

87-6-15807  
1/88

REPORT ON DIAMOND DRILLING PROGRAM  
on the  
ALLIES PROPERTY  
Kamloops Mining Division, British Columbia

- Prepared for -

Operator: RELAY CREEK RESOURCES LTD.  
Suite 711, 850 West Hastings Street,  
Vancouver, British Columbia V6C 1E1

Owner: Laramide Resources Ltd.  
- Covering -

ALLIES CLAIM (20 Units)  
and  
ALLIES NO.2 CLAIM (4 Units)

- Work performed -

JULY 1 to DECEMBER 31, 1986

- Located -

25 Kilometers Northwest of Kamloops, British Columbia  
NTS Map Sheet No. 92I / 15E  
50°52'5" North / 120° 34' West

- Prepared by -

DAWSON GEOLOGICAL CONSULTANTS LTD.  
Suite 203, 455 Granville Street,  
Vancouver, British Columbia  
V6C 1T1

James M. Dawson, P.Eng.

January 5, 1986

FILMED

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GEOLOGICAL BRANCH  
ASSESSMENT REPORT

RELAY CREEK RESOURCES LTD.

ALLIES PROPERTY

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

LOCATION MAP

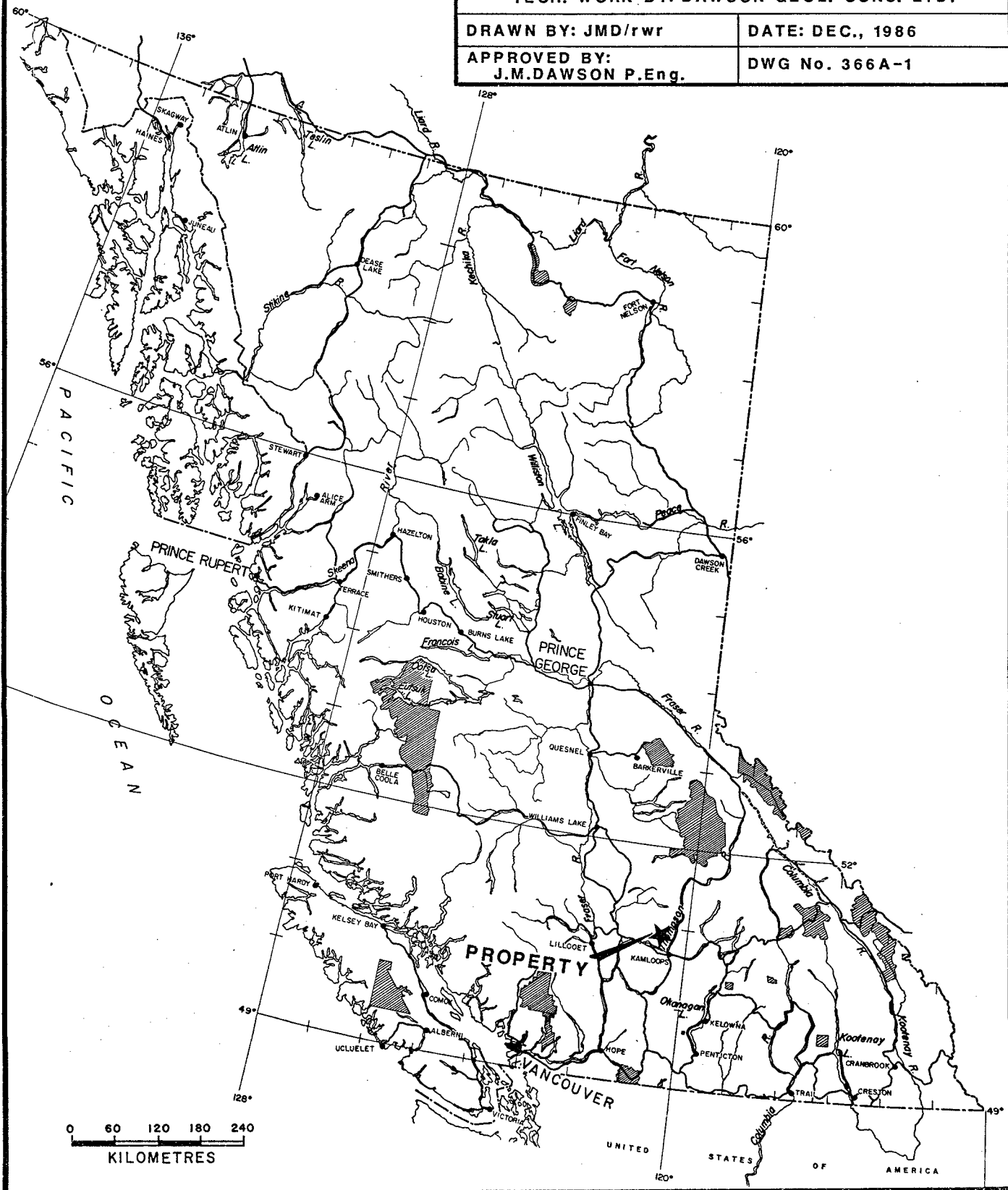
TECH. WORK BY: DAWSON GEOL. CONS. LTD.

DRAWN BY: JMD/rwr

DATE: DEC., 1986

APPROVED BY:  
J.M.DAWSON P.Eng.

DWG No. 366A-1



**REPORT ON DIAMOND DRILLING PROGRAM  
ALLIES PROPERTY, Kamloops Mining Division, British Columbia**

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## INTRODUCTION

This report describes the results of a programme of core drilling on the Allies property, Kamloops Mining Division, British Columbia. This programme was part of an ongoing effort to evaluate a puzzling and potentially economically significant gold occurrence.

A series of written logs of each drill hole is appended to this report, as are maps showing significant geological features and locations of recent drill holes.

## SUMMARY AND CONCLUSIONS

1. The Allies property consists of two contiguous MGS claims aggregating 24 units, located in relatively moderate terrain about 25 kilometers northwest of the city of Kamloops in south-central British Columbia, and is road accessible.
2. The property was probably discovered in the early 1900s, but no work was recorded until the period 1924-34. During this time, extensive trenching, prospecting and underground exploration was carried out in an attempt to discover the source of an accumulation of float boulders containing significant gold values. These efforts were unsuccessful. During 1972-78, geochemical and geophysical surveys, trenching and limited diamond drilling was performed; however, the source of the float was not located. In 1984-85, Laramide Resources Ltd. carried out geological mapping, geochemical soil and silt sampling as well as trenching and road construction. The property was optioned to Relay Creek Resources Ltd. in 1985 and further exploration, including an induced polarization survey and backhoe trenching, was performed. In 1986, Relay Creek carried out a diamond drilling programme consisting of 619.2 meters of NQ drilling in five holes.
3. The property is underlain by Miocene plateau basalt within which an erosional/tectonic window exposes older picrite and lesser Nicola 'greenstones'. The older rocks are cut locally by porphyritic felsic dykes. Outcrop of the older rocks is sparse; at two locations, however, clusters of felsic dykes are the loci for quartz veins and stockworks. A third occurrence of such mineralization consists of an accumulation of angular boulders for which a bedrock source has not been found.
4. Mineralization consists of sparse, disseminated pyrite, lesser blebs of chalcopyrite, and traces of galena in or adjacent to sub-parallel sets of glassy to milky, narrow, quartz stringers and veins. Gold values range up to 45.2 grams per tonne for selected samples at the main showing, but average about 3.0 grams per tonne for random grab samples. At

the two 'in place' showings, similar but weaker sulphide mineralization generally reports only weakly anomalous gold values - the best values being in the 1 gram per tonne range.

