

REPORT

- on the -

MONASHEE PASS PROPERTY

- for -

KEDA RESOURCES (1973) Ltd., (N. P. L.), Suite #6 - 219 Victoria Street, KAMLOOPS, B. C.

COVERING: L.3766 L.3767 L.3768 L.3913 Rossland, Mascot, Evening Star, Number Four, Snowshoe, Number Two, Number Three, and Riske. L.3914 L.3915 L.3916 L.195 WORK PERFORMED: May 29th. to December 12th., 1973. LOCATED: (1).  $50^{\circ}$  07' N, 118° 30' W. (2). NTS Maps 82 L/2E and 82 L/IW.

(3). Near Monashee Pass, 34 miles ESE of Vernon, B. C.



PREPARED BY

KERR. DAWSON & ASSOCIATES LTD. 9-219 Victoria Street Kamloops. BC. J. M. Dawson, P. Eng., December 14th., 1973.

GEOLOGICAL AND GEOCHEMICAL

82L/IW, 2EREPORT

MONASHEE PASS PROPERTY

### - for -

KEDA RESOURCES (1973) Ltd. (1	. P. L.), Department of
Suite #6, 219 Victoria S KAMLOOPS, B. C.	Mines and Patroleum Resources reet, ASJESSAIE IT REPORT NO. 4771 MAP

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Prepared by: KERR, DAWSON AND ASSOCIATES LTD., #9 - 219 Victoria Street, KAMLOOPS, B. C. DΔ J. M. Dawson, P. Eng., December 14th., 1973.

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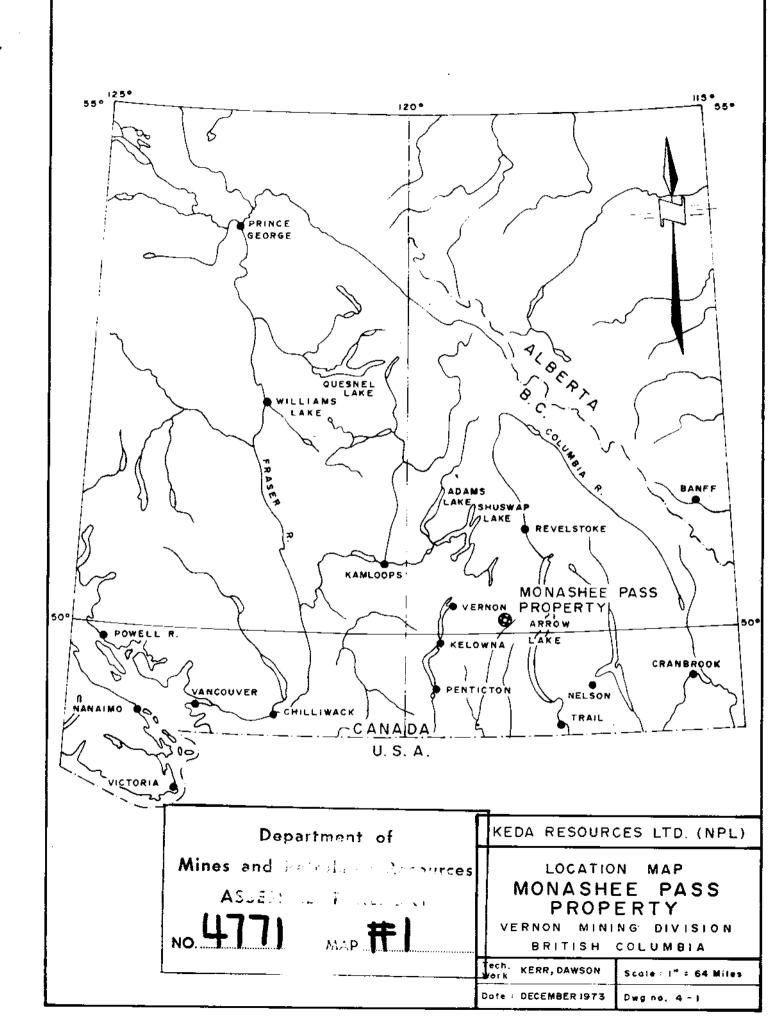
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### INTRODUCTION

Keda Resources (1973) Ltd. (N. P. L.), acquired eight surveyed claims under mineral lease in the Monashee Pass area, Vernon Mining Division in mid 1972 because of the renewed interest in gold in general and the potential for low-grade "Carlin-type" gold deposits in this region.

This report describes the results of a preliminary geological and geochemical exploration programme on the claims. Fieldwork was carried out during the spring and summer of 1973. The results were interpreted and are appended on a series of maps with this report.

#### PROPERTY

The property consists of two mineral leases M - 37 and M - 38 separated by four other crown granted claims. Lease M - 37 aggregates 326.52 acres and consists of the following seven claims:

<u>Claim Name</u>	Date of Lease	Record No.
Rossland	June 6th., 1972	Lot number 3766
Mascot		Lot number 3767
Evening Star		Lot number 3768
Number Four		Lot number 3913
Number Three		Lot number 3916
Number Two		Lot number 3915
Snowshoe		Lot number 3914

Lease M - 38 covers a total of 20.60 acres and consists of one claim:

Claim Name	Date of Lease		cord	
Riske	June 6th., 1972	lot nu	mber	195

The registered owner of these claims is Keda Resources (1973) Ltd. (N. P. L.), F. M. C. No. 122196.

