UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

January 18, 1952

DH

MEMORANDUM

To: Mails and Files Branch

From: Howard F. Keller, Rare and Misc. Metals Division

Subject: Docket DMA-1746X (Molybdenum)
Consolidated Molybdenum, Inc.
801 Central Building
Seattle 4, Washington

Docket DMA-1746X (Molybdenum) and Docket DMA-1658 (Tungsten) deal with exactly the same application, property, veins and exploration project. Actually no application was ever received for Docket DMA-1746X and it was evidently a mistake that a docket number was assigned separately to the molybdenum part of the application.

Docket DMA-1658 was denied November 23, 1951 and since Docket DMA-1746X is included in the same application, Docket DMA-1746 should be considered closed.

Howard F. Keller

Howard F. Keller

700
FILE COPY
SURNAME:

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DEPARTMENT OF THE INTERIOR
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Keller
Ellis

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Howard F. Keller
Howard F. Keller

HFKeller/jem

cc to: Adm. Reading File
1-21-52 Docket
J.D. Mr. Ellis
Mr. Keller

June 28, 1951

Mr. F. H. Osterberg, President
801 Central Building
Seattle 4, Washington

Subject: DMA-1746X
Re: Exploration Loan

My dear Mr. Osterberg:

Receipt is acknowledged of your application and attachments of June 19, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1746X and referred to Mr. J. B. Gowen, Chief, Molybdenum Branch on June 28, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1746X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
File
Gowen
Lyon

dma 1746 X

CONSOLIDATED MOLYBDENUM, INC.
~~XXXXXXXXXXXXXXXX~~
SEATTLE 4, WASHINGTON
801 Central Building

June 19, 1951

United States Department of the Interior
Geological Survey
S. 157 Howard Street
Spokane 8, Washington

Gentlemen:

Thank you for your letter of June 5, 1951. This is in regard to our application for Federal aid on molybdenum. At the time of filing that, we did not understa nd that a seperate MF-103 was necessary for each application. This will of course, effect our estimated cost on the molybdenum. The total estimated cost would be $6,000.00. As to the manner in which this would be used, we have not as yet been able to decide. We have beenadvised to drill the property, which would cost about $5,000.00 for three holes of a little over 300 feet each. This work would be let out on a contract basis to an independent drilling contractor. However, we have received advice also that it would be unnecessary to drill and that it would be better to spend that money in driving shafts to locate the veins. This can easily be done as the molybdenum is visible on the surface of the canyon floor in places. We therefore wish to secure competent advice from a rather experienced mining engineer. We should like to engage the services of such an engineer and then depending upon his advice either institute the drilling program or drive the shafts. I believe the latter would be the more practical. We acknowledge that the exploration program for molybdenum would be on a 50% matching basis. Incidentally, the cost of drilling would be close to $5.00 per foot. We have not as yet obtained a sound estimate from any driller.

Very truly yours,

CONSOLIDATED MOLYBDENUM, INC.

V. M. Osterberg

V. M. Osterberg
President

VMO:vl

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

June 29, 1951

Mr. V. M. Osterberg, President
801 Central Building
Seattle 4, Washington

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Receipt is acknowledged of your application and attachments of June 19, 1951 for an exploration loan under the Defense Production Act of 1950.

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Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
File
Gowen
Lyon

dma 1946X

FREDERICK A. McMILLIN
Economic Geologist
Tacoma, Washington

OFFICE
305 Howarth Hall
College of Puget Sound
Pr. 3521

RESIDENCE
3101 North 31st Street
Pr. 1715

On October 7 to 9, 1949, an attempt was made to examine the holdings of the Consolidated Molybdenum, Inc., property located in sec. 26 and 27, R10E, T 25 N, W.M. Conditions of weather made a complete examination impossible. Determination of the nature and character of the veins was possible and this section of the report will deal with this phase.

The location of the vein is in Devil's Canyon. Erosion has removed, within recent times, some 200 feet of vein material from the canyon.

The wall rock of Devil's Canyon is pre-Cascadian Granite (Hornblend Biotite Granite). The sequence of events that produced Devil's Canyon are: (1) Normal fault in which the west block has dropped, thus giving a vertical displacement of the two sides. This component was not accessible within the time spent on the property. (2) Into this fault was intruded a fissure vein of quartz. The vein material is glassy and well frozen on the wall of the respective blocks. (3) At some later time a dilation dike of Cascadian granodirite was introduced. This dike opened the old fissure forcing the respective wall apart to the extent of three to ten feet. (4) The ~~next~~ movement is not clear in relation to the time element, but a sufficient time later the dike had crystalized. This was a lateral movement, again involving the foot block that moved to the south. Either simultaneous with this movement or at some time later, quartz carrying sulfides invaded the dike. This invasion filled the fractures and replaced some of the original quartz and rock minerals. Mineralization is in all three components of the zone. The characteristic mineral is molybdenite with lesser amounts of other sulfides. This type of deposition is known as "desiminated replacement" and is one of the known types of molybdenum deposits.

Molybdenite tends to deposit in definite zones, but just what part of the zone of deposition is represented by the area that is intersected by the tunnel is not clear; however, it is my impression from what I observed that the location of the tunnel is about midway in the zone of molybdenite deposition. At a higher elevation represented by advancing up the canyon, the other sulfides seem to run stronger. At some distance down the canyon, there are tear faults that have a good showing of molybdenite. These facts would seem to establish the above hypotheses.

There were no samples taken at this time for assay. Samples should be carefully cut from wall to wall and of uniform depth and assayed. Until this is done very little can be said as to whether the Devil's Canyon is a mine or not. Just by visual inspection, it would appear that there is enough strength to the deposit to warrant a complete sampling and detailed examination.

After sampling and assaying has established the tenure of the ore, then a mining engineer could lay out a mining system for the adequate development of the property. The topography is such that the location of tunnels and the necessary appurtenant works would not present a problem.

On August 19, 1950 the property of the Consolidated Molybdenum Incorporated was visited by the author with the purpose of completing the examination that was started last October and abandoned because of adverse weather conditions. The canyon was explored except the extreme upper end. Heavy rains made the entrance of the canyon at this point impossible.

In the preliminary report the rock conditions were discussed in detail and the type of veins were studied. Here the author will only augment that report and make some changes in the sequence of events that lead to the deposition of molybdenite as the characteristic sulfide mineral.

The Consolidated Molybdenum Incorporated properties are in Section 26, 27; R.10 E.; T.25 N.; W.M.

The past history of the property is not recorded in the literature and is unknown to the author. However, in "Mining in the Northwest" edited by L. K. Hodges in 1897 there is a statement that as early as 1892 prospectors had crossed the divide from the Skykomish - Miller riverside into the watershed of the Snoqualmie river. However there is no mention of Molybdenite made at this time.

Metallic Molybdenum was isolated in 1782 but no large scale production was made until 1913 and real important production began in 1927. Practically all molybdenum produced is utilized in the making of alloys of iron and steel. Molybdenum acts like tungsten but more so. It requires approximately 50% less molybdenum to obtain a similar quality of alloy. Molybdenum is at the present the most important hardening alloying metal. Strength, ductility, and a tendency to resist crystallization in iron and steel are increased by the use of molybdenum. Molybdenum alloyed steels are extensively used where strength, heat resistance, and resistance to crystallization are required as in aircraft parts, automobiles, shafts,

high speed tools, gears, guns, and armor plate. These uses make molybdenum a critical metal in peace as well as war.

Geology: The walls of Devil's Canyon are pre-Cascadian or early Cascadian granite (hornblend biotite granite). The sequence of events that produced Devil's Canyon are:

(1) Normal faulting in which the west block had both a strike and dip component. This resulted in both vertical and horizontal displacement. Erosion has obscured the amount of this movement and as it has no direct relation to the events that produced the mineralization very little time was spent on this consideration.

(2) Into this fault was intruded a dilation dyke of granodiorite. This granodiorite is of the so called Cascadian granodiorite type.

(3) A second series of movements took place that shattered the granodiorite dike but apparently did not extend into the wall rock.

(4) Into these secondary fractures were intruded quarts in small amounts. Well formed crystals were present in places.

(5) Movement was again active. This third movement extended into the canyon wall producing tear faults in the downthrow block, West block, or foot wall.

(6) At sometime later, probably at or near the last stages of Cascadian intrusive action, veins of moderate high temperature quarts invaded all fractures. These solutions and vapors carrying quartz and molybdenite were under sufficient pressure to invade the granodiorite, depositing fine grained molybdenite in the spaces between the crystals of the rock. In some places rosettes of molybdenite occures in the granodiorite.

The Quartz carrying molybdenite is in the main glassy with the molybdenite occurring within the quartz as well as at the contact of the veins with the wall rock. These quartz veins make up approximately 25% of the mineralized area.

Devil's Canyon is a narrow slot left by the erosion of the quarts bearing granodiorite dike. The walls are precipitous and the grade of the canyon is roughly 22 degrees. This, however, is interrupted by several abrupt cliffs in the floor of the canyon and becomes a torrent even with a small amount of rain. Much of the canyon floor is covered with detritus that obscures mineralization.

Deer Gulch is the main tear fault that cuts the foot wall block. This fault has the same history as the main Devil's Canyon fault and contains the same type of mineralization. The vein in Deer Gulch may be the vein that is cut by the tunnel in Devil's Canyon, but more probably it is a tear fault vein of simultaneous origin. However there is evidence that there is a second dike east of Devil's Canyon. This was not investigated but should be.

The mineralized zone varies in width from two feet to ten feet. The pinching and swelling follows the original fault walls and is characteristic.

As elevation in the canyon is gained by advancing up the canyon, other sulfide minerals appear. This is the normal history of veins of this type. The description of the mineralized area was difficult because of the erosion. One rarely sees the entire width of the mineralized dike and the quartz veins that accompany it at a single exposure. The dike rock has had some alteration as the result of the intrusion of the quartz bearing hot solutions. This has made the deposition of the molybdenite possible by opening minute channels between the crystals that were disturbed by the fault movement. In the granodiorite that has been exposed by the erosion and acted upon by the air plus some acide waters, some of the molybdenite has been altered to molybdite, Mo_2O_3 or molybdenum ochre. This gives the rock some of the characteristic yellow appearance. This should not be confused with the yellowish color of the iron stains of limonite.

The quartz veins range in width from almost undiscernible veinlets to veins six inches wide. Associated with the quartz vein matter is a small amount of serisite probably derived from the alteration of the feldspars. The dissemination of molybdenite in both the granodiorite and the quartz veins is not uniform in

concentration but leans and strengthens from area to area. Where the vein is broadest the mineralization may be reduced per unit area, but the amount of mineral present will be approximately the same. Where two quartz veins or late faults intersect there is a tendency towards enrichment. The overall is a strong showing of molybdenum with ample tops to make an operation advisable.

Before much capital is invested for other purposes there should be a drilling program planned and the results of such a program carefully studied. This will tell just how much ore there is present and how it is concentrated. As the property now stands it is a raw prospect and there is no ore that can be estimated or described farther than to say that there is, on the basis of surface showings, a sizable tonnage of theoretical ore.

As molybdenite tends to deposit in a definite zone under rather a narrow thermal range, it would appear that the location of the present tunnel is in the upper part of the lower half of the mineralized zone. A new location should be sought at a lower level and a mining engineer employed to lay out the mining methods. Such a location could be found about two hundred feet below the present tunnel level.

After careful examination of the property it is my recommendation that the Board of Directors draw up a plan that will give a comprehensive and logical approach to the problem. This should be in writing for future reference. Discoveries should be made on the other two claims and trails blazed to said discoveries so that they may be readily accessible for examination.

A new cabin and such other buildings as are appertenant should be planned for early spring and so located that the danger of snow slides would be avoided. The present cabin is untenantable.

At the places where ropes are now used, trails should be cut around in the cliff so the canyon can be seen as a whole without endangering life and limb.

Hand samples are inadequate so large samples should be taken from several cuts and keep separate. These can be cut with powder and sent to some established firm that is equipped to make a concentration test on the ore. Samples should be in the neighborhood of 500 pounds each.

It is my belief that such a method of sampling would show enough strength to the ore body to warrant development in the immediate future.

/s/ F. A. McMillin

F. A. McMILLIN
Economic Geologist

REPORT ON

CONSOLIDATED MOLYBDENUM, INC. HOLDINGS

IN THE BUENA VISTA MINING DISTRICT

KING COUNTY, WASHINGTON

by

OLIN M. SPRAGUE

Professional Engineer
641 N. Callow Avenue
Bremerton, Washington.

