Back from amendments.

FILE NO:

1987 EXPLORATION PROGRAM ON

CUMMINS CREEK VEIN SYSTEM

TROITSA PEAK PROPERTY

FILMED

ALPINE EXPLORATION CORP.

Whitesail Lake Map Area, (93E)

Omineca Mining Division

British Columbia

February 17, 1988

by

COLIN HARIVEL

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INTRODUCTION

High grade gold and silver quartz vein float was discovered in Cummins Creek in 1982. A grab sample, taken from a boulder in Cummins Creek, consisting of disseminations of galena, chalcopyrite, argentite and pyrargyrite gave assays of 1.33 oz/t gold and 298 oz/t silver. Subsequent follow up of this float sample lead to the location of two veins three quarters of a kilometer upstream. Trenching in 1983 revealed important values from pods within the veins but not significant values from channel samples. Exploration in 1982 and 1983 (by Union Carbide and Canamax) was confined to Cummins Creek, although Canamax completed a soil grid over the creek and its immediate valley slopes. Exploration in 1982 noted other veins within the creek which gave values up to 4 ppm gold.

In 1983, Canamax completed a soil grid across part of the Cummins Creek area. One of the few grab samples collected on this grid gave 960 ppm silver and 2000 ppb gold from a piece of quartz float. Soils from the grid gave few highs, with gold to 300 ppb and silver to 7.3 ppm.

In 1986, Alpine Exploration Corp. undertook a brief (three day) prospecting examination of the Cummins Creek area. Grabs from the area of quartz float south of the creek gave values of 11, 25 and 31 oz/t silver and gold to 0.096 oz/t. It was decided to follow up these results in 1987. This report in part outlines the 1987 work program on this area.

This report also briefly describes other showings on the Troitsa Peak Property including the recently acquired Discovery Showing.

LOCATION AND ACCESS

The Cummins Creek vein system is located on the Troitsa Peak Property of Alpine Exploration, in the Whitesail Range of central British Columbia (NTS Map Sheet 93E/11, Figure 1) off the eastern flank of the Coast Range. The vein system is located on the TAR, Wind Tunnel, Jessie, and Cummins South mineral claims.

The claims are approximately 130 km south of the town of Smithers, B.C., and 95 km south of the village of Houston (Figure 2). Access is presently by helicopter from either Smithers or Houston. Staging onto the property may be done from logging roads near Tahtsa Lake, 20 kilometers to the north.

