

REPORT ON THE SURFACE GEOLOGY

OF THE PAY DAY SHOWING

PAY DAY Mineral Claim

Vernon Mining Division, B.C.

NTS: 82E/16W

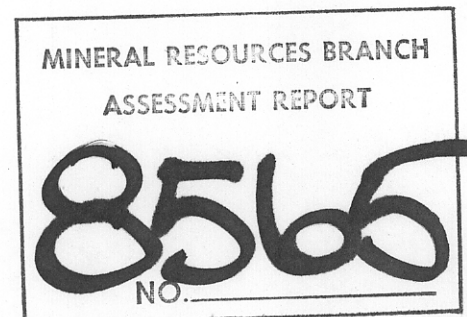
Latitude: $49^{\circ}53.5'$ North

Longitude: $118^{\circ}29'$ West

Owner/Operator: K.L. Daughtry, R.R.#4, Vernon, B.C.

Vernon, B.C.
December 8, 1980

By: K.L. Daughtry, P.Eng



K. L. Daughtry & Associates Ltd.

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INTRODUCTION

Heavy sulphide silver-zinc-copper-lead mineralization occurs on the PAY DAY Mineral Claim in the Lightning Peak area of the Vernon Mining Division, B.C. Exploration work has been carried out intermittently from 1929 to the present, but further work is necessary to evaluate the potential for the existence of a significant deposit.

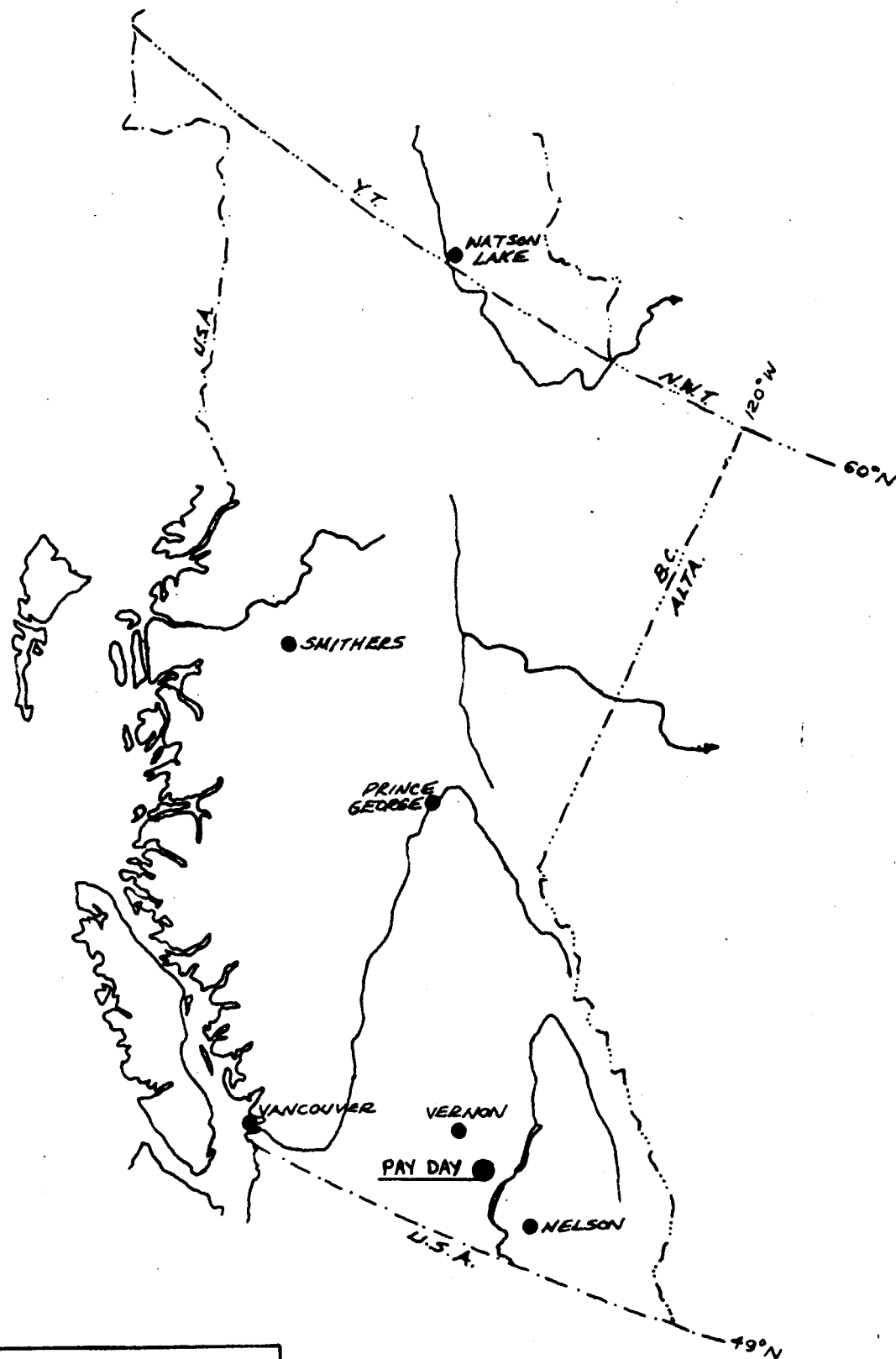
In 1980, a detailed geological survey at a scale of 1:600 was conducted over an area of 25,000 m². A previously existing 50-foot square grid totalling 1-7 line-km was rehabilitated and re-flagged to aid in ground control. The results of this work, as well as a description of significant geological data from previous underground mapping and diamond drilling, are discussed in the following report.

