84-#471 - 12532

GEOLOGICAL REPORT

ON THE

MARBLE ARCH CLAIM GROUP

SLOCAN MINING DIVISION

TWELVE MILE CREEK, B.C.

LATITUDE : 49°59'

LONGITUDE : 117°05'

N.T.S. : 82F/14E

OWNER/OPERATOR

ALMINE RESOURCES LTD.
350-885 Dunsmuir Street
Vancouver, B.C.
V6C 1N5

July 5, 1984
VANCOUVER, B.C.

WRITTEN BY
MARK C. HANSEN

SUMMARY

This report describes a programme of exploration undertaken during the summer of 1983 on the Marble Arch claim group, owned and operated by Almine Resources Ltd. The property is located on Twelve Mile Creek, in the Slocan Mining Division, B.C.

The property is of interest as a potential host to silver-lead-zinc vein mineralization. Work on the property primarily involved soil sampling for geochemical analysis, along with geological reconnaissance.

Results are most encouraging. Three anomalies in silver, lead and zinc were delineated, one of which corresponds to mineralization of a known showing. There are 5 showings on the property, many features of which correspond to those Cairnes(1934) demonstrates often accompany economic mineralization.

MARK C. HANSEN

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INTRODUCTION

This report describes work undertaken during the period June to August, 1983, on a group of 6 mineral claims, the Marble Arch Claim Group, owned by Almine Resources Ltd. The property covers the lower reaches of Twelve Mile Creek, in the Slocan Mining Division, British Columbia.

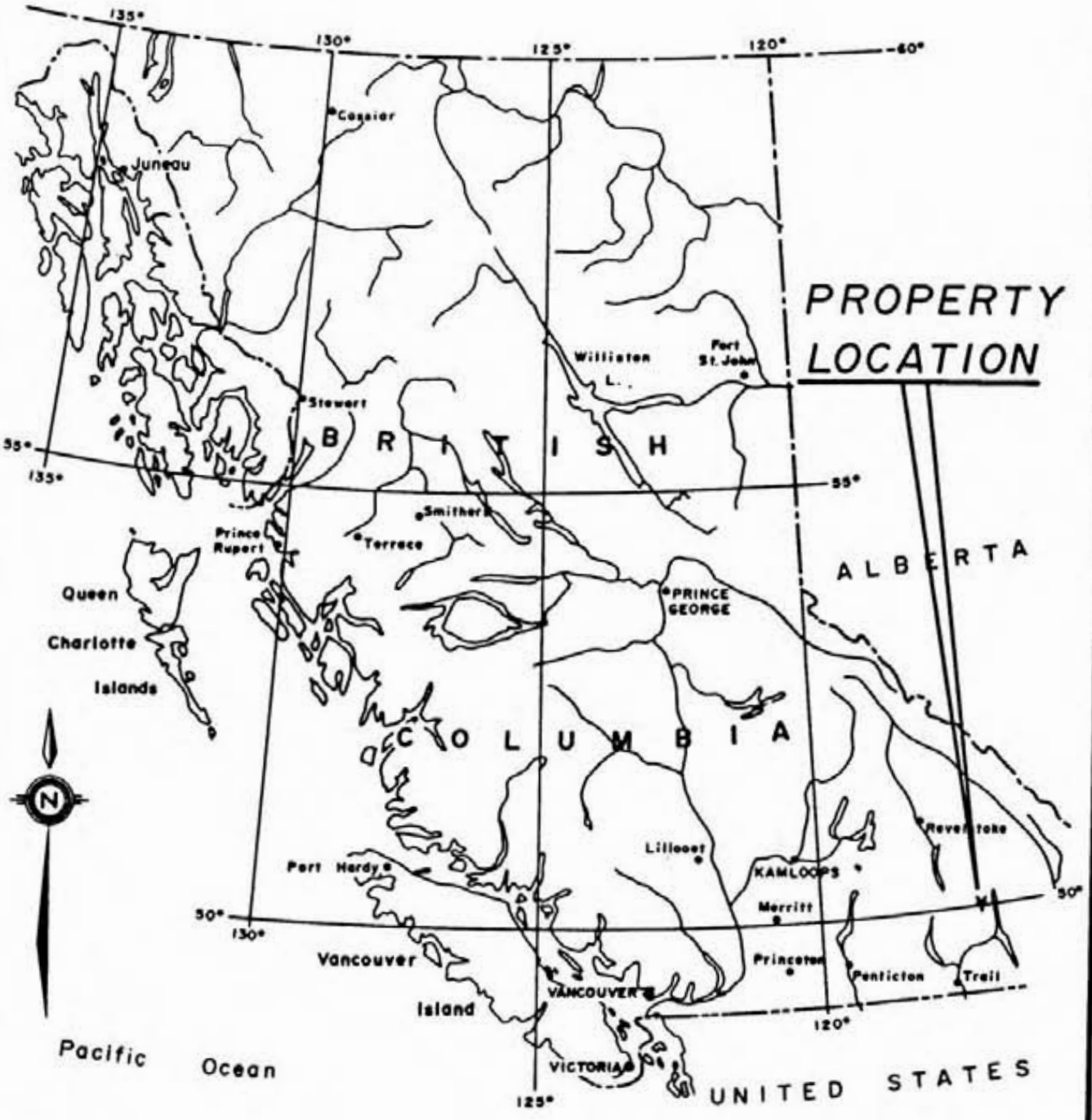
The claim group is of interest as a potential host to economic silver - lead - zinc mineralization, in epithermal veins typical of the Slocan area. Work on the property primarily involved soil sampling for geochemical analysis, along with a brief geological reconnaissance. The property is known to host 5 sets of workings, consisting of adits, shafts, and trenches. These have not all yet been accurately located.