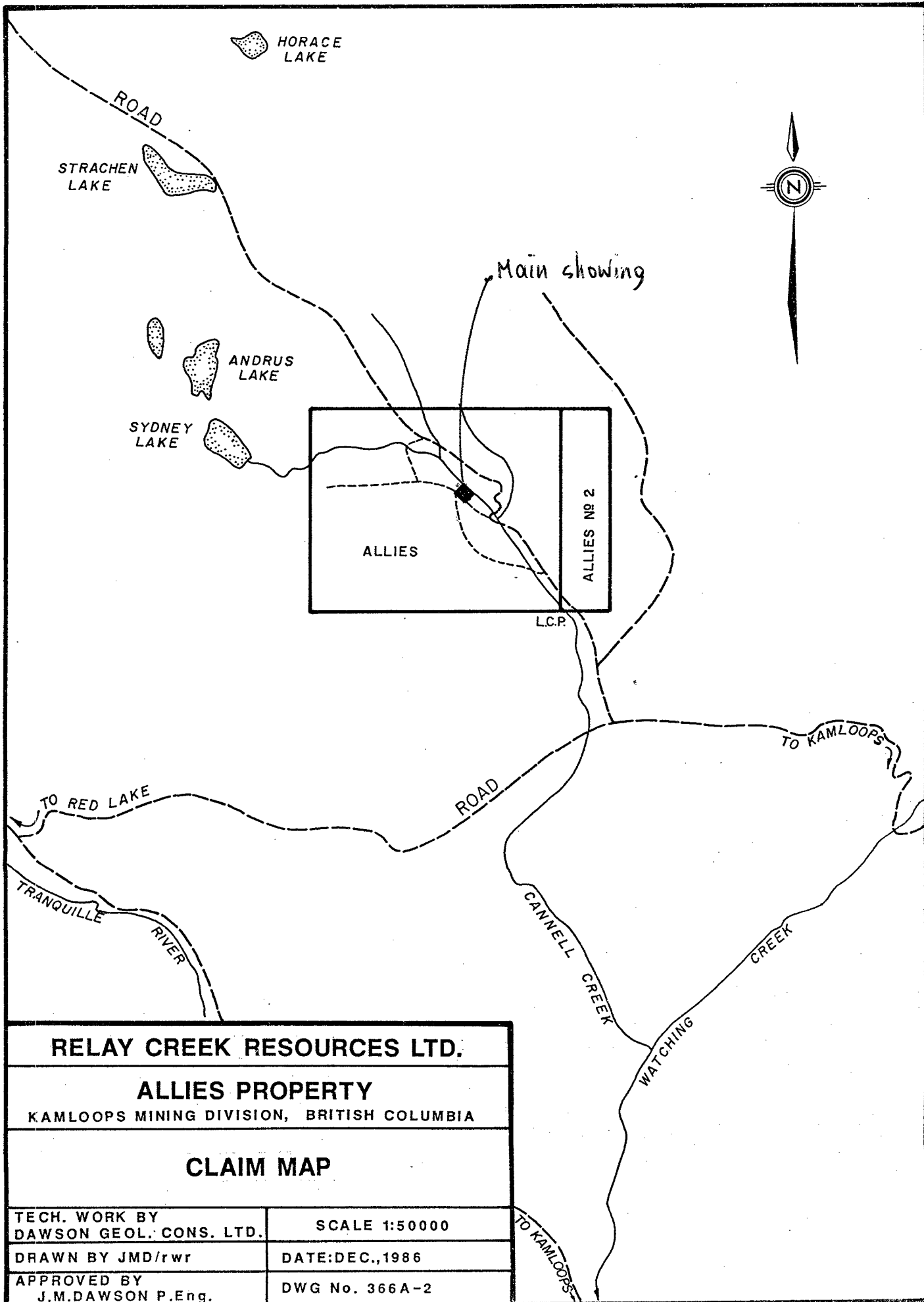
5. Weak gold mineralization is present in quartz stockwork over significant widths on the Allies property. The source of the higher grade boulders at the No. 1 or Discovery Showing, however, has not yet been located. It is suggested that the problem is one of complex faulting, intensified by lack of outcrop and the post mineralization plateau basalt cover. Additional drilling will be required to arrive at an understanding of the geometry of the mineralized zones at depth and along strike.

**PROPERTY**

The Allies property consists of two contiguous, MGS claims aggregating 24 units as follows:

<u>Claim Name</u>	<u>Record Number</u>	<u>Tag Number</u>	<u>Expiry Date</u>
Allies	3617	68481	23 Jun '95
Allies No.2	6308	90852	19 Jul '88

The registered owner of these claims is Laramide Resources Ltd. The property is currently under option to Relay Creek Resources Ltd.



**RELAY CREEK RESOURCES LTD.**

**ALLIES PROPERTY**

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

**CLAIM MAP**

TECH. WORK BY  
DAWSON GEOL. CONS. LTD.

SCALE 1:50000

DRAWN BY JMD/rwr

DATE: DEC., 1986

APPROVED BY  
J.M. DAWSON P.Eng.

DWG No. 366A-2



## LOCATION AND ACCESS

The property is located in south-central British Columbia, about 25 kilometers northwest of the city of Kamloops, at the southern edge of the Bonaparte Plateau. The approximate geographic center of the property is at  $50^{\circ}52'$  north and  $120^{\circ}33'$  west.

The claims are accessible by road from Kamloops via approximately 30 kilometers of dirt road from the Batchelor Hills turn-off in North Kamloops and thence to McQueen Lake, Pass Lake and Cannell Creek. Recent construction of drill roads now provides easy access to the more important parts of the property.

## PHYSIOGRAPHY AND VEGETATION

The property lies at the southern edge of the Bonaparte Plateau. A gently rolling upland area with elevations in the 4800 to 5000 foot range is bisected by the northwest-trending valley of Cannell Creek. Elevations in this valley vary from about 3900 feet above sea level at the southeast corner of the claim block, to near 4800 feet at the north and west boundaries.

The area is heavily wooded, with mature spruce, fir and pine in the valley of Cannell Creek. Upland areas and southerly-facing slopes are generally more open and predominantly forested by lodgepole pine with occasional meadows.

The area of the known showings is poorly drained and for the most part covered with a variable thickness (up to 20+ meters) of clay-rich glacial material. Even modest amounts of precipitation make the roads virtually impassible with mud.

## HISTORY

The first recorded work on the property was in 1924. It had, however, presumably been discovered some years earlier by prospectors working up Tranquille River and Watching Creek searching for the source of the placer gold found in those creeks. Samples of material grading as high as 1.42 ounces gold per ton were obtained from quartz stringers in a number of large blocks of silicified feldspar porphyry thought at first to be outcrop.

Over the next few years, a considerable amount of prospecting and trenching had not established the dimensions of the showing, or even if the discovery material was in place.

In 1933-34, an extensive programme of underground exploration was carried out in an attempt to find and delineate the source of the gold-bearing porphyry. At least three shafts and five adits totalling approximately 800 lineal feet were driven at several locations and although several occurrences of similar porphyry intrusions were located in place, the source of the high grade float at the main or No. 1 shaft was not found.

The property was dormant until 1968 when minor trenching was done near some of the original workings.

In 1972-73, the property was controlled by Bon-Val Mines Ltd., who carried out magnetic and VLF electromagnetic surveys as well as geochemical soil sampling. Bon-Val Mines was subsequently reorganized as Yamoto Industries Ltd.