LOCATION, ACCESS, TOPOGRAPHY

The PAY DAY Claim is at latitude $49^{\circ}53.5'$ N and longitude $118^{\circ}29'$ W, west of the north fork of Rampalo Creek, a tributary of the Granby River, and 3 kilometres northeast of Lightning Peak (Figures 1 & 2). The settlement of Needles, on Lower Arrow Lake, is 28 kilometres east of the property, and the city of Vernon is about 69 kilometres to the northwest.

In dry weather, the property is accessible by travelling south on a bush road for about 27 kilometres from a point on Provincial Highway No. 6 near the junction of Thunder Creek and Inonoaklin River, 96 kilometres east of Vernon. At the time of the geological survey described below, wet weather made the use of the road difficult, and a helicopter was chartered from Vernon in order to gain access.

The Claim is near the eastern margin of the Interior Plateau, on an upland area deeply incised by river and creek valleys. Elevations on the property vary from 1650 metres above sea level in the valley of Rampalo Creek to over 1850 metres on the upland west of the PAY DAY adit.



K.L. DAUGHTRY & ASSOC. LTD
PAY DAY PROPERTY
LOCATION MAP
September 1980 FIG. NO. 1

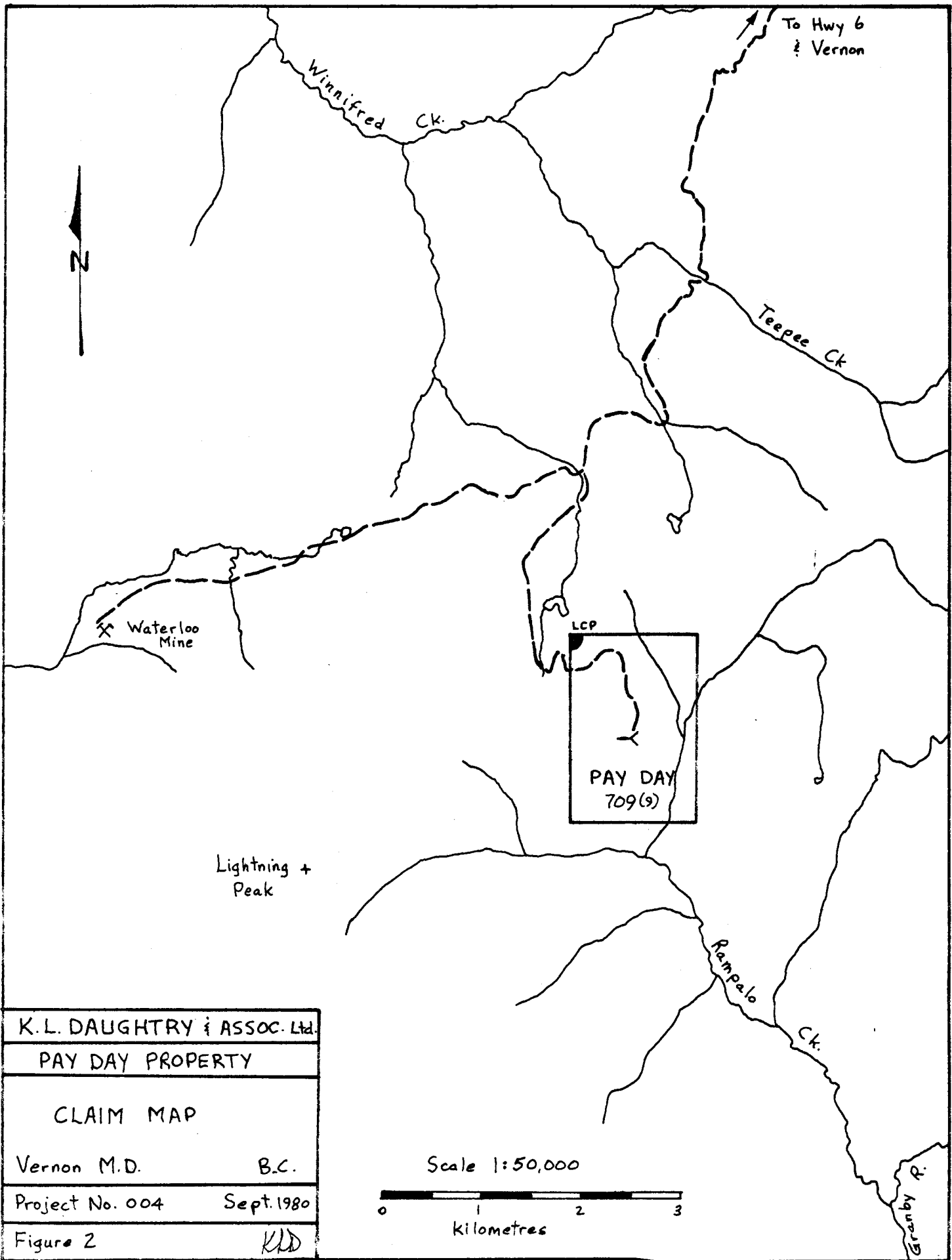
PROPERTY

The PAY DAY mineral claim, Record Number 709 in the Vernon Mining Division, was located by K.L.Daughtry of Vernon, B.C., between August 14 and 16, 1979, and recorded on September 14, 1979 in Vernon. This 6-unit claim was located following an abandonment and relocation, pursuant to section 28(1) of the Mineral Act, of the PAY DAY 1-6 2-post mineral claims, Record Numbers 17218, 17219, 17731-34, also owned by K.L.Daughtry.

HISTORY

The PAY DAY occurrence was apparently first discovered prior to 1929. In that year, the Annual Report of the Minister of Mines describes a 10 claim group owned by W.B.Johnstone et al on which considerable open-cutting and a crosscut tunnel had been developed on a showing of pyrite, sphalerite, galena and chalcopryrite at the contact between limestone and schist. A nearby high-grade gold/silver showing was also mentioned.