PROPERTY

The Marble Arch claim group consists of a total of 52 units in six mineral claims. Relevant data is outlined below in Table 1, the group is shown in Fig 2.

TABLE 1

NAME	SIZE	TAG NO	ANNIV. DATE	RECORD NO.
Marble Arch	12 units	40646	Feb 9, 1982	2820
" " 1	6 "	40647	April 15, 1983	3781
" " 2	4 "	40648	" "	3782
" " 3	12 "	40649	" "	3783
" " 4	3 "	86605	" "	3784
" " 5	15 "	86606	" "	3785



MARBLE ARCH CLAIM GROUP

FIGURE 1

BRAD'S DRAFTING SERVICE

To Accompany Report By: MARK C. HANSEN, Geologist

ALMINE RESOURCES LTD.

MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

CLAIM LOCATION MAP

SCALE:	DATE:	FIGURE:	N.T.S.
1:50,000	June 84	2	82 F/14 E 82 K/3 E

The claims have been grouped, and assessment filed for one year commencing February 9, 1984. The property is in good standing so far as the writer is aware, however such an evaluation is not part of the mandate for this report. The writer has not observed the legal corner posts.

LOCATION, ACCESS, PHYSIOGRAPHY

The property is located at the north end of the Kokanee Range in the Selkirk Mountains, on the lower reaches of Twelve Mile Creek, a tributary to the Kaslo River. It lies to the immediate south of Highway 31A, approximately 17km to the northwest of Kaslo.

The Utica mine road runs through the eastern part of the property. This well formed gravel road leads to the now abandoned Utica mine site, to the immediate south of the claim group. However a washout 2km up from Highway 31A presently makes this road impassable to vehicles. Aside from this one washout, all cuts and bridges on the road are in good condition. Numerous overgrown logging roads traverse the eastern portion of the claim group. A foot trail runs off the Utica road towards the showings in the centre of the group.

In summary, vehicular access during the snow-free months is presently poor. However minimum expenditure on re-cutting the road through the washout would provide excellent access to the eastern part of the property.

The property lies between elevations of 1,066m(3,500') and 2130m(7,000'). The main areas of interest lie between approximately 4,000' and 6,000'. Slopes are in the range 20° to 40°, with occasional bluffs in places. Vegetation is moderate to heavy at lower elevations, particularly areas of glacial cover. Higher elevations are more lightly vegetated, with many areas of outcrop.

Although much of the property is at moderate elevation, because most slopes are north facing it is generally not snow free until late June. However the bulk of the property remains snow free through November. Thus a 5 to 6 month field season can be expected.

The claim group is within easy commuting distance of Kaslo. Kaslo offers the typical facilities of a small town; hotel, motel, bank, supermarket etc. Nelson, 1½ hours drive to the south, is the nearest major centre.

PREVIOUS WORK

This section summarises known showings on the property, based upon descriptions in published literature. Aside from one report written by Burton Consulting Inc., for Almine Resources Ltd. in 1983, there are no assessment reports filed on the property.

Five workings are mentioned in available, published literature, these are; the Big Ben, Marble Arch, California, Keno, Helen. Locations are shown on Fig. 4, backpocket. These showings are described below.

BIG BEN

There are two mentions of this showing; in the Annual Report of the Minister of Mines (1926), and a quote by Cairnes (1935) from this annual report. The workings consist of one 20'(6.1m) shaft within granite. This is sunk on a vein, 18" to 20" (460mm to 510mm) wide, oriented 075°/67°NW. Mineralization consists of galena, pyrite, and quartz. A grab sample assayed 0.12oz Au/t (3.7g/tne), 94.5oz Ag/t (2887.9g/tne), 81.2% lead, 0.9% zinc.

MARBLE ARCH

The Marble Arch is described in the same two references as the Big Ben. Workings consist of a shallow shaft and two adits within calc-schist. These develop a "quartz-filled fissure containing streaks of high-grade ore." The vein, oriented 070°/50°SE, is reported to be about 4" (100mm) wide. A sample across the vein assayed 0.14oz Au/t (4.3g/tne), 393.6oz Ag/t (12,028.4g/tne), 70.3% lead.