### LOCATION AND ACCESS

The property is located in southeastern British Columbia about 34 miles east - southeast of the city of Vernon and 24 miles west of the Needles ferry on Lower Arrow Lake. The approximate geographic center of the claims is at 50° 07' north latitude and 118° 30' west longitude.

Access to the property can be gained by driving 46 miles east along provincial highway No. 6 to the vicinity of Monashee Pass. At a point about one half mile north of the actual devide, some of the claims are adjacent to the western side of the highway. Access to the far western and eastern (Riske claim) portions is accomplished by gravelled logging roads and then by about one half mile traverse through the bush. Access to individual parts of the property is slow because of steep terrane and dense bush. A number of near vertical limestone - argillite cliffs about 1/3 mile west of the main highway make traversing in this area extremely difficult.

### PHYSIOGRAPHY AND VEGETATION

The bulk of the claims are located on the slopes and crest of the ridge west of Monashee Pass. The Riske claim is isolated about 1½ miles east of the main claim block and covers an area near the head of Marsh Creek along the south slope of Monashee Mountain.'

The topography is steep rising out of Monashee Pass but becomes gentle towards the middle and west end of the main claim block which area is located along a plateau - like ridgetop. Elevations vary from about 3,800 feet a.s.l. in the vicinity of Highway No. 6 to more than 5,600 feet a.s.l. on the ridge west of Monashee Pass. The Riske claim is located on a moderate, south facing slope with elevations in the range of 5,000 -5,300 feet a.s.l.

The claims are heavily forested and species vary from predominently cedar at the lower elevations to spruce, fir and pine in the higher reaches. Heavy deciduous underbrush and frequent windfalls make traversing slow even in the gentle topography on the main ridgetop. Some logging has taken place recently south and east of the main claim block. The property is mantled by glacial till which masks almost all bedrock on the three westernmost claims. Outcrops are plentiful only where topography steepens on the slopes above Monashee Pass.

### HISTORY

The first recorded mining activity in the Monashee Pass area took place in 1886 when five claims on the east side of the pass were crown granted. The Riske claim is one of these first crown grants, the other four are currently held by other interests ( see figure 4 - 2). Some tunnelling was done on these claims and it is reported that a stampmill was constructed in 1890.

In 1897, some trenching and tunnelling was carried out on the ground west of the pass (now controlled by Keda Resources). From 1901 - 1907 the Rossland, Mascot and Evening Star claims then known as the McPhail property were controlled by Cherry Creek Gold Mining Co. This company drove three adits on veins on the Rossland and Evening Star claims: the McPhail Tunnel - 170 feet long with two raises of 25 feet and 50 feet respectively; the Evening Star Tunnel - 230 feet long and an unnamed tunnel about 300 feet long with a 75 - 100 foot raise.

In 1907 the McPhail Group was sold to the Fire Valley Gold Mining Company, but no work was done for several years. In 1914 this company began driving a long tunnel approximately 500 feet below the outcrop of the veins on which the previous tunnels had been driven. The intention was to intersect one or more of these veins at approximately 1,000 feet down dip from their surface exposure and begin raising up on them. Unfortunately, the First World War caused the termination of this venture in mid - 1915 when the Fire Valley Tunnel had advanced some 800 feet from the portal. It is reported that no veins were intersected during the driving of this tunnel; however, it is now inaccessible because of caving at the portal.

Intermittent examinations of this property have taken place over the years, but no appreciable work has been done since 1915.

### SCOPE OF THE PRESENT EXPLORATION PROGRAMME

The propert programme was initiated to evaluate the property in preliminary manner, to delineate areas of interes and to make specific recommendations as to further more detailed exploration.

To this end the writer spent 7 days on the property; driving to the Monashee Pass area each day from Vernon. Soil samples were collected along compass lines and contour traverses over most of the property. In addition, prospecting and mapping traverses were run to try and locate additional outcrops in the largely overburden-covered area towards the west end of the claims. All the underground workings which are accessible were examined and character samples of some of the mineralization were taken.

#### GEOLOGY

The property is underlain by a sequence of carbonate and lesser clastic rocks of the Permo - Triassic Cache Creek Group, intruded by granitic rocks of the northern extremity of the Nelson Batholith.

The Cache Creek rocks consist mainly of blue - gray to white recrystallized limestone. Frequently the latered limestone can be more properly termed a marble - having coarsely crystalline calcite grains as much as  $\frac{1}{2}$  cm. in diameter. The calcarious rocks are thick bedded and fairly massive; be ling attitudes are very difficult to obtain. As a rule limestone marble is remarkably pure with only asional streaks of limonitic staining.

Lesser amounts of gray to black argillite, impure siltstone, quartzite and greenish volcanic tuffs (?) are either interbedded with the limestone or occur as larger units (several hundred feet thick) within the dominently calcarious sequence. One narrow (20 feet <u>+</u>) dike of a pyroxene lamprophyre is found near an old prospect pit along the northern borden of the Number Four claim.