"BECAUSE THESE SECURITIES ARE BELIEVED TO BE EXEMPT FROM REGISTRATION, THEY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION; BUT SUCH EXEMPTION, IF AVAILABLE, DOES NOT INDICATE THAT THE SECURITIES HAVE BEEN EITHER APPROVED OR DISAPPROVED BY THE COMMISSION OR THAT THE COMMISSION HAS CONSIDERED THE ACCURACY OR COMPLETENESS OF THE STATEMENTS IN THIS COMMUNICATION."

641 N. Callow Av.

Bremerton, Wash.

October 23, 1948.

At your request I have made an examination of the mining claims comprising the Consolidated Molybdenum, Inc. Mine property during October, 1948.

I am embracing my findings in the attached Report. This Report is based upon what I have seen, from certain recorded documents, maps, and from conversations with persons whom I consider to know whereof they have spoken.

The intent herein is to give an accurate description of the property with the purpose in mind of offering duly substantiated facts, or, at times, my conclusions based upon my observations, combined with written documents.

My purpose is to so place my statement of fact, that those interested in what I am saying will be able to draw correct conclusions relative to this Mining Property, upon reading and studying what is to follow.

Elmer N. Sprague

Registered Professional Engineer.

CONSOLIDATED MOLYBDENUM INC. PROPERTY

The Consolidated Molybdenum Inc. Property is located in Section 27, Twp. 25 N., R. 10 E., W.M. in the northeastern part of King County, Washington. It is in the Buena Vista Mining District. Official Records of the property are kept in the County Auditor's Office, of King County, at Seattle, Washington.

Ownership is by Possessory Right, which, under United States and Washington State Mineral and Mining Laws, means that the claimant in possession can not be disturbed except by some one who shows a better right to the premises.

The present owner has possessed, occupied, and improved the property, and complied with the legal requirements since 1905, or thereabouts.

Claim corners are in place and the boundary lines marked in the usual manner.

There is a log cabin 18 feet by 18 feet conveniently situated upon the property: a good trail leading thereto, and a tunnel 5 feet by 7 feet in section. Some mining tools and cabin equipment.

The general appearance of the property is such as convinces one that the owner or claimant, has thru all these years, valued and cherished this property. The said owner shows by his toil and effort that he has continuously placed faith in the promise the property offers.

It might be further stated as a fact, that the toil and effort put upon the property has been purposeful, and pursued with a high degree of intelligence.

The orebody outcropping and in the tunnel, is a mass and a flaked Molybdenite in a large Pegmatite dyke. There is reason to believe that this property contains at least two other, and separate Pegmatite dykes.

ACCESSIBILITY

The route to the Consolidated Molybdenum Inc. property, starting from Seattle, is over U.S. Hiway No. 10, East to North Bend, some 29 miles, then northeasterly up the County Road following the North Fork of the Snoqualmie River some 26 miles. The 1 st 10 miles of this County Road has been built during 1948, and consists of a well gravelled road, built to support heavy traffic.

It is a Mine-to-Market Road on a right-of-way secured by King County thru Court condemnation. This right-of-way is secured to the Forestry Boundary, one mile further than constructed, and the Lennox Mine is at the further end of this uncompleted mile. Expectation of improvement of this last mile is thru cooperative effort of the owners of property contiguous to the Forestry Boundary and lying around the confluence of the Lennox River and the North Fork of the Snoqualmie.

From the Forestry Boundary, the State of Washington Mine-to-Market Road Commission has surveyed and located a route up the Lennox River some 4 and 1/2 miles, substantially following the old, existing

trail southeasterly to the mouth of Cougar Creek. Plans and specifications have been prepared for construction of this section of road up Lennox River, and contract for construction is shortly expected to be let by the State of Washington Highway Department. Completion of the road is expected, and specified in the Specifications, early in 1949.

The road when constructed will end at the foot of the slope rising to the south and approximately 3/4 mile north of the central part of Consolidated Molybdenum Inc. property.

From examination, access to the property from the end of the Mine to Market Road, as now located, will be upwards of 1 and 3/4 miles of road on a 9% grade, with perhaps one or two "switch-backs". This route would take off up the Lennox River and over a northeasterly slope affording ample way for sustaining the desired grade.

Ground is very good for road construction and with proper drainage should not present any difficulties. The route follows thru a timbered area; hence no snow slide trouble.

DESCRIPTION

The Consolidated Molybdenum Inc. property is a group of 10 claims, center lines of which extend from Cougar Creek South 52° East. The southerly string consists of 4 claims, each 1500 ft. up the mountain side and running from Cougar Creek South 52° East, 6000 ft. Northerly from and parallel and adjacent to this string, are two strings of 3 claims extending so that the southeasterly end lines of all three strings lie in a straight line. Another way of description is to say that 9 claims form a rectangle

4500 ft., or three claims, long, and extending South 52° East up the mountain, and three claims or 1800 ft. wide, at right angles to the slide lines across the upward slope. The tenth claim extends in line from the northwesterly part of the rectangular group downward to Cougar Creek - a handle on a rectangle.

The entire surface of the property is covered with a growth of Alpine and Noble Fir and Yellow Cypress. Some of the Cypress attains a diameter of 6 ft. indicating great age and the trees stand uninjured or deformed from any slides or other catastrophic agencies. This indicates a safe surface.

Along the general center line of the southwesterly four claims up the mountain, there is a canyon, rising on a slope of 35°, or 57 ft. per 100 ft. The walls are sheer granit and rise, in places, upwards of 100 ft. above the floor; the width of the canyon varies from 15 ft to 50 ft.

The floor from Cougar Creek to the top of the slope is a Pegmatite with quartz, lying in laminated formation - 2 to 6 inches of the Pegmatite with a quartz ribbon in between - 1/4 to 3 inches thick. These alternate ribbons fill the entire width between the canyon walls, and the Molybdenite ore is found in this floor formation.

A tunnel 5 ft. by 7 ft. in section is driven in this canyon, in the second claim, some 1200 ft. from and 600 or 700 ft. higher than Cougar Creek.

The portal is in the side of the canyon, safely out of the creek

bed and after traversing thru the granite wall, strikes the Pegmatite vein, 100 feet in, and under the northerly side of the vein. It then follows the vein for a distance of 100 feet to the tunnel face. The walls of the tunnel are impregnated with the Molybdenite ore.

Parallel to and northerly from the canyon there are two creeks flowing in small gulches, in which the same Pegmatite shows up. Their extent is at present undetermined, The indication is more than enough to warrant extensive investigation. A great deal of Molybdic Ocher coloration shows all along each of these creeks and Molybdic Ocher is an excellent guide to underlying Molybdenite deposits.

THE DEPOSIT

The strike of the veins on the Consolidated Molybdenum Inc. Property is South 52° East, the dip is 80° to 90°. The Pegmatite in the Canyon itself lies exposed from the upper edge of the talus above Cougar Creek, upward along the Canyon floor some 5000 ft. It varies in width from 15 to 50 ft. Pegmatites rise from very great depths, and are notorious for their irregular structure. Their depth range is so great that no mine starting on a productive Pegmatite is likely to reach a horizon too deep for further deposits.

Zonal arrangment of minerals within Pegmatite bodies is common, but these changes are usually symetrical with respect to the walls and to the center line, and are not expression of depth. This is to say that any change of mineral within the body takes place immediately across the section of Pegmatite, horizontally, and say, at right angles to the main axis of the

vein; it does not change vertically as in enrichment veins with their zonal arrangement, according to age and specific gravities.

This characteristic of Pegmatites is quite dependable, and applied to the Consolidated Molybdenum Inc. property we have a Pegmatite vein in depth from Elevation 3500 at Cougar Creek, rising thru the four claims South 52° East to Elevation around 6000, or a depth of probably 2500 ft. with no information as to depth below Cougar Creek bed.

Again, this same vein or a close relative strike off to the northwest on the same bearing of North 52° West over Goat Mountain to Sunday Lake and can be traced for two and one-half miles; where it crosses Goat Mountain about one mile northwest, it outcrops considerably higher than the apex of the Consolidated Molybdenum property.

This leads to the conclusion that here lies a tremendous body of ore.

IMPORTANCE OF MOLYBDENUM

The reasonable assurance of an ample deposit of ore brings up the question of - what gives this ore its importance? What is it used for? What is its value?

Molybdenite is composed of two elements, 60% molybdenum and 40% sulphur, and is also known as Molybdenum Sulphide. It is a soft, shiny, grey or black mineral usually in flakes or plates. Its hardness is 1, and specific gravity 4.8. A cubic foot will weigh up to 300 pounds.

Molybdenite is used as a lubricant; in its place, superior to

graphite, which it somewhat resembles. It is especially valuable around high-speed machinery and the moving parts of delicate instruments, as a lubricant. Refined, that is, Molybdenite with constituent parts separated-smelted, leaves the metal, Molybdenum. Molybdenum is used in steel alloys for high-speed tools, and steel and iron castings. It is found in the United States in Maine, New Hampshire, Washington, Colorado and New Mexico.

Its value exists both before and after smelting. Refining and concentrating is rather ticklish because of its specific gravity coming close to the copper pyrites which may be present in small quantities in the Pegmatite along its joints with the Host Rock. This examination has disclosed no pyrites but some is almost inevitable; however, the metal is recovered and the process is not an involved one as witness the present production.

The demand since World War II has greatly increased on account of new uses and wider distribution of consumption; the price is by the pound, at present about 46¢ a pound for the Molybdenite at the mine.

ASSAYS

Such data as to assays is, at this time, scant. The few samples reported upon show 1½% - 4% - 5% and one sample which returned 10%. This, roughly, gives 100 pounds per ton, or, say, $45.00 per ton. From all indications this does not seem unreasonable.

DEVELOPMENT

The matter of development on the Consolidated Molybdenum Inc. property is one that should be give utmost care. Access to the property at this time is over trails and roads, and by late 1949 every indication is that motor traffic will be available to within 3/4 of a mile from the present cabin.

The existing tunnel on the property appears to be in a well selected location. In this respect, it is not as criticism but as a suggestion, that a tunnel lower down toward Cougar Creek might be to a better advantage, as some 400 or 500 feet of elevation might better be utilized. The operating plan would control this matter. The mine looks as though it could be developed by working several levels.

The slope down to the bottom of the hill is straight and anywhere on a convenient spot, the mill should be placed; this is a control factor.

It seems, from present information, that ore might be transferred over aerial tram from the upper reaches to a mill close down by the road where it could be loaded onto trucks for shipping. The mill to concentrate and store for shipping.

There is good possibility of ample water power both in Cougar Creek and on Lennox River. Would suggest that this be with low head turbine. Machinery is more expensive but requires less construction - has a tendency towards getting everything "close-in".

Owing to the distance out, it would appear that camp buildings will be necessary; a cook house with commissary and, later, a superintendent's house with an office.

Mine timbers will be necessary, which may be cut from timber on the ground. This will probably work out cheaper if a small "portable mill" were set up at the start. Lumber and timbers could be cut from standing

timber on the property as required and around $25.00 per M. saved over market cost. It would also save unnecessary traffic over the road, which can interfere with ore shipment.

CONCLUSION

From the indications on Consolidated Molybdenum Inc. property it should be plain to anyone acquainted with the ore Molybdenite, and the rock Pegmatite, that here lies a very promising Mine Property. The potential tonnage would only be a wild, wierd guess at this time. It is certain that one vein some 5000 feet long, 15 feet wide, and average 1250 feet in depth exists and is in sight at a single glance. With two other veins not so plainly discernible but showing strong evidence of similar existence, it is too hypothetical at this time, to say anything more.

We know only partially what the bottom may be. The ore appears remarkably free from other metals than Molybdenum. The definite assurance of the road being built close to the Mine is an advantage few properties can enjoy. In short, every feature and circumstance pertaining to this property is enhancing its value.

Hypothetically estimating production for sake of further elucidation, let us assume one tunnel 5 ft. by 7 ft. the length of each string of claims. The total length of tunnel would then be

6000 ft. in the southerly string of 4 claims
4500 ft. in each of the two northerly strings, or
15000 ft. of theoretically productive ore.

then the volume of material would be

$$\frac{5 \times 7 \times 15000}{15 \text{ cu. ft. per ton}} \text{ OR } 35000 \text{ tons}$$

Average value of 35000 tons @ 5% or 100 lbs. Molybdenite per ton of ore would yield 3,500,000 lbs. of Molybdenite.

Such a vast quantity, even in theory, is staggering and should not, of course, be used in any reasonable estimates. But again, we have only considered depth at 7 ft. and there is likely to be 1200 or 1500 feet of depth, plus what may lie below the level of Cougar Creek Floor. Ore should be expected to such depth as Pegmatite may extend, and mined to such a horizon as the rock will stand, and Pegmatite extends to very great depth.