CALIFORNIA

In addition to the above two references the California is also mentioned in the 1927 Report of the Minister of Mines. It consists of two sets of workings. The lower consists of two adits (57'[17.4m] and 60'[18.3m] in length) developed on a fissured band of altered, schistose limestone. The limestone, oriented 330°/60°NE, 11' to 20' (3.4m to 6.1m) wide, is sparsely mineralized with disseminated galena and sphalerite, along with surface patches of goethite and/or limonite. The upper workings, consisting of a shallow shaft and adit, developed such iron cappings, apparently "gossanous" in nature.

KENO

This showing is described by Cairnes (1935). The workings consist of 3 adits, the upper one of which has a raise to the surface at 42' (12.8m), then splits at 54' (16.5m). The east fork of this adit extends for 50' (15.2m), the south for 46' (14m). The workings develop a shear zone, oriented 180°/50°E, in limestones and argillites. The shear is 1' to 4' (0.3m to 1.2m) wide, consisting of fractured and slickensided sediment. Mineralization, consisting of galena, tetrahedrite, and quartz, is sparse.

HELEN

References to this showing are; Cairnes (1935), Minister of Mines Reports for 1917, 1918, 1919. Workings consist of 1,200' (366m) of raise, shaft, adit, and stope, with 40' (12.2m) of surface trenching. Two adits and one shaft provided access to

REGIONAL GEOLOGY

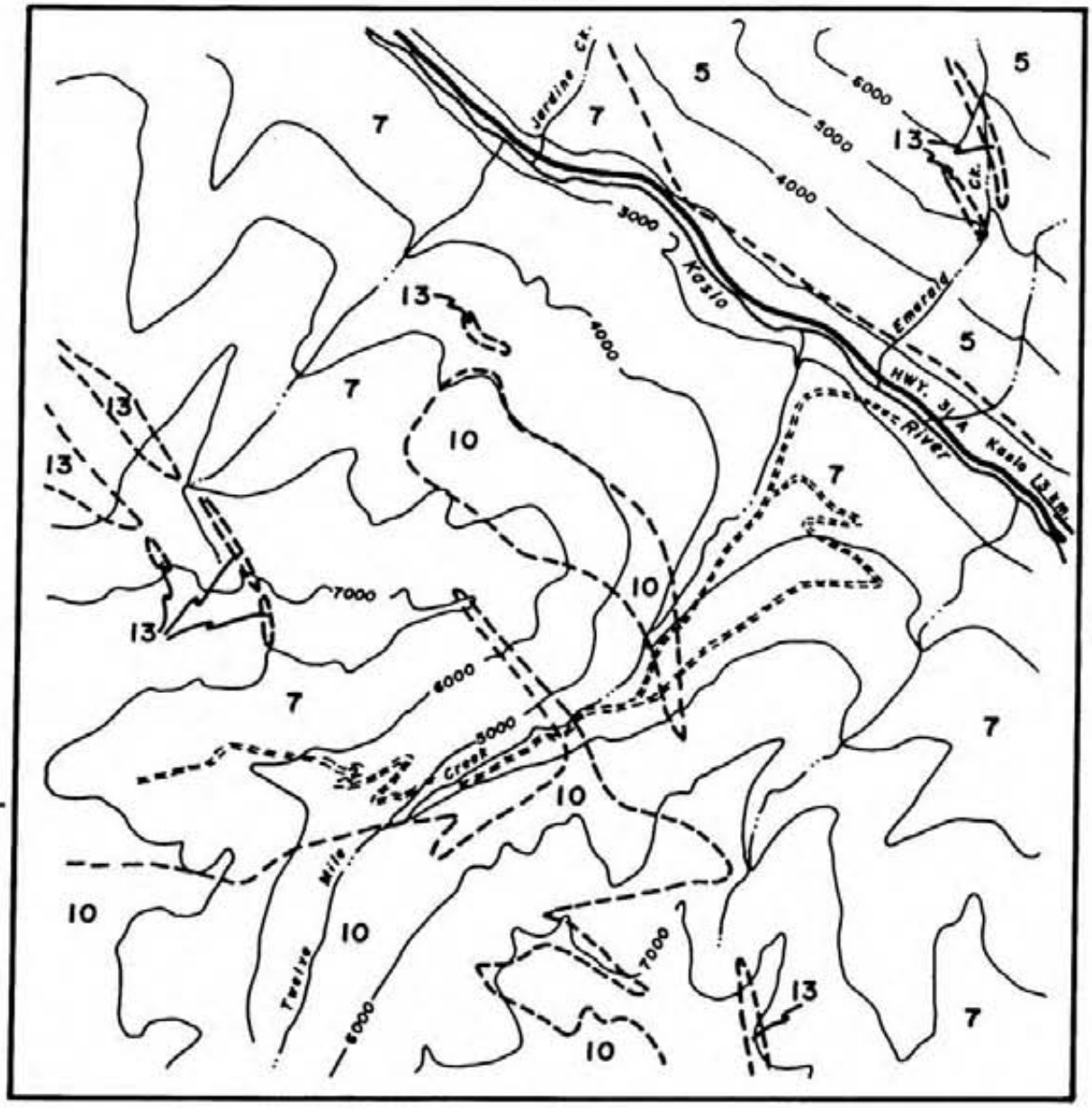
This section outlines the structure and stratigraphy on, and in the the vicinity of, the claim group. The geology is shown on Fig. 3.