ALPINE EXPLORATION CORPORATION

TROITSA PEAK PROPERTY

LOCATION MAP

FIGURE I

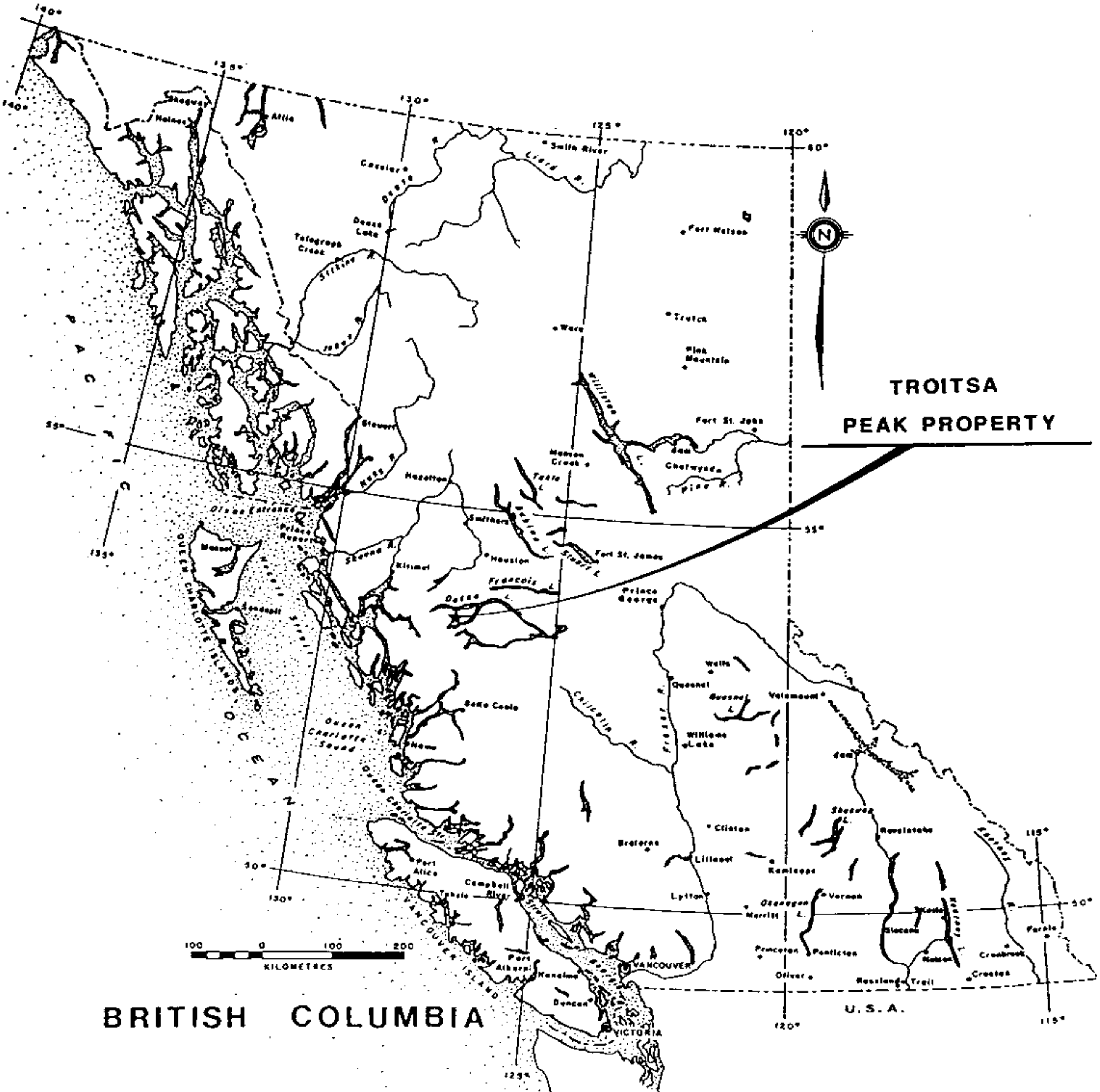


FIG 1

FIGURE 2

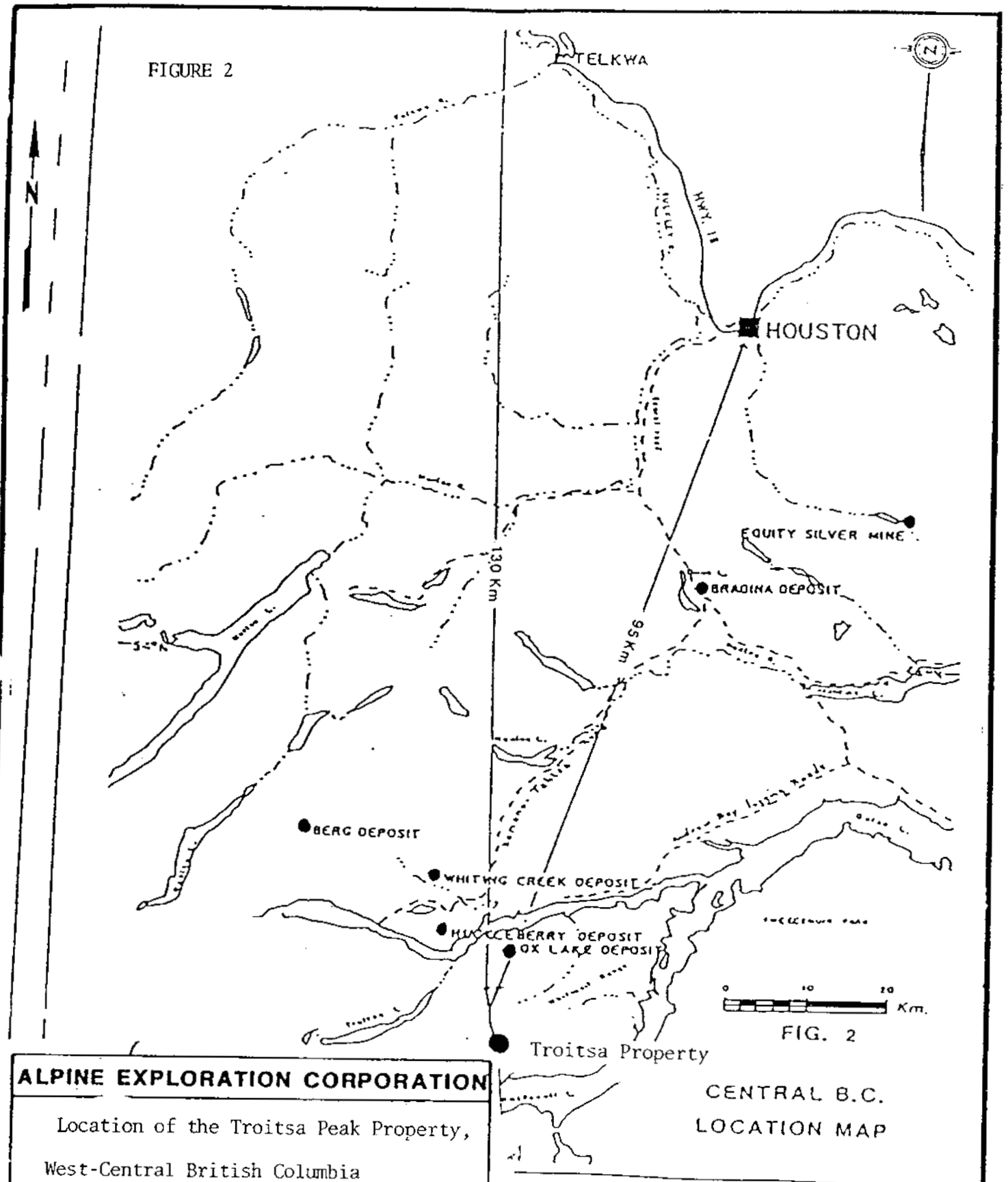


FIG. 2

ALPINE EXPLORATION CORPORATION

Location of the Troitsa Peak Property,

West-Central British Columbia

FIG.		N.T.S. 93E/11
2	Colin Harivel	DATE: FEB. 17, 1988

FIG 2

PHYSIOGRAPHY

The Cummins Creek vein system is located in a moderately incised stream (Cummins Creek) and slopes leading up to a gentle plateau-like upland surface. Relief, up to 400 meters, is steep but readily traversable within the creek drainage. The area is covered by mature balsam forest and modest undergrowth. The western part of the vein system underlies an open alpine terrain. Overburden is extensive, covering over 95% of the area of investigation.

PROPERTY HISTORY

No record of exploration is available prior to 1981. In 1981 prospectors and geologists under a grubstake arrangement with Union Carbide Exploration, Canada, discovered anomalous gold (to 1200 ppb) in epithermal quartz veins in the upper part of Cummins Creek. Subsequent exploration by the grubstake partners in 1982 led to the discovery of a rich quartz boulder and its source in the central part of the creek's drainage. The lateness of the season precluded any follow-up. In 1983 Union Carbide optioned the property to Canamax who carried out a soil survey adjacent Cummins Creek and trenched the veins discovered in 1982. This work did not reveal mineralization of commercial grade and the claims were returned to Union Carbide. In 1986 the claims were returned to T.A. Richards who subsequently dealt the Jessie and Wind Tunnel as well as the Whitesail and P.S. Claims to Alpine Exploration Corporation.

In 1986 Alpine Exploration carried out a prospecting examination of the Cummins Creek area to determine if there was any areal extent to the quartz vein system and if further anomalous values could be located. This examination located numerous proximal float pebbles, cobbles, boulders and blocks of quartz on the ridge and plateau area immediately south and south-west of Cummins Creek, mainly on the Jessie Claim. Re-sampling of the trenched vein resulted in a grab of 0.125 oz/t gold and 76 oz/t silver. Grabs from the area of float located south of the creek gave values of up to 31 oz/t silver and 0.096 oz/t gold. Two small exposures of vein were noted on the ridge immediately south of the creek.

In February 1988 T.A. Richards dealt the Cummins South as well as the Cummins North and Troitsa Claims to Alpine. Alpine had acquired the TAR in late 1987.

CLAIMS INFORMATION

The property consists of the claims listed below which are owned by Alpine Exploration Corporation (Figure 3).

Claim Name	Record Number	Expiry Date	No of Units
Wind Tunnel	4362	11/13/92	16
Jessie	4571	04/22/93	16
Cummins South	4561	04/22/93	16
Cummins North	4570	04/22/93	16
P.S.	4364	11/13/92	20
Whitesail	4365	11/13/92	20
TAR	8559	07/27/88	20
Troitsa	4329		20

SUMMARY OF 1987 WORK PROGRAM

The work program in 1987 on the Cummins Creek vein system concentrated on the area south and southwest of Cummins Creek where, in 1986, quartz float containing anomalous gold and silver had been located. The purpose of the program was to outline the distribution of float trains of quartz and to locate the source of these precious metal anomalies. The program consisted of the layout of a grid with 50 meter spaced lines and 25 meter spaced stations. The base lines runs east-west for 1500 meters with north-south cross lines ranging up to 800 meters. All quartz float was noted and mapped. Float was classified as to the number of pieces at a given location (1 to 3 and greater than 3) and as to the size of the pieces (10cm, to 30 cm, to 60cm and greater than 60cm). The presence of sulphides was noted. The number of quartz pieces noted numbered in the many hundreds, with the largest single block measuring 2X2X2 meters. Pyrite, chalcopyrite and minor amounts of galena, sphalerite and argentite were noted. Two samples gave in excess of 100 ppm silver and gold values of 2600, 1680 and 1200 ppb. The quartz trains and geochemical values are plotted on the accompanying map in the pocket. A total of 36 rock chip samples and 5 stream sediment samples were sent for analysis.

GEOLOGICAL SETTING

The Troitsa Claims are underlain by a geologically complex area. A high-level, hypabyssal rhyolitic to andesitic intrusive and extrusive volcanic complex of Early Tertiary age that defines a prominent radial drainage pattern forms a

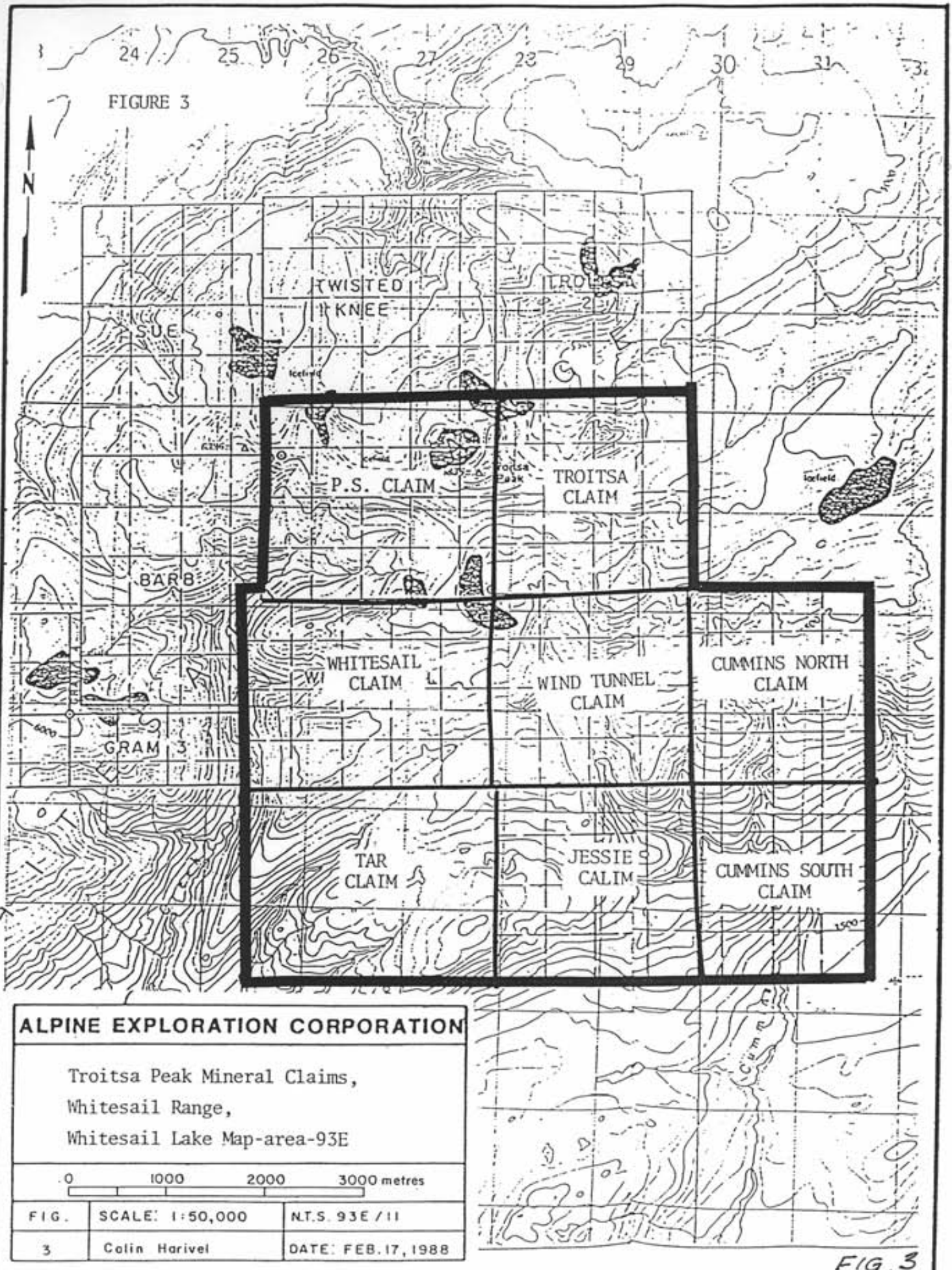


FIGURE 3
N
24
25
26
27
28
29
30
31
TWISTED KNEE
SUE
LRD
P.S. CLAIM
TROITSA CLAIM
BAR 8
WHITESAIL CLAIM
WIND TUNNEL CLAIM
CUMMINS NORTH CLAIM
GRAM 3
TAR CLAIM
JESSIE CLAIM
CUMMINS SOUTH CLAIM
ALPINE EXPLORATION CORPORATION
Troitsa Peak Mineral Claims,
Whitesail Range,
Whitesail Lake Map-area-93E
0 1000 2000 3000 metres
FIG. 3
SCALE: 1:50,000
N.T.S. 93E/11
Colin Harivel
DATE: FEB. 17, 1988
FIG. 3

core complex that appears to control the distribution of the epithermal mineralization. This intrusive complex is intrusive into marine and non-marine Jurassic volcanics of the Hazelton Group. Consanguineous volcanics with the intrusive conformably overlie the older volcanics. The older volcanics define the basement assemblages. The area is transected by a set of northeast trending and northerly trending faults whose age is both pre-and post intrusive complex. Numerous zones of precious metal mineralization are associated with the intrusive complex and fault structures (Figure 4).