Apparently no further work was done on the PAY DAY showing until 1955, when the Paycheck Mining and Development Co. carried out over 1200 feet of diamond drilling on the DAY DAY and nearby PAYCHECK showings. The results of this drilling are unknown.



In the 1960's the ground was held at times by Bralorne Pioneer Mines and Highland-Bell Mines but there is no record of work on the PAY DAY.

Great Horn Mining Syndicate subsequently blanketed the entire Lightning Peak area with a 200-claim block and conducted a reconnaissance geochemical soil survey which included the area of the PAY DAY showings. Additional detailed sampling and a self-potential survey were conducted on the PAY DAY.

K.L.Daughtry staked the PAY DAY area in 1973 and has held the ground continuously to the present. In 1973 the underground geology of the adit was mapped and in 1974 two holes were diamond drilled by A.D.Ross and K.Ross, who held an option on the ground. These holes were apparently collared in the footwall and failed to intersect the mineralized zone. The Rosses also conducted detailed magnetic and electromagnetic surveys of the immediate area of the showings.

In 1980, the surface geology of the area of the showing was mapped and this work is the subject of this report.

REGIONAL GEOLOGY

The geology of the Lightning Peak area has been described most recently on Open File Map 637 of the Geological Survey of Canada (Scale 1:250,000) by A.V. Okulitch (Figure 3). A more detailed description of the regional geology is provided in G.S.C. Summary Report 1930, Part A (pp 79-115) by C.E. Cairnes.

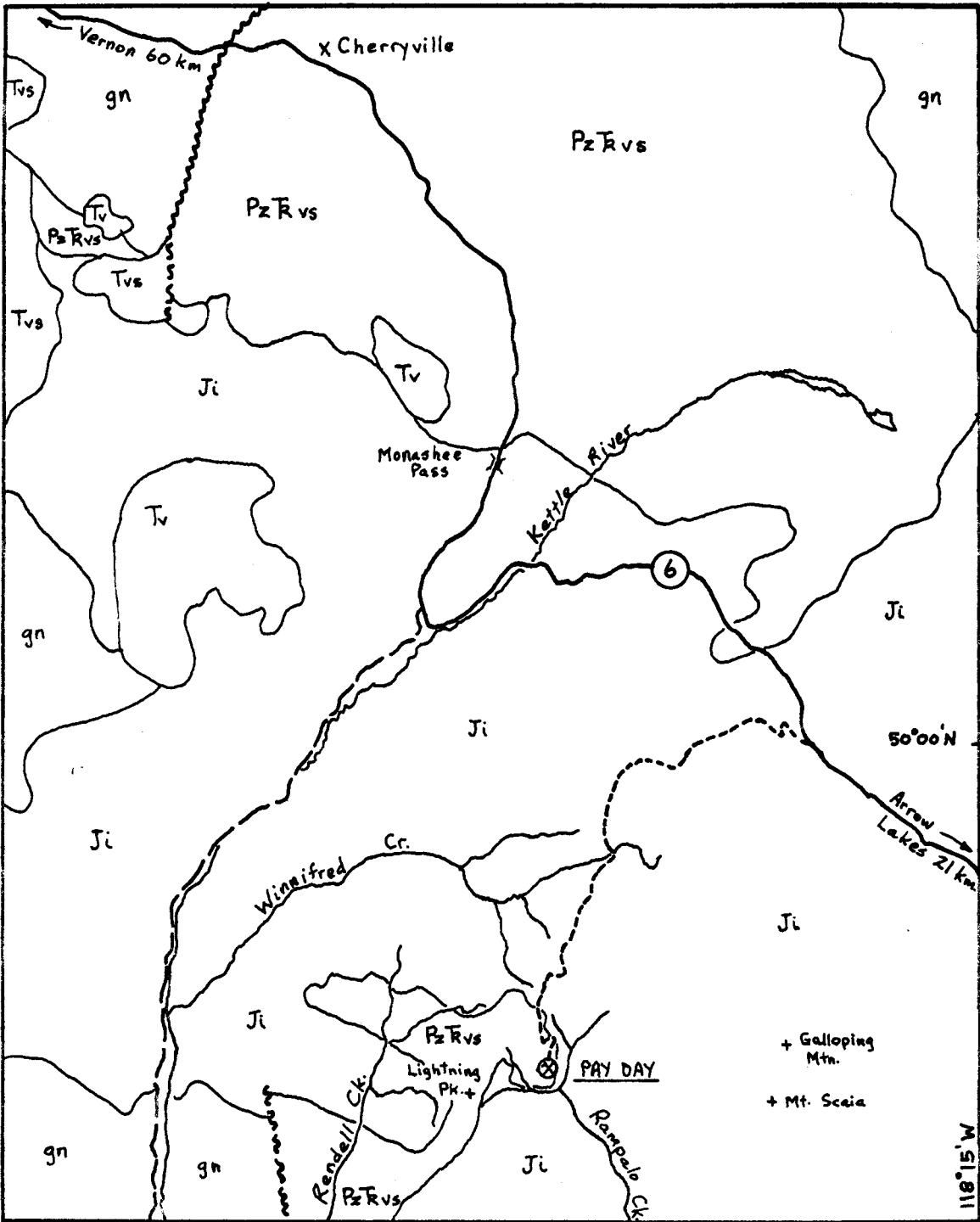
The various mineral deposits and occurrences of the Lightning Peak area occur in a roof pendant of Upper Palaeozoic to Lower Mesozoic age enveloped by granitic rocks of the Mesozoic Nelson batholithic complex. The predominant lithologic types present in the roof pendant include metavolcanic flows, tuffs and breccias of andesitic to dacitic, and in places limy, composition, and meta-sedimentary crystalline limestone and argillite.