It should be remembered also, that Uraninite, found only in Pegmatites, is not an impossibility. No one knows for sure that this ore does not exist here on this property, and finding none would be no loss. No investigation has been made as far as we know. The basic conditions for Uranium, Thorium, and other rare metals exist in this Pegmatite, and is worth the test. The quantity of Molybdenite would soon pay the cost of such an investigation.

Then too, as characteristic in Pegmatite, there are quantities of clear quartz crystals in the rock around these dykes, Some observed, measured 3 inches long by 1 inch across. These, when clear, are valuable in lens making, and in radio and other industrial uses.

Accessibility and extent of the deposit make this property a very valuable one.

Chas M Sprague

STATUTORY STATEMENT - CONSOLIDATED MOLYBDENUM INC.

Filed with Director of Licenses of State of Washington.

EXHIBIT 1. Incorporated in State of Washington, May 25, 1948.

EXHIBIT 2. Address of registered business office in State of Washington: 14521 Aurora Avenue, Seattle 33, Washington.

EXHIBIT 3. List of officers, all of whom are directors, holding office for term of one year, and amount of stock held:

G.L.Hansen, vice president, 614 Yale Avenue N., Seattle, Wash.	127,500 shares held
L.J.Madden, vice president, Rt.3 Box 415, Bremerton,Wash.	127,500 shares held
K.O.Welling, secretary, 14521 Aurora Ave., Seattle, Wash.	127,500 shares held
E.A.Amburn, treasurer, 1814 25th S., Seattle, Wash.	127,500 shares held
C.L.Johnston, director, 245 S.Montgomery St.,Bremerton,Wn.	127,500 shares held
E. Saurers, director, Rt.3, Box 415-B, Bremerton, Wash.	127,500 shares held
J. Madden, director, Rt. 3, Box 415, Bremerton, Wash.	127,500 shares held
G.M.Osterberg, director, 756 Stimson Bldg, Seattle, Wash.	127,500 shares held
V. Osterberg, ~~director~~ President, 19345 37th Ave.N.E., Seattle, Wn.	127,500 shares held
Mrs. L.Liptrap, director, 403 Bay Bldg., Seattle, Wash.	127,500 shares held
J. Zybura, director, 4409 - 36th So., Seattle, Wash.	127,500 shares held
Mrs.E.L.Watson,director, 756 Stimson Bldg., Seattle,Wn.	127,500 shares held

EXHIBIT 4. Number of shares of common stock authorized, all nonassessable, 3,000,000 shares, par value 10¢ each. Preferred stock, None.

EXHIBIT 5. Consolidated Molybdenum, Inc., issued 127,000 shares to each of twelve incorporators. 1,530,000 shares are placed in escrow with Frederick W. Post, 6251 - 31st N.E., Seattle, Washington, under agreement with Department of Licenses.

EXHIBIT 6. Consideration received by company from shares issued and outstanding July 1, 1948, is: On 1,530,000 shares, $153,000 value placed on lease and organizing.

EXHIBIT 7. Statement of Assets and Liabilities as of July 1, 1948.

ASSETS		LIABILITIES	
Lease on property.....	$127,500.00	Common Stock issued.....	$153,000.00
Deferred charges, prepaid expenses.....	25,500.00		
TOTAL.....	$153,000.00	TOTAL.....	$153,000.00

EXHIBIT 8. Number of shares or other securities to be issued to public in present offering:

	No. Shares	Offering Price
Common Stock.....	1,470,000	10¢
Preferred Stock.....	None	None
Approximate amount expected to be derived from sale..		$147,000.00
Approximate amount of commissions to be paid.....		36,750.00
Approximate amount of exploration work, development work, and equipment to be purchased.....		110,000.00

EXHIBIT 9. Rate of commissions to be paid and form of payment. (In money or company's securities).

1. Agents..... 25% in money
2. Member of corporation as selling agent,.. 25% in money
3. Underwriters..... None

Amount of salaries to be paid for ensuing year:
No salaries are to be paid to the president or vice president or secretary or treasurer or general manager or others.

EXHIBIT 10. Names and addresses of authorized Agents or underwriters at time of filing:

G. M. Osterberg, 756 Stimson Bldg., Seattle, Washington
Vernon Osterberg, 19345 - 37th Avenue, N.E., Seattle, Washington
Mrs. E. L. Watson, 756 Stimson Bldg., Seattle, Washington
Mrs. Lillien Liptrap, 403 Bay Bldg., Seattle, Washington
John Zybura, 4409 - 36th South, Seattle, Washington
Garry L. Hansen, 614 Yale Avenue North, Seattle, Washington
Leonard J. Madden, Rt. 3, Box 415, Bremerton, Washington
Jack Madden, Rt. 3, Box 415, Bremerton, Washington
E. A. Amburn, 1814 - 25th South, Seattle, Washington
Kenneth O. Welling, 14521 Aurora Avenue, Seattle 33, Washington
Edwin Saurers, Rt. 3, Box 415-B, Bremerton, Washington
Carl L. Johnston, 245 S. Montgomery Street, Bremerton, Washington

EXHIBIT 11. (a) Describe fully history of company. (b) Describe claims and give their approximate location, and type of mining to be engaged in. (c) Give valuation of claims. (d) Proposed work. (e) Type of machinery and equipment to be purchased. (f) Briefly outline purpose for which funds are to be used.

Consolidated Molybdenum, Inc. was organized in May, 1948. It does not succeed any other form of mining company; it is a completely new company. The claims are located in the Buena Vista Mining district, which district is approximately 25 miles North and East of North Bend, Washington. The company has a 99 year lease on 8 claims (approximately 160 acres) lying in Section 27, Township 25 North, Range 10 East, W. M., King County, Washington. No royalties or other cash payments are payable under the lease. Ten of the incorporators own the claims and have exchanged a leasehold interest in the claims for stock in the company.

The value of the claims with improvements is $127,500.00. Some tunnel work has been done. At the point of access to the ore bearing vein, a swift mountain stream called "Devil's Canyon" cuts through the vein. A tunnel has been driven into the side of the canyon, to curve around to the vein and escape the water. Further development work proposed by the company includes driving the tunnel into the ore bearing vein; construction of housing facilities for workers, erection of mill and flotation plant, and the installation of a tram from mine to mill, together with the necessary grading.

The machinery needed and proposed to be purchased includes; Diesel power plant, 50-ton mill, flotation plant, air compressors and drills, tramway equipment and hoist, bulldozer, together with the necessary accessories and tackle for such equipment.

The purpose for which the funds will be used will be to provide access roads to the public roads, grade and level the land upon the mining claims, erect such buildings as are necessary to house men and equipment, purchase mining, milling and flotation equipment, and to develop the tunnels and shafts to the point of production; thereafter, to provide capital for the maintenance of payrolls, payment of taxes, and purchase of supplies.

There is no present authorization in the organizational plan of the company for the payment of salaries to the officers as such, and no such action is contemplated until production problems necessitate sufficient amounts of their time that salaries are deemed necessary by the board of directors in order to secure the type of administration needed to carry on the work.

Dated May 25, 1948.

(Corporate Seal)

CONSOLIDATED MOLYBDENUM, INC.

Garry L Hansen

By G.L.Hansen, President.

Attest: K.O.Welling, Secretary

CONSOLIDATED MOLYBDENUM, INC.

BALANCE SHEET
December 31, 1950

ASSETS

Current Assets:		
Cash	$ 219.31	
Accounts Receivable	600.00	
Total Current Assets		$ 819.31
Fixed Assets:		
Deferred Development	$ 2,227.54	
Office Furniture and Fixtures	15.75	
Land	153,000.00	
Total Fixed Assets		155,243.29
Total Assets		$156,062.60

LIABILITIES

Current Liabilities:		
Pledges Received	$ 300.00	
Pledged Contracts	600.00	
Total		$ 900.00
Capital:		
Capital Stock, Authorized	$300,000.00	
Less - Capital Stock, Unissued	145,600.00	
Capital Stock Issued		154,400.00
Paid-in Surplus		762.60
Total Liabilities and Capital		$156,062.60

dma 1746X

FREDERICK A. McMILLIN
Economic Geologist
Tacoma, Washington

OFFICE
305 Howarth Hall
College of Puget Sound
Pr. 3521

RESIDENCE
3101 North 31st Street
Pr. 1715

On October 7 to 9, 1949, an attempt was made to examine the holdings of the Consolidated Molybdenum, Inc., property located in sec. 26 and 27, R10E, T 25 N, W.M. Conditions of weather made a complete examination impossible. Determination of the nature and character of the veins was possible and this section of the report will deal with this phase.

The location of the vein is in Devil's Canyon. Erosion has removed, within recent times, some 200 feet of vein material from the canyon.

The wall rock of Devil's Canyon is pre-Cascadian Granite (Hornblend Biotite Granite). The sequence of events that produced Devil's Canyon are: (1) Normal fault in which the west block has dropped, thus giving a vertical displacement of the two sides. This component was not accessible within the time spent on the property. (2) Into this fault was intruded a fissure vein of quartz. The vein material is glassy and well frozen on the wall of the respective blocks. (3) At some later time a dilation dike of Cascadian granodirite was introduced. This dike opened the old fissure forcing the respective wall apart to the extent of three to ten feet. (4) The next movement is not clear in relation to the time element, but a sufficient time later the dike had crystalized. This was a lateral movement, again involving the foot block that moved to the south. Either simultaneous with this movement or at some time later, quartz carrying sulfides invaded the dike. This invasion filled the fractures and replaced some of the original quartz and rock minerals. Mineralization is in all three components of the zone. The characteristic mineral is molybdenite with lesser amounts of other sulfides. This type of deposition is known as "desiminated replacement" and is one of the known types of molybdenum deposits.

Molybdenite tends to deposit in definite zones, but just what part of the zone of deposition is represented by the area that is intersected by the tunnel is not clear; however, it is my impression from what I observed that the location of the tunnel is about midway in the zone of molybdenite deposition. At a higher elevation represented by advancing up the canyon, the other sulfides seem to run stronger. At some distance down the canyon, there are tear faults that have a good showing of molybdenite. These facts would seem to establish the above hypotheses.

There were no samples taken at this time for assay. Samples should be carefully cut from wall to wall and of uniform depth and assayed. Until this is done very little can be said as to whether the Devil's Canyon is a mine or not. Just by visual inspection, it would appear that there is enough strength to the deposit to warrant a complete sampling and detailed examination.

After sampling and assaying has established the tenure of the ore, then a mining engineer could lay out a mining system for the adequate development of the property. The topography is such that the location of tunnels and the necessary appurtenant works would not present a problem.

On August 19, 1950 the property of the Consolidated Molybdenum Incorporated was visited by the author with the purpose of completing the examination that was started last October and abandoned because of adverse weather conditions. The canyon was explored except the extreme upper end. Heavy rains made the entrance of the canyon at this point impossible.

In the preliminary report the rock conditions were discussed in detail and the type of veins were studied. Here the author will only augment that report and make some changes in the sequence of events that lead to the deposition of molybdenite as the characteristic sulfide mineral.

The Consolidated Molybdenum Incorporated properties are in Section 26, 27; R.10 E.; T.25 N.; W.M.

The past history of the property is not recorded in the literature and is unknown to the author. However, in "Mining in the Northwest" edited by L. K. Hodges in 1897 there is a statement that as early as 1892 prospectors had crossed the divide from the Skykomish - Miller riverside into the watershed of the Snoqualmie river. However there is no mention of Molybdenite made at this time.

Metallic Molybdenum was isolated in 1782 but no large scale production was made until 1913 and real important production began in 1927. Practically all molybdenum produced is utilized in the making of alloys of iron and steel. Molybdenum acts like tungsten but more so. It requires approximately 50% less molybdenum to obtain a similar quality of alloy. Molybdenum is at the present the most important hardening alloying metal. Strength, ductility, and a tendency to resist crystallization in iron and steel are increased by the use of molybdenum. Molybdenum alloyed steels are extensively used where strength, heat resistance, and resistance to crystallization are required as in aircraft parts, automobiles, shafts,

high speed tools, gears, guns, and armor plate. These uses make molybdenum a critical metal in peace as well as war.

Geology: The walls of Devil's Canyon are pre-Cascadian or early Cascadian granite (hornblend biotite granite). The sequence of events that produced Devil's Canyon are:

(1) Normal faulting in which the west block had both a strike and dip component. This resulted in both vertical and horizontal displacement. Erosion has obscured the amount of this movement and as it has no direct relation to the events that produced the mineralization very little time was spent on this consideration.

(2) Into this fault was intruded a dilation dyke of granodiorite. This granodiorite is of the so called Cascadian granodiorite type.

(3) A second series of movements took place that shattered the granodiorite dike but apparently did not extend into the wall rock.

(4) Into these secondary fractures were intruded quarts in small amounts. Well formed crystals were present in places.