The Cummins Creek vein system is hosted in volcanics of the Lower Jurassic Hazelton Group. The volcanics comprise a thick-bedded, monotonous sequence of coarse and fine-grained lapilli tuffs consisting of mainly feldspar porphyry lithic clasts, feldspar crystals and minor quartz. Rhyolite and andesite interbedded flows are rare, although in the southwestern part of the Jessie Claim, a massive rhyolitic complex is exposed that may be part of a Jurassic hypabyssal acidic volcanic centre. Bedding is difficult to discern as the strata in the creek is highly altered and fractured. Bedding when seen tends to strike northeasterly, dipping steeply.

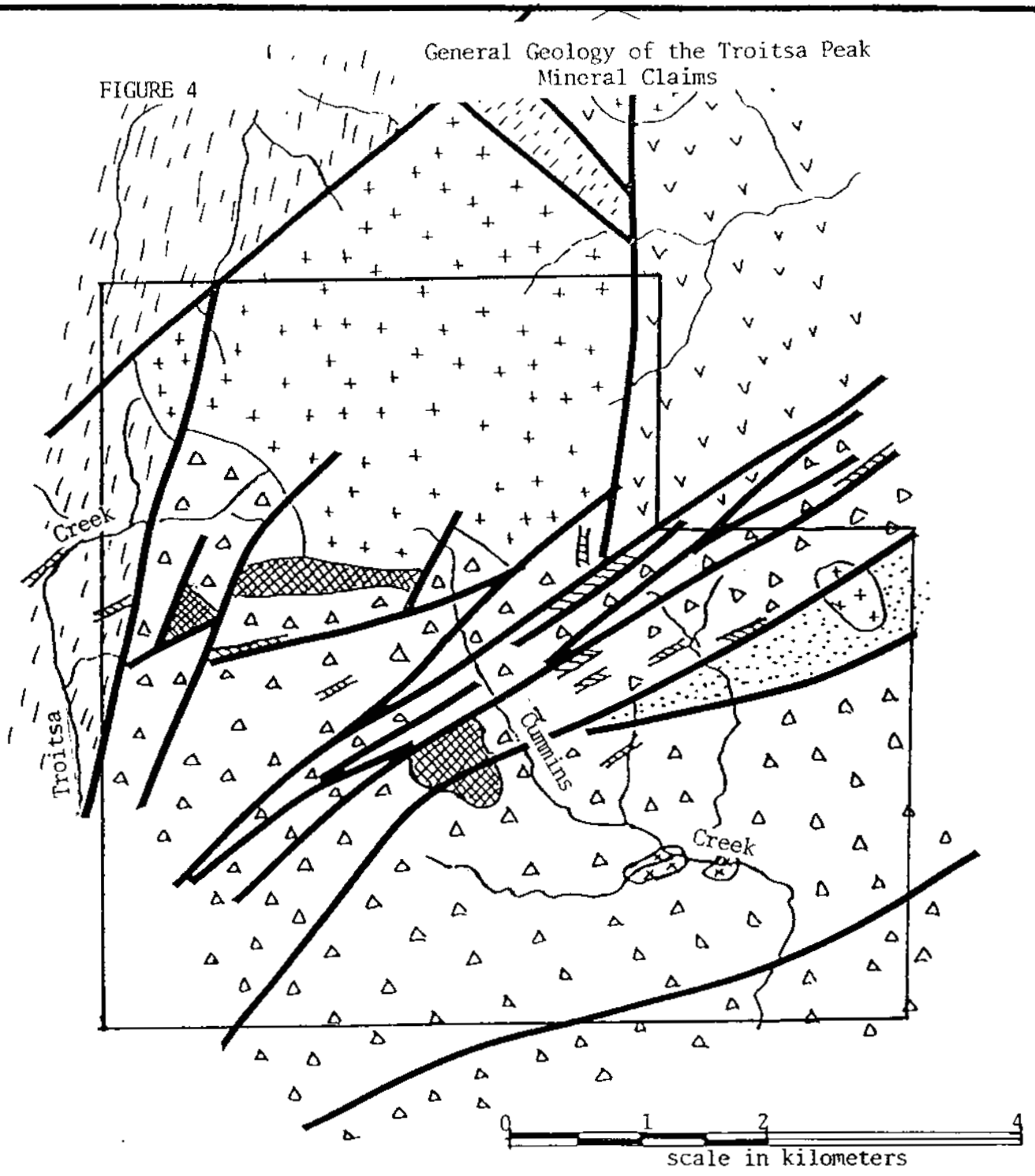
Northeasterly trending dykes of white to beige felsite and quartz-eye porphyry cut the volcanics. A small diorite plug is exposed along the ridge west of Cummins Creek, and a granodiorite "sill" crops out in a tributary creek to Cummins Creek.

The claimed area containing the vein system is transected by east-northeast trending fault systems of regional significance. These fault systems comprises a major 060 striking array that extends from the eastern margin of the Coast Range eastwards towards and beyond Ootsa Lake. The fault systems comprises a set of en echelon faults that extends from north of the Whitesail Range, southerly into Tweedsmuir Park.

Within this fault system, north-northwest to north-northeast minor faults are common, particularly within the Cummins Creek vein system area. These splays, gashes and fractures off the main 060 system appear to control the quartz veining in Cummins Creek.

FIGURE 4

General Geology of the Troitsa Peak Mineral Claims



EARLY TERTIARY

- felsite, aplite, quartz porphyry
- diabase,/granite
- hypabyssal rhyolite to andesite intrusive complex
- rhyolite to andesite volcanics

LOWER and MIDDLE JURASSIC

- marine sandstone, siltstone and shale
- marine acidic volcanics, volcaniclastic sediments, shale and siltstone
- subareal lapilli tuffs, breccias and rhyolite to andesite flows

FIG. 4

MINERALIZATION AND ALTERATION

Precious metal mineralization of epithermal character is wide spread on the Troitsa Peak Property. Eight separate zones are known (Figure 5), and are briefly outlined below.

Zinc Creek Showing:

This showing comprises a set of narrow quartz-chalcopyrite-galena-tetrahedrite veins containing up to 78 oz/t silver. A 20cm quartz-carbonate vein assayed in excess of 1 oz/t gold. An argillic altered fracture zone within Jurassic sediments gave a grab of 2200 ppb in 1986, with no subsequent follow-up. Zones of pale reddish sphalerite cementing fractured shale gave the creek and the showing area its name.

Discovery Showing:

This showing, immediately east-northeast of Troitsa Peak represents the first showing discovered on the Whitesail Range with epithermal characteristics. The showing occurs in a morrainal train at the foot of a small pocket glacier where veins, veinlets, stockworks of quartz and silicified zones are hosted in propylitic and argillic altered bladed feldspar porphyry and fine-grained volcanics. The textures in the quartz consist of a fine-grained, banded, cherty to finely crystalline, vuggy to coxcomb silica that has undergone repeated pulses of deposition. As there is no immediate exposure to this showing little exploration work has been done. Few samples taken in 1981 gave silver values to 45 ppm and gold to 750 ppb. A grab taken during a cursory stop in 1987 gave in excess of 3 oz/t silver and anomalous gold. This showing requires serious follow-up.

Moraine Showing:

This showing consists of a northeast trending shear-quartz vein-silicification zone that is traceable for over 600 meters on strike and is up to 300 meters in width. Surface gold assayed up to 1.06 oz/t and silver to 24 oz/t from grabs and 0.114 oz/t over 1m width. In 1987 921 meters of diamond drilling were completed. The veins and the silicified zones were intersected at numerous locations but results did not duplicate the surface gold values. This program is outlined in a separate report (Lambert, 1987).

Chalco Creek Showing:

On the northeast corner of the Wind Tunnel Claim, above a southwest flowing tributary to Cummins Creek, in excess of a dozen quartz veins up to 1.5 meters wide are exposed. These veins, trending northerly, contain pockets of chalcopyrite, galena, sphalerite and a sulphosalt (possibly tetrahedrite) which assay up to 10 oz/t silver and low gold.

