of the company's valid and existing rights, Congress passed H.R. 39, as amended in the Senate, as the Alaska National Interest Lands Conservation Act. President Carter signed ANILCA into law

on December 2, 1980. U.S. Borax was specifically mentioned in the Act. (We believe that this may be the first time that a mining company was so singled out in an Act of Congress.)

The company was pleased with the passage of ANILCA because it removed the severe (if not impossible) burdens imposed by the previously mentioned administrative land designations and withdrawals. Development of Quartz Hill was allowed under special restrictions spelled out in Sections 503, 504 and 505 of ANILCA, which set aside from the surrounding Wilderness an area of 152,610 acres of land needed for development and established conditions which would assure protection of the fisheries and the environment. These conditions were the result of negotiations between members of the staffs of the U.S. Senate and House of Representatives, the Administration,



Collar of one of two bulk sampling adits, Quartz Hill molybdenum deposit (1981).



Bob Ellingson, Construction Manager, in front of the Quartz Hill camp cookery on May 10, 1982

Alaska environmental groups and U.S. Borax. The authors once again thank Senator Ted Stevens and the late Senator Scoop Jackson for arranging these negotiations.

U.S. Borax accepted the restrictions of ANILCA in order to be allowed to proceed with the project with security of tenure and under a reasonable time line. However, in the work which followed, the Alaska Coalition, even though it had been a party to the negotiations which produced the language of Sections 503, 504 and 505, continued to subject the Forest Service and the project to a series of appeals and litigative balks. Preparations for bulk sampling and access road construction had to be suspended in September of 1981 for over seven months to meet conditions imposed by an Order of the Federal Court in Anchorage, which required the preparation of an Environmental Impact Statement addressed specifically to these activities. Subsequently, the project suffered numerous additional delays, in spite of the Forest Service's earnest efforts to meet its obligations.

A full-scale feasibility study was commenced in late 1981 by Bechtel Civil & Minerals, Inc. The bulk sample access road to the deposit was finally constructed in 1982-83; this time from Wilson Arm where the concentrator would be located and up the Blossom River valley. This eleven-mile road, connecting to a three-mile section already existing at the campsite, was built through extremely rough mountain terrain in only seven construction months by flying in equipment to several remote headings along the route; an innovative technique at that time.

A 4,800 ton bulk sample mined by underground means was barged out in August of 1983 for process testing. Development drilling continued through 1983, eventually totaling over 268,000 feet, which outlined a massive mineral deposit about 5,000 by 7,000 feet in plan and up to 1,700 feet deep. Mineable tonnage was now estimated



Road construction through tough terrain in May, 1983

to be as much as 1.7 billion tons, depending on cutoff grade.

However, by the time the feasibility study was completed in mid-1984, the market price of molybdenum had sunk from a peak of over \$8 per pound in 1980 to below \$4. It became apparent that development of a mine would have to be delayed. Project activities were scaled back drastically, but U.S. Borax nevertheless continued to seek the principal permits in preparation for a later time when mine development could resume.

A controversy ensued between the Environmental Protection Agency on one hand, and Borax, the Forest Service and the State of Alaska on the other as to which of the two adjacent fjords would be permitted for submarine tailings disposal. An application was filed with EPA in January of 1985 for a National Pollutants Discharge Elimination

System (NPDES) permit for Wilson Arm, the nearer of the two fjords and in the same watershed as most of the planned activities. EPA's Regional Administrator initially approved the application, but a later review by the EPA Inspector General resulted in a recommendation that his decision be reversed. Hearings were held in June of 1990 and the permit was finally denied a few months later.

In October of that year, U.S. Borax announced an indefinite suspension of the project. About a year later, the Company's interest in the deposit was sold to Cominco American because of changes in Borax's corporate strategy.

Although it would have preferred to work under regulations in effect prior to December of 1978, U.S. Borax found ANILCA to be beneficial because the Act brought an end to an unjust recision of existing rights and a land



Governor Bill Sheffield is assisted in the ribbon cutting during Quartz Hill Access Road opening ceremonies on August 12, 1983, by (L to R) John Sandor (USFS), Senator Frank Murkowski, Carl Randolph (USB), Governor Sheffield, Senator Ted Stevens, and Representative Don Young.

designation straight jacket within which it would have been impossible to operate. While ANILCA's restrictions were demanding, they were administered fairly and in good faith by the Forest Service. The company's problems at Quartz Hill were never with the State and Federal regulations with which it had to comply nor with the professionals who administered those regulations. Rather, they were with the environmental special interest groups who used their legislative influence, the complex

regulatory process and legal maneuvers in attempts to delay or stop the project.

Overall, ANILCA has been considered a bad bill in some quarters because it was too large in scope to be properly evaluated by the parties it would impact, as well as the legislators who passed it. It is interesting to note that the passage of H.R. 39 in the Senate was the first time in the history of the U.S. Senate that a bill was passed over the objections of the two Senators from the State that the bill impacted solely.