In 1976, an extensive programme of geochemical soil sampling was undertaken with some 800 samples being analyzed for gold and copper. Results showed only a few gold 'highs', presumably because of the heavy, clay-rich overburden.

In 1978, three diamond drill holes totalling 162.5 meters were bored near the No. 1 shaft. Drill logs reported barren 'serpentine' in all holes, with no porphyry or quartz veins encountered.

In 1984, title to the property was awarded to Laramide Resources Ltd. after a lengthy legal dispute over assessment work.

In 1985, a detailed exploration programme was initiated by Laramide. This work consisted of grid layout, geological mapping, road construction and trenching, as well as soil and silt sampling.

In 1985, the property was optioned by Relay Creek Resources Ltd., which company conducted an exploration programme consisting of induced polarization and excavator trenching. A diamond drilling programme was begun but had to be terminated because of excessively cold weather in November of 1985.

## CURRENT DRILLING PROGRAMME

During September 1986, five NQ-sized core holes aggregating 619.2 meters were drilled on the Allies property. Location of drill collars is shown on Figure 366A-3 accompanying this report.

Considerable problems were encountered in drilling because of heavy, boulder-rich overburden as well as heavy clay content of the altered picrite. One of the critical holes (86-A-2) could not be completed because of excessive overburden and caving problems.

*The core was assayed by Lamboys Research*

## GEOLOGY (After Riccio (1985))

The property is largely covered by Miocene Plateau basalts. Older rocks consisting of picrite, Nicola 'greenstones' and felsic dykes are confined to a 600-meter by 400-meter, erosional-tectonic window. Exposures of pre-Miocene rocks are minimal and almost exclusively confined to areas of workings.

Plateau basalts are black, fine-grained, massive to olivine porphyritic, occasionally amygdaloidal, and columnar jointed. The basalts locally overlie a poorly stratified unit, up to 30 meters thick, composed of volcanic wacke and conglomerate (Kamloops Group?).

Picrite is usually a green to dark greenish-black rock composed of subrounded serpentinized olivine grains (two to five millimeters) set in a dark chloritic matrix. Outcrops of picrite are generally deeply weathered and decomposed. The 'greenstones' consists of light green, chloritized and carbonatized, feldspar porphyritic to aphanitic rocks which can be interpreted as either flows or tuffs. Age relationships between 'greenstones' and picrite cannot be established in the field; however, according to Monger (1984), the picritic rocks at the Allies property are probably coeval with or slightly younger than the 'greenstones'.

Felsic, porphyritic dykes are found cutting the older picrite and Nicola volcanics and have been noted in place at Dodd's Showing and the Southwest Showing. Identical dyke rocks as a series of large angular blocks have been found in the vicinity of the Main or Discovery Showing. These are usually grey to buff coloured rocks composed of 20% to 30%, small feldspar (two to five millimeters) and minor hornblende phenocrysts set in a grey, aphanitic groundmass. Data from surface and drilling indicate that these dykes strike easterly to northeasterly and dip steeply south. At both the Southeast and Dodd's Showings, the dykes occur as a cluster or swarm over a 20- to 30-meter width, with intervening screens of chloritized country rock.

Cockfield (1961) noted light and dark porphyries in his mapping. The writer has seen two other outcrop areas at No. 2 and No. 3 adits where 'light' porphyry cuts the surrounding, friable picrite. This dyke rock is paler and more siliceous than the previously described 'dark' porphyries and does not contain any quartz veining.

## MINERALIZATION

At the Main or Discovery Showing, boulders of quartz-veined, 'dark' porphyry are found over an area roughly 150 meters (east-west) by about 40 meters (north-south) adjacent to the contact with the overlying (or fault-bounded) sediments and volcanics. Within this area at least 50 such boulders varying in size from two meters square down to fist-size have been found. These boulders are almost always angular, but seem to decrease in size towards the west. Typically, such boulders are cut by sub-parallel sets of milky and glassy quartz stringers and veins, one to twenty centimeters wide, carrying disseminated pyrite, blebs of chalcopyrite and minor galena. Vein density accounts for 10% to 30% of the rock volume. Country rock between quartz veins is strongly silicified and ankeritized. Samples of quartz stringers are reported to have assayed up to 45.2 grams/tonne (?) gold over 20 centimeters (Cockfield, 1961). A number of samples from mineralized boulders have been taken over the last several years by the writer and others. These samples varied from 0.44 ounces/ton to trace gold. The average of all grab samples from mineralized boulders (in this area) averaged about 0.1 ounces gold per ton.

The original Southwest Showing was developed by one main adit and several pits. Here, there are series of quartz-veined porphyry dykes in place cutting altered, friable picrite and silicified and opalized (locally) pyritic 'greenstone'. The porphyry dykes here are generally more pyritic, more chloritized and less silicified than the collection of float boulders near No. 1 (Discovery) Shaft. Here, low but anomalous (100 to 1000 ppb) gold values are found in similar quartz-veined, 'dark' feldspar porphyry dykes.

Narrow (+1 meter) quartz-veined and carbonatized, east-west trending, feldspar porphyry dykes containing minor disseminated pyrite and chalcopyrite are exposed in a new road cut on line 55 near Cannell Creek (Dodd's Showing). All porphyry samples collected in 1984 from this locality returned low but anomalous (35 to 1032 ppb) gold values. It should be noted that this showing as well as the Southwest Showing is located adjacent to the contact with the overlying plateau basalt.



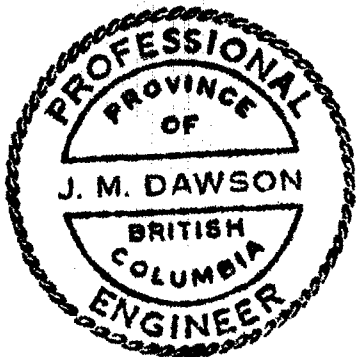
## DISCUSSION OF RESULTS

Drilling beneath the Southwest and Dodd's Showings has demonstrated significant (10- to 20-meter) widths of quartz and quartz-carbonate stockwork mineralization which is quite similar to that found in the boulder accumulation at the Main Showing. Gold values at both these locations, however, are only in the anomalous range (up to 1300 ppb).

The mineralized zone exposed at Dodd's Showing appears to be cut off to the east by a northwesterly-trending fault which probably closely follows the valley of Cannell Creek. Presumably, it continues some distance to the west beneath the plateau basalt cover.

Drilling beneath the area of the Main Showing was only partly completed. Heavy overburden and caving prevented the completion of drill hole 86-A-2. Hole 86-A-2 demonstrated that the younger plateau basalt is down-faulted against the picrite north of the mineralized boulder accumulation.

In summary, significant widths of stockwork mineralization are known to exist on the Allies property; however, the zone from which the higher grade boulders was derived has not yet been located. Further drilling will be necessary to attain an understanding of the geometry of the mineralized zones at depth and along strike.



Respectfully submitted,  
DAWSON GEOLOGICAL CONSULTANTS LTD.

*James M. Dawson*  
James M. Dawson, P.Eng.