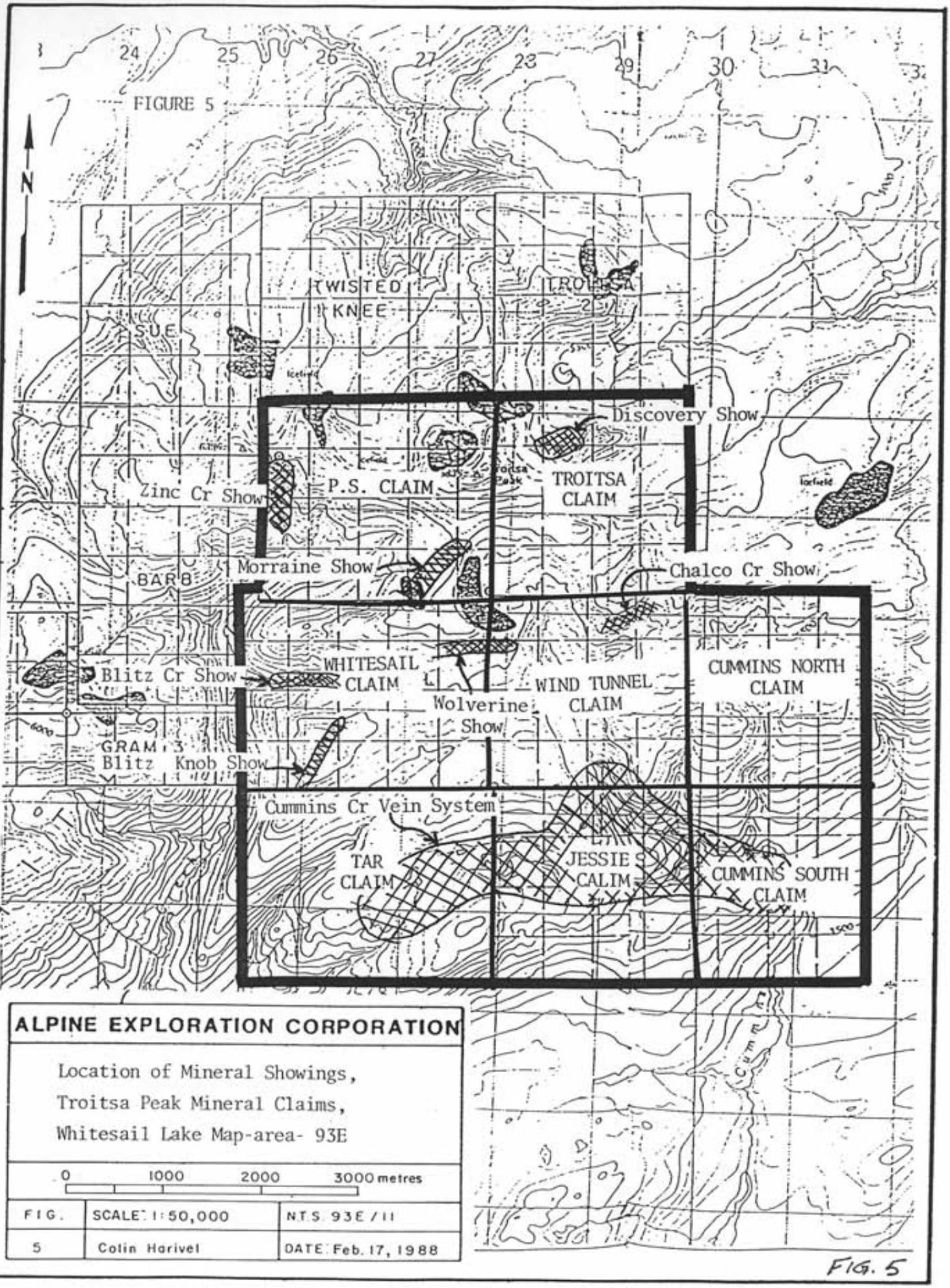


FIGURE 5
N
TWISTED KNEE
TROITSA
SUE
Discovery Show
Zinc Cr Show
P.S. CLAIM
TROITSA CLAIM
Morraine Show
Chalco Cr Show
BAR 8
WHITESAIL CLAIM
Blitz Cr Show
WIND TUNNEL CLAIM
CUMMINS NORTH CLAIM
Wolverine Show
GRAM 3
Blitz Knob Show
Cummins Cr Vein System
TAR CLAIM
JESSIE CALIM
CUMMINS SOUTH CLAIM
ALPINE EXPLORATION CORPORATION
Location of Mineral Showings,
Troitsa Peak Mineral Claims,
Whitesail Lake Map-area- 93E
0 1000 2000 3000 metres
FIG. 5
SCALE: 1:50,000
NTS 93E/11
Colin Harivel
DATE: Feb. 17, 1988
FIG. 5

Blitz Creek Showing:
Within a prominent east northeast trending shear zone in a creek (Blitz Creek), draining into Troitsa Creek on the Whitesail Claim, pods, lenses and breccia fillings of arsenopyrite, pyrite and a grey sulphide have been noted. This mineralized zone is traceable for in excess of three kilometers on strike and has been sampled in three localities. Mineralized zones are in excess of 2 meters wide. Gold values tend to be consistently anomalous in the 500 to 1500 ppb range, with values noted up to 0.3 oz/t, with low silver.

Blitz Knob Showing:
This showing, located in the southwest corner of the Whitesail claim, comprises a zone of silicification of lapilli tuff within a north northeast trending fault zone. Silicification zones measure up to 3 meters wide, and contain disseminated to massive stibnite and marcasite.

Wolverine Showing:
The Wolverine showing comprises a set of thin, *en echelon* quartz veins trending east northeast. Channels across this stringer network gave values of 0.025 oz/t over 3 meters.

CUMMINS CREEK VEIN SYSTEM

The Cummins Creek Vein System occupies a zone some 10 kilometers in a east-west direction and one to two kilometers in a north-south direction underlying parts of the TAR, Jessie, Cummins South and Wind Tunnel mineral claims (Figure 5). Within this zone numerous quartz veins and proximal float trains, trending mainly north-northwest to north-northeast define the system. Veins are up to and in excess of 2 meters wide and individually traceable to up to 100 meters along strike, particularly when exposed in Cummins Creek. Most consist of white, vuggy "bull" quartz. Locally some are mineralized, carrying significant gold and silver values (Figures 6 and 7). These values range up to 1.33 oz/t gold and 298 oz/t silver. The 1987 exploration program on the Cummins Creek vein system concentrated on the central part of the zone.

The mapping of proximal quartz float on the grid area outlined a very large number of quartz veins (Figures 8 and 9). Few exposures of veins were noted during this mapping. One at 9 + 50E and 0 + 85N measured two meters wide with a trend of 020, and a second at 8 + 70E and 0 + 90S measured 1.5 meters wide with a northerly trend. Dips appear to be steep. Although local trends of float trains are likely controlled by the down-slope creep direction, there appears