(5) Movement was again active. This third movement extended into the canyon wall producing tear faults in the downthrow block, West block, or foot wall.

(6) At sometime later, probably at or near the last stages of Cascadian intrusive action, veins of moderate high temperature quarts invaded all fractures. These solutions and vapors carrying quartz and molybdenite were under sufficient pressure to invade the granodiorite, depositing fine grained molybdenite in the spaces between the crystals of the rock. In some places rosettes of molybdenite occures in the granodiorite.

The Quartz carrying molybdenite is in the main glassy with the molybdenite occurring within the quartz as well as at the contact of the veins with the wall rock. These quartz veins make up approximately 25% of the mineralized area.

Devil's Canyon is a narrow slot left by the erosion of the quarts bearing granodiorite dike. The walls are precipitous and the grade of the canyon is roughly 22 degrees. This, however, is interrupted by several abrupt cliffs in the floor of the canyon and becomes a torrent even with a small amount of rain. Much of the canyon floor is covered with detritus that obscures mineralization.

Deer Gulch is the main tear fault that cuts the foot wall block. This fault has the same history as the main Devil's Canyon fault and contains the same type of mineralization. The vein in Deer Gulch may be the vein that is cut by the tunnel in Devil's Canyon, but more probably it is a tear fault vein of simultaneous origin. However there is evidence that there is a second dike east of Devil's Canyon. This was not investigated but should be.

The mineralized zone varies in width from two feet to ten feet. The pinching and swelling follows the original fault walls and is characteristic.

As elevation in the canyon is gained by advancing up the canyon, other sulfide minerals appear. This is the normal history of veins of this type. The description of the mineralized area was difficult because of the erosion. One rarely sees the entire width of the mineralized dike and the quartz veins that accompany it at a single exposure. The dike rock has had some alteration as the result of the intrusion of the quartz bearing hot solutions. This has made the deposition of the molybdenite possible by opening minute channels between the crystals that were disturbed by the fault movement. In the granodiorite that has been exposed by the erosion and acted upon by the air plus some acide waters, some of the molybdenite has been altered to molybdite, Mo_2O_3 or molybdenum ochre. This gives the rock some of the characteristic yellow appearance. This should not be confused with the yellowish color of the iron stains of limonite.

The quartz veins range in width from almost undiscernible veinlets to veins six inches wide. Associated with the quartz vein matter is a small amount of serisite probably derived from the alteration of the feldspars. The dissemination of molybdenite in both the granodiorite and the quartz veins is not uniform in

concentration but leans and strengthens from area to area. Where the vein is broadest the mineralization may be reduced per unit area, but the amount of mineral present will be approximately the same. Where two quartz veins or late faults intersect there is a tendency towards enrichment. The overall is a strong showing of molybdenum with ample tops to make an operation advisable.

Before much capital is invested for other purposes there should be a drilling program planned and the results of such a program carefully studied. This will tell just how much ore there is present and how it is concentrated. As the property now stands it is a raw prospect and there is no ore that can be estimated or described farther than to say that there is, on the basis of surface showings, a sizable tonnage of theoretical ore.

As molybdenite tends to deposit in a definite zone under rather a narrow thermal range, it would appear that the location of the present tunnel is in the upper part of the lower half of the mineralized zone. A new location should be sought at a lower level and a mining engineer employed to lay out the mining methods. Such a location could be found about two hundred feet below the present tunnel level.

After careful examination of the property it is my recommendation that the Board of Directors draw up a plan that will give a comprehensive and logical approach to the problem. This should be in writing for future reference. Discoveries should be made on the other two claims and trails blazed to said discoveries so that they may be readily accessible for examination.

A new cabin and such other buildings as are appertenant should be planned for early spring and so located that the danger of snow slides would be avoided. The present cabin is untenantable.

At the places where ropes are now used, trails should be cut around in the cliff so the canyon can be seen as a whole without endangering life and limb.

Hand samples are inadequate so large samples should be taken from several cuts and keep separate. These can be cut with powder and sent to some established firm that is equipped to make a concentration test on the ore. Samples should be in the neighborhood of 500 pounds each.

It is my belief that such a method of sampling would show enough strength to the ore body to warrant development in the immediate future.

/s/ F. A. McMillin

F. A. McMILLIN
Economic Geologist

REPORT ON

CONSOLIDATED MOLYBDENUM, INC. HOLDINGS

IN THE BUENA VISTA MINING DISTRICT

KING COUNTY, WASHINGTON

by

OLIN M. SPRAGUE

Professional Engineer
641 N. Callow Avenue
Bremerton, Washington.

"BECAUSE THESE SECURITIES ARE BELIEVED TO BE EXEMPT FROM REGISTRATION, THEY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION; BUT SUCH EXEMPTION, IF AVAILABLE, DOES NOT INDICATE THAT THE SECURITIES HAVE BEEN EITHER APPROVED OR DISAPPROVED BY THE COMMISSION OR THAT THE COMMISSION HAS CONSIDERED THE ACCURACY OR COMPLETENESS OF THE STATEMENTS IN THIS COMMUNICATION."

641 N. Callow Av.

Bremerton, Wash.

October 23, 1948.

At your request I have made an examination of the mining claims comprising the Consolidated Molybdenum, Inc. Mine property during October, 1948.

I am embracing my findings in the attached Report. This Report is based upon what I have seen, from certain recorded documents, maps, and from conversations with persons whom I consider to know whereof they have spoken.

The intent herein is to give an accurate description of the property with the purpose in mind of offering duly substantiated facts, or, at times, my conclusions based upon my observations, combined with written documents.

My purpose is to so place my statement of fact, that those interested in what I am saying will be able to draw correct conclusions relative to this Mining Property, upon reading and studying what is to follow.

Elmer M. Grossman

Registered Professional Engineer.

CONSOLIDATED MOLYBDENUM INC. PROPERTY

The Consolidated Molybdenum Inc. Property is located in Section 27, Twp. 25 N., R. 10 E., W.M. in the northeastern part of King County, Washington. It is in the Buena Vista Mining District. Official Records of the property are kept in the County Auditor's Office, of King County, at Seattle, Washington.

Ownership is by Possessory Right, which, under United States and Washington State Mineral and Mining Laws, means that the claimant in possession can not be disturbed except by some one who shows a better right to the premises.

The present owner has possessed, occupied, and improved the property, and complied with the legal requirements since 1905, or thereabouts.

Claim corners are in place and the boundary lines marked in the usual manner.

There is a log cabin 18 feet by 18 feet conveniently situated upon the property: a good trail leading thereto, and a tunnel 5 feet by 7 feet in section. Some mining tools and cabin equipment.

The general appearance of the property is such as convinces one that the owner or claimant, has thru all these years, valued and cherished this property. The said owner shows by his toil and effort that he has continuously placed faith in the promise the property offers.

It might be further stated as a fact, that the toil and effort put upon the property has been purposeful, and pursued with a high degree of intelligence.

The orebody outcropping and in the tunnel, is a mass and a flaked Molybdenite in a large Pegmatite dyke. There is reason to believe that this property contains at least two other, and separate Pegmatite dykes.

ACCESSIBILITY

The route to the Consolidated Molybdenum Inc. property, starting from Seattle, is over U.S. Hiway No. 10, East to North Bend, some 29 miles, then northeasterly up the County Road following the North Fork of the Snoqualmie River some 26 miles. The 1 st 10 miles of this County Road has been built during 1948, and consists of a well gravelled road, built to support heavy traffic.

It is a Mine-to-Market Road on a right-of-way secured by King County thru Court condemnation. This right-of-way is secured to the Forestry Boundary, one mile further than constructed, and the Lennox Mine is at the further end of this uncompleted mile. Expectation of improvement of this last mile is thru cooperative effort of the owners of property contiguous to the Forestry Boundary and lying around the confluence of the Lennox River and the North Fork of the Snoqualmie.

From the Forestry Boundary, the State of Washington Mine-to-Market Road Commission has surveyed and located a route up the Lennox River some 4 and 1/2 miles, substantially following the old, existing

trail southeasterly to the mouth of Cougar Creek. Plans and specifications have been prepared for construction of this section of road up Lennox River, and contract for construction is shortly expected to be let by the State of Washington Highway Department. Completion of the road is expected, and specified in the Specifications, early in 1949.

The road when constructed will end at the foot of the slope rising to the south and approximately 3/4 mile north of the central part of Consolidated Molybdenum Inc. property.

From examination, access to the property from the end of the Mine to Market Road, as now located, will be upwards of 1 and 3/4 miles of road on a 9% grade, with perhaps one or two "switch-backs". This route would take off up the Lennox River and over a northeasterly slope affording ample way for sustaining the desired grade.

Ground is very good for road construction and with proper drainage should not present any difficulties. The route follows thru a timbered area; hence no snow slide trouble.

DESCRIPTION

The Consolidated Molybdenum Inc. property is a group of 10 claims, center lines of which extend from Cougar Creek South 52° East. The southerly string consists of 4 claims, each 1500 ft. up the mountain side and running from Cougar Creek South 52° East, 6000 ft. Northerly from and parallel and adjacent to this string, are two strings of 3 claims extending so that the southeasterly end lines of all three strings lie in a straight line. Another way of description is to say that 9 claims form a rectangle

4500 ft., or three claims, long, and extending South 52° East up the mountain, and three claims or 1800 ft. wide, at right angles to the slide lines across the upward slope. The tenth claim extends in line from the northwesterly part of the rectangular group downward to Cougar Creek - a handle on a rectangle.

The entire surface of the property is covered with a growth of Alpine and Noble Fir and Yellow Cypress. Some of the Cypress attains a diameter of 6 ft. indicating great age and the trees stand uninjured or deformed from any slides or other catastrophic agencies. This indicates a safe surface.

Along the general center line of the southwesterly four claims up the mountain, there is a canyon, rising on a slope of 35°, or 57 ft. per 100 ft. The walls are sheer granit and rise, in places, upwards of 100 ft. above the floor; the width of the canyon varies from 15 ft to 50 ft.

The floor from Cougar Creek to the top of the slope is a Pegmatite with quartz, lying in laminated formation - 2 to 6 inches of the Pegmatite with a quartz ribbon in between - 1/4 to 3 inches thick. These alternate ribbons fill the entire width between the canyon walls, and the Molybdenite ore is found in this floor formation.

A tunnel 5 ft. by 7 ft. in section is driven in this canyon, in the second claim, some 1200 ft. from and 600 or 700 ft. higher than Cougar Creek.

The portal is in the side of the canyon, safely out of the creek

bed and after traversing thru the granite wall, strikes the Pegmatite vein, 100 feet in, and under the northerly side of the vein. It then follows the vein for a distance of 100 feet to the tunnel face. The walls of the tunnel are impregnated with the Molybdenite ore.

Parallel to and northerly from the canyon there are two creeks flowing in small gulches, in which the same Pegmatite shows up. Their extent is at present undetermined, The indication is more than enough to warrant extensive investigation. A great deal of Molybdic Ocher coloration shows all along each of these creeks and Molybdic Ocher is an excellent guide to underlying Molybdenite deposits.

THE DEPOSIT

The strike of the veins on the Consolidated Molybdenum Inc. Property is South 52° East, the dip is 80° to 90°. The Pegmatite in the Canyon itself lies exposed from the upper edge of the talus above Cougar Creek, upward along the Canyon floor some 5000 ft. It varies in width from 15 to 50 ft. Pegmatites rise from very great depths, and are notorious for their irregular structure. Their depth range is so great that no mine starting on a productive Pegmatite is likely to reach a horizon too deep for further deposits.

Zonal arrangment of minerals within Pegmatite bodies is common, but these changes are usually symetrical with respect to the walls and to the center line, and are not expression of depth. This is to say that any change of mineral within the body takes place immediately across the section of Pegmatite, horizontally, and say, at right angles to the main axis of the

vein; it does not change vertically as in enrichment veins with their zonal arrangement, according to age and specific gravities.

This characteristic of Pegmatites is quite dependable, and applied to the Consolidated Molybdenum Inc. property we have a Pegmatite vein in depth from Elevation 3500 at Cougar Creek, rising thru the four claims South 52° East to Elevation around 6000, or a depth of probably 2500 ft. with no information as to depth below Cougar Creek bed.

Again, this same vein or a close relative strike off to the northwest on the same bearing of North 52° West over Goat Mountain to Sunday Lake and can be traced for two and one-half miles; where it crosses Goat Mountain about one mile northwest, it outcrops considerably higher than the apex of the Consolidated Molybdenum property.

This leads to the conclusion that here lies a tremendous body of ore.

IMPORTANCE OF MOLYBDENUM

The reasonable assurance of an ample deposit of ore brings up the question of - what gives this ore its importance? What is it used for? What is its value?