All of the above rocks have been intimately invaded by dykes and small plugs related to the surrounding granitic batholithic rocks. Rock types include granite, quartz diorite, granodiorite, diorite and pegmatite.

The general structure of the roof pendant is that of a westerly plunging syncline. Near the eastern end of the roof pendant, in the area of the PAY DAY property, the lithologies are predominantly flows and tuffs and are gradually succeeded to the west by sedimentary rock

types. The limestones may be the youngest rocks.

Lightning Peak proper is underlain by a thin layer of Tertiary basalt and occasional related mafic dykes occur.



Major Highway Forestry road 4x4 Bush road	<p>Scale 1:250,000</p> <p>0 5 10 kilometres</p>
<p>Tvs Tertiary volcanic & sedimentary rx. Ji Jurassic granodiorite, qtz diorite PzRvs Paleozoic & Triassic volcanic & sedimentary rx. gn Metamorphic rocks, PC to Mz.</p>	<p>K.L. DAUGHTRY & ASSOC. LTD. PAY DAY PROPERTY Regional Geology & Location Vernon M.D. B.C. Project No. 004 82 E & 82 L</p>
<p>Geology after G.S.C. O.F. 637, A.V. Okulitch, 1979</p>	<p>KLD Figure No. 3 Sept. 1980</p>

GEOLOGY OF THE PAY DAY SHOWING

The PAY DAY claims are underlain by a succession of folded and faulted metamorphic rocks of volcanic and sedimentary origin. The contact of the enclosing Nelson granitic rocks is a short distance east and north-east of the main showings (Figure 3).

The rocks near the main showings are metamorphosed dark greenish to greenish-grey finely crystalline flows, tuffs, and sediments. The main zone of sulphide mineralization strikes northerly and is exposed in surface trenches about 50 metres, extending both north and south of the adit (Figure 4).

The predominant lithologic unit is a dark greenish-grey fine grained crystalline rock of intermediate composition (Unit 1). The approximate average mineralogical composition is quartz 20%, white feldspar 30%, hornblende 15%, biotite 30%, carbonate-magnetite-pyrite 5%. The rock is tentatively classified as a dacite, although individual layers within the unit contain variable amounts of quartz and hornblende indicating composites varying from andesite to rhyodacite.