The Milford Group, of Mississippian to Permian age, is the lowest member of the stratigraphic sequence exposed in the vicinity. It consists of, from the base, conglomerate, amygdaloidal metabasaltic flows, limestone, phyllite, sandstone, and chert. It is underlain by the Lardeau Group.

The Kaslo Group, upper Permian to lower Triassic in age (250 m.y.a.), overlies the Milford Group. It consists of metavolcanics of basaltic to dacitic composition. These flows, both subaerial and subaqueous, may be accompanied by tuff and breccia. Volcaniclastics occasionally occur within this sequence.

The Slocan Group, of Triassic to lower Jurassic age, disconformably overlies the Kaslo Group. It consists of conglomerate, limestone, phyllite and argillite, metamorphosed andesite and dacite, tuff and flows, and metamorphosed basalt, andesite, and tuffaceous flows.

The sequence described above is intruded by a variety of alkalic and calc-alkalic plutons and related stocks. Of these, the Nelson Batholith, of Jurassic to Cretaceous age, is of most



LEGEND

POST TRIASSIC

13 — Granite to quartz diorite intrusive dykes, sills, etc.

10 — Porphritic granite of the Nelson intrusives.

TRIASSIC

SLOCAN GROUP

7 — Slate, argillite, limestones, quartzite.

KASLO GROUP

5 — Andesite flows.

1Km 0 2 Km

N.T.S. 82 K/3 E, 82 F/14 E

To Accompany Report By: MARK C. HANSEN, Geologist

ALMINE RESOURCES LTD.

MARBLE ARCH CLAIM GROUP

TWELVE MI. CREEK

SLOCAN M.D.

LOCAL GEOLOGY (AFTER CAIRNS) (1935)

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:50,000	June 84.	3	B.D.S

significance here. Compositionally this unit may vary from granite to syenite to diorite. In the vicinity of the property it is largely porphyritic granite, with smaller stocks of porphyritic syenite and quartz diorite. In addition the sequence has been intruded by dykes and plugs of feldspar porphyry, and of diorite.

The sequence has been complexly folded and faulted by four phases of deformation. The first phase, isoclinal, was accompanied by regional metamorphism affecting rocks older than the Milford Group. The second and third phases are represented by open to tight folding on all scales, with an associated crenulation cleavage. These deformations, accompanied by regional metamorphism, affected the complete sequence described above. Folds of the second phase are the most readily observed. A late stage of kink folding is generally only observable in phyllitic rocks. The first three phases are essentially co-axial.

PROPERTY GEOLOGY AND MINERALIZATION

The claim group has yet to be mapped, consequently this section can only be a brief outline of the geology. The central area of the claims consists of a stock of porphyritic granite of the Nelson plutonics. An apophysis to a large pluton to the south occupies the southeastern part of the property.

The bulk of the property consists of Slocan Group sediments, striking northwest and dipping to the southwest. The sediments are largely argillite and phyllite, with subordinate limestone and quartzite. The Slocan Group is cut, concordantly and discordantly, by (mostly fesitic) dykes and sills.

Where Slocan Group rocks are in contact with intrusive they are typically highly metamorphosed and somewhat contorted.

The following discussion compares the 5 showings with parameters Cairnes(1934) has established as being significant with respect to potential value of contained mineralization. References herein to "ore", or "ore mined" do not infer that the property is presently known to contain economic mineralization.

Ore in the Slocan Group is generally of lower grade than that hosted by intrusive. However deposits within intrusive tend to be much smaller in volume, perhaps uneconomic, but they also carry proportionately more precious metal. Most of the large producers of the area have been within the Slocan Group, and

consisted of "wet ore". This is a local term which refers to ore in which silver, lead and/or zinc are all major components. Of the showings on the property, 3 are within sediment and two within granite. Silver and lead, but not zinc, are the major metals of all showings. Gold is not confined to the granite.

All showings are veins, in addition the Helen contains mineralization replacing carbonate. There may also be occurrences of carbonate ore on the Keno and California. Most production in the area has come from vein deposits.

