

State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

Thornton Prospect (Scheelite)

Greenhorn District
Grant County

Foreword: This is a newly discovered prospect regarding which no previous geologic reports are known to have been issued by any individual or agency. The discovery was made by Mr. Lester E. Thornton in 1954. While enough exploratory prospecting has been done to demonstrate that the prospect is an interesting one deserving of more prospect work, the present state of prospect development is as yet insufficient in amount to permit the making of any very comprehensive report on the prevailing geologic conditions. As a result this report contains **only** the basic descriptive data necessary for setting up a file record for the occurrence and a fuller account of the geologic aspects of the occurrence will be given in supplementary reports as development warrants

Location: T. 10 S., R. 34 E., and in the area surrounding the common corner between sections 15, 16, 21 and 22. This location embraces the headwaters of Lemon Creek which is a tributary to Granite Boulder Creek. Access is by way of the Granite Boulder Creek road and an access logging road known as the Hi-Line road. The Bates Quad topographic map recently issued by the U.S. Geological Survey shows the Granite Boulder road but not the many tributary roads which exist in the area.

Owners: Claims have been taken by Lester and Queen Thornton and associates beginning July 3, 1954 and at different times thereafter during the remainder of the year. These include the Blue Indigo Group, the Wootz Group, the Scheelite Group and Lucky F and Lucky M.

General: The terrain is characterized by steep wooded hillsides with a fairly heavy soil overburden which effectively obscures bedrock conditions

over wide areas and makes prospecting difficult. Elevation in the area covered by the principal claims ranges between 5000 and 6000 feet.

A complex series of pre-Tertiary metamorphics including argillites, cherts, and greenstones with associated limestone lenses and meta-sedimentary horizons of tuffaceous origin and of Paleozoic and Mesozoic age has been mapped as abundantly present in nearby areas both east and north of the property¹ but no mapping has as yet been published for the Bates quadrangle. The probabilities are that the rocks in which the scheelite mineralization occurs belongs to the Permian Clover Creek Greenstone phase of the metamorphic series.

Scheelite showings are reportedly exposed in road cuts and natural outcrops in several rather widely scattered places but the major part of prospecting endeavor has been centered to date on an exposure in the bank of a road cut situated a few feet above Lemon Creek on the Blue Indigo No. 1 claim. At this place the showings in a surface pit have been supplemented by others in a cross-cut which penetrates the formation at a shallow depth beneath the surface pit. No one single and well defined vein is disclosed. Instead, the scheelite occurs in random veinlets and bunches, with some of the bunches being composed of rather large crystals. This scheelite was exposed over a distance of about seven feet at the time the writer last inspected the cut but Mr. Thornton reports that the tunnel was since extended another ten feet and that the scheelite is continuously present about as it had been previously.

A minor amount of prospecting in the creek has shown the presence of scheelite in sufficient amount to suggest that it might be feasible to test the stream bed for placer possibilities.

The prospect was examined on two occasions in the fall of 1954 by a team of

U. S. Geological Survey geologists and it is understood that Mr. Thornton made an application for a DMEA loan. It is also understood that some, if not all, of the property has since been leased to Mr. Anthony Brandenthaler of Baker, Oregon, for the purpose of testing the placer possibilities of the creek, but the exact status of the property as a whole is not presently known.

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Report by: NSW, 5/6/55

Date of exam: Aug. 12, 13
September 29, 30, 54

References: 1. Geologic map, Sumter quad, Pardee, 1941
2. Dogami Bull. No. 39.

Thornton Prospect

Scheelite
PRINCIPAL ORE

MINOR MINERALS

NAME OLD NAMES

10 S 34 E 15,16,21, 22
T R S

PUBLISHED REFERENCES

Grant COUNTY

Greenhorn AREA

5000 - 6000 ELEVATION

MISCELLANEOUS RECORDS

Hi-Line road off Granite Boulder ROAD OR HIGHWAY

..... DISTANCE TO
SHIPPING POINT

PRESENT LEGAL OWNER (S) Lester & Queen Thornton
and Associates

Address Baker

OPERATOR

Name of claims	Area	Pat.	Unpat.
Blue Indigo Group	1-7		x
Wootz Group	1-5		x
Scheelite Group	1-3		x
Lucky F Claim			x

Name of claims	Area	Pat.	Unpat.
Lucky M Claim			x

EQUIPMENT ON PROPERTY

REPORTS

Thornton Prospect, preliminary report, NSW - 5/6/55

x

x

SHIPMENT AND ASSAY RECORDS

MAPS

Tracing of U.S.G.S. map by Puffet - by NSW 1954 - on file in Baker

x

office map cabinet. Small scale adaptation of above made by the

Portland office included with Thornton prospect report 5/6/55.