FIGURE 6

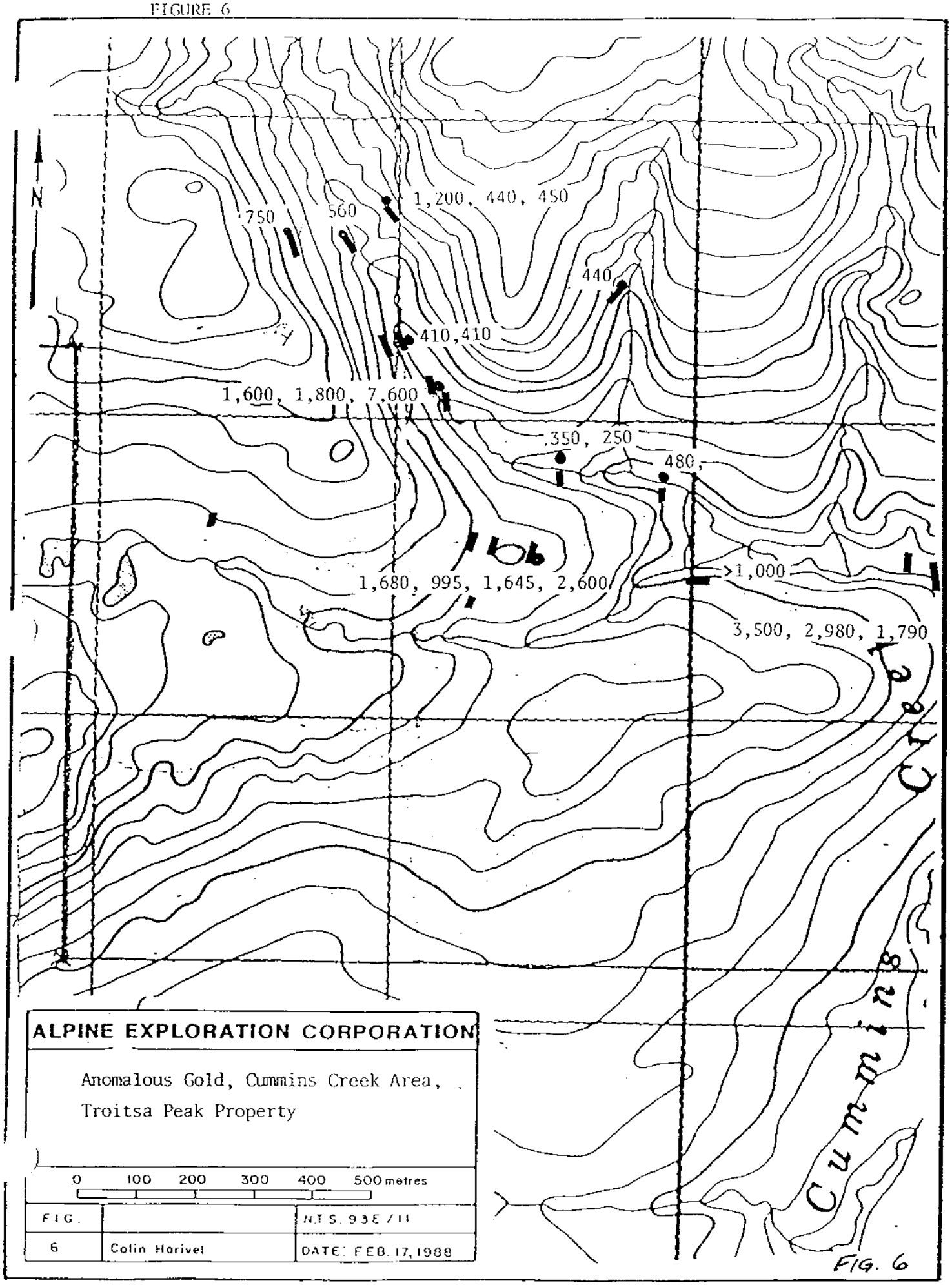
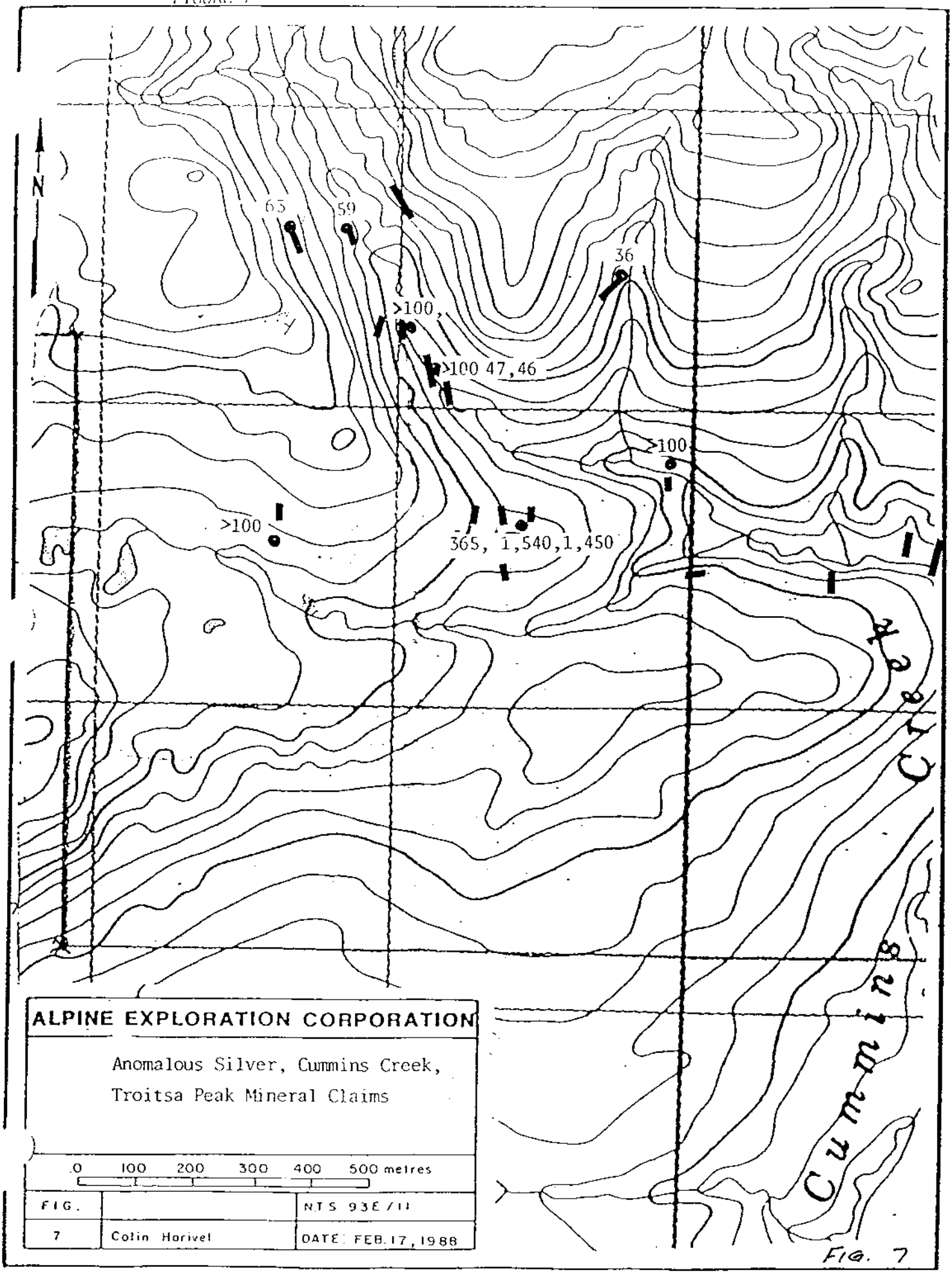

N
750
560
1,200, 440, 450
440
410,410
1,600, 1,800, 7,600
350, 250
480,
1,680, 995, 1,645, 2,600
>1,000
3,500, 2,980, 1,790
Cummins Creek
ALPINE EXPLORATION CORPORATION
Anomalous Gold, Cummins Creek Area,
Troitsa Peak Property
0 100 200 300 400 500 metres
FIG. 6
Colin Harivel
NTS 93E/11
DATE: FEB. 17, 1988
FIG. 6

FIGURE 7



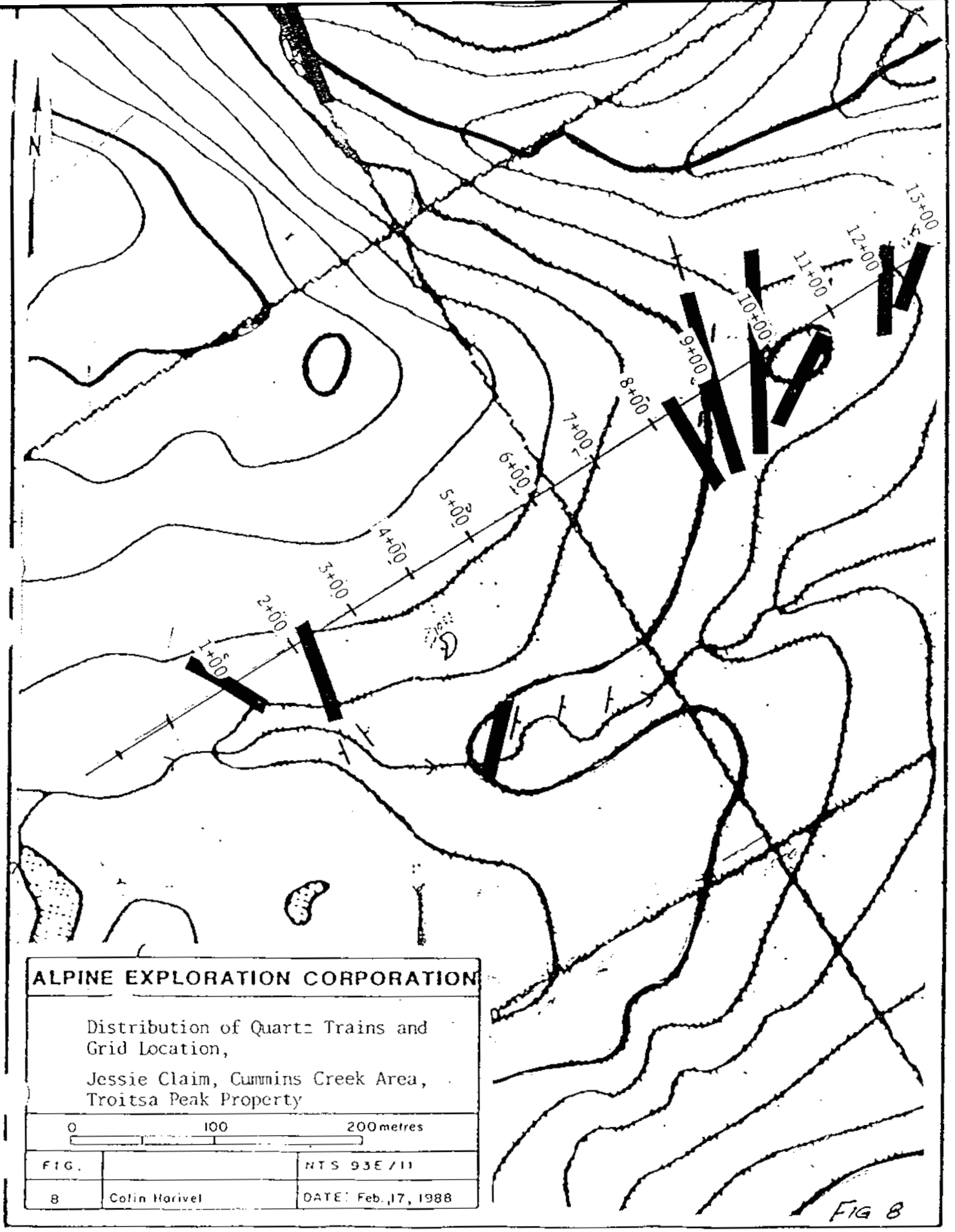
ALPINE EXPLORATION CORPORATION

Anomalous Silver, Cummins Creek,
Troitsa Peak Mineral Claims

0 100 200 300 400 500 metres

FIG.		NTS 93E/11
7	Colin Horivel	DATE: FEB.17, 1988

FIG. 7



ALPINE EXPLORATION CORPORATION

Distribution of Quartz Trains and Grid Location,

Jessie Claim, Cummins Creek Area, Troitsa Peak Property

0 100 200 metres

FIG.		NTS 93E/11
8	Colin Harivel	DATE: Feb. 17, 1988

FIG 8

to be a general NE alignment of the trains, parallel to the orientation of the veins noted in Cummins Creek (Figure 8). The distribution of the quartz boulders on the grid remain open to the east and to the west.