January 5, 1987  
Vancouver, British Columbia

**APPENDIX "A"**

**PERSONNEL**

## PERSONNEL

J. M. Dawson, P.Eng.  
Geologist  
12 Days

August 15, 16, 28, 29, 30, 31  
September 1, 9  
December 15, 28, 29, 30

F. L. Wynne, P.Eng.  
Geologist  
13 Days

September 1, 2, 3, 5, 6, 8, 10, 11,  
12, 15, 18, 19, 20

D. Mehner, B.Sc.  
Geologist  
12 Days

September 19, 20, 21, 24, 25, 27, 30  
October 1, 2, 3, 4, 5

L. Loranger  
Prospector  
3 Days

August 31  
September 1  
October 7

APPENDIX "B"  
PROJECT COSTS

## PROJECT COSTS

### A. PERSONNEL

J. M. Dawson, P.Eng.		
12 days @ \$300/day	\$ 3,600.00	
F. L. Wynne, P. Eng.		
13 days @ \$300/day	3,900.00	
D. Mehner, B.Sc.		
12 days @ \$250/day	3,000.00	
L. Loranger		
3 days @ \$180/day	<u>540.00</u>	\$11,040.00

### B. EXPENSES AND DISBURSEMENTS

Contract Drilling Costs	\$57,188.96	
Truck Rental	2,874.40	
Assays and Analyses	426.30	
Travel	486.65	
Drafting	612.32	
Miscellaneous Field Equipment	392.78	
Photocopying, Blueprints, Secretarial, Office Supplies, Telephone, Freight, etc.	<u>377.60</u>	<u>62,359.01</u>
		<u>\$73,399.01</u>

APPENDIX "C"

DRILL LOGS

# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 206 - 310 Nicola St.  
Kamloops, B.C.  
Phone 374-0544

PROPERTY ..... ALLIES .....

HOLE No. .... 86-A-1 .....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size ..... NQ .....  
 Angle of Hole ..... -48° .....  
 Claim .....  
 Section .....  
 Bearing ..... 155°T .....

Total Depth ..... 154.6m .....  
 % Recovery .....  
 Elev. Collar .....  
 Latitude .....  
 Departure .....

Sheet No. .... 1 ..... of 6 .....  
 Logged by ..... JMD/FLW/DTM .....  
 Date Begun ..... 26 Aug '86 .....  
 Date Finished ..... 04 Sep '86 .....  
 Core Stored at .....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-7.9		Casing.						
8-11		Red brown to dark brown, plateau basalt; vesicular in part.						
11-15	3.00	Greenish grey to brown, fairly fresh "Plateau" basalt; vesicular in part.						
15-19	0.30	From 15 to 15.55, similar fresh basalt; from 15.55 to 16.7, greenish, friable and broken picrite; from 16.7 to 19, typical picrite with rounded grains of olivine and ? pyroxene (up to 5 mm) in paler greenish, olivine rich matrix; much of section is sheared and friable.						
19-23	0.20	Similar picrite with rounded orbicular grains of olivine and pyroxene; frequent zones of chloritization and serpentinization.						
23-27	0.05	Similar to last section.						

# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.  
Kamloops, B.C.  
Phone 374-0544

PROPERTY ALLIES

HOLE No. 86-A-1

SHEET No. 2 of 6

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
27-31	0.05	Similar to last section; core is uniformly weakly magnetic; magnetite and ? chromite present.						
31-35	0.05	Similar to last section; light to dark green depending upon degree of shearing and plae green friable gouge.						
35-39	0	Similar to last section.						
39-43	0	Similar to last section; uniformly magnetic as before.						
43-47	0.10	Similar to last section.						
47-51	0	Similar to last section.						
51-55	0	Similar to last section.						
55-59	0	Similar picrite, friable and brecciated; cut by minor white, narrow calcite ? stringers in places.						
59-63	0.35	Primarily brecciated and friable picrite.						
63-67	0.40	Similar soft, gougy picrite.						
67-71	0.30	Similar to last section; few minor 'fragments' of less friable picrite.						





# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.  
Kamloops, B.C.  
Phone 374-0544

PROPERTY ALLIES HOLE No. 86-A-1 SHEET No. 4 of 6

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE	Au (ppb)		
99.2-							
100.4		Lost core.					
100.4-				101-102	190		
106.7	0.10	Brecciated, leached, strongly altered andesite feldspar porphyry; irregular brecciated quartz veining (less than 1%); fine diss. pyrite cubes and irregular pyrite veinlets to stockwork = 2-3% pyrite; fine grained green mica (mariposite) 8-12% <sup>+</sup> sericite replacing feldspar, phenocrysts and occurring with calcite fractures (less than 1% calcite) - grey clay seams carry very finely diss. pyrite.		102-103	20		
				103-104	89		
				104-105	16		
				105-106	4		
				106-107	92		
106.7-		Brecciated andesite porphyry similar to above but		107-108	170		
109.7		with very well developed quartz (15%), calcite (25%) stockworks; 1% diss. and veinlet pyrite, 1% diss. mariposite; silicified groundmass		108-109	550		
				109-110	850		
109.7-		Brecciated strongly altered picrite; quartz (3%),		110-111	2		
111		calcite (5%) stockwork; less than 1% diss. pyrite, veinlet mariposite less than 1%; local serpentinite alteration.		111-112	540		
				112-113	250		
				113-114	300		
				114-115	139		
111-				115-116	210		
119.05		As 106.7-109.7, but only 20% stockwork (15% quartz, 5% calcite); contact with picrite approx. 15° to core axis. Minor (<< 1%) chalcopyrite veinlets		116-117	960		
				117-118	560		
				118-119	117		







# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 206 - 310 Nicola St.  
Kamloops, B.C.  
Phone 374-0544

PROPERTY ..... ALLIES .....

HOLE No. .... DDH 86-A-3 .....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size ..... NQ .....  
 Angle of Hole ..... -45° .....  
 Claim .....  
 Section .....  
 Bearing ..... 330° .....

Total Depth ..... 159.7m .....  
 % Recovery .....  
 Elev. Collar .....  
 Latitude ..... Q+88NW .....  
 Departure ..... 2+16NE .....

Sheet No. .... 1 ..... of ..... 5 .....  
 Logged by ..... DTM .....  
 Date Begun ..... 09 Sep '86 .....  
 Date Finished ..... 16 Sep '86 .....  
 Core Stored at ..... Property .....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
0-37m		Overburden.						
37-37.4	0.30	Picrite.						
37.4-39		Lost core.						
39-39.8		Picrite. Intensely brecciated; green clay (alteration) supports rounded fragments; some serpentinite; very friable; pipe breccia (?); hydrothermal breccia;						
39.8-40.6		Lost core.						
40.6-45.0	0.60	Picrite. Intensely brecciated; rounded fragments supported in green clay; clay component approx 40%; component core pieces up to 15cm max; hydrothermal breccia (?) or pipe breccia.						
45-45.4		Lost core.						
45.4-46.0		Moderately brecciated picrite; clay alteration (15%) along fractures; trace of fracture/clot calcite; crackle breccia.						

# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.  
Kamloops, B.C.  
Phone 374-0544

ALLIES

86-A-3

2

5

PROPERTY \_\_\_\_\_

HOLE No. \_\_\_\_\_

SHEET No. \_\_\_\_\_ of \_\_\_\_\_

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			
46-46.4		Lost core.					
46.4- 47.3		As 45.4 to 46; clay alteration, more intense at 20%.					
47.3- 48.6	0	Massive picrite; competent.					
48.6- 52.4	0	Brecciated picrite with zones 10-50m wide of intense brecciation containing up to 70% green clay supporting rounded picrite fragments (avg. less than or equal to 2cm) separated by zones of 10-50cm of relatively competent picrite with less than 10% green clay along fractures; trace of calcite on fractures with clay.					
52.4- 56.1	0.05	Fault gouge (?) 90% green-grey to purple clay supporting olivine + pyroxene (?) grains and picrite fragments; trace pyrite cubes.					
56.1- 70.8	4.1	As 48.6 to 52.4. Missing core at: 57.15-57.6 59.7 -60.3 68.05-68.8					
70.8- 80.5	0.2	Strongly brecciated picrite with rounded fragments supported by 40-60% green clay; core competent.					





# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.  
Kamloops, B.C.  
Phone 374-0544

PROPERTY ALLIES HOLE No. 86-A-3 SHEET No. 4 of 5

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE				
110.5-		Amygdaloidal basalt; 5-8%, 1.1.5mm amygdales						
113.5		with pumpellyite.						
113.5-	0.1	As above but 5-10% amygdales to 7mm.						
118.5								
118.5-		Amygdaloidal basalt; 3-5%, 1-2mm pumpellyite and/or						
122.5		calcite amygdales.						
122.5-	0.20	Volcaniclastic; rounded basalt fragments to 10cm,						
126.0		set in 2-4mm matrix of rounded volcanic rock						
		fragments including picrite (?); seems to be						
		hydrothermal in appearance with much of the 'matrix'						
		material resembling altered picrite; hydrothermal						
		pipe crystal-cutting flows (?), feldspar porphyry						
		fragments common.						
126.0-		Amygdaloidal basalt with 15%, 1mm calcite amygdales						
128.0		and 1% pumpellyite amygdales; less than or equal						
		to 1% picrite xenoliths.						
128.0-		Amygdaloidal basalt; 5-8% amygdales to 1cm.						
128.9								
128.9-		Amygdaloidal basalt; 3-5% amygdales average 2mm;						
133.3		pumpellyite and calcite.						







# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

Suite 1 - 219 Victoria St.  
Kamloops, B.C.  
Phone 374-0544

PROPERTY ALLIES HOLE No. 86-A-4 SHEET No. 3 of 6

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			Au	
22.3-		As 21.3 to 22.1; dolomite vein fragments common		(m)			(ppb)	
23.9		(1%).						
23.9-	0.20	Broken porphyritic gabbro; 1% dolomite veining;						
26.9		0.5cm irregular blebs of dolomite - replacement?						
		abundant clay seams; hematite rimming altered						
		pyroxene crystals.						
26.9-	0.10	Relatively competent porphyritic gabbro; dolomite						
33.9		veining = 1%; hematite rimming altered pyroxenes;						
		groundmass altered to light green (chlorite?);						
		from 32.6, dolomite veining = 1-2%.		0.9	32.6	33.5	7	
				1.0	33.5	34.5	4	
33.9-	0.10	As above but highly broken; oxidized red; hematite		1.0	34.5	35.5	2	
35.5		replaces pyroxenes; rock broken down to clay.						
35.5-	0.05	Maroon coloured, fine grained trachyandesite (to		1.0	35.5	36.5	3	
36.8		latite) flow (?) with well developed quartz-dolomite						
		stockwork - 10% quartz veins; 5% dolomite veins;						
		core broken		1.0	36.5	37.5	5	
36.8-37		Missing core.						
37-38.7	0.15	As 35.5 to 36.8; quartz veins display crystalline		1.0	37.5	38.5	14	
		texture; minor variolitic cavities; plag. feldspar						
		(1-2%) in quartz veins						
				1.0	38.5	39.5	38	

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Phone 374-0544

PROPERTY ALLIES HOLE No. 86-A-4 SHEET No. 4 of 6

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			Au
				(m)			(ppb)
38.7-		As above but green coloured					
39.5							
39.5-	0.1	Silicified, slightly maroon feldspar - hornblend		1.0	39.5	40.5	57
44.3		andesite or trachyandesite sulphides start porphyry		1.0	40.5	41.5	36
		with well developed quartz dolomite stockwork; 5%		1.0	41.5	42.5	810
		dolomite and 8-10% quartz; 1-2% diss. pyrite and		1.0	42.5	43.5	615
		0.5% diss. and fractured chalcopyrite; trace finely					
		diss. steely grey mineral - hematite? sulphides in					
		veins and volcanic; relatively competent core;					
		hornblendes chloritized and leached out; plagioclase					
		laths gone to clay - kaolinite? chlorite and clay on					
		fracture surfaces					
				1.0	43.5	44.5	1320
44.3 -	0.1	Weakly maroon feldspar-hornblende andesite-		1.0	44.5	45.5	175
48.0		trachyandesite porphyry; only 1% quartz - dolomite		1.0	45.5	46.5	76
		veining and trace fract., veinlet and diss. pyrite;		1.0	46.5	47.5	93
		plag. crystals to clay and hornblendes, chloritized,					
		chlorite and clay and minor hematite, particularly					
		where slickensides occur on fractured surfaces.					
				1.0	47.5	48.5	180
48.0-		As above but quartz veining/stockwork = 3-5%;		1.0	48.5	49.5	385
53.4		1% diss., fracture & veinlet pyrite; locally, 5-10cm		1.0	49.5	50.5	87
		wide zones contain 5-8% pyrite.		1.0	50.5	51.5	240
				1.0	51.5	52.5	300
				0.9	52.5	53.4	170

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PROPERTY ALLIES HOLE No. 86-A-4 SHEET No. 5 of 6

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			Au
				(m)			(ppb)
53.4- 56.7	0.10	Fractured picrite, calcite and green clay on 1-4mm fractures (approx 1% of rock); weak quartz - dolomite stockwork within 0.5 m of contact.		1.0	53.4	54.4	8
				1.0	54.4	55.4	3
56.7- 59.1		Strongly brecciated picrite; hydrothermal breccia or pipe? rounded picirite clasts and/or olivine + pyroxene crystals + lithic frags (foreign volcanic fragments) supported by green to grey clay.					
59.1- 60.15		Picrite altered entirely to clay.					
60.15- 65.6		Fractured picrite; green clay and calcite along fractures; minor dolomite veining (less than 1%); minor clay rich seams - quartz crackle breccia at 64.7 to 65.3.					
65.6 - 65.8		Missing Core.					
65.8- 68.6		Fractured picrite; 1-3% clay and calcite rich seams; minor dolomite veining (less than 1%) as 60.15 - 65.6; some zones with intense clay alteration:					
68.6- 70.2	0.20	Hydrothermal breccia (?); as 56.7-59.1.					

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PROPERTY ALLIES HOLE No. 86-A-4 SHEET No. 6 of 6

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE			Au
				(m)			(ppb)
70.2- 95.4	0.7	As 65.8 to 68.6.					
95.4- 99.3		Brecciated picrite; cut by dolomite stockwork with 5-10% dolomite; fractures lined by green clay with minor calcite; hematite (1%) after pyroxenes (?)		1.0	93.4	94.4	3
				1.0	94.4	95.4	2
				1.0	95.4	96.4	2
99.3- 101.4		As 70.2-95.6					
101.4- 104.8		Crackle breccia; 10-15% dolomite and calcite fracturing picrite; dolomite fills voids between angular picrite fragments.					
104.8- 106.5		Picrite altered almost entirely to grey-green clay; fault gouge?					
106.5- 107.1		As 99.3 to 101.4.					
107.1- 118.0	0.20	As 104.8 to 106.5; only minor relict pyrite.					
118-121		Lost core.					
121.0		END OF HOLE					



# KERR—DAWSON & ASSOCIATES LTD. - DIAMOND DRILL RECORD

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Phone 374-0544

PROPERTY ..... ALLIES .....

HOLE No. .... 86-A-5 .....

DIP AND AZIMUTH TEST		
Corrected		
Footage	Angle	Azimuth

Core Size ..... NQ .....  
 Angle of Hole ..... -45° .....  
 Claim .....  
 Section .....  
 Bearing ..... 337° .....

Total Depth ..... 150.1m .....  
 % Recovery .....  
 Elev. Collar .....  
 Latitude .....  
 Departure .....