The actual contact area with the intrusive rocks was not observed on the property, but the bleaching, silicification and coarsely crystalline nature of the limestone as well as the hornfelsic aspect of some of the detrital rocks is presumed to indicate proximity to the Nelson Batholith.

Some float of a silica - epidote skarn rock was found near the interpreted contact but no such material could be found in place.

Intrusive rocks were only encountered on one small portion of the property (see figure 4 - 3), but are interpreted by Jones (1959) as occupying the far western end of the claim block. This latter area is relatively flat and completely devoid of outcrop. The intrusive, where observed is a pinkish - gray medium to fine grained rock varying in composition between granodiorite and quartz diorite. It is a relatively fresh and unaltered rock, slightly porphyritic in part, having occasional narrow quartz stringers.

Bedding attitudes within the sedimentary sequence are difficult to obtain even where there is appreciable exposure. Such readings as were obtained indicate that the sequence strikes northwesterly and dips northeast. The quartz veins strike approximately N 50° W and dip varies from  $40^{\circ}$  to  $70^{\circ}$  SW.

#### MINERALIZATION

Minor pyrite is found in some of the fine grained, black argillites and in minor amounts in quartz veins within the intrusive rocks. Minor, fine grained, disseminated pyrite and pyrrhotite are found in skarn like float near the presumed intrusive contact. Galena, sphalerite and pyrite with accompanying gold and silver values are confined to a series of west-northwest striking quartz veins within the sedimentary rocks.

A total of seven quartz veins over a total horizontal width of approximately 400 feet were noted by the writer. Four of these vary from 2" to 6" wide and have only traces of sulphides; the remaining three vary from 1 to 3 feet wide on surface and have had tunnels driven on them.

The McPhail Vein can be traced intermittently on surface for about 250 feet. A tunnel has been driven along this vein for 170 feet and two raises, one of which broke through to surface have been driven on local swells in the vein. Although the McPhail Vein averages only 2 - 3, 1 wide on surface, widths of up to 8 feet were noted underground. The vein is quite strong and about 4 feet wide where seen at the face of the drift. Mineralization consists of scattered bunches of very fine grained sulphides in white to limonite - stained quartz. Pyrite, galena and sphalerite as well as minor chalcopyrite and tetrahedrite were noted. A grab sample of practically barren quartz on surface assayed 0.02 oz. Au and 0.12 oz. Ag per ton.

A 300 foot tunnel was driven on a second, unnamed vein about 100 feet north of the McPhail Vein. At the portal, this vein varies from 9" to 1' wide and about 80 feet from the face a 75 - 100' raise was driven vertically on the vein (?). Bad air precluded a detailed examination underground; however, the vein was noted at the face (thickness unknown). A grab sample across the vein (approximately 2') about 30 feet from the portal assayed 0.13 oz. Au, 0.79 oz. Ag per ton. A selected sample from the same vein on surface assayed 0.38 oz. Au, 2.0 oz. Ag per ton.

The Evening Star Vein outcrops in a near vertical cliff and varies from 2 to 3 feet wide at the portal. A tunnel has been driven on this vein for 230 feet and the vein averages about 2 feet wide over this length. The vein is visible at the face where it is approximately 18" wide and contains minor, fine grained pyrite and galena. A chip sample across 3 feet near the portal assayed 0.76 oz. Au, 2.9 oz. Ag per ton.

Several samples of hornfelsic and skarn - like rock (from an area near the assumed intrusive contact) containing appreciable pyrite and pyrrhotite were assayed for gold and silver. However, none contained more than trace amounts of these metals (see samples 30720 to 30724 in Appendix A).

#### GEOCHEMISTRY

Soil sampling was conducted at 200 foot intervals on grid lines spaced 500 feet apart. Steep terrain inhibited soil sampling in some areas of the grid. Sample stations were marked on the ground by orange flagging and numbered appropriately. B - horizon soils were collected where possible and stored in waterproof kraft envelopes after collection.

A total of 138 soil samples were collected and analysed for silver and zinc in the Vancouver laboratories of Bondar Clegg and Company Ltd. The samples were dried, sieved and an aliquot of the -80 mesh fraction was subjected to hot aqua regia extraction. The aliquot was then analysed for silver and zinc by atomic absorption ' spectrophotometry.

Histograms were plotted for silver and zinc and the values conform to a unimodal distribution pattern. The mean and standard deviation were calculated for both metals and the data were classified into the following categories:

Negative0-MeanPossibly AnomalousMean-(Mean + 1 Std. Dev.)Probably Anomalous(Mean + 1 Std. Dev.)-(Mean + 2 Std. Dev.)Definitely Anomalous> (Mean + 2 Std. Dev.)

The values were plotted on basemaps at a scale of ASO feet equals one inch and definitely anomalous, probably anomalous and possibly anomalous areas were contoured (see figures 4 - 4 and 4 - 5).

Zinc values are moderately low for a calcarious environment. The area below the known outcrop area of mineralized veins is well outlined and there is a broad area of slightly higher than background values in the vicinity of the main ridgetop. There is a rough suggestion of the outline of a possible mineralized vein system close to the northern edge of the main claim block. On the Riske claim an area of slightly to definitely anomalous values is outlined in the central and northern portions.