Reconnaissance prospecting in 1982 showed the potential for a large number of undiscovered quartz veins within Cummins Creek. Of the two veins noted in the creek in 1982 and trenched in 1983, both were exposed in the creek bed, and the trends of creek and veins were parallel. It was noted that the trace of the veins up the valley sides from the creek was usually marked by a slight depression, covered by overburden and outlined by zones of flora requiring wet growth conditions. This condition exists in numerous locations along the valley walls of the creek. Other veins had been noted during the 1982 exploration, including one that ran in excess of three ppm gold. All the *in situ* veins noted to date are directly associated with fault zones. There is the potential in the area for a large number of overburden covered quartz veins.

All the volcanic rocks in the Cummins Creek vein system have been pervasively altered to propylitic assemblages. Immediately adjacent the veins, the rock is strongly bleached to argillic, locally phyllic, alteration assemblages. Between areas of alteration the rocks are the reds and maroons which typify the Hazelton strata. Locally there are areas of strong gossan, but no work has been done on these.

Quartz within the vein system is highly varied in texture. The dominant type is a white, coarsely crystalline vuggy quartz that is locally banded. Dense, creamy white to white to clear glassy quartz as well as chalcedonic quartz is present. Zones of quartz stockwork are present. Amethystine quartz and jasper are present, although uncommon.

The system is sulphide-poor. Pyrite is the most common sulphide, consisting of up to 5% of the rock in rare instances. Chalcopyrite is present and visually appears to be the most common sulphide associated with samples containing precious metals. Argentite has been reported from at least five localities and is found as small dark grains scattered in quartz. Pyrargyrite has been reported from a microscopic examination of the high grade sample containing 298 oz/t silver. Galena and sphalerite are present, but rare. In the gossan zones, located at the mouth of the tributary into Cummins Creek, seams and veinlets of massive pyrite are present.

CONCLUSIONS AND RECOMMENDATIONS

From the distribution of quartz noted from the grid area and from the veins known in Cummins Creek, it is likely that there is a large number of undiscovered veins present in the Cummins Creek vein system. The system is known to contain anomalous to very highly anomalous values of gold and silver and has the potential to contain bonanza type, epithermal related gold and silver deposits.

An extensive trenching program should be undertaken to expose areas where known anomalies exist. Location of veins by further detailed prospecting and sampling and trenching of their extensions should be part of the program. A preliminary VLF-EM, with resistivity, should be carried out over areas of known veining and quartz float concentrations to locate structures and to test the method for areas where veins are suspected but not exposed in outcrop of indicated by float.

All exploration should be directed to the location of drill targets.

STATEMENT OF COSTS

WAGES:		
Dan Ethier, Prospector; $200/day - 10 days	$2000	
Brian Dahl, Prospector; $200/day - 10 days	2000	
Barbara Turner, Field Asst; $150/day - 10 days	1500	
Rob Lewis, Field Assistant; $150/day - 10 days	1500	
Tad Richards, Field Assistant; $100/day -10 days	1000	
Simon Suratt, Field Assistant; $100/day -10 days - (all above personnel on site Aug. 3-12, 1988)	1000	
Tom Richards, Geologist; $400/day - 3 days -Aug. 3,9,12	1200	
Bill Osborne, Geologist; $400/day - 3 days - Aug. 3,7,12 Supervision	1200	
Colin Harivel, Geologist; $350/day - 1 day -Aug. 12, 1988	350	
Ray Cournoyer, Camp construction & Field Asst. -Aug. 3-8, 1988; 6 days @ $200	1200	
Larry Hewitt, Camp construction & Field Asst. -Aug. 3-8, 1988; 6 days @ $200	1200	
		$14150
TRANSPORTATION:		
Trucks: 6 truck days @ $50/day		$300
Truck: 1 day; return trip Tahtsa		$728
Helicopter: 13.9 hrs @ $500/hr (Okanagan)		$6950
Commercial Airline; Vancouver - Smithers		$310
CAMP CONSTRUCTION:		
Material, including lumber		$1687
ANALYTICAL COSTS:		
VANGEOCHEM LABS LTD		$676
FIELD SUPPLIES:		
67 mandays @ $25/manday		$1675
CAMP COSTS:		
60 mandays @ $50/manday (room and board)		$3000
MOTEL COSTS:		
12 days @ $42/day		$504
OFFICE COSTS:		
Accounting, telephone, fax, postage		$865
FREIGHT:		
Sample shipments		$110
REPORT PREPARATION:		
3 days @ $400		
2 days @ $350		
4 days @ $200		$2700
		$33955

REFERENCES

Cawthorn, N. and Jameson, H., 1982; The Troitsa Peak Property and Surrounding Area, Omineca Mining Division, 1982 Exploration Program, Union Carbide of Canada, Company Report.

Cawthorn, N., Hodgson, C.J. and Goad, B.C., 1984; 1983 Property Report, Troitsa Peak Property, NTS 93E/11E, Canamax Resources Ltd., Company Report.

Harivel, C., 1986; Geology, Mineralization and Geochemistry, PS and Whitesail Mineral Claims, Troitsa Peak Property, Whitesail Lake Map-area 93E; Takpani Resources Ltd., Company Report.

Lambert, E., 1987, VLF-EM and 1987 Drilling Program, Troitsa Peak Property, Whitesail Lake Map-area, 93E, Omineca Mining Division, Alpine Exploration Corp., Company Report

Richards, T.A., 1982; Whitesail Lake Area, North Central British Columbia, Gold-Silver Exploration; Report on Exploration for Union Carbide of Canada Ltd., Company Report

CERTIFICATE

I, Colin Harivel of business address P.O. Box 233, Smithers, B.C. do certify that:

1. I am a mineral exploration geologist and have practised my profession since 1972 in Australia, the United States and Canada.

2. I am a graduate, in geology, from the University of British Columbia, Vancouver. I was granted a Bachelor of Science degree from UBC in 1972.

3. I am a Fellow of the Geological Society of Canada.

4. I visited the Troitsa Peak Property in August and from September 7 through 10, 1987.

5. The exploration program on the Troitsa Peak Property was conducted in accordance with sound exploration practice by geologists, prospectors and field technicians well known to me.

6. I have no interest in, nor do I intend to acquire any interest in, Alpine Exploration Corporation, its associates or its affiliates.

7. I consent to the use of this report by Alpine Exploration Corp. in a Statement of Material Facts.

_____

Colin Harivel, B.Sc. FGAC

February 17, 1988.

APPENDIX I

VGC

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 871098 GA JOB NUMBER: 871098 Tom Richards Prospecting

	SAMPLE #	Au ppb
BD	70	nd
	71	995
	75	20
	76	nd
	77	nd
	78	45
	79	560
	80	50
	81	440
	82	130
	83	60
	84	nd
	85	nd
	86	nd
	87	30
	88	nd
	89	nd
	90	nd
	91	nd

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 871201 GA JOB NUMBER: 871201 **Tom Richards Prospecting**

SAMPLE #	Au ppb
BD 72	10
BD 73	100
BD 74	220
SS 10	70
SS 12	1680
SS 15	510
SS 16	130
SS 17	10

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: B71202 GA JOB NUMBER: B71202 Toe Richards Prospecting

SAMPLE #	Au ppb
DE 304	60
DE 305	nd
DE 306	170
DE 307	5
DE 308	nd
DE 309	nd
DE 310	nd
DE 311	30

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 871096 GA JOB NUMBER: 871096 Tom Richards Prospecting

SAMPLE #	Au ppb
DE299	nd
DE300	300
DE301	nd
DE302	nd
DE303	nd
DE326	nd
DE327	nd
DE328	nd
DE329	nd
DE330	5
DE331	nd
DE332	5
DE333	nd

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N.VANCOUVER B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-352578
BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN,FE,CA,P,CR,MG,BA,TI,B,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: TOM RICHARDS PROSP.
ATTENTION:
PROJECT: ALPINE B-003

REPORT#: 871098PA
JOB#: 871098
INVOICE#: 871098NA

DATE RECEIVED: 87/08/19
DATE COMPLETED: 87/09/17
COPY SENT TO:

ANALYST

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	TI %	W PPM	ZN PPM
86 76	.1	1.27	53	ND	20	ND	.16	.1	9	21	28	4.44	.06	.67	789	6	.09	21	.10	13	ND	ND	5	ND	5	ND	ND	55
86 77	38.2	.05	78	ND	24	ND	.01	5.0	1	158	121	.85	.04	.01	48	190	.06	4	.01	647	ND	ND	20	ND	1	ND	2	120
86 78	1.2	.20	9	ND	25	ND	.02	.2	1	136	8	.62	.06	.02	82	11	.01	3	.01	22	ND	ND	5	ND	5	ND	ND	13
86 79	.5	.03	ND	ND	4	ND	.23	.5	ND	152	19	.30	.03	.01	88	12	.01	1	.01	7	ND	ND	ND	ND	6	ND	4	7
86 77	.2	.87	10	ND	15	3	.15	.1	4	30	18	1.68	.05	.60	338	1	.04	5	.05	12	ND	ND	3	ND	5	ND	3	40
86 78	1.7	.52	58	ND	39	ND	0.22	3.6	7	74	121	2.51	.08	.27	411	101	.07	7	.08	60	ND	ND	ND	ND	59	ND	ND	31
86 79	5.9	.36	226	ND	39	ND	.22	.1	5	21	308	2.22	.06	.14	132	64	.03	7	.03	16	ND	ND	11	ND	11	ND	ND	22
86 80	54.5	.06	15	ND	10	ND	.23	11.7	1	159	1714	.61	.03	.19	161	14	.30	4	.01	2830	ND	ND	3	ND	10	ND	ND	724
86 81	>100	.04	ND	ND	2	2	.06	5.1	ND	32	270	.32	.04	.03	69	1	.01	3	.01	777	ND	ND	4	ND	1	2	4	70
86 82	37.3	.19	55	ND	36	ND	.03	.1	1	101	21	1.20	.05	.03	44	415	.01	2	.02	63	ND	ND	14	ND	5	ND	ND	10
86 83	3.1	.35	34	ND	26	ND	.06	.1	5	17	13	1.62	.06	.07	49	172	.01	9	.07	27	ND	ND	5	ND	14	ND	ND	14
86 84	7.0	.13	24	ND	53	ND	.05	.1	2	139	7	1.03	.05	.02	25	788	.01	5	.05	82	ND	ND	10	ND	7	3	ND	18
86 85	1.4	.06	53	ND	53	ND	.12	.1	7	45	6	3.36	.03	.26	133	30	.05	10	.14	38	ND	ND	11	ND	11	ND	ND	22
86 86	.5	.69	12	ND	18	4	.01	.1	15	13	52	5.99	.05	.01	20	5	.07	16	.01	12	ND	ND	4	ND	15	ND	ND	19
86 87	9.0	.35	6	ND	3	5	.15	1.4	2	135	194	.72	.04	.25	190	15	.02	7	.01	62	ND	ND	3	ND	4	ND	ND	48
86 88	12.5	.05	10	ND	10	ND	.01	.4	ND	23	126	.35	.03	.01	25	36	.01	1	.01	120	ND	ND	1	ND	1	ND	ND	11
86 89	4.6	.17	8	ND	16	ND	.07	.3	2	28	203	.71	.04	.04	101	3	.02	3	.02	70	ND	ND	4	ND	2	ND	ND	61
86 90	1.1	.03	10	ND	20	ND	.06	.2	ND	143	15	.42	.03	.01	49	20	.01	4	.01	76	ND	ND	2	ND	2	2	ND	13
86 91	.3	.35	3	ND	53	ND	.07	.5	ND	66	2	.23	.08	.01	223	ND	.01	1	.01	10	ND	ND	2	ND	7	2	4	16
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	3	1	5	3	1

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. ...VANC ...R B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-352578
BRANCH OFFICE: 1630 PANDORA ST. VANCOUVE... B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN,FE,CA,P,CR,MG,BA,TI,B,AL,NA,K,W,ZR AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: TOM RICHARDS PROSP.
ATTENTION:
PROJECT: ALPINE B-006

REPORT#: 871201PA
JOB#: 871201
INVOICE#: 871201

DATE RECEIVED: 87/08/28
DATE COMPLETED: 87/09/21
COPY SENT TO:

ANALYST

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
BD 72	37.5	.11	67	ND	11	5	.09	18.4	1	22	2093	.75	.02	.06	118	46	.60	2	.01	488	ND	ND	116	ND	1	ND	ND	1490
BD 73	55.3	.10	17	ND	12	4	.98	13.7	1	129	467	.78	.03	.05	218	20	.14	5	.01	598	ND	ND	22	ND	21	ND	4	325
BD 74	20.1	.08	25	ND	67	ND	.03	5.4	ND	124	31	.85	.02	.01	49	191	.08	4	.01	513	ND	ND	24	ND	3	ND	9	167
SS 10	22.8	.07	34	ND	17	ND	.01	.2	ND	147	40	.46	.01	.01	36	118	.03	3	.01	425	ND	ND	11	ND	2	ND	7	62
SS 12	>100	.18	8	ND	19	ND	1.37	41.8	1	159	756	.72	.03	.09	609	20	.12	4	.01	2495	ND	ND	6	ND	18	ND	4	261
SS 15	97.7	.09	5	ND	6	3	.84	4.2	ND	160	610	.42	.03	.04	130	11	.05	3	.01	449	ND	ND	6	ND	6	ND	5	103
SS 16	55.4	.14	6	ND	3	5	.39	5.6	ND	131	843	.47	.02	.11	182	12	.07	2	.01	356	ND	ND	5	ND	3	ND	5	135
SS 17	1.9	1.20	8	ND	26	5	.88	.1	12	86	22	3.21	.02	.90	710	5	.06	12	.08	16	ND	ND	3	ND	32	ND	ND	44
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N. NO R B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-3525?
BRANCH OFFICE: 1630 PANDORA ST. VANCOUV B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR SN,MN,FE,CA,P,CR,MG,BA,PD,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -- NOT ANALYZED

COMPANY: TOM RICHARDS PROSP.
ATTENTION:
PROJECT: ALPINE B-007

REPORT#: 871202PA
JOB#: 871202
INVOICE#: 871202NA

DATE RECEIVED: 87/08/28
DATE COMPLETED: 87/09/21
COPY SENT TO:

ANALYST

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	W PPM	Y PPM	ZN PPM
DE 304	53.5	.32	10	ND	13	ND	.04	.6	1	131	72	.77	.04	.16	144	23	.01	8	.02	183	ND	ND	7	ND	1	ND	6	47
DE 305	1.5	.10	13	ND	15	ND	.01	.1	ND	129	17	.66	.03	.05	143	35	.02	7	.01	77	ND	ND	4	ND	2	ND	5	55
DE 306	53.6	.11	9	ND	6	3	.02	1.4	1	147	16	.46	.03	.04	88	16	.01	6	.01	140	ND	ND	4	ND	1	ND	ND	34
DE 307	1.1	.15	15	ND	10	ND	.01	.1	1	120	7	.83	.03	.01	140	19	.01	5	.01	63	ND	ND	3	ND	1	ND	ND	29
DE 308	39.9	.03	33	ND	7	ND	.01	5.4	ND	36	98	.35	.03	.01	114	32	.16	5	.01	407	ND	ND	73	ND	ND	ND	ND	402
DE 309	2.1	2.51	20	ND	81	ND	.16	.1	11	59	71	5.12	.02	1.87	2066	207	.23	11	.06	36	ND	ND	ND	ND	10	ND	ND	203
DE 310	.1	2.62	7	ND	41	ND	.30	.1	19	20	69	6.60	.02	3.45	1397	4	.23	13	.04	ND	ND	ND	ND	ND	5	ND	ND	135
DE 311	18.9	.11	11	ND	14	ND	1.08	7.5	1	123	553	.72	.04	.05	351	9	.05	3	.01	225	ND	ND	3	ND	12	ND	ND	123
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N.V. VER B.C. V7P 2S3 PH:(604)986-5211 TELEX:04-352578
BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH:(604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR BA,BE,FE,CA,P,CR,MG,BA,PD,AL,NA,K,W,PT AND SR. AU AND PD DETECTION IS 3 PPM.
IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -- NOT ANALYZED

COMPANY: TOM RICHARDS PROSP.
ATTENTION:
PROJECT: ALPINE B-001

REPORT#: 871096PA
JOB#: 871096
INVOICE#: 871096NA

DATE RECEIVED: 87/08/19
DATE COMPLETED: 87/09/17
COPY SENT TO:

ANALYST D. Fletcher

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPB	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPB	PT PPB	SB PPM	SN PPM	SR PPM	T PPM	W PPM	ZN PPM
DE 299	.1	.03	11	3	85	ND	33.44	.1	ND	1	5	1.07	.01	.13	2360	ND	.07	ND	.01	23	ND	ND	12	ND	461	ND	ND	29
DE 300	1.5	.27	57	ND	15	ND	1.87	1.9	3	21	88	1.49	.05	.23	269	34	.06	5	.02	43	ND	ND	15	ND	29	ND	5	104
DE 301	.3	2.32	13	ND	30	ND	2.38	.1	11	50	177	4.04	.07	1.37	918	1	.12	23	.12	23	ND	ND	3	ND	48	ND	ND	95
DE 302	.1	1.85	28	ND	23	ND	1.36	.1	6	29	97	3.26	.05	1.48	836	2	.03	20	.12	4	ND	ND	7	ND	29	ND	ND	56
DE 303	.1	.69	176	ND	31	4	.50	.1	8	95	19	4.28	.08	.36	198	19	.07	16	.10	16	ND	ND	12	ND	19	ND	ND	27
DE 325	2.4	.12	19	ND	14	4	.04	.3	ND	23	9	1.08	.04	.02	147	3	.01	2	.02	15	ND	ND	11	ND	2	4	4	17
DE 327	.1	.15	13	ND	21	ND	.02	.1	1	32	8	1.26	.05	.01	146	11	.01	3	.02	10	ND	ND	9	ND	4	3	ND	17
DE 328	.5	.07	12	ND	5	ND	.01	.3	ND	19	19	.36	.03	.01	40	14	.01	2	.01	9	ND	ND	10	ND	1	ND	5	4
DE 329	.5	.22	19	ND	16	5	.01	.1	ND	131	3	.53	.07	.01	39	11	.01	1	.01	13	ND	ND	10	ND	3	3	6	7
DE 330	.1	.18	20	ND	12	4	.01	.1	1	89	2	1.54	.05	.01	407	18	.01	2	.01	14	ND	ND	10	ND	2	3	4	21
DE 331	.2	.16	52	ND	31	ND	.01	.1	1	24	7	3.59	.05	.01	131	13	.01	ND	.01	18	ND	ND	10	ND	2	ND	ND	65
DE 332	.2	.12	21	ND	86	3	.02	.1	1	140	25	.86	.04	.01	86	30	.01	5	.02	21	ND	ND	10	ND	5	ND	4	21
DE 333	1.0	.60	17	ND	29	4	.26	1.7	5	33	424	1.01	.04	.40	502	19	.04	16	.03	169	ND	ND	9	ND	19	ND	5	80
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1

APPENDIX 2

GEOCHEMICAL SAMPLING TECHNIQUE AND ANALYTICAL METHODS

Sampling Stream Sediment:

The sample is collected, wherever possible, from active stream bedusing a stainless steel scoop to gather as much fine material as possible. A 500g to 1.3kg sample is placed in a suitably numbered kraft paper bag. The sample is dried in air and shipped to the Vancouver laboratory where it is further dried, sieved to -80 mesh size and digested for analysis.

Sampling Soils:

The sample is collected, wherever possible, from the B horizon using a combination of grub hoe, geopick and stainless steel scoop. The depth to the B horizon varies but is usually within 50 cm of the surface. Samplers are instructed to show a preference for rust-coloured samples from this horizon. A 300g to 500g sample is placed in a suitably numbered kraft paper bag. The sample is dried in air and shipped to the Vancouver laboratory where it is further dried, sieved to -80 mesh size and digested for analysis.

Sampling Rock:

Rock chip samples for analysis are collected using an average sample size of 300g, usually made up of 5 to 10 chips from 1cc to 10cc in size. The samples are placed in suitably numbered bags and shipped to the Vancouver laboratory where they are crushed and pulverized for analysis.

ANALYTICAL METHODS:

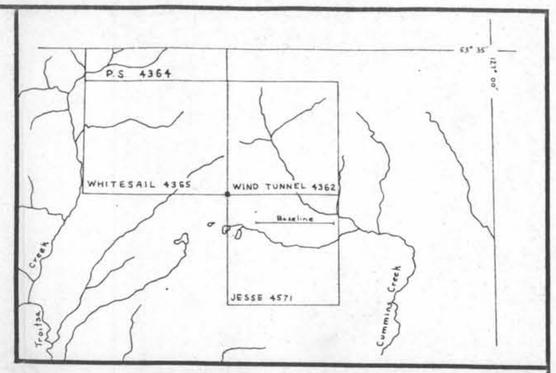
Geochemical Analysis for GOLD; "Fire-Assay with Atomic A.S. Finish."

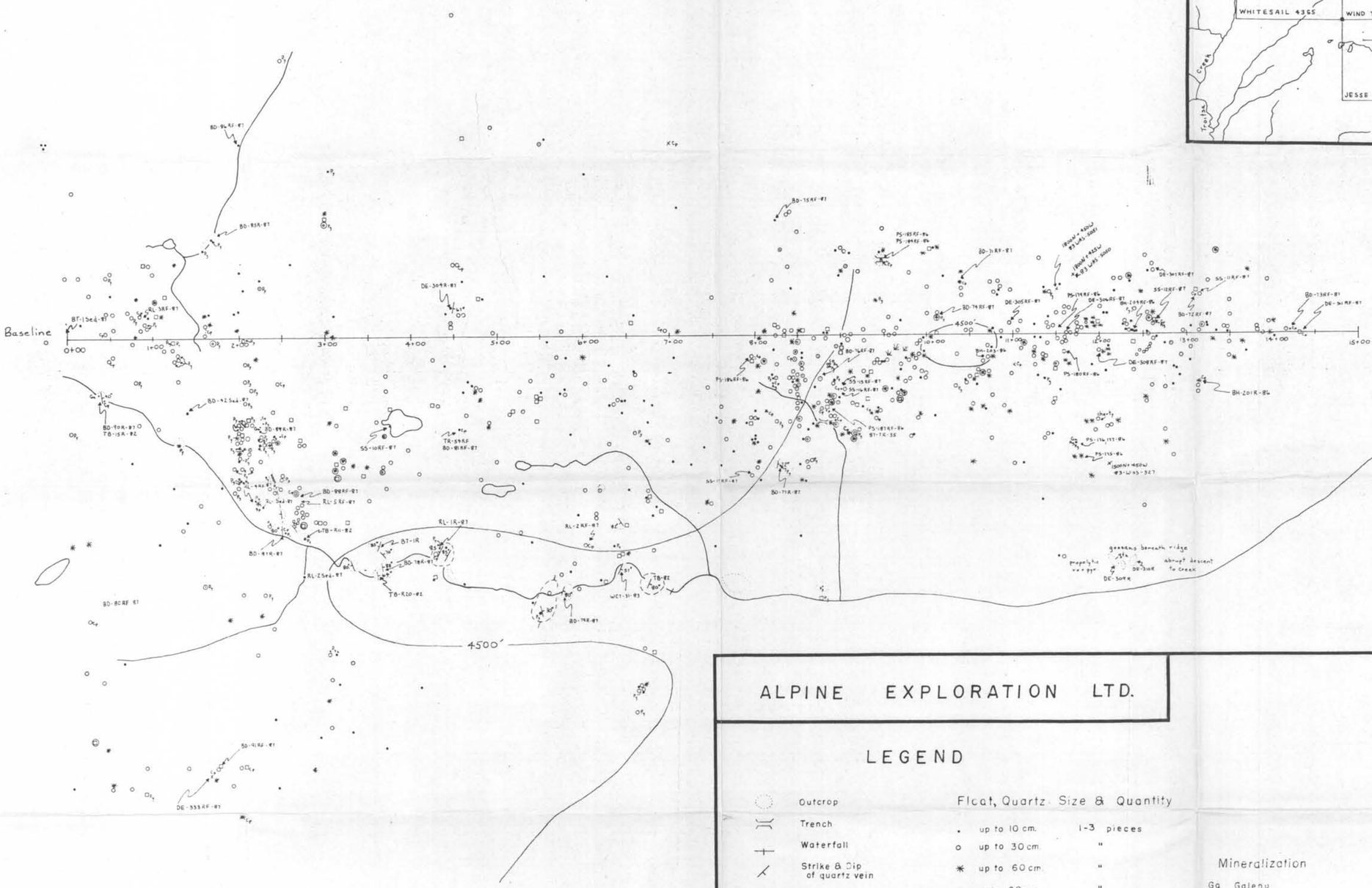
Multi-element Geochemical Analyses; "26 Elements by Inductively Coupled Plasma (ICP) and Atomic Absorption Spectrophotometer".

A 0.5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95°C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Sn, Mn, Fe, Ca, P, Cr, Mg, Ba, Pd, Al,Na, K, W, Pt, and Sr. Au and Pd detection is 3ppm.

QUARTZ DISTRIBUTION: CUMMINS CREEK VEIN SYSTEM (FLOAT)

TROITSA PROPERTY; JESSIE CLAIM: OMINECA M.D.





ALPINE EXPLORATION LTD.

LEGEND

Outcrop	
Trench	
Waterfall	
Strike & Dip of quartz vein	
Swamp	
Draw	
Assumed vein	
BH-132-87	Sample

Float, Quartz: Size & Quantity

.	up to 10 cm.	1-3 pieces
o	up to 30 cm.	"
*	up to 60 cm.	"
□	over 60 cm.	"
⊙	up to 10 cm.	4-10 pieces
⊙	up to 30 cm.	"
⊛	up to 60 cm.	"
⊡	over 60 cm.	"

Mineralization

- Ga Galena
- Ag Argentite
- Py Pyrite
- Cp Chalcopyrite
- Sp Sphalerite

N

Scale

meters

0 100 200

DATE: FEB. 17, 1987 COLIN HARIVEL

17,654 FIG. 9