Sheet No. .... 1 ..... of ..... 2 .....  
 Logged by ..... FLW .....  
 Date Begun ..... 01 Oct '86 .....  
 Date Finished ..... 04 Oct '86 .....  
 Core Stored at Property .....

DEPTH	CORE LOST	DESCRIPTION	SAMPLE No.	WIDTH of SAMPLE (m)	Au (ppb)
0.00-20.		Overburden.			
20.0-41.3	4.7	Picrite, dark green, fine grained rock highly fractured, blue-grey clay gouge on fractures and locally in zones up to 1m wide. 21.3-21.5; 22.0-22.2; 22.7-23.7; 24.2-24.8; 25.0-25.3; 26.0-26.3; 27.3-28.0; 34.0-35.4.		0.7	41.3 42.0 2
41.3-44.9		Picrite, bleached, minor carbonate (dolomite?) veining, contacts top and bottom are clay gouge, top at 45° CA.			
44.9-134.0		Picrite, dark green as 20.0-41.3, minor carbonate veining in local short sections. 5cm wide veins occur at 2 samples sections. These are dolomitic, white to pale green (some zeolite?)		0.6 1.1	117.2 117.8 3 128.9 130.0 7
134.0-150.1		Picrite, strongly sheared, 5cm of clay carbonate at 134.0., 134.0-136.0 is probably a fault zone, strong shearing with 10% fragments of white carbonate on shear planes 70-90° to core axis, 2% pyrite.		1.0 1.0	134.0 135.0 34 135.0 136.0 220



APPENDIX "D"

LIST OF REFERENCES

### LIST OF REFERENCES

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APPENDIX "E"

WRITER'S CERTIFICATE

## CERTIFICATE

I, JAMES M. DAWSON of Vancouver, British Columbia do hereby certify that:

1. I am a geologist employed by Dawson Geological Consultants Ltd. of Suite 203, 455 Granville Street, Vancouver, British Columbia.
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 British Columbia. I have practised my profession for twenty-three years.
3. I am the author of this report, which is based on many personal examinations of the subject property during the period 1981 to 1986 as well as my familiarity with the Kamloops District.



DAWSON GEOLOGICAL CONSULTANTS LTD.

*James M. Dawson*

James M. Dawson, P.Eng.

Vancouver, British Columbia  
January 5, 1987

N

S

ANDESITE FELDSPAR PORPHYRY  
DIKES / QUARTZ VEINING

DDH 86-A1

OVER BURDEN

QUARTZ VEINED  
DIKE ZONE

8-12% MARIPOSITE / SERICITE, <1% Q.V., 2-3% py

<1% MARIPOSITE, 15% Q.V., 1% py

<1% MARIPOSITE, 3% Q.V.

<1% MARIPOSITE, 15% Q.V., Tr. cpy

3% MARIPOSITE, 5-10% Q.V.

py ≤ 1%

5-10% Q.V.

<1% MARIPOSITE, 3-5% Q.V., py TR.

<1% Q.V., py TR

FAULT

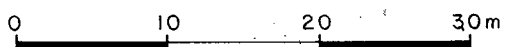
155m

LEGEND:

- 1 AMYGDALOIDAL BASALT
- 2 PICRITE
- 3 FELDSPAR PORPHYRY
- 4 NICOLA GREENSTONE
- Q.V. QUARTZ VEINING

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

15,807



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ALLIES PROPERTY

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

DRILL HOLE CROSS-SECTION

DDH 86-A1

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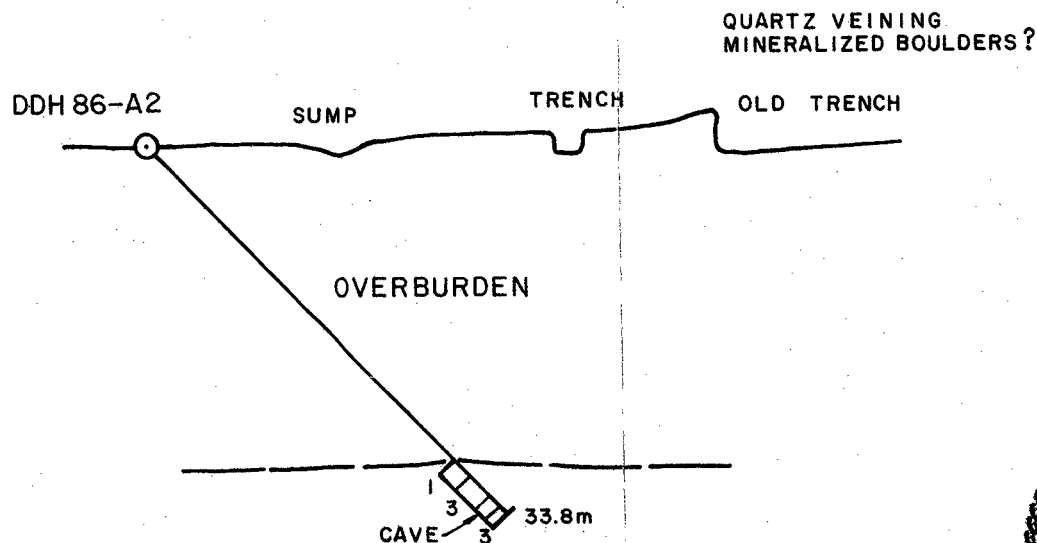
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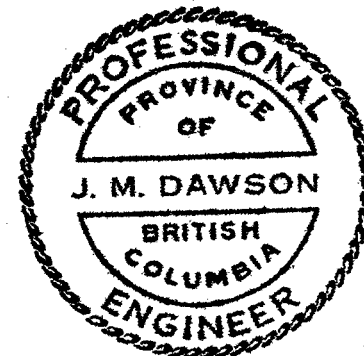
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J.M. DAWSON P. Eng.

DWG. No. 366A-



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**LEGEND:**

- 1 BASALT
- 3 CONGLOMERATE / BRECCIA  
(KAMLOOPS GROUP?)



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SE

NW

DDH 86-A3

OVERBURDEN

HYDROTHERMAL BRECCIA (?)  
PIPE BRECCIA (?)

CRACKLE BRECCIA

FAULT ZONE

2

HYDROTHERMAL BRECCIA

CALCITE STOCKWORK, CRACKLE BRECCIA

2

1

1 +1-2% PICRITE / EPIDOTE XENOLITHS

1 CRACKLE BRECCIA, CALCITE STOCKWORK  
2 HYDROTHERMAL BRECCIA

2 CRACKLE BRECCIA  
2 CALCITE STOCKWORK

159.7m

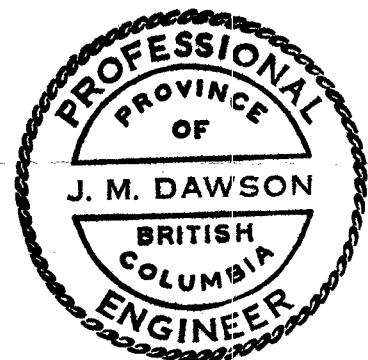
LEGEND:

1 AMYGDALOIDAL BASALT

2 PICRITE

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KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

