PE-078-02

TERRITORY OF ALASKA

DEPARTMENT OF MINES

JUNEAU, ALASKA

PRELIMINARY REPORT OF PETERSON LODE PROSPECT,
BIG ELDORADO CREEK, CHISANA DISTRICT,
August 23, 1936.

PE 78-2 J. C. Lochm

Location and Accessibility:

Located on Big Eldorado Creek, one and a half miles up from its mouth between elevations of 4650 and 4750', a new lode discovery of massive sulphides was discovered this season while sluicing along the present creek bed. This discovery is on the north slope of Gold Hill approximately 6 miles in a straight line northeast of the town of Chisana. A trail leads from the town around the west end of Gold Hill to the property, a distance of 7 or 8 miles. Chisana is located approximately 54 miles due east of the Nabesna Mine. A rough summer horse trail is maintained over the distance with the highest elevation of nearly 5000' over Cooper Pass. A new rough plane landing field is maintained for both summer and winter flying at Chisana.

Owners:

A group of ten claims have been staked to date on the south side or left limit of Big Eldorado Creek. These were staked and owned by the brothers P. S. & U. E. Peterson. The showing is on the Monte Carlo claim which is staked over No. 1 Placer Claim Below Discovery Claim.

Geology:

The geology of Gold Hill and surrounding vicinity of the Chisana district, together with placer operations, is given in U. S.G. S. Bull. 630, "The Chisana-White River District, Alaska" by S. R. Capps. The geology surrounding the discovery is shown on accompanying sketch. A considerable portion of the ground covered by the lode claims is covered by a mixture of gravels and angular slide rock. To the west of Discovery Post and the showing (note sketch) a small tongue of a greenish to gray porphyry lava apparently extends out from a greater mass representing the end of the intrusive flow. This flow is intruded into the surrounding diorite and at the end of the tongue two series of fractures or shear zones have developed. The series that strikes N. 50° E. and dips 65° SE. contains the exposed sulphides. The other series strikes N. 9° W. and dips 65° W. Along both series the diorite is mineralized with pyrite.

Showing:

On the bottom of the placer pit and covered with 12 inches of a white soft talc material is a deposit of iron and copper sulphides. While this deposit has not been uncovered sufficiently to determine its extent, it does extend across the width of the pit approximately 15'. One zone of nearly massive sulphides 6' in width occurs in the upper portion of the pit and two smaller zones of sulphides a few inches in width cross near the center of the pit. The walls of diorite are altered for a distance of 3 to 4 feet on each side the sulphides. The diorite, due to the intersecting fractures of the shear zone, is cut into angular blocks.

Mineralization:

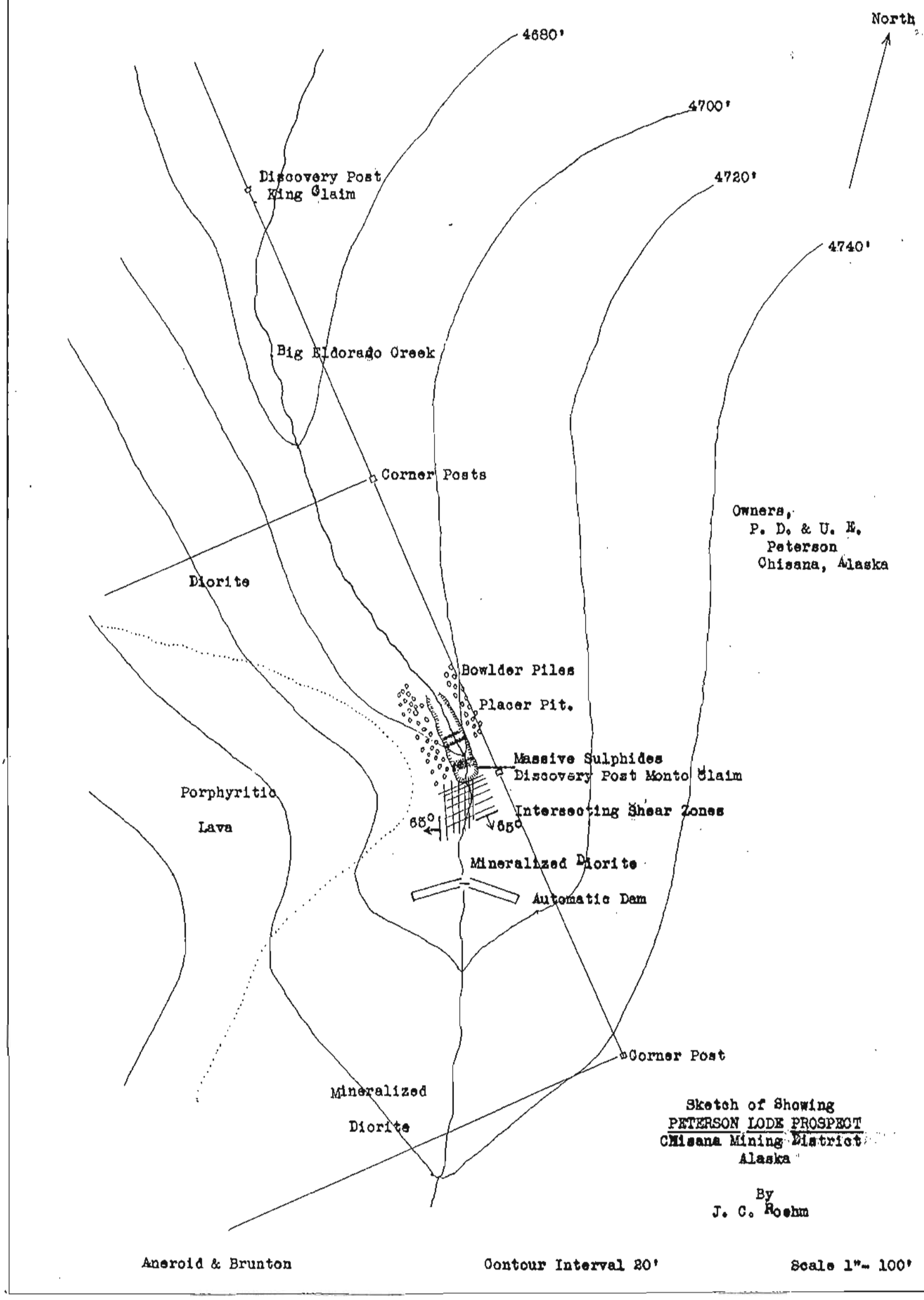
The sulphide ore consists of massive sulphides of iron and copper with various sizes of well developed crystals. Pyrite and marcasite make up the major portion of the ore with crystals ranging from fine to 1 inch in diameter. They appear to be cemented with chalcopyrite and the white talc material. Under the capping of white talc the iron sulphides are unaltered and appear very bright on the crystal faces. The chalcopyrite is of a deep yellow color and contains a deep blue tarnish on the outer surfaces. The marcasite and pyrite crystals are partly interlocked and partly cemented and open spaces occur between faces and distributed through the massive ore. Assays show associated gold values. However, in considering the following assay sheet the fact that where the samples were taken represents the bedrock of the overlying placer gravels. The grab-sample pieces were washed, nevertheless, with the contained open spaces present in the ore, at least a portion of the values must be taken as enrichment from gold in these gravels. A matter of interest will be the proposed work in this deposit which is to be a small winze down on the ore. This will give actual values and show extent of ore in depth and any changes in mineralization which might occur. This work is proposed for the following winter.

ASSAY SHEET,
PETERSON PROSPECT, MONTE CARLO CLAIM,
BIG ELDORADO CREEK, CHISANA DISTRICT,
August 23, 1936

Samples taken from bedrock surface showing of sulphide deposit at bottom of placer pit.

Sample No.	Location		Width	Oz. Per Ton Gold	Oz. Per Ton Sliver
59	35' west of Discovery Post. South end of placer pit, bed of creek. Hangwall of orebody.	Altered and mineralized diorite and gouge.	4'	0.24	1.00
60	40' west of Discovery Post, next to sample No. 59, across sulphide mass, bed of creek.	Massive sulphides and talc.	6'	0.24	3.10
61	45' west of Discovery Post, next sample No. 60, foot-wall of sulphides, bed of creek.	Altered diorite and two small veins of sulphides	5'6"	Trace	0.60
62	Large sulphide mass, bed of creek, placer pit.	Picked pieces of massive sul-phides washed and cleaned.	Grab	1.24	8.00

TERRITORIAL DEPARTMENT OF MINES
Juneau, Alas[illegible]
August 23, 19[illegible]



Sketch of Showing
PETERSON LODE PROSPECT
CHisana Mining District
Alaska

By
J. C. Roehm

Aneroid & Brunton Contour Interval 20' Scale 1"= 100'