Molybdenite is composed of two elements, 60% molybdenum and 40% sulphur, and is also known as Molybdenum Sulphide. It is a soft, shiny, grey or black mineral usually in flakes or plates. Its hardness is 1, and specific gravity 4.8. A cubic foot will weigh up to 300 pounds.

Molybdenite is used as a lubricant; in its place, superior to

graphite, which it somewhat resembles. It is especially valuable around high-speed machinery and the moving parts of delicate instruments, as a lubricant. Refined, that is, Molybdenite with constituent parts separated-smelted, leaves the metal, Molybdenum. Molybdenum is used in steel alloys for high-speed tools, and steel and iron castings. It is found in the United States in Maine, New Hampshire, Washington, Colorado and New Mexico.

Its value exists both before and after smelting. Refining and concentrating is rather ticklish because of its specific gravity coming close to the copper pyrites which may be present in small quantities in the Pegmatite along its joints with the Host Rock. This examination has disclosed no pyrites but some is almost inevitable; however, the metal is recovered and the process is not an involved one as witness the present production.

The demand since World War II has greatly increased on account of new uses and wider distribution of consumption; the price is by the pound, at present about 46¢ a pound for the Molybdenite at the mine.

ASSAYS

Such data as to assays is, at this time, scant. The few samples reported upon show 1½% - 4% - 5% and one sample which returned 10%. This, roughly, gives 100 pounds per ton, or, say, $45.00 per ton. From all indications this does not seem unreasonable.

DEVELOPMENT

The matter of development on the Consolidated Molybdenum Inc. property is one that should be give utmost care. Access to the property at this time is over trails and roads, and by late 1949 every indication is that motor traffic will be available to within 3/4 of a mile from the present cabin.

The existing tunnel on the property appears to be in a well selected location. In this respect, it is not as criticism but as a suggestion, that a tunnel lower down toward Cougar Creek might be to a better advantage, as some 400 or 500 feet of elevation might better be utilized. The operating plan would control this matter. The mine looks as though it could be developed by working several levels.

The slope down to the bottom of the hill is straight and anywhere on a convenient spot, the mill should be placed; this is a control factor.

It seems, from present information, that ore might be transferred over aerial tram from the upper reaches to a mill close down by the road where it could be loaded onto trucks for shipping. The mill to concentrate and store for shipping.

There is good possibility of ample water power both in Cougar Creek and on Lennox River. Would suggest that this be with low head turbine. Machinery is more expensive but requires less construction - has a tendency towards getting everything "close-in".

Owing to the distance out, it would appear that camp buildings will be necessary; a cook house with commissary and, later, a superintendent's house with an office.

Mine timbers will be necessary, which may be cut from timber on the ground. This will probably work out cheaper if a small "portable mill" were set up at the start. Lumber and timbers could be cut from standing

timber on the property as required and around $25.00 per M. saved over market cost. It would also save unnecessary traffic over the road, which can interfere with ore shipment.

CONCLUSION

From the indications on Consolidated Molybdenum Inc. property it should be plain to anyone acquainted with the ore Molybdenite, and the rock Pegmatite, that here lies a very promising Mine Property. The potential tonnage would only be a wild, wierd guess at this time. It is certain that one vein some 5000 feet long, 15 feet wide, and average 1250 feet in depth exists and is in sight at a single glance. With two other veins not so plainly discernible but showing strong evidence of similar existence, it is too hypothetical at this time, to say anything more.

We know only partially what the bottom may be. The ore appears remarkably free from other metals than Molybdenum. The definite assurance of the road being built close to the Mine is an advantage few properties can enjoy. In short, every feature and circumstance pertaining to this property is enhancing its value.

Hypothetically estimating production for sake of further elucidation, let us assume one tunnel 5 ft. by 7 ft. the length of each string of claims. The total length of tunnel would then be

6000 ft. in the southerly string of 4 claims
4500 ft. in each of the two northerly strings, or
15000 ft. of theoretically productive ore.

then the volume of material would be

$$\frac{5 \times 7 \times 15000}{15 \text{ cu. ft. per ton}} \text{ OR } 35000 \text{ tons}$$

Average value of 35000 tons @ 5% or 100 lbs. Molybdenite per ton of ore would yield 3,500,000 lbs. of Molybdenite.

Such a vast quantity, even in theory, is staggering and should not, of course, be used in any reasonable estimates. But again, we have only considered depth at 7 ft. and there is likely to be 1200 or 1500 feet of depth, plus what may lie below the level of Cougar Creek Floor. Ore should be expected to such depth as Pegmatite may extend, and mined to such a horizon as the rock will stand, and Pegmatite extends to very great depth.

It should be remembered also, that Uraninite, found only in Pegmatites, is not an impossibility. No one knows for sure that this ore does not exist here on this property, and finding none would be no loss. No investigation has been made as far as we know. The basic conditions for Uranium, Thorium, and other rare metals exist in this Pegmatite, and is worth the test. The quantity of Molybdenite would soon pay the cost of such an investigation.

Then too, as characteristic in Pegmatite, there are quantities of clear quartz crystals in the rock around these dykes, Some observed, measured 3 inches long by 1 inch across. These, when clear, are valuable in lens making, and in radio and other industrial uses.

Accessibility and extent of the deposit make this property a very valuable one.

Chas M Sprague

STATUTORY STATEMENT - CONSOLIDATED MOLYBDENUM INC.

Filed with Director of Licenses of State of Washington.

EXHIBIT 1. Incorporated in State of Washington, May 25, 1948.

EXHIBIT 2. Address of registered business office in State of Washington: 14521 Aurora Avenue, Seattle 33, Washington.

EXHIBIT 3. List of officers, all of whom are directors, holding office for term of one year, and amount of stock held:

G.L.Hansen, vice president, 614 Yale Avenue N., Seattle, Wash.	127,500 shares held
L.J.Madden, vice president, Rt.3 Box 415, Bremerton,Wash.	127,500 shares held
K.O.Welling, secretary, 14521 Aurora Ave., Seattle, Wash.	127,500 shares held
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Deferred charges, prepaid expenses.....	25,500.00		
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	No. Shares	Offering Price
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Approximate amount of commissions to be paid.....		36,750.00
Approximate amount of exploration work, development work, and equipment to be purchased.....		110,000.00

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Dated May 25, 1948.

(Corporate Seal)

CONSOLIDATED MOLYBDENUM, INC.

Garry L Hansen

By G.L.Hansen, President.

Attest: K.O.Welling, Secretary

CONSOLIDATED MOLYBDENUM, INC.

BALANCE SHEET
December 31, 1950

ASSETS

Current Assets:		
Cash	$ 219.31	
Accounts Receivable	600.00	
Total Current Assets		$ 819.31
Fixed Assets:		
Deferred Development	$ 2,227.54	
Office Furniture and Fixtures	15.75	
Land	153,000.00	
Total Fixed Assets		155,243.29
Total Assets		$156,062.60

LIABILITIES

Current Liabilities:		
Pledges Received	$ 300.00	
Pledged Contracts	600.00	
Total		$ 900.00
Capital:		
Capital Stock, Authorized	$300,000.00	
Less - Capital Stock, Unissued	145,600.00	
Capital Stock Issued		154,400.00
Paid-in Surplus		762.60
Total Liabilities and Capital		$156,062.60

dma 1746X

REPORT ON

CONSOLIDATED MOLYBDENUM, INC. HOLDINGS

IN THE BUENA VISTA MINING DISTRICT

KING COUNTY, WASHINGTON

by

OLIN M. SPRAGUE

Professional Engineer
641 N. Callow Avenue
Bremerton, Washington.

"BECAUSE THESE SECURITIES ARE BELIEVED TO BE EXEMPT FROM REGISTRATION, THEY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION; BUT SUCH EXEMPTION, IF AVAILABLE, DOES NOT INDICATE THAT THE SECURITIES HAVE BEEN EITHER APPROVED OR DISAPPROVED BY THE COMMISSION OR THAT THE COMMISSION HAS CONSIDERED THE ACCURACY OR COMPLETENESS OF THE STATEMENTS IN THIS COMMUNICATION."

641 N. Callow Av.

Bremerton, Wash.

October 23, 1948.

At your request I have made an examination of the mining claims comprising the Consolidated Molybdenum, Inc. Mine property during October, 1948.

I am embracing my findings in the attached Report. This Report is based upon what I have seen, from certain recorded documents, maps, and from conversations with persons whom I consider to know whereof they have spoken.

The intent herein is to give an accurate description of the property with the purpose in mind of offering duly substantiated facts, or, at times, my conclusions based upon my observations, combined with written documents.

My purpose is to so place my statement of fact, that those interested in what I am saying will be able to draw correct conclusions relative to this Mining Property, upon reading and studying what is to follow.

Elias M. Sprague

Registered Professional Engineer.

CONSOLIDATED MOLYBDENUM INC. PROPERTY

The Consolidated Molybdenum Inc. Property is located in Section 27, Twp. 25 N., R. 10 E., W.M. in the northeastern part of King County, Washington. It is in the Buena Vista Mining District. Official Records of the property are kept in the County Auditor's Office, of King County, at Seattle, Washington.

Ownership is by Possessory Right, which, under United States and Washington State Mineral and Mining Laws, means that the claimant in possession can not be disturbed except by some one who shows a better right to the premises.

The present owner has possessed, occupied, and improved the property, and complied with the legal requirements since 1905, or thereabouts.

Claim corners are in place and the boundary lines marked in the usual manner.

There is a log cabin 18 feet by 18 feet conveniently situated upon the property: a good trail leading thereto, and a tunnel 5 feet by 7 feet in section. Some mining tools and cabin equipment.

The general appearance of the property is such as convinces one that the owner or claimant, has thru all these years, valued and cherished this property. The said owner shows by his toil and effort that he has continuously placed faith in the promise the property offers.

It might be further stated as a fact, that the toil and effort put upon the property has been purposeful, and pursued with a high degree of intelligence.

The orebody outcropping and in the tunnel, is a mass and a flaked Molybdenite in a large Pegmatite dyke. There is reason to believe that this property contains at least two other, and separate Pegmatite dykes.

ACCESSIBILITY

The route to the Consolidated Molybdenum Inc. property, starting from Seattle, is over U.S. Hiway No. 10, East to North Bend, some 29 miles, then northeasterly up the County Road following the North Fork of the Snoqualmie River some 26 miles. The 1 st 10 miles of this County Road has been built during 1948, and consists of a well gravelled road, built to support heavy traffic.

It is a Mine-to-Market Road on a right-of-way secured by King County thru Court condemnation. This right-of-way is secured to the Forestry Boundary, one mile further than constructed, and the Lennox Mine is at the further end of this uncompleted mile. Expectation of improvement of this last mile is thru cooperative effort of the owners of property contiguous to the Forestry Boundary and lying around the confluence of the Lennox River and the North Fork of the Snoqualmie.

From the Forestry Boundary, the State of Washington Mine-to-Market Road Commission has surveyed and located a route up the Lennox River some 4 and 1/2 miles, substantially following the old, existing

trail southeasterly to the mouth of Cougar Creek. Plans and specifications have been prepared for construction of this section of road up Lennox River, and contract for construction is shortly expected to be let by the State of Washington Highway Department. Completion of the road is expected, and specified in the Specifications, early in 1949.

The road when constructed will end at the foot of the slope rising to the south and approximately 3/4 mile north of the central part of Consolidated Molybdenum Inc. property.

From examination, access to the property from the end of the Mine to Market Road, as now located, will be upwards of 1 and 3/4 miles of road on a 9% grade, with perhaps one or two "switch-backs". This route would take off up the Lennox River and over a northeasterly slope affording ample way for sustaining the desired grade.

Ground is very good for road construction and with proper drainage should not present any difficulties. The route follows thru a timbered area; hence no snow slide trouble.

DESCRIPTION

The Consolidated Molybdenum Inc. property is a group of 10 claims, center lines of which extend from Cougar Creek South 52° East. The southerly string consists of 4 claims, each 1500 ft. up the mountain side and running from Cougar Creek South 52° East, 6000 ft. Northerly from and parallel and adjacent to this string, are two strings of 3 claims extending so that the southeasterly end lines of all three strings lie in a straight line. Another way of description is to say that 9 claims form a rectangle

4500 ft., or three claims, long, and extending South 52° East up the mountain, and three claims or 1800 ft. wide, at right angles to the slide lines across the upward slope. The tenth claim extends in line from the northwesterly part of the rectangular group downward to Cougar Creek - a handle on a rectangle.

The entire surface of the property is covered with a growth of Alpine and Noble Fir and Yellow Cypress. Some of the Cypress attains a diameter of 6 ft. indicating great age and the trees stand uninjured or deformed from any slides or other catastrophic agencies. This indicates a safe surface.