The attitudes of veins and their enclosing lodes (terminology is that of Cairnes) is of considerable significance. All major producers have mined ore from veins striking between 030° and 090°, with 045° to 060° being the most productive orientation. This applies to veins within both igneous and sedimentary rocks. The strikes of the 5 veins on the property are reported to be; 075°, 070°, 330°, 180°, 055°. The dip of productive veins within the Slocan Group is generally to the southeast. The dip of the above veins is variable.

In general terms, the more productive veins occur within competent host rock. Cairnes notes that where productive veins occur within fissile or thinly laminated rocks, these sediments are supported by nearby more competent units; such as quartzite, limestone, or dykes or sills.

Cairnes considers that the zone of economic mineralization is 1,000' to 2,000' thick, and coincidentally parallels the present landsurface in many areas. In general the higher parts of this zone are characterized by silver and lead, the lower parts by pyritiferous zinc. Thus all showings on the claim group can be considered to be lying towards the top of the zone of mineralization.

In conclusion it would appear that the showings on the claim group correspond with several features considered by Cairnes to be important in the occurrence of economic mineralization. It can be stated, therefore, that this property seems to be a prime target for wet ore; i.e. silver-lead-zinc epithermal vein mineralization.

MARK C. HANSEN

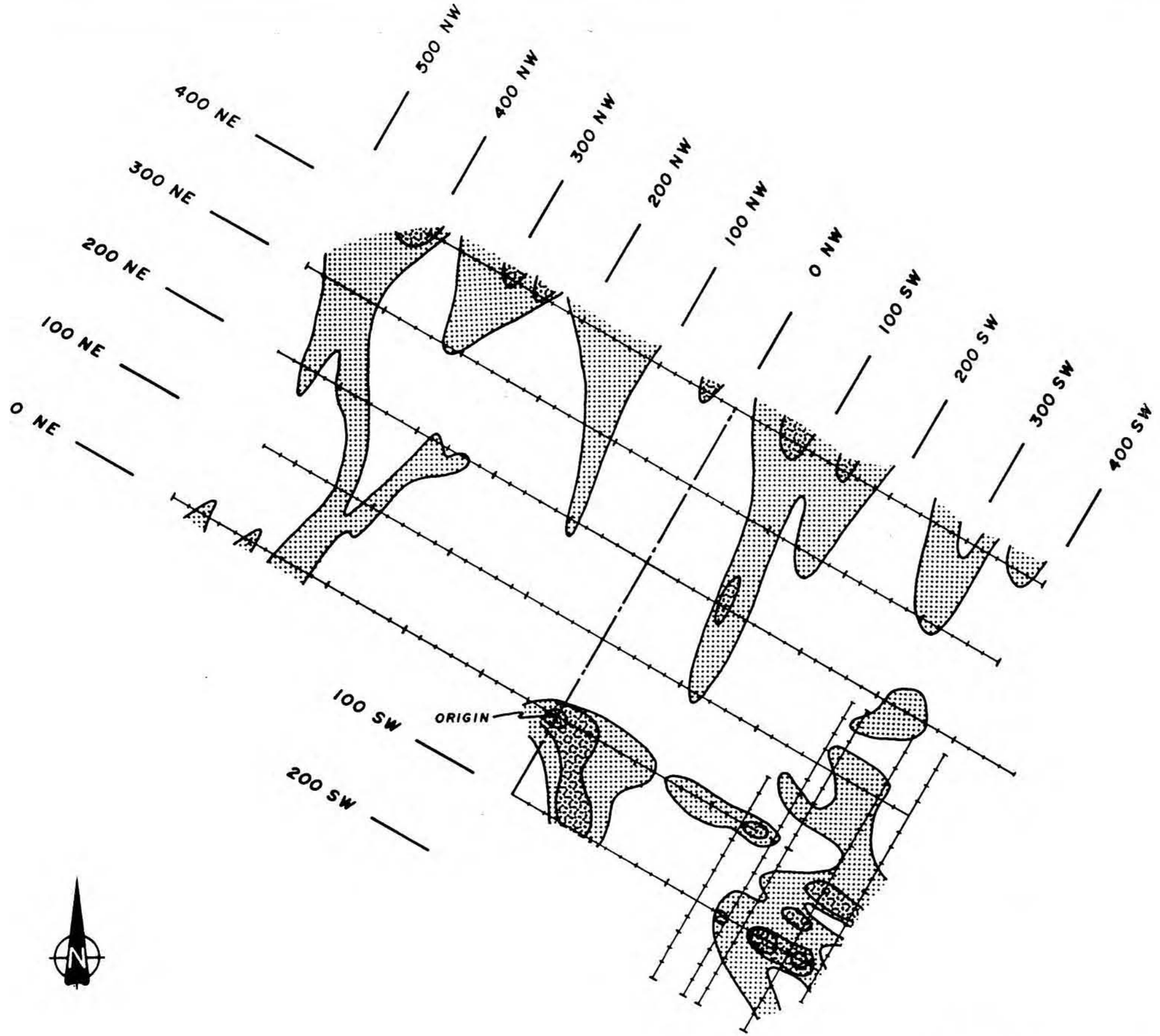
SOIL GEOCHEMISTRY

A total of 319 soil samples were collected during the 1983 programme of exploration. One grid was laid out, on the Marble Arch claim, by compass and hip-chain. The grid covers the downslope areas from the Big Ben, Marble Arch, and California showings. Initial linespacing was 100m, with a 20m sample interval. A further set of lines was run at right angles in the southeast part of the grid, upon receipt of initial results, to more closely define an anomalous area. The location and orientation of the grid is shown in Fig. 4.