Anomalous silver values are much more limited in extent than zinc and there is no appreciable expression below the main area of mineralized veins. However, there is a trend coinciding roughly with some of the anomalous zinc values suggesting a possible mineralized vein zone adjacent to the north edge of the claims. The Riske claim exhibits almost uniformly low values; one possibly anomalous reading is roughly coincident with the highest zinc value in the area.

In general, the geochemistry outlines one linear zone adjacent to the northern boundary of the main claim block which possibly reflects the western extension of the mineralized vein system exposed on the Rossland and Evening Star claims.

#### SUMMARY AND CONCLUSIONS

(1). The Monashee Pass property consists of eight surveyed claims in two mineral leases; seven of the claims are contiguous and form one lease adjacent and west from the main highway near Monashee Pass. The eighth claim is part of the same vein system but is located about 14 miles east of the main claim block.

(2). Mining activity in this region commenced in the late 1800's and the subject property was actively worked in the first years of this century when approximately 800 feet of drifting and raising was done on three of the mineralized veins. In 1914 - 15 an ambitious programme to delineate appreciable ore by driving a long tunnel about 1,000 feet down dip from the known showings was begun. Unfortunately the First World War caused the termination of this venture when the exploratory tunnel had advanced only 800 feet. No appreciable work has been done since that time.

(3). The property is underlain by a predominently calcarious sequence of sediments of probably Permo-Triassic age, intruded by granitic rocks of the Nelson Batholith.

(4). A series of west - northwesterly trending quartz veins outcrop on portions of the Rossland and Evening Star claims. Three of these are in excess of 1 - 3 feet wide and have been drifted on. They are mineralized with scattered bunches of fine grained pyrite, galena, sphalerite, and lesser chalcopyrite and tetrahedrite. (5). Soil geochemistry has outlined a possible extension of the mineralized vein system of its presently known outcrop area and further work should be done to delineate and evaluate the potential economic significance of this occurrence.

### RECOMMENDATIONS

(1). The existing underground workings should be mapped in detail and the mineralized veins sampled.

(2). An EM - 16 survey should be run to try and further trace the extensions of the veins in both directions along strike.

Contingent upon the results of this work, limited (3). trenching and packsack drilling should be undertaken to test any potential mineralized areas.

Respectfully submitted by:

KERR, DAWSON AND ASSOCIATES LTD.,



JMD:rd

December 14th., 1973, KAMLOOPS, B. C.

James M. Dawson, P. Eng., GEOLOGIST

## APPENDIX A

# ASSAYS

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To: Kerr-Dawson & Associates Ltd.

PAGE No. \_\_\_\_1

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6 - 219 Victoria Street

Kamloops, B. C.

## BONDAR-CLEGG & COMPANY LTD.

 REPORT No.
 A23 - 235

 DATE:
 June 7, 1973

# CERTIFICATE OF ASSAY

Samples submitted: June 6, 1973

Results completed: June 7, 1973

I hereby certify that the following are the results of assays made by us upon the herein described ore samples.

MARKED	GC	DLD	SILVER	Cu							TOTAL VALU
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	PER TON (2000 LBS.)						
							†			f	
30716	0.02		0.12	-							
30717	0.13		0.79	-					ļ		
30718	0.38		2.0	-							
30719	0.76		2.9	-							
<b>307</b> 20	0.02		0.03	-							
30721	0.005		0.02	-							
30722	0.005		0.02	0.04	ļ	j					
<b>3072</b> 3	0.005		0.20	-		ĺ					
30724	0.005		0.02	-							
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Registered Assayer, Typovince of British Columbia

## APPENDIX C

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# STATEMENT OF EXPENDITURES

## PROGRAMME COSTS

## - on -

## MONASHEE PASS PROPERTY

(1). Labour:

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l Geologist (P. Eng.)	
14 days @ \$125.00 per day	 \$1,750.00

## (2). Expenses and Disbursements:

(a).	Truck Rental	
	9 days @ \$15 per day\$135.00 1,237 miles @ \$0.75/mile <u>185.55</u> \$320.55	
(b).	Helicopter Support	
	G3-B-1 1 hr. @ \$160 160.00	
(c).	Board and Lodging 173.40	
(d).	Assays and Analyses	
(e).	Drafting	
(f).	Typing, zerox, blue prints, freight, etc. 67.40	1,196.65

TOTAL HEREIN . . . . . . . . . . . \$2,946.65

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## APPENDIX E

# REFERENCES

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## REFERENCES

Jones, A. C. (1959):

Vernon Map Area, British Columbia; G. S. C. Memoir 296.

Geophysical Series Map 8491G: Eureka Mountain - Map 82 L/1.

Geophysical Series Map 8501G: Creighton Creek - Map 82 L/2.

Annual Reports of B. C. Minister of Mines: 1897, 1900, 1901, 1903, 1904, 1905, 1907, 1914, 1915, 1916, 1921, 1933.

## APPENDIX F

# WRITER'S CERTIFICATE

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# JAMES M. DAWSON, PENG. GEOLOGIST

9-219 VICTORIA STREET KAMLOOPS, B.C.