Along the general center line of the southwesterly four claims up the mountain, there is a canyon, rising on a slope of 35°, or 57 ft. per 100 ft. The walls are sheer granit and rise, in places, upwards of 100 ft. above the floor; the width of the canyon varies from 15 ft to 50 ft.

The floor from Cougar Creek to the top of the slope is a Pegmatite with quartz, lying in laminated formation - 2 to 6 inches of the Pegmatite with a quartz ribbon in between - 1/4 to 3 inches thick. These alternate ribbons fill the entire width between the canyon walls, and the Molybdenite ore is found in this floor formation.

A tunnel 5 ft. by 7 ft. in section is driven in this canyon, in the second claim, some 1200 ft. from and 600 or 700 ft. higher than Cougar Creek.

The portal is in the side of the canyon, safely out of the creek

bed and after traversing thru the granite wall, strikes the Pegmatite vein, 100 feet in, and under the northerly side of the vein. It then follows the vein for a distance of 100 feet to the tunnel face. The walls of the tunnel are impregnated with the Molybdenite ore.

Parallel to and northerly from the canyon there are two creeks flowing in small gulches, in which the same Pegmatite shows up. Their extent is at present undetermined, The indication is more than enough to warrant extensive investigation. A great deal of Molybdic Ocher coloration shows all along each of these creeks and Molybdic Ocher is an excellent guide to underlying Molybdenite deposits.

THE DEPOSIT

The strike of the veins on the Consolidated Molybdenum Inc. Property is South 52° East, the dip is 80° to 90°. The Pegmatite in the Canyon itself lies exposed from the upper edge of the talus above Cougar Creek, upward along the Canyon floor some 5000 ft. It varies in width from 15 to 50 ft. Pegmatites rise from very great depths, and are notorious for their irregular structure. Their depth range is so great that no mine starting on a productive Pegmatite is likely to reach a horizon too deep for further deposits.

Zonal arrangment of minerals within Pegmatite bodies is common, but these changes are usually symetrical with respect to the walls and to the center line, and are not expression of depth. This is to say that any change of mineral within the body takes place immediately across the section of Pegmatite, horizontally, and say, at right angles to the main axis of the

vein; it does not change vertically as in enrichment veins with their zonal arrangement, according to age and specific gravities.

This characteristic of Pegmatites is quite dependable, and applied to the Consolidated Molybdenum Inc. property we have a Pegmatite vein in depth from Elevation 3500 at Cougar Creek, rising thru the four claims South 52° East to Elevation around 6000, or a depth of probably 2500 ft. with no information as to depth below Cougar Creek bed.

Again, this same vein or a close relative strike off to the northwest on the same bearing of North 52° West over Goat Mountain to Sunday Lake and can be traced for two and one-half miles; where it crosses Goat Mountain about one mile northwest, it outcrops considerably higher than the apex of the Consolidated Molybdenum property.

This leads to the conclusion that here lies a tremendous body of ore.

IMPORTANCE OF MOLYBDENUM

The reasonable assurance of an ample deposit of ore brings up the question of - what gives this ore its importance? What is it used for? What is its value?

Molybdenite is composed of two elements, 60% molybdenum and 40% sulphur, and is also known as Molybdenum Sulphide. It is a soft, shiny, grey or black mineral usually in flakes or plates. Its hardness is 1, and specific gravity 4.8. A cubic foot will weigh up to 300 pounds.

Molybdenite is used as a lubricant; in its place, superior to

graphite, which it somewhat resembles. It is especially valuable around high-speed machinery and the moving parts of delicate instruments, as a lubricant. Refined, that is, Molybdenite with constituent parts separated-smelted, leaves the metal, Molybdenum. Molybdenum is used in steel alloys for high-speed tools, and steel and iron castings. It is found in the United States in Maine, New Hampshire, Washington, Colorado and New Mexico.

Its value exists both before and after smelting. Refining and concentrating is rather ticklish because of its specific gravity coming close to the copper pyrites which may be present in small quantities in the Pegmatite along its joints with the Host Rock. This examination has disclosed no pyrites but some is almost inevitable; however, the metal is recovered and the process is not an involved one as witness the present production.

The demand since World War II has greatly increased on account of new uses and wider distribution of consumption; the price is by the pound, at present about 46¢ a pound for the Molybdenite at the mine.

ASSAYS

Such data as to assays is, at this time, scant. The few samples reported upon show 1½% - 4% - 5% and one sample which returned 10%. This, roughly, gives 100 pounds per ton, or, say, $45.00 per ton. From all indications this does not seem unreasonable.

DEVELOPMENT

The matter of development on the Consolidated Molybdenum Inc. property is one that should be give utmost care. Access to the property at this time is over trails and roads, and by late 1949 every indication is that motor traffic will be available to within 3/4 of a mile from the present cabin.

The existing tunnel on the property appears to be in a well selected location. In this respect, it is not as criticism but as a suggestion, that a tunnel lower down toward Cougar Creek might be to a better advantage, as some 400 or 500 feet of elevation might better be utilized. The operating plan would control this matter. The mine looks as though it could be developed by working several levels.

The slope down to the bottom of the hill is straight and anywhere on a convenient spot, the mill should be placed; this is a control factor.

It seems, from present information, that ore might be transferred over aerial tram from the upper reaches to a mill close down by the road where it could be loaded onto trucks for shipping. The mill to concentrate and store for shipping.

There is good possibility of ample water power both in Cougar Creek and on Lennox River. Would suggest that this be with low head turbine. Machinery is more expensive but requires less construction - has a tendency towards getting everything "close-in".

Owing to the distance out, it would appear that camp buildings will be necessary; a cook house with commissary and, later, a superintendent's house with an office.

Mine timbers will be necessary, which may be cut from timber on the ground. This will probably work out cheaper if a small "portable mill" were set up at the start. Lumber and timbers could be cut from standing

timber on the property as required and around $25.00 per M. saved over market cost. It would also save unnecessary traffic over the road, which can interfere with ore shipment.

CONCLUSION

From the indications on Consolidated Molybdenum Inc. property it should be plain to anyone acquainted with the ore Molybdenite, and the rock Pegmatite, that here lies a very promising Mine Property. The potential tonnage would only be a wild, wierd guess at this time. It is certain that one vein some 5000 feet long, 15 feet wide, and average 1250 feet in depth exists and is in sight at a single glance. With two other veins not so plainly discernible but showing strong evidence of similar existence, it is too hypothetical at this time, to say anything more.

We know only partially what the bottom may be. The ore appears remarkably free from other metals than Molybdenum. The definite assurance of the road being built close to the Mine is an advantage few properties can enjoy. In short, every feature and circumstance pertaining to this property is enhancing its value.

Hypothetically estimating production for sake of further elucidation, let us assume one tunnel 5 ft. by 7 ft. the length of each string of claims. The total length of tunnel would then be

6000 ft. in the southerly string of 4 claims
4500 ft. in each of the two northerly strings, or
15000 ft. of theoretically productive ore.

then the volume of material would be

$$\frac{5 \times 7 \times 15000}{15 \text{ cu. ft. per ton}} \text{ OR } 35000 \text{ tons}$$

Average value of 35000 tons @ 5% or 100 lbs. Molybdenite per ton of ore would yield 3,500,000 lbs. of Molybdenite.

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Dated May 25, 1948.

(Corporate Seal)

CONSOLIDATED MOLYBDENUM, INC.

Garry L Hansen

By G.L.Hansen, President.

Attest: K.O.Welling, Secretary

OFFICE
305 Howarth Hall
College of Puget Sound
Pr. 3521

FREDERICK A. McMILLIN
Economic Geologist
Tacoma, Washington

RESIDENCE
3101 North 31st Street
Pr. 1715

On October 7 to 9, 1949, an attempt was made to examine the holdings of the Consolidated Molybdenum, Inc., property located in sec. 26 and 27, R10E, T 25 N, W.M. Conditions of weather made a complete examination impossible. Determination of the nature and character of the veins was possible and this section of the report will deal with this phase.

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Molybdenite tends to deposit in definite zones, but just what part of the zone of deposition is represented by the area that is intersected by the tunnel is not clear; however, it is my impression from what I observed that the location of the tunnel is about midway in the zone of molybdenite deposition. At a higher elevation represented by advancing up the canyon, the other sulfides seem to run stronger. At some distance down the canyon, there are tear faults that have a good showing of molybdenite. These facts would seem to establish the above hypotheses.

There were no samples taken at this time for assay. Samples should be carefully cut from wall to wall and of uniform depth and assayed. Until this is done very little can be said as to whether the Devil's Canyon is a mine or not. Just by visual inspection, it would appear that there is enough strength to the deposit to warrant a complete sampling and detailed examination.

After sampling and assaying has established the tenure of the ore, then a mining engineer could lay out a mining system for the adequate development of the property. The topography is such that the location of tunnels and the necessary appurtenant works would not present a problem.

On August 19, 1950 the property of the Consolidated Molybdenum Incorporated was visited by the author with the purpose of completing the examination that was started last October and abandoned because of adverse weather conditions. The canyon was explored except the extreme upper end. Heavy rains made the entrance of the canyon at this point impossible.

In the preliminary report the rock conditions were discussed in detail and the type of veins were studied. Here the author will only augment that report and make some changes in the sequence of events that lead to the deposition of molybdenite as the characteristic sulfide mineral.

The Consolidated Molybdenum Incorporated properties are in Section 26, 27; R.10 E.; T.25 N.; W.M.

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Metallic Molybdenum was isolated in 1782 but no large scale production was made until 1913 and real important production began in 1927. Practically all molybdenum produced is utilized in the making of alloys of iron and steel. Molybdenum acts like tungsten but more so. It requires approximately 50% less molybdenum to obtain a similar quality of alloy. Molybdenum is at the present the most important hardening alloying metal. Strength, ductility, and a tendency to resist crystallization in iron and steel are increased by the use of molybdenum. Molybdenum alloyed steels are extensively used where strength, heat resistance, and resistance to crystallization are required as in aircraft parts, automobiles, shafts,

high speed tools, gears, guns, and armor plate. These uses make molybdenum a critical metal in peace as well as war.

Geology: The walls of Devil's Canyon are pre-Cascadian or early Cascadian granite (hornblend biotite granite). The sequence of events that produced Devil's Canyon are:

(1) Normal faulting in which the west block had both a strike and dip component. This resulted in both vertical and horizontal displacement. Erosion has obscured the amount of this movement and as it has no direct relation to the events that produced the mineralization very little time was spent on this consideration.

(2) Into this fault was intruded a dilation dyke of granodiorite. This granodiorite is of the so called Cascadian granodiorite type.

(3) A second series of movements took place that shattered the granodiorite dike but apparently did not extend into the wall rock.

(4) Into these secondary fractures were intruded quarts in small amounts. Well formed crystals were present in places.

(5) Movement was again active. This third movement extended into the canyon wall producing tear faults in the downthrow block, West block, or foot wall.

(6) At sometime later, probably at or near the last stages of Cascadian intrusive action, veins of moderate high temperature quarts invaded all fractures. These solutions and vapors carrying quartz and molybdenite were under sufficient pressure to invade the granodiorite, depositing fine grained molybdenite in the spaces between the crystals of the rock. In some places rosettes of molybdenite occures in the granodiorite.

The Quartz carrying molybdenite is in the main glassy with the molybdenite occurring within the quartz as well as at the contact of the veins with the wall rock. These quartz veins make up approximately 25% of the mineralized area.

Devil's Canyon is a narrow slot left by the erosion of the quarts bearing granodiorite dike. The walls are precipitous and the grade of the canyon is roughly 22 degrees. This, however, is interrupted by several abrupt cliffs in the floor of the canyon and becomes a torrent even with a small amount of rain. Much of the canyon floor is covered with detritus that obscures mineralization.

Deer Gulch is the main tear fault that cuts the foot wall block. This fault has the same history as the main Devil's Canyon fault and contains the same type of mineralization. The vein in Deer Gulch may be the vein that is cut by the tunnel in Devil's Canyon, but more probably it is a tear fault vein of simultaneous origin. However there is evidence that there is a second dike east of Devil's Canyon. This was not investigated but should be.

The mineralized zone varies in width from two feet to ten feet. The pinching and swelling follows the original fault walls and is characteristic.

As elevation in the canyon is gained by advancing up the canyon, other sulfide minerals appear. This is the normal history of veins of this type. The description of the mineralized area was difficult because of the erosion. One rarely sees the entire width of the mineralized dike and the quartz veins that accompany it at a single exposure. The dike rock has had some alteration as the result of the intrusion of the quartz bearing hot solutions. This has made the deposition of the molybdenite possible by opening minute channels between the crystals that were disturbed by the fault movement. In the granodiorite that has been exposed by the erosion and acted upon by the air plus some acide waters, some of the molybdenite has been altered to molybdite, Mo_2O_3 or molybdenum ochre. This gives the rock some of the characteristic yellow appearance. This should not be confused with the yellowish color of the iron stains of limonite.