A total of 236 samples was collected on the first occasion and submitted to Acme Analytical Laboratories Ltd., of Vancouver, for analysis. The -80# fraction of the samples was ground and analysed for silver, lead, and zinc. A second group of samples, 83 in all, was similarly prepared and analysed for silver and lead.

Statistical values for these samples are presented in Table 2, contours are shown for each element in Figs. 5 to 7.

Burton (1983), in a preliminary report on the property, considers that there are two main soil types; "one type is a thinly developed soil on decomposed argillites, the other type is transported developed on glacial clays.". This statement is in agreement with the writer's observations. The grid from line 0NE to 400NE is on glacial clays. Those lines to the SW of 0NE are on soil derived from the granite and sediment.



ALMINE RESOURCES LTD.

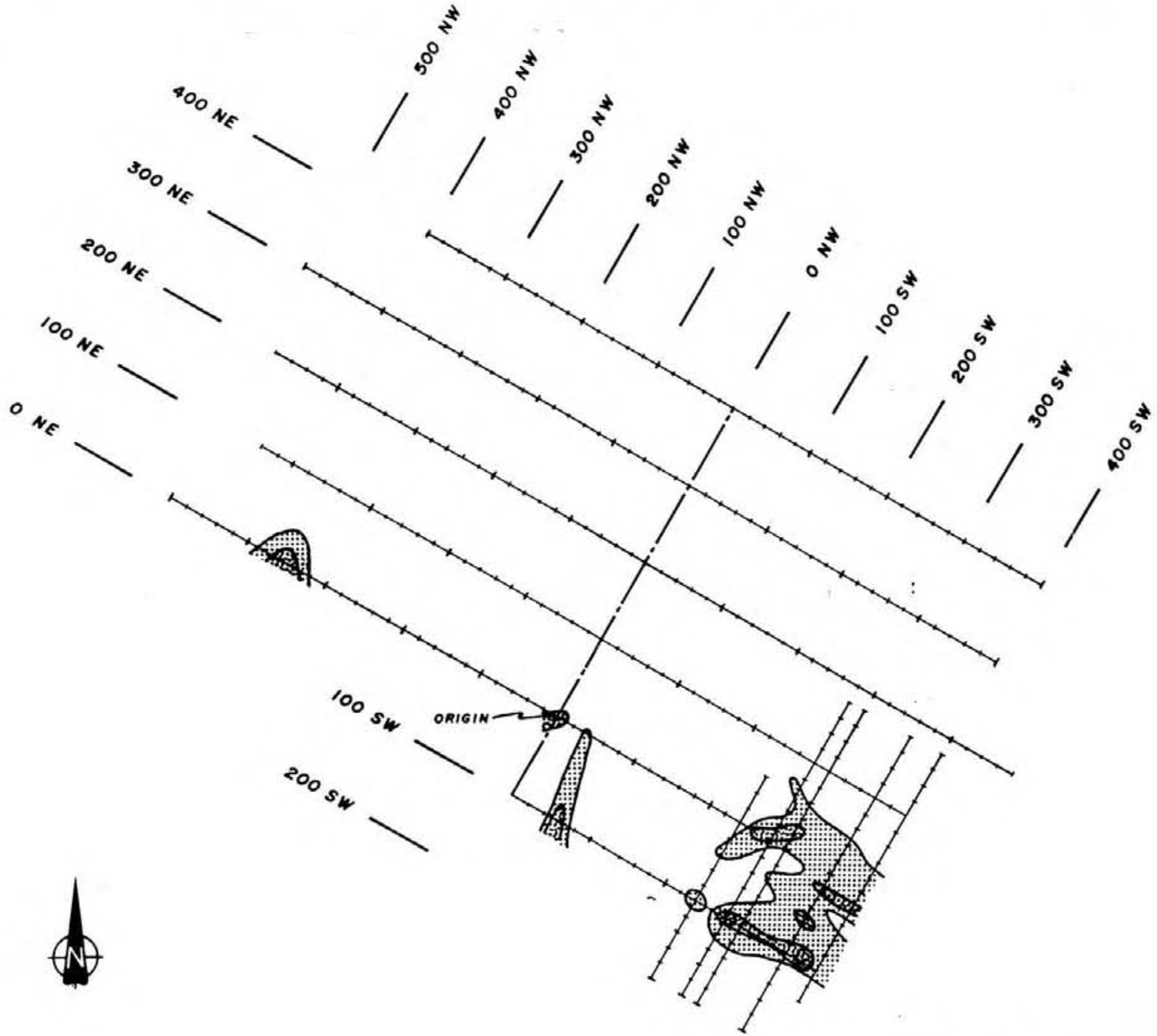
MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

GRID I- Ag -SOIL GEOCHEMISTRY

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:5,000	June 84	5	B. D. S.