PHONE (604) 374-6427

### CERTIFICATE

I, JAMES M. DAWSON OF KAMLOOPS, B. C. DO HEREBY CERTIFY THAT:

- I am a geologist residing at 383 West Columbia Street, Kamloops, B. C. and employed by Kerr, Dawson and Associates Ltd., of Suite #6 - 219 Victoria Street, Kamloops, B. C.
- (2). I am a graduate of the Memorial University of Newfoundland
   - B. Sc. (1960), M. Sc. (1963), a fellow of the Geological
   Association of Canada and a member of the Association of
   Professional Engineers of B. C. I have practised my
   profession for ten years.
- (3). I am the author of this report which is based on an exploration programme that included geological mapping, and geochemical and sampling as well as data from various geological reports concerning the subject area.



KERR, DAWSON AND ASSOCIATES LTD.,

James M. Dawson, M. Sc., P. Eng., GEOLOGIST

December 14th., 1973, KAMLOOPS, B. C.

## APPENDIX G

MAPS

## APPENDIX D

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# AFFIDAVIT IN SUPPORT OF STATEMENT OF EXPENDITURES

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C A N A D A Province of British Columbia TO WIT: C A N A D A ) IN THE MATTER OF the statement of Expenditures for Geological and Geochemical Exploration of the Asitka claims in the Omineca Mining Division. )

I, JAMES M. DAWSON, Geologist of 383 West Columbia Street, in the City of Kamloops, in the Province of British Columbia,

DO SOLEMNLY DECLARE:

- (1). THAT the geological and geochemical investigation of the Asitka claims was carried out under my direction.
- (2). THAT the Statement of Expenditures set out in Appendix C of my report entitled "Geological and Geochemical Report on the Asitka Claim Group" dated September 20th. to November 30th., 1973, truly represents the amounts expended on geological and geochemical surveys of the said claims.

AND I make this solemn Declaration conscienciously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virture of the Canada Evidence Act.

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DECLARED before me at the City of Kamloops in the Province of British Columbia this 30th. day of November, A. D., 1973.

A Commissioner for taking Affidavits for British Columbia

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APPENDIX B

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# PERSONNEL

## PERSONNEL

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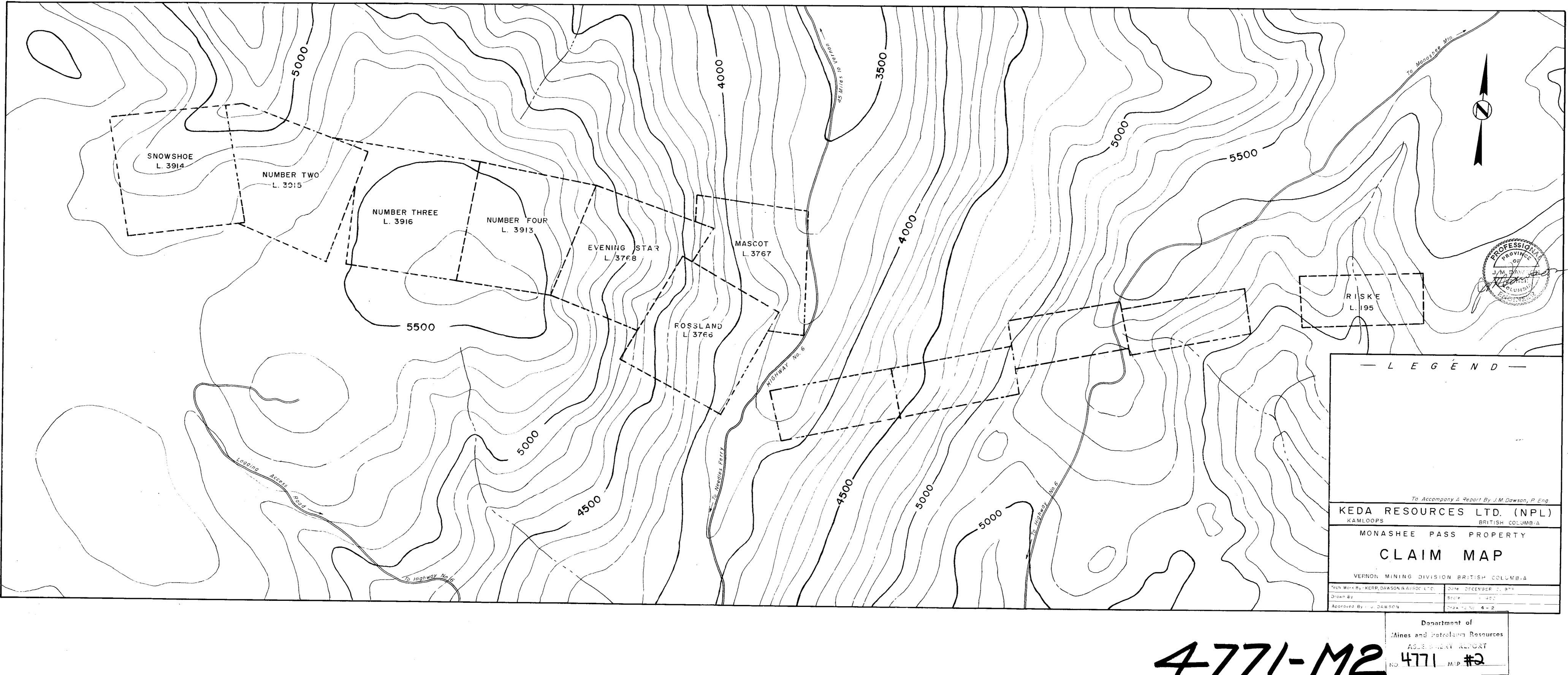
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J. M. Dawson, P. Eng. Geologist May 29, 30, 31/1973 June 1, 2/1973 September 1,2,3,4/1973 ----9 days