Tuffaceous horizons are common within the sequence. In places, these horizons are up to 15 metres thick and

have been mapped as a distinct unit (Unit 2). The tuffs comprise crystal and lithic fragments, the latter ranging in size to over 2 cm diameter and generally having the same composition as the surrounding rocks.

Several outcrops of a rusty weathering, silicious very-fine grained light grey rock were mapped (Unit 3).

This rock contains about 60% quartz, 30% feldspar, and 10% metallic minerals (pyrite, sphalerite and magnetite), and has been called a siliceous rhyolite.

One outcrop of grey limestone (Unit 4) was mapped in a bulldozer trench south of the adit. The rocks at the portal of the adit are calcareous and have been tentatively correlated with this unit, but may actually be limy tuffs or the product of carbonate alteration of volcanic rocks.

Numerous dykes of medium-grey, medium grained granodiorite intrude the above rocks in the area mapped (Unit 5). These dykes vary from 1 metre to over 6 metres in width and appear to occur at varying attitudes. They are presumably related to the nearby batholithic plutons. One outcrop of a white, fine-grained aplite was mapped.

The volcanic and sedimentary rocks generally strike NW and dip about 60° southwest. Attitudes were taken

on distinct tuffaceous layers within the volcanic units.

Strong faulting and fracturing has disrupted the rocks in the area of the showing. The general attitude of most faults is northerly and steep. Previous underground mapping revealed the main faults to be parallel or sub-parallel to the trend of the volcanic rocks.

Heavy sulphide mineralization occurs in a zone of intensely altered and fractured volcanic rock. The host rocks are variably siliceous and calcareous, but generally appear similar to rocks of Units 2 and 3. Fragmental textures are common, with fragments of quartz, feldspar, various lithic types and sulphide minerals ranging in size from less than one millimetre to over one centimetre in diameter.

Metallic minerals identified include varying amounts of pyrite, sphalerite, magnetite, galena and chalcopyrite. These minerals occur as discrete grains and fragments, or as clots and discrete layers up to 15 cm wide. On surface, the main mineralized zone is up to 2 m wide and has been traced along a strike length of about 50 m by hand trenching.

Underground, two distinct zones occur: the narrower eastern band corresponds to the surface zone; the western band, up to 6 m wide, appears to be cut off by faulting

and does not appear on surface. The mineralized zones appear to be stratabound but structural and stratigraphic relationships are complicated by the faulting.

Two holes were diamond drilled in the adit area in 1974 (Figure 4). Hole 74-1 was drilled to a depth of 202 feet (61.6 m) at an azimuth of 245° and an angle of -40° . Hole 74-2 was drilled to 151 feet (46 m) at an azimuth of 260° and an angle of -25° .

Both holes encountered several fault zones, but it was not possible to correlate these intersections with specific faults mapped in the adit. The rocks beneath the adit are generally altered flows and tuffs similar to those seen in outcrop, but the alteration is generally more intense. Disseminated pyrite, pyrrhotite and chalcocopyrite occur over wide zones of greenish and reddish rock which has undergone intense fracturing, carbonate veining and brecciation. Sulphide content ranges up to 15%, but the character of the mineralization is entirely different from that seen on surface. No heavy sulphide mineralization was encountered.

Attitude of layering in tuffs and flow laminae suggest that the volcanic rocks dip westerly at attitudes of about 65° . This generally agrees with observed dips of 60° west on surface and 50° to 55° west on the mineralized zones underground.