The quartz veins range in width from almost undiscernible veinlets to veins six inches wide. Associated with the quartz vein matter is a small amount of serisite probably derived from the alteration of the feldspars. The dissemination of molybdenite in both the granodiorite and the quartz veins is not uniform in

concentration but leans and strengthens from area to area. Where the vein is broadest the mineralization may be reduced per unit area, but the amount of mineral present will be approximately the same. Where two quartz veins or late faults intersect there is a tendency towards enrichment. The overall is a strong showing of molybdenum with ample tops to make an operation advisable.

Before much capital is invested for other purposes there should be a drilling program planned and the results of such a program carefully studied. This will tell just how much ore there is present and how it is concentrated. As the property now stands it is a raw prospect and there is no ore that can be estimated or described farther than to say that there is, on the basis of surface showings, a sizable tonnage of theoretical ore.

As molybdenite tends to deposit in a definite zone under rather a narrow thermal range, it would appear that the location of the present tunnel is in the upper part of the lower half of the mineralized zone. A new location should be sought at a lower level and a mining engineer employed to lay out the mining methods. Such a location could be found about two hundred feet below the present tunnel level.

After careful examination of the property it is my recommendation that the Board of Directors draw up a plan that will give a comprehensive and logical approach to the problem. This should be in writing for future reference. Discoveries should be made on the other two claims and trails blazed to said discoveries so that they may be readily accessible for examination.

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It is my belief that such a method of sampling would show enough strength to the ore body to warrant development in the immediate future.

/s/ F. A. McMillin

F. A. McMILLIN
Economic Geologist

CONSOLIDATED MOTION INN, INC.

BALANCE SHEET
December 31, 1950

ASSETS

Current Assets:

Cash	$ 210.31	
Accounts Receivable	600.00	
Total Current Assets		$ 810.31

Fixed Assets:

Motorized Development	$ 2,227.94	
Office Furniture and Fixtures	10.70	
Land	195,000.00	
Total Fixed Assets		195,238.39
Total Assets		$196,048.60

LIABILITIES

Current Liabilities:

Pledges Received	$ 500.00	
Pledged Contracts	500.00	
Total		$ 500.00

Capital:

Capital Stock, Authorized	$500,000.00	
Less - Capital Stock, Unissued	400,000.00	
Capital Stock Issued		100,000.00
Paid-in Surplus		548.60
Total Liabilities and Capital		$196,048.60

dma 1746X

XXXXXXXXXXXXXX

801 Central Building

June 19, 1951

United States Department of the Interior
Geological Survey
S. 157 Howard Street
Spokane 8, Washington

Gentlemen:

Thank you for your letter of June 5, 1951. This is in regard to our application for Federal aid on molybdenum. At the time of filing that, we did not understa nd that a seperate MF-103 was necessary for each application. This will of course, effect our estimated cost on the molybdenum. The total estimated cost would be $6,000.00. As to the manner in which this would be used, we have not as yet been able to decide. We have beenadvised to drill the property, which would cost about $5,000.00 for three holes of a little over 300 feet each. This work would be let out on a contract basis to an independent drilling contractor. However, we have received advice also that it would be unnecessary to drill and that it would be better to spend that money in driving shafts to locate the veins. This can easily be done as the molybdenum is visible on the surface of the canyon floor in places. We therefore wish to secure competent advice from a rather experienced mining engineer. We should like to engage the services of such an engineer and then depending upon his advice either institute the drilling program or drive the shafts. I believe the latter would be the more practical. We acknowledge that the exploration program for molybdenum would be on a 50% matching basis. Incidentally, the cost of drilling would be close to $5.00 per foot. We have not as yet obtained a sound estimate from any driller.

Very truly yours,

CONSOLIDATED MOLYBDENUM, INC.

V. M. Osterberg
President

VMO:vl

dma 1746X

FREDERICK A. McMILLIN
Economic Geologist
Tacoma, Washington

OFFICE
305 Howarth Hall
College of Puget Sound
Pr. 3521

RESIDENCE
3101 North 31st Street
Pr. 1715

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/s/ F. A. McMillin

F. A. McMILLIN
Economic Geologist

REPORT ON

CONSOLIDATED MOLYBDENUM, INC. HOLDINGS

IN THE BUENA VISTA MINING DISTRICT

KING COUNTY, WASHINGTON

by

OLIN M. SPRAGUE

Professional Engineer
641 N. Callow Avenue
Bremerton, Washington.

"BECAUSE THESE SECURITIES ARE BELIEVED TO BE EXEMPT FROM REGISTRATION, THEY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION; BUT SUCH EXEMPTION, IF AVAILABLE, DOES NOT INDICATE THAT THE SECURITIES HAVE BEEN EITHER APPROVED OR DISAPPROVED BY THE COMMISSION OR THAT THE COMMISSION HAS CONSIDERED THE ACCURACY OR COMPLETENESS OF THE STATEMENTS IN THIS COMMUNICATION."

641 N. Callow Av.

Bremerton, Wash.

October 23, 1948.

At your request I have made an examination of the mining claims comprising the Consolidated Molybdenum, Inc. Mine property during October, 1948.

I am embracing my findings in the attached Report. This Report is based upon what I have seen, from certain recorded documents, maps, and from conversations with persons whom I consider to know whereof they have spoken.

The intent herein is to give an accurate description of the property with the purpose in mind of offering duly substantiated facts, or, at times, my conclusions based upon my observations, combined with written documents.

My purpose is to so place my statement of fact, that those interested in what I am saying will be able to draw correct conclusions relative to this Mining Property, upon reading and studying what is to follow.

Elmer M. Ferguson

Registered Professional Engineer.

CONSOLIDATED MOLYBDENUM INC. PROPERTY

The Consolidated Molybdenum Inc. Property is located in Section 27, Twp. 25 N., R. 10 E., W.M. in the northeastern part of King County, Washington. It is in the Buena Vista Mining District. Official Records of the property are kept in the County Auditor's Office, of King County, at Seattle, Washington.

Ownership is by Possessory Right, which, under United States and Washington State Mineral and Mining Laws, means that the claimant in possession can not be disturbed except by some one who shows a better right to the premises.

The present owner has possessed, occupied, and improved the property, and complied with the legal requirements since 1905, or thereabouts.

Claim corners are in place and the boundary lines marked in the usual manner.

There is a log cabin 18 feet by 18 feet conveniently situated upon the property: a good trail leading thereto, and a tunnel 5 feet by 7 feet in section. Some mining tools and cabin equipment.

The general appearance of the property is such as convinces one that the owner or claimant, has thru all these years, valued and cherished this property. The said owner shows by his toil and effort that he has continuously placed faith in the promise the property offers.

It might be further stated as a fact, that the toil and effort put upon the property has been purposeful, and pursued with a high degree of intelligence.

The orebody outcropping and in the tunnel, is a mass and a flaked Molybdenite in a large Pegmatite dyke. There is reason to believe that this property contains at least two other, and separate Pegmatite dykes.

ACCESSIBILITY

The route to the Consolidated Molybdenum Inc. property, starting from Seattle, is over U.S. Hiway No. 10, East to North Bend, some 29 miles, then northeasterly up the County Road following the North Fork of the Snoqualmie River some 26 miles. The 1 st 10 miles of this County Road has been built during 1948, and consists of a well gravelled road, built to support heavy traffic.

It is a Mine-to-Market Road on a right-of-way secured by King County thru Court condemnation. This right-of-way is secured to the Forestry Boundary, one mile further than constructed, and the Lennox Mine is at the further end of this uncompleted mile. Expectation of improvement of this last mile is thru cooperative effort of the owners of property contiguous to the Forestry Boundary and lying around the confluence of the Lennox River and the North Fork of the Snoqualmie.

From the Forestry Boundary, the State of Washington Mine-to-Market Road Commission has surveyed and located a route up the Lennox River some 4 and 1/2 miles, substantially following the old, existing

trail southeasterly to the mouth of Cougar Creek. Plans and specifications have been prepared for construction of this section of road up Lennox River, and contract for construction is shortly expected to be let by the State of Washington Highway Department. Completion of the road is expected, and specified in the Specifications, early in 1949.

The road when constructed will end at the foot of the slope rising to the south and approximately 3/4 mile north of the central part of Consolidated Molybdenum Inc. property.

From examination, access to the property from the end of the Mine to Market Road, as now located, will be upwards of 1 and 3/4 miles of road on a 9% grade, with perhaps one or two "switch-backs". This route would take off up the Lennox River and over a northeasterly slope affording ample way for sustaining the desired grade.

Ground is very good for road construction and with proper drainage should not present any difficulties. The route follows thru a timbered area; hence no snow slide trouble.

DESCRIPTION

The Consolidated Molybdenum Inc. property is a group of 10 claims, center lines of which extend from Cougar Creek South 52° East. The southerly string consists of 4 claims, each 1500 ft. up the mountain side and running from Cougar Creek South 52° East, 6000 ft. Northerly from and parallel and adjacent to this string, are two strings of 3 claims extending so that the southeasterly end lines of all three strings lie in a straight line. Another way of description is to say that 9 claims form a rectangle

4500 ft., or three claims, long, and extending South 52° East up the mountain, and three claims or 1800 ft. wide, at right angles to the slide lines across the upward slope. The tenth claim extends in line from the northwesterly part of the rectangular group downward to Cougar Creek - a handle on a rectangle.

The entire surface of the property is covered with a growth of Alpine and Noble Fir and Yellow Cypress. Some of the Cypress attains a diameter of 6 ft. indicating great age and the trees stand uninjured or deformed from any slides or other catastrophic agencies. This indicates a safe surface.

Along the general center line of the southwesterly four claims up the mountain, there is a canyon, rising on a slope of 35°, or 57 ft. per 100 ft. The walls are sheer granit and rise, in places, upwards of 100 ft. above the floor; the width of the canyon varies from 15 ft to 50 ft.

The floor from Cougar Creek to the top of the slope is a Pegmatite with quartz, lying in laminated formation - 2 to 6 inches of the Pegmatite with a quartz ribbon in between - 1/4 to 3 inches thick. These alternate ribbons fill the entire width between the canyon walls, and the Molybdenite ore is found in this floor formation.

A tunnel 5 ft. by 7 ft. in section is driven in this canyon, in the second claim, some 1200 ft. from and 600 or 700 ft. higher than Cougar Creek.

The portal is in the side of the canyon, safely out of the creek

bed and after traversing thru the granite wall, strikes the Pegmatite vein, 100 feet in, and under the northerly side of the vein. It then follows the vein for a distance of 100 feet to the tunnel face. The walls of the tunnel are impregnated with the Molybdenite ore.

Parallel to and northerly from the canyon there are two creeks flowing in small gulches, in which the same Pegmatite shows up. Their extent is at present undetermined, The indication is more than enough to warrant extensive investigation. A great deal of Molybdic Ocher coloration shows all along each of these creeks and Molybdic Ocher is an excellent guide to underlying Molybdenite deposits.

THE DEPOSIT

The strike of the veins on the Consolidated Molybdenum Inc. Property is South 52° East, the dip is 80° to 90°. The Pegmatite in the Canyon itself lies exposed from the upper edge of the talus above Cougar Creek, upward along the Canyon floor some 5000 ft. It varies in width from 15 to 50 ft. Pegmatites rise from very great depths, and are notorious for their irregular structure. Their depth range is so great that no mine starting on a productive Pegmatite is likely to reach a horizon too deep for further deposits.

Zonal arrangment of minerals within Pegmatite bodies is common, but these changes are usually symetrical with respect to the walls and to the center line, and are not expression of depth. This is to say that any change of mineral within the body takes place immediately across the section of Pegmatite, horizontally, and say, at right angles to the main axis of the

vein; it does not change vertically as in enrichment veins with their zonal arrangement, according to age and specific gravities.

This characteristic of Pegmatites is quite dependable, and applied to the Consolidated Molybdenum Inc. property we have a Pegmatite vein in depth from Elevation 3500 at Cougar Creek, rising thru the four claims South 52° East to Elevation around 6000, or a depth of probably 2500 ft. with no information as to depth below Cougar Creek bed.

Again, this same vein or a close relative strike off to the northwest on the same bearing of North 52° West over Goat Mountain to Sunday Lake and can be traced for two and one-half miles; where it crosses Goat Mountain about one mile northwest, it outcrops considerably higher than the apex of the Consolidated Molybdenum property.

This leads to the conclusion that here lies a tremendous body of ore.