ALMINE RESOURCES LTD.

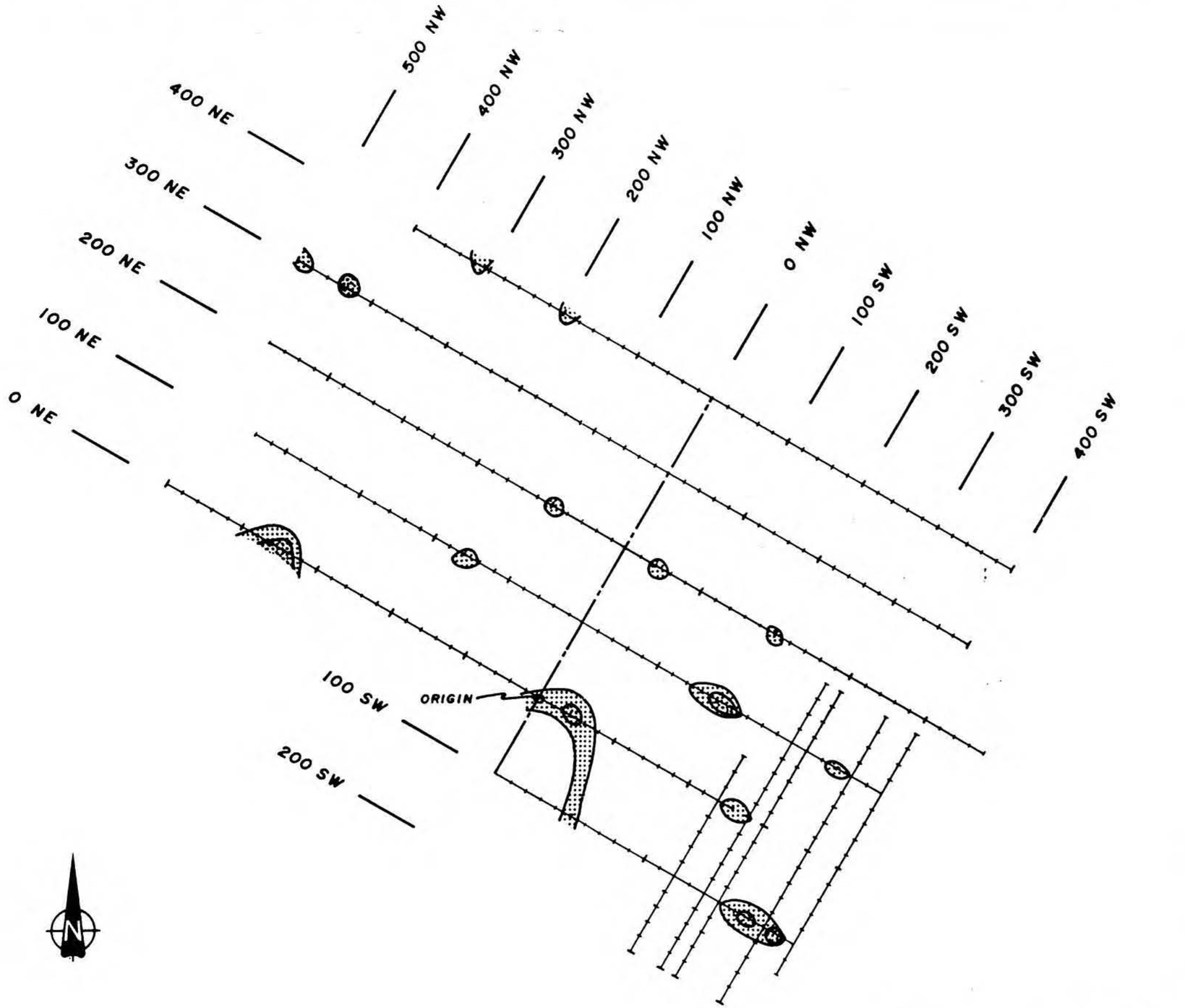
MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

GRID 1- Pb -SOIL GEOCHEMISTRY

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:5,000	June 84	6	B. D. S.



CONTOURS

350 - 500 ppm

> 500 ppm

100m 0 200 m

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MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

GRID I- Zn -SOIL GEOCHEMISTRY

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:5,000	June 84	7	B. D. S.