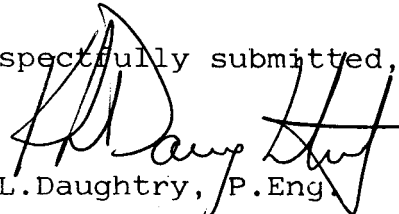
Both alteration and sulphide content are greater in the shallower hole 74-2 than in the steeper hole 74-1. It seems probable that the main mineralized zone at the face on the adit, if undisturbed by faulting, would not have been intersected by either drill hole. Hole 74-2 cut more intensely altered and sulphide-bearing rock, and may have passed close to the footwall of the heavy sulphide zone. Alternatively, the mineralized zone may have been so dislocated by faulting that neither drill hole achieved an intersection.

SUMMARY and CONCLUSIONS

On the PAY DAY property, heavy sulphide pyrite-sphal-
erite-magnetite-chalcopyrite-galena mineralization occurs
in an apparently stratabound zone within a sequence of
predominantly dacitic flows and tuffs of Upper Paleozoic
or Triassic age. The showings are at the eastern end
of a westerly trending roof pendant enclosed by batholithic
granodiorite and quartz diorite plutons of Jurassic age.

The mineralization appears to be a volcanogenic
stratiform deposit which has been disrupted by later
faulting. Future exploration directed toward extending
the known zone should be based upon detailed mapping
and geophysical surveys. The economic significance of
the pyritic siliceous rhyolite should also be investigated.

Respectfully submitted,


K.L. Daughtry, P. Eng.

K. L. Daughtry & Associates Ltd.

STATEMENT OF COSTS

Field Work and Compilation

K.L. Daughtry, P.Eng. Sept. 2, 5, 11-14, 1980 2 days @ \$250/diem	\$ 500.00
K.C. Daughtry Sept. 12, 1980 1 day @ \$75/diem	75.00
Helicopter charter, Vernon Helicopter Ltd. Bell 206 Jet Ranger 1.1 hr @ \$385/hr	423.50
Field Supplies	2.74

Geological Report


K.L. Daughtry , P.Eng. December 6-8, 1980 2 days @ \$250/diem	500.00
Secretarial	82.50
Printing, photocopying, supplies	<u>6.86</u>
TOTAL	<u><u>\$1,590.60</u></u>

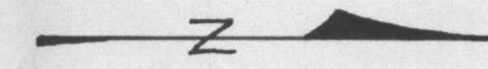
STATEMENT OF QUALIFICATIONS

I, KENNETH L. DAUGHTRY, of R.R.#4, Vernon, British Columbia, DO HEREBY CERTIFY that:

1. I am a Consulting Geologist in mineral exploration.
2. I have been practising my profession for fifteen years in Canada, the United States, and Ireland.
3. I am a graduate of Carleton University, Ottawa, with a Bachelor of Science degree in Geology and Chemistry.
4. I am a member of the Association of Professional Engineers of British Columbia, Ontario, and Yukon Territory, and a Fellow of the Geological Association of Canada.
5. This report is based upon 7 years of personal involvement in exploration on the PAY DAY property including the geological mapping and diamond drilling described in this report.
6. I am the owner of record of the PAY DAY property.
7. Permission is hereby granted to the Gold Commissioner to reproduce this report.