DRILL HOLE CROSS-SECTION

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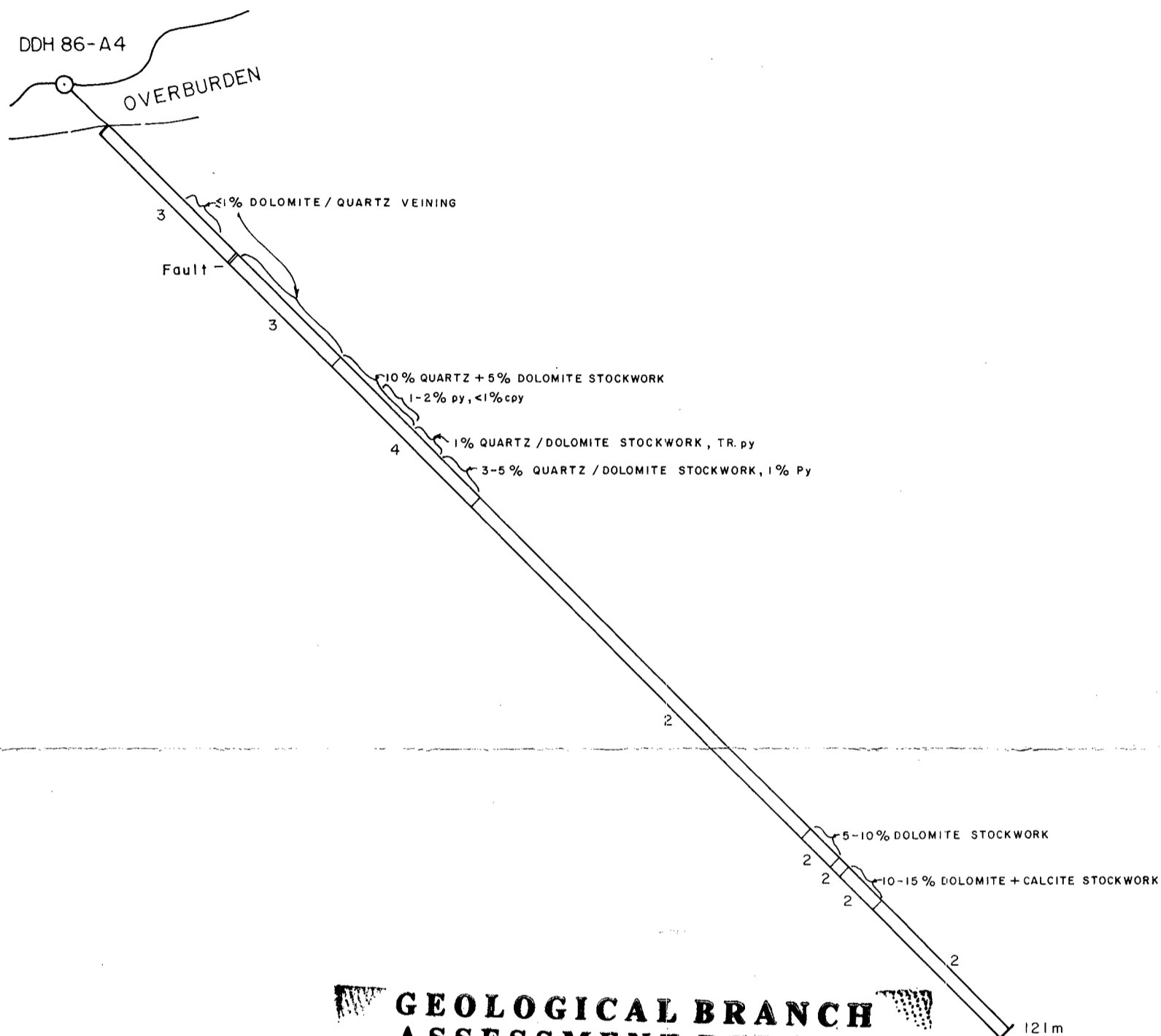
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SE

NW



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LEGEND:

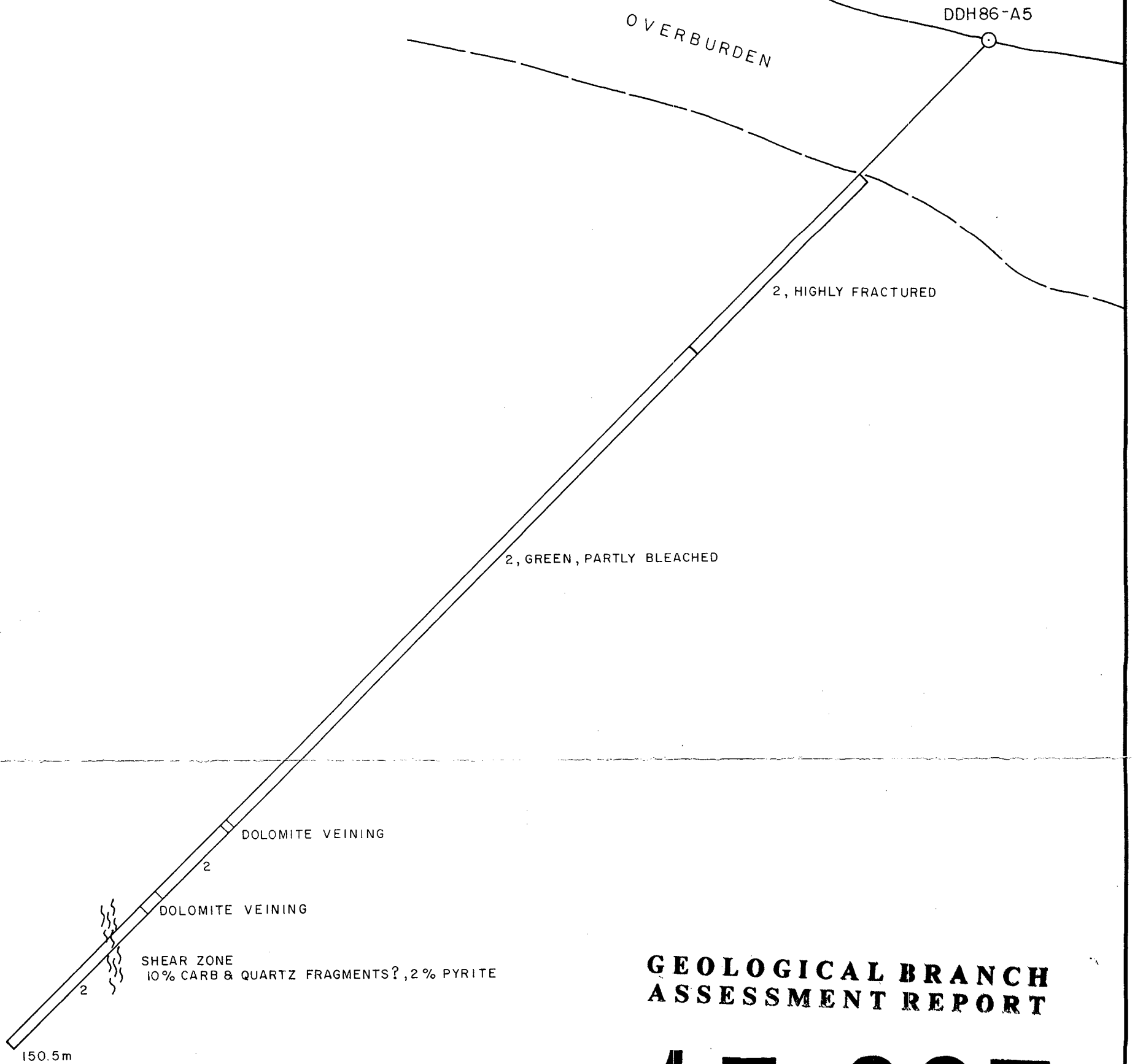
- 1 AMYGDALOIDAL BASALT
- 2 PICRITE
- 3 PORPHYRITIC GABBRO
- 4 TRACHYANDESITE



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<b>ALLIES PROPERTY</b> KAMLOOPS MINING DIVISION, BRITISH COLUMBIA	
<b>DRILL HOLE CROSS-SECTION</b> <b>DDH 86-A4</b>	
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LEGEND:

2 PICRITE



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KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

**DRILL HOLE CROSS-SECTION**

**DDH 86-A5**

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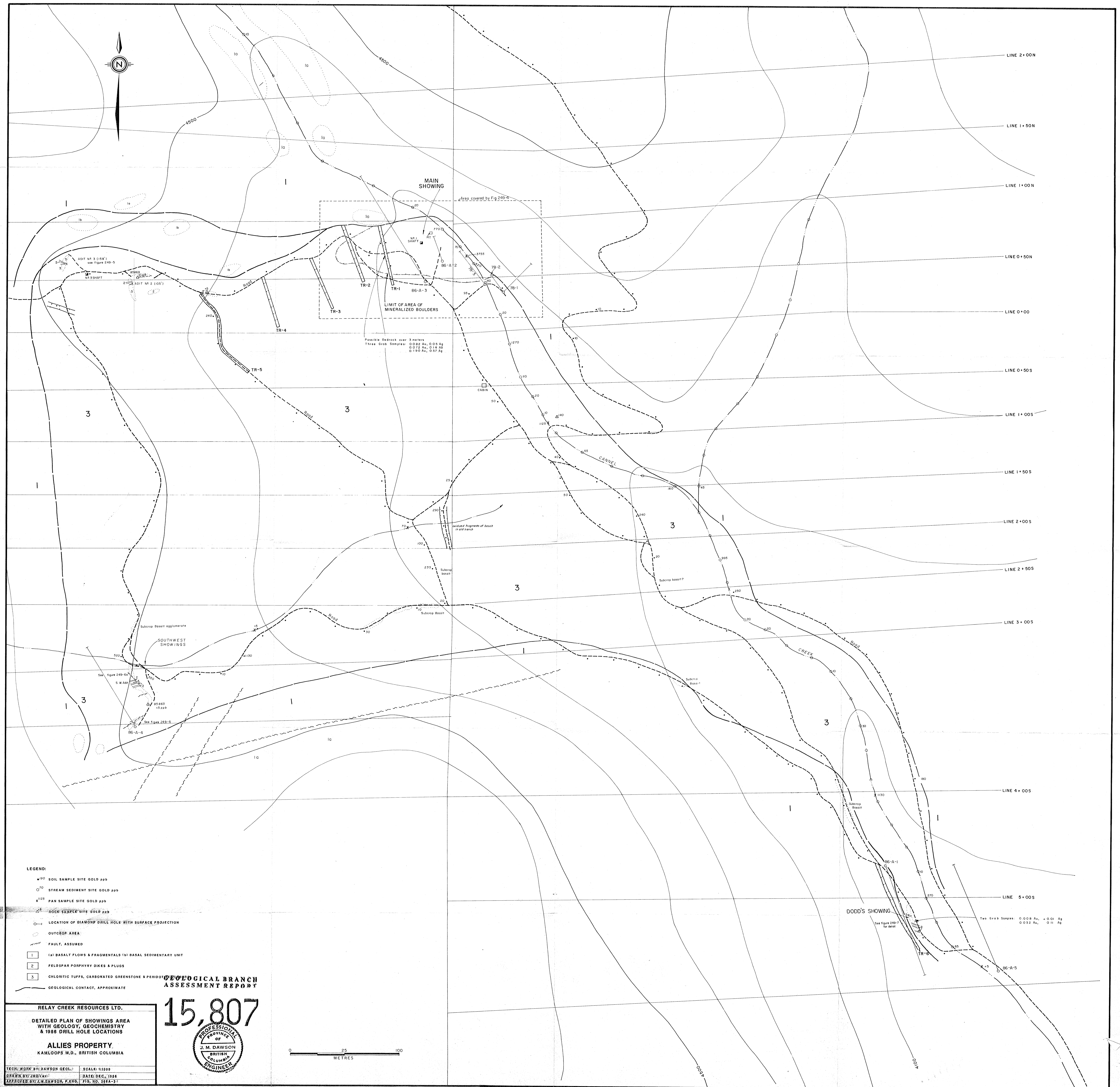
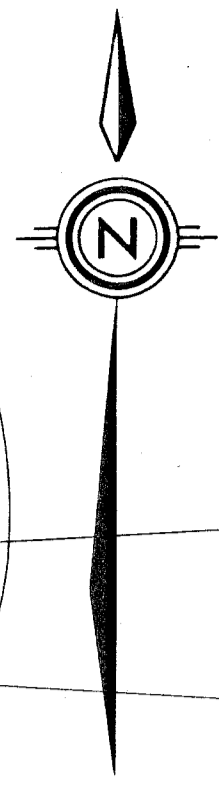
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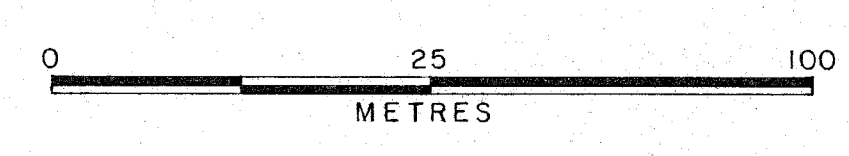
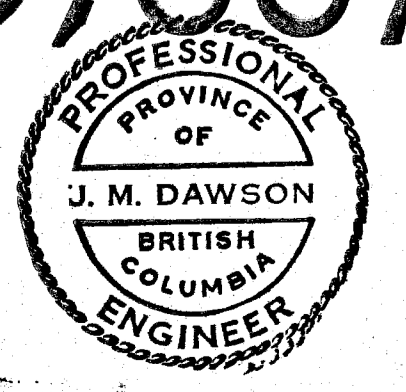
DWG. No. 366A-



- LEGEND:**
- <sup>30</sup> SOIL SAMPLE SITE GOLD ppb
  - <sup>00</sup> STREAM SEDIMENT SITE GOLD ppb
  - ×<sup>125</sup> PAN SAMPLE SITE GOLD ppb
  - <sup>5</sup> ROCK SAMPLE SITE GOLD ppb
  - LOCATION OF DIAMOND DRILL HOLE WITH SURFACE PROJECTION
  - OUTCROP AREA
  - - - FAULT, ASSUMED
  - 1 (a) BASALT FLOWS & FRAGMENTALS (b) BASAL SEDIMENTARY UNIT
  - 2 FELDSPAR PORPHYRY DIKES & PLUGS
  - 3 CHLORITIC TUFFS, CARBONATED GREENSTONE & PERIDOTITE
  - - - GEOLOGICAL CONTACT, APPROXIMATE

**GEOLOGICAL BRANCH  
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**15,807**



RELAY CREEK RESOURCES LTD.  
 DETAILED PLAN OF SHOWINGS AREA  
 WITH GEOLOGY, GEOCHEMISTRY  
 & 1986 DRILL HOLE LOCATIONS  
 ALLIES PROPERTY  
 KAMLOOPS M.D., BRITISH COLUMBIA

TECH. WORK BY: DAWSON GEOL. SCALE: 1:1000  
 DRAWN BY: JMD/CRP DATE: DEC. 1988  
 APPROVED BY: J.M. DAWSON, P. ENG. FIG. NO. 144-3

DODD'S SHOWING  
 See Figure 200-7 for detail  
 Two Grab Samples: 0.008 Au, 4.001 Ag  
 0.032 Au, 0.11 Ag