IMPORTANCE OF MOLYBDENUM

The reasonable assurance of an ample deposit of ore brings up the question of - what gives this ore its importance? What is it used for? What is its value?

Molybdenite is composed of two elements, 60% molybdenum and 40% sulphur, and is also known as Molybdenum Sulphide. It is a soft, shiny, grey or black mineral usually in flakes or plates. Its hardness is 1, and specific gravity 4.8. A cubic foot will weigh up to 300 pounds.

Molybdenite is used as a lubricant; in its place, superior to

graphite, which it somewhat resembles. It is especially valuable around high-speed machinery and the moving parts of delicate instruments, as a lubricant. Refined, that is, Molybdenite with constituent parts separated-smelted, leaves the metal, Molybdenum. Molybdenum is used in steel alloys for high-speed tools, and steel and iron castings. It is found in the United States in Maine, New Hampshire, Washington, Colorado and New Mexico.

Its value exists both before and after smelting. Refining and concentrating is rather ticklish because of its specific gravity coming close to the copper pyrites which may be present in small quantities in the Pegmatite along its joints with the Host Rock. This examination has disclosed no pyrites but some is almost inevitable; however, the metal is recovered and the process is not an involved one as witness the present production.

The demand since World War II has greatly increased on account of new uses and wider distribution of consumption; the price is by the pound, at present about 46¢ a pound for the Molybdenite at the mine.

ASSAYS

Such data as to assays is, at this time, scant. The few samples reported upon show 1½% - 4% - 5% and one sample which returned 10%. This, roughly, gives 100 pounds per ton, or, say, $45.00 per ton. From all indications this does not seem unreasonable.

DEVELOPMENT

The matter of development on the Consolidated Molybdenum Inc. property is one that should be give utmost care. Access to the property at this time is over trails and roads, and by late 1949 every indication is that motor traffic will be available to within 3/4 of a mile from the present cabin.

The existing tunnel on the property appears to be in a well selected location. In this respect, it is not as criticism but as a suggestion, that a tunnel lower down toward Cougar Creek might be to a better advantage, as some 400 or 500 feet of elevation might better be utilized. The operating plan would control this matter. The mine looks as though it could be developed by working several levels.

The slope down to the bottom of the hill is straight and anywhere on a convenient spot, the mill should be placed; this is a control factor.

It seems, from present information, that ore might be transferred over aerial tram from the upper reaches to a mill close down by the road where it could be loaded onto trucks for shipping. The mill to concentrate and store for shipping.

There is good possibility of ample water power both in Cougar Creek and on Lennox River. Would suggest that this be with low head turbine. Machinery is more expensive but requires less construction - has a tendency towards getting everything "close-in".

Owing to the distance out, it would appear that camp buildings will be necessary; a cook house with commissary and, later, a superintendent's house with an office.

Mine timbers will be necessary, which may be cut from timber on the ground. This will probably work out cheaper if a small "portable mill" were set up at the start. Lumber and timbers could be cut from standing

timber on the property as required and around $25.00 per M. saved over market cost. It would also save unnecessary traffic over the road, which can interfere with ore shipment.

CONCLUSION

From the indications on Consolidated Molybdenum Inc. property it should be plain to anyone acquainted with the ore Molybdenite, and the rock Pegmatite, that here lies a very promising Mine Property. The potential tonnage would only be a wild, wierd guess at this time. It is certain that one vein some 5000 feet long, 15 feet wide, and average 1250 feet in depth exists and is in sight at a single glance. With two other veins not so plainly discernible but showing strong evidence of similar existence, it is too hypothetical at this time, to say anything more.

We know only partially what the bottom may be. The ore appears remarkably free from other metals than Molybdenum. The definite assurance of the road being built close to the Mine is an advantage few properties can enjoy. In short, every feature and circumstance pertaining to this property is enhancing its value.

Hypothetically estimating production for sake of further elucidation, let us assume one tunnel 5 ft. by 7 ft. the length of each string of claims. The total length of tunnel would then be

6000 ft. in the southerly string of 4 claims
4500 ft. in each of the two northerly strings, or
15000 ft. of theoretically productive ore.

then the volume of material would be

$$\frac{5 \times 7 \times 15000}{15 \text{ cu. ft. per ton}} \text{ OR } 35000 \text{ tons}$$

Average value of 35000 tons @ 5% or 100 lbs. Molybdenite per ton of ore would yield 3,500,000 lbs. of Molybdenite.

Such a vast quantity, even in theory, is staggering and should not, of course, be used in any reasonable estimates. But again, we have only considered depth at 7 ft. and there is likely to be 1200 or 1500 feet of depth, plus what may lie below the level of Cougar Creek Floor. Ore should be expected to such depth as Pegmatite may extend, and mined to such a horizon as the rock will stand, and Pegmatite extends to very great depth.

It should be remembered also, that Uraninite, found only in Pegmatites, is not an impossibility. No one knows for sure that this ore does not exist here on this property, and finding none would be no loss. No investigation has been made as far as we know. The basic conditions for Uranium, Thorium, and other rare metals exist in this Pegmatite, and is worth the test. The quantity of Molybdenite would soon pay the cost of such an investigation.

Then too, as characteristic in Pegmatite, there are quantities of clear quartz crystals in the rock around these dykes, Some observed, measured 3 inches long by 1 inch across. These, when clear, are valuable in lens making, and in radio and other industrial uses.

Accessibility and extent of the deposit make this property a very valuable one.

Chas M Sprague

STATUTORY STATEMENT - CONSOLIDATED MOLYBDENUM INC.

Filed with Director of Licenses of State of Washington.

EXHIBIT 1. Incorporated in State of Washington, May 25, 1948.

EXHIBIT 2. Address of registered business office in State of Washington: 14521 Aurora Avenue, Seattle 33, Washington.

EXHIBIT 3. List of officers, all of whom are directors, holding office for term of one year, and amount of stock held:

G.L.Hansen, vice president, 614 Yale Avenue N., Seattle, Wash.	127,500 shares held
L.J.Madden, vice president, Rt.3 Box 415, Bremerton,Wash.	127,500 shares held
K.O.Welling, secretary, 14521 Aurora Ave., Seattle, Wash.	127,500 shares held
E.A.Amburn, treasurer, 1814 25th S., Seattle, Wash.	127,500 shares held
C.L.Johnston, director, 245 S.Montgomery St.,Bremerton,Wn.	127,500 shares held
E. Saurers, director, Rt.3, Box 415-B, Bremerton, Wash.	127,500 shares held
J. Madden, director, Rt. 3, Box 415, Bremerton, Wash.	127,500 shares held
G.M.Osterberg, director, 756 Stimson Bldg, Seattle, Wash.	127,500 shares held
V. Osterberg, ~~director~~ President, 19345 37th Ave.N.E., Seattle, Wn.	127,500 shares held
Mrs. L.Liptrap, director, 403 Bay Bldg., Seattle, Wash.	127,500 shares held
J. Zybura, director, 4409 - 36th So., Seattle, Wash.	127,500 shares held
Mrs.E.L.Watson,director, 756 Stimson Bldg., Seattle,Wn.	127,500 shares held

EXHIBIT 4. Number of shares of common stock authorized, all nonassessable, 3,000,000 shares, par value 10¢ each. Preferred stock, None.

EXHIBIT 5. Consolidated Molybdenum, Inc., issued 127,000 shares to each of twelve incorporators. 1,530,000 shares are placed in escrow with Frederick W. Post, 6251 - 31st N.E., Seattle, Washington, under agreement with Department of Licenses.

EXHIBIT 6. Consideration received by company from shares issued and outstanding July 1, 1948, is: On 1,530,000 shares, $153,000 value placed on lease and organizing.

EXHIBIT 7. Statement of Assets and Liabilities as of July 1, 1948.

ASSETS		LIABILITIES	
Lease on property.....	$127,500.00	Common Stock issued.....	$153,000.00
Deferred charges, prepaid expenses.....	25,500.00		
TOTAL.....	$153,000.00	TOTAL.....	$153,000.00

EXHIBIT 8. Number of shares or other securities to be issued to public in present offering:

	No. Shares	Offering Price
Common Stock.....	1,470,000	10¢
Preferred Stock.....	None	None
Approximate amount expected to be derived from sale..		$147,000.00
Approximate amount of commissions to be paid.....		36,750.00
Approximate amount of exploration work, development work, and equipment to be purchased.....		110,000.00

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EXHIBIT 9. Rate of commissions to be paid and form of payment. (In money or company's securities).

1. Agents..... 25% in money
2. Member of corporation as selling agent,.. 25% in money
3. Underwriters..... None

Amount of salaries to be paid for ensuing year:
No salaries are to be paid to the president or vice president or secretary or treasurer or general manager or others.

EXHIBIT 10. Names and addresses of authorized Agents or underwriters at time of filing:

G. M. Osterberg, 756 Stimson Bldg., Seattle, Washington
Vernon Osterberg, 19345 - 37th Avenue, N.E., Seattle, Washington
Mrs. E. L. Watson, 756 Stimson Bldg., Seattle, Washington
Mrs. Lillien Liptrap, 403 Bay Bldg., Seattle, Washington
John Zybura, 4409 - 36th South, Seattle, Washington
Garry L. Hansen, 614 Yale Avenue North, Seattle, Washington
Leonard J. Madden, Rt. 3, Box 415, Bremerton, Washington
Jack Madden, Rt. 3, Box 415, Bremerton, Washington
E. A. Amburn, 1814 - 25th South, Seattle, Washington
Kenneth O. Welling, 14521 Aurora Avenue, Seattle 33, Washington
Edwin Saurers, Rt. 3, Box 415-B, Bremerton, Washington
Carl L. Johnston, 245 S. Montgomery Street, Bremerton, Washington

EXHIBIT 11. (a) Describe fully history of company. (b) Describe claims and give their approximate location, and type of mining to be engaged in. (c) Give valuation of claims. (d) Proposed work. (e) Type of machinery and equipment to be purchased. (f) Briefly outline purpose for which funds are to be used.

Consolidated Molybdenum, Inc. was organized in May, 1948. It does not succeed any other form of mining company; it is a completely new company. The claims are located in the Buena Vista Mining district, which district is approximately 25 miles North and East of North Bend, Washington. The company has a 99 year lease on 8 claims (approximately 160 acres) lying in Section 27, Township 25 North, Range 10 East, W. M., King County, Washington. No royalties or other cash payments are payable under the lease. Ten of the incorporators own the claims and have exchanged a leasehold interest in the claims for stock in the company.

The value of the claims with improvements is $127,500.00. Some tunnel work has been done. At the point of access to the ore bearing vein, a swift mountain stream called "Devil's Canyon" cuts through the vein. A tunnel has been driven into the side of the canyon, to curve around to the vein and escape the water. Further development work proposed by the company includes driving the tunnel into the ore bearing vein; construction of housing facilities for workers, erection of mill and flotation plant, and the installation of a tram from mine to mill, together with the necessary grading.

The machinery needed and proposed to be purchased includes; Diesel power plant, 50-ton mill, flotation plant, air compressors and drills, tramway equipment and hoist, bulldozer, together with the necessary accessories and tackle for such equipment.

The purpose for which the funds will be used will be to provide access roads to the public roads, grade and level the land upon the mining claims, erect such buildings as are necessary to house men and equipment, purchase mining, milling and flotation equipment, and to develop the tunnels and shafts to the point of production; thereafter, to provide capital for the maintenance of payrolls, payment of taxes, and purchase of supplies.

There is no present authorization in the organizational plan of the company for the payment of salaries to the officers as such, and no such action is contemplated until production problems necessitate sufficient amounts of their time that salaries are deemed necessary by the board of directors in order to secure the type of administration needed to carry on the work.

Dated May 25, 1948.

(Corporate Seal)

CONSOLIDATED MOLYBDENUM, INC.

Garry L Hansen

By G.L.Hansen, President.

Attest: K.O.Welling, Secretary

CONSOLIDATED MOLYBDENUM, INC.

BALANCE SHEET
December 31, 1950

ASSETS

Current Assets:		
Cash	$ 219.31	
Accounts Receivable	600.00	
Total Current Assets		$ 819.31
Fixed Assets:		
Deferred Development	$ 2,227.54	
Office Furniture and Fixtures	15.75	
Land	153,000.00	
Total Fixed Assets		155,243.29
Total Assets		$156,062.60

LIABILITIES

Current Liabilities:		
Pledges Received	$ 300.00	
Pledged Contracts	600.00	
Total		$ 900.00
Capital:		
Capital Stock, Authorized	$300,000.00	
Less - Capital Stock, Unissued	145,600.00	
Capital Stock Issued		154,400.00
Paid-in Surplus		762.60
Total Liabilities and Capital		$156,062.60