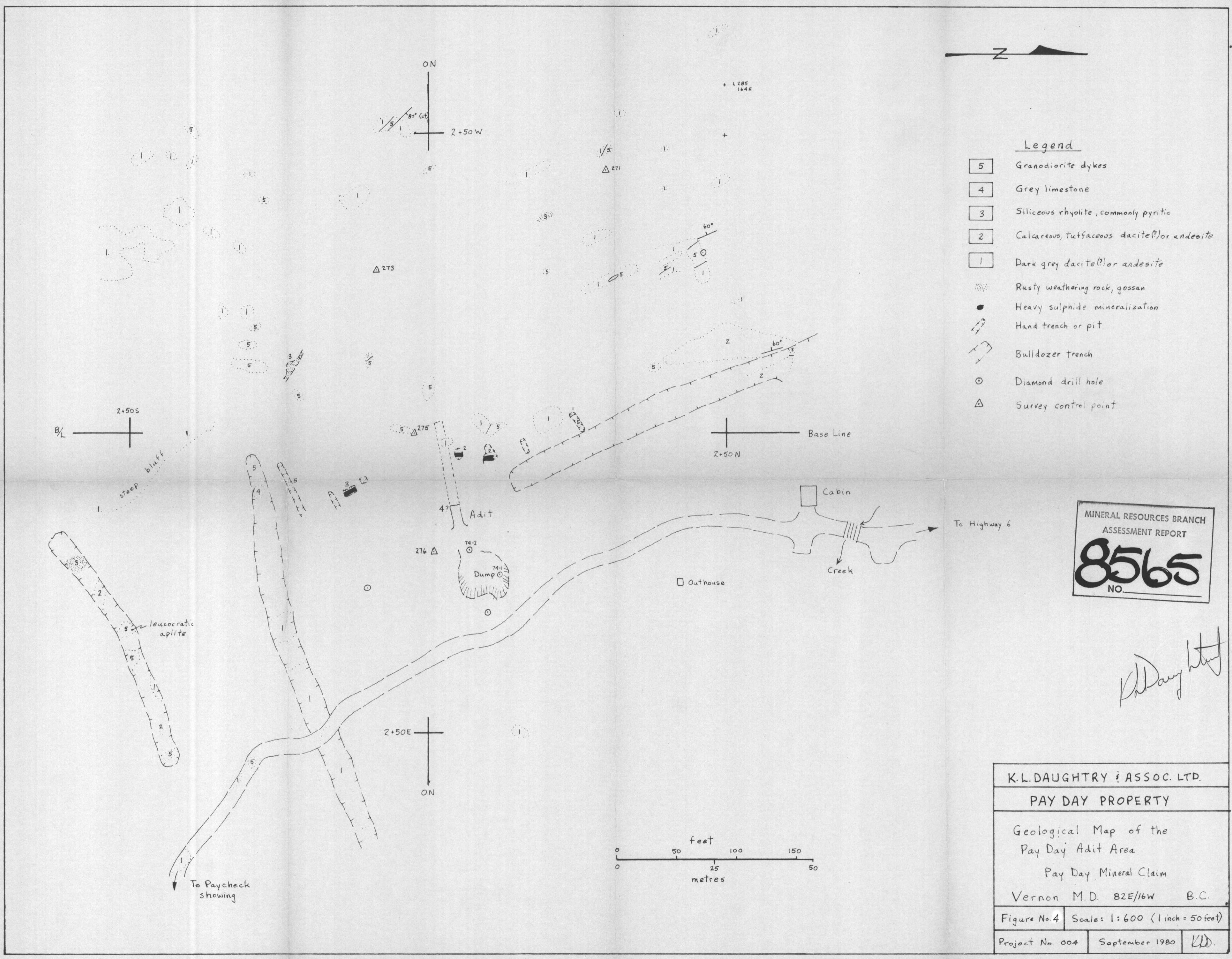
Vernon, B.C.
December 8, 1980


K.L. Daughtry, P.Eng.



Legend

- 5 Granodiorite dykes
- 4 Grey limestone
- 3 Siliceous rhyolite, commonly pyritic
- 2 Calcareous, tuffaceous dacite(?) or andesite
- 1 Dark grey dacite(?) or andesite
- Rusty weathering rock, gossan
- Heavy sulphide mineralization
- Hand trench or pit
- Bulldozer trench
- Diamond drill hole
- Survey control point



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8565
NO.

K.L. DAUGHTRY & ASSOC. LTD.	
PAY DAY PROPERTY	
Geological Map of the Pay Day Adit Area	
Pay Day Mineral Claim	
Vernon M.D. 82E/16W B.C.	
Figure No. 4	Scale: 1:600 (1 inch = 50 feet)
Project No. 004	September 1980 <i>KLD.</i>