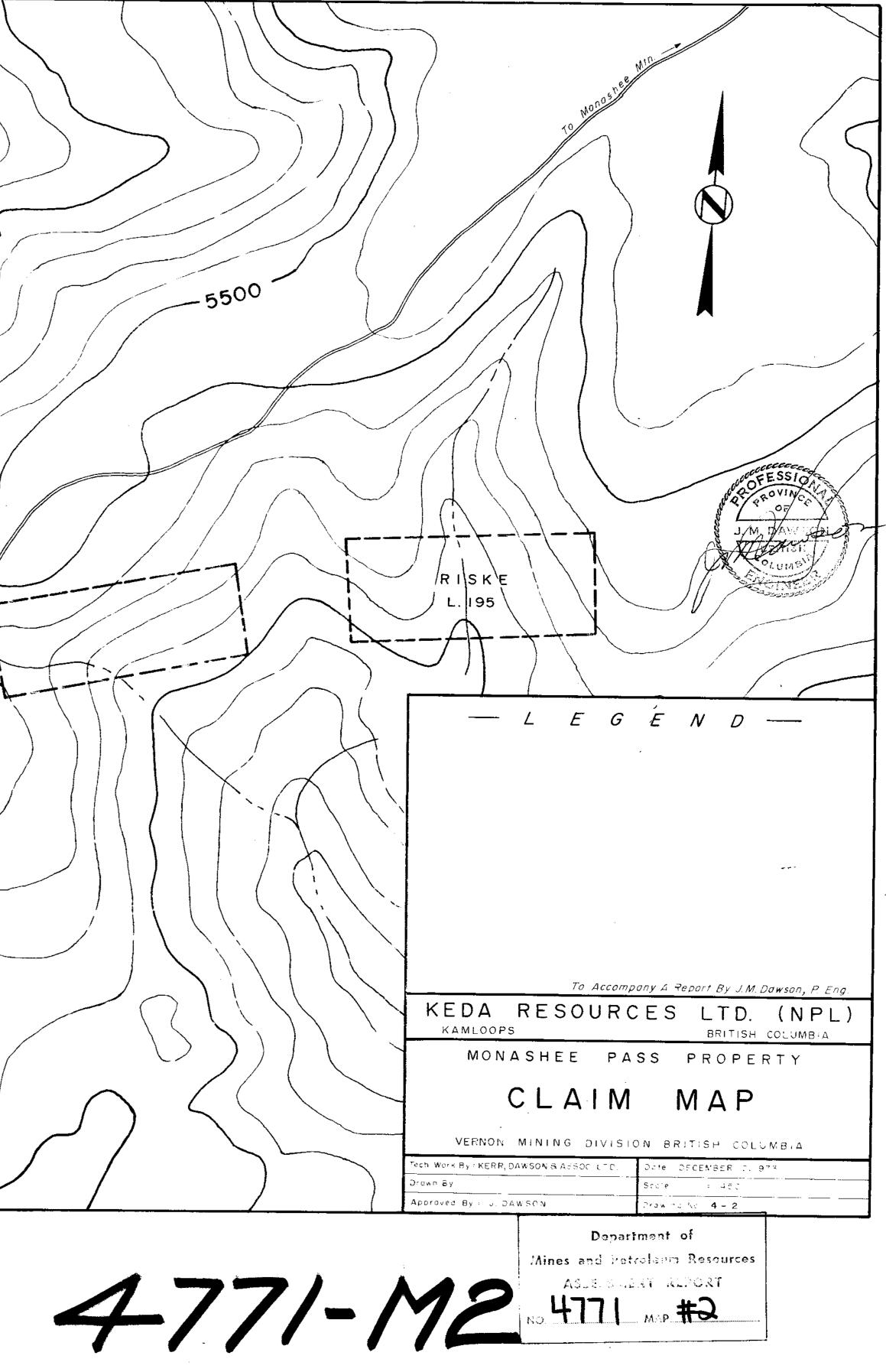
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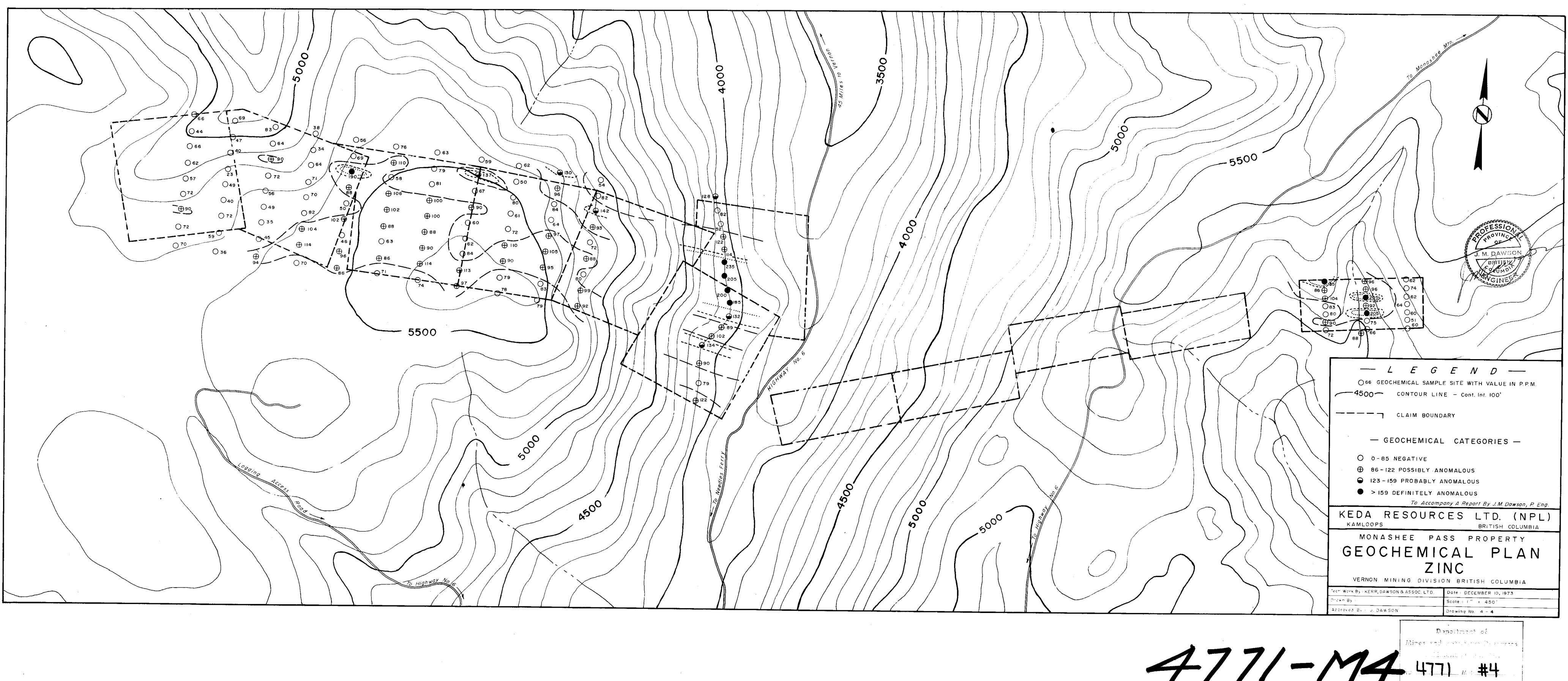
J. M.	Dawson,	Ρ.	Eng.	Geologist	November	5, 7/1973
			-		December	5,6,10/1973

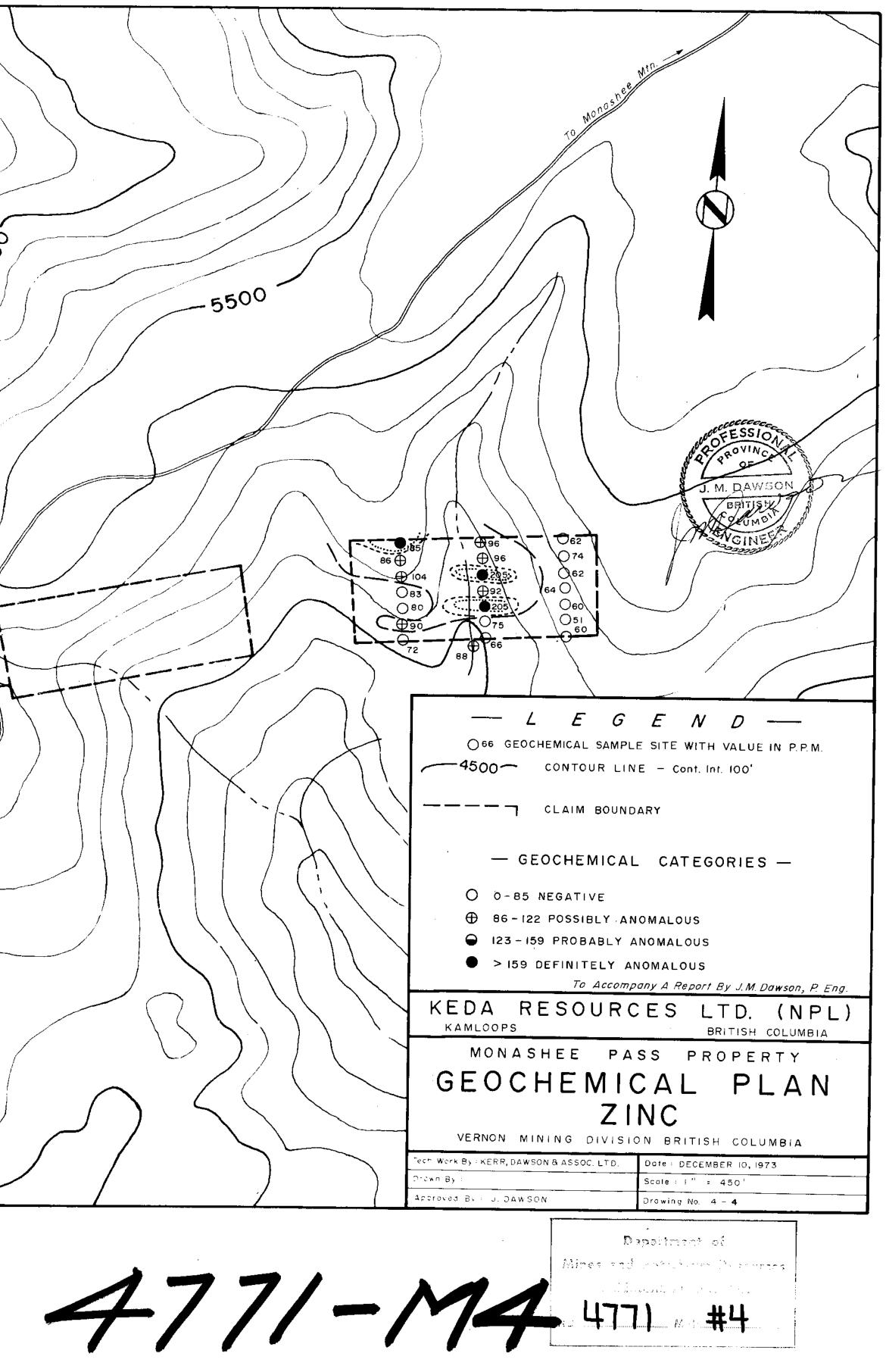
----5 days

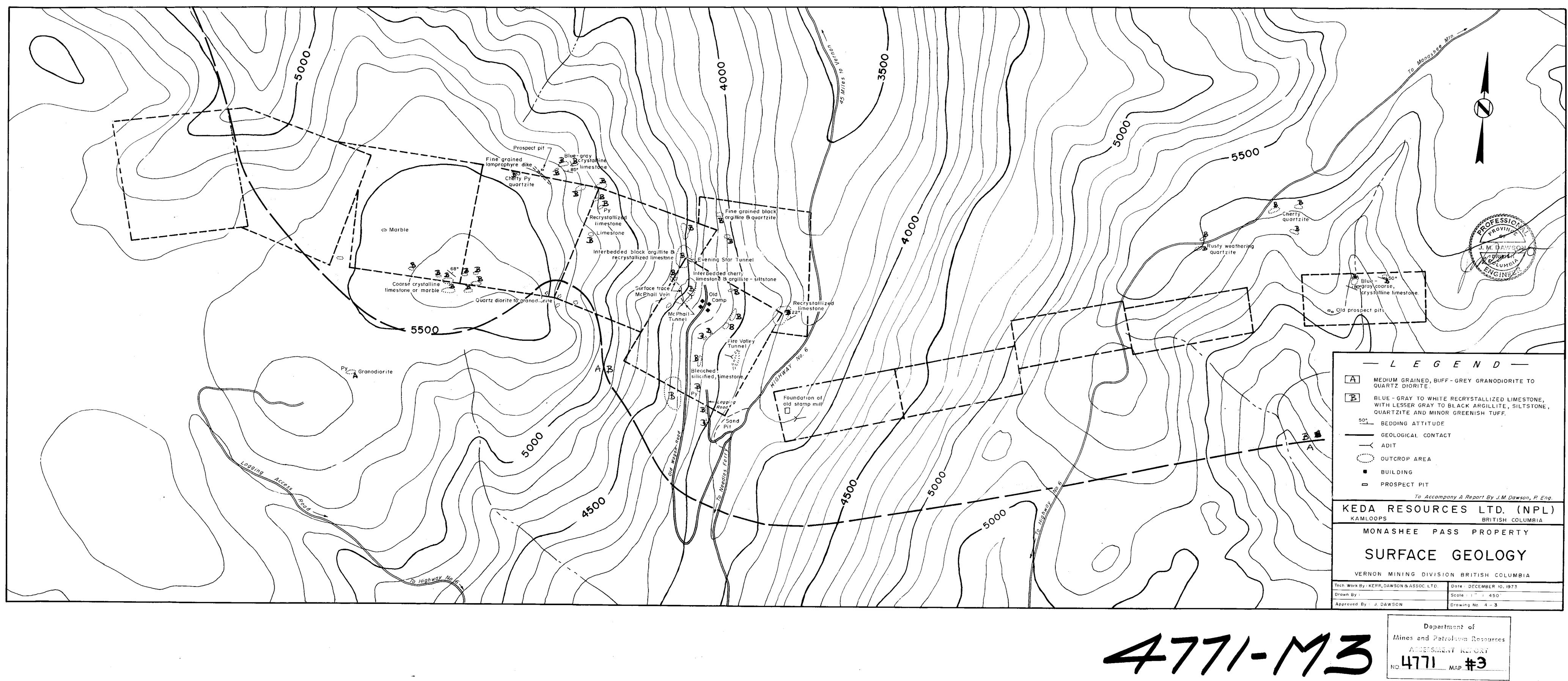


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