TABLE 2

STATISTICS ON 319 SOIL SAMPLE ANALYSES

	SILVER		LEAD		ZINC
NUMBER	319	318[i]	319	317[ii]	235[iii]
MAXIMUM	31.5[iv]	10.3	6233	838	655
MINIMUM	0.1	0.1	10	10	27
MEAN	1.0	0.9	78	53	217
S.D.	2.0	1.0	362	66	112

NOTES:

i - all samples less highest (31.5ppm)

ii - all samples less two highest (6,233 & 1,570ppm)

iii - all samples less highest (9,263ppm)

iv - all values in ppm

Silver soil geochemistry is shown contoured in Fig. 5. The 0.8-1.9ppm contour is considered to represent values elevated above background. Values above 2ppm are considered anomalous, however using the standard method of $\bar{X}$ + 2SD would give 3ppm as a minimum anomalous value. Two distinctly anomalous zones are indicated; one in the vicinity of the origin, and the other bounded by 200-400SW and 0NE to 200SW. The former is indicative of the known mineralization of the Marble Arch and upper California showings. The latter, however, is almost certainly indicative of a new, unknown zone of mineralization. It does not represent a dispersion train from either the Big Ben or Marble Arch workings, however it may represent an extension to the

lower California showing.

The tails to several dispersion trains, developed on glacial detritus, are evident over lines 200-400NE. These may well represent both horizontal and vertical dispersion through the glacial horizon.

Values for lead greater than 150ppm are considered anomalous (note: $\bar{X}$ + 2SD = 185ppm). Background values are those less than 80ppm, with values greater than 300ppm being considered strongly anomalous. Lead geochemistry, contoured on Fig. 6, reproduces the two silver anomalies mentioned above. In addition an anomalous area is indicated on line 0NE between 300NW and 400NW. Silver values in this area are elevated but not anomalous.

Elevated values for zinc are considered to be those over 350ppm. Anomalous values, those greater than 500ppm (note: $\bar{X}$ + 2SD = 441ppm). Zinc geochemistry is shown contoured in Fig. 7. The three lead anomalies are reproduced in a weaker manner by zinc. No other significantly anomalous areas are indicated.

The following is a discussion of these results, along with suggestions for further evaluation. The grid was specifically located to evaluate the area of the known showings. In this respect the results exceeded expectations insofar as two anomalies indicate mineralization in addition to that already known. The dispersion trains in silver on the northeastern part of the grid may, in part, be indicative of known mineralization. However

they may also indicate extensions to known mineralization and/or additional veins.

It was noted in the previous section that the mineralization of the claim group is in the upper part of the zone of economic mineralization. That is, the zone of high silver and lead and low or negligible zinc. This appears well supported by the soil geochemistry. There are 21 samples anomalous in silver, 16 in lead, and only 10 in zinc. However it must be remembered that only 236 samples were analysed for zinc, whereas 319 were analysed for silver and lead.

The anomaly in the southeastern corner of the grid is well defined, requiring evaluation by way of mapping, trenching, and sampling. The anomaly in the vicinity of the origin is not closed, a further line, 200SW, should be sampled. Similarly the anomaly on line 0NE (300NW to 400NW) is open, an additional line, 100SW, should be sampled. The silver dispersion trains on glacial clay to the northeast of the grid, lines 200NE to 400NE, require additional definition in both the horizontal and vertical planes. This will require one, and perhaps two, additional surface lines, 500NE and 600NE. Samples will also be required from at least 1-2m below the surface, by way of trenches or auger holes. This will enable the determination of whether the anomalous areas are superficial or represent a dispersion train from bedrock upwards through the cover.

CONCLUSIONS

Soil geochemistry is known to be effective in locating wet ore type mineralization in the Slocan area. In this respect results from the 1983 exploration programme of soil sampling are most encouraging. Three anomalies, one corresponding to known mineralization, were discovered. They are co-incident in silver, lead, and zinc, although less well defined by zinc geochemistry.

There are 5 known showings on the property; the California, Big Ben, Marble Arch, Keno, and Helen. Many features of these showings correspond with those Cairnes (1934) demonstrates often accompany economic mineralization. Thus there would appear to be a good possibility of locating economic mineralization on this property.

It should be noted, in conclusion, that the most extensive workings are on the Helen, which has yet to be re-located. In addition much of the property has yet to be subjected to even a preliminary examination. There is no reason to suppose that these areas offer less potential than the area which has been examined and sampled.

MARK C. HANSEN

COST STATEMENT

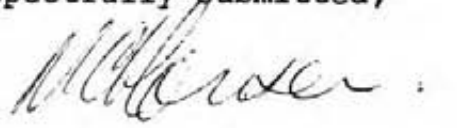
CLAIMS: Marble Arch Claim Group

WORK CONDUCTED: Geological reconnaissance, soil sampling

DATES CONDUCTED: June 1, 1983 to October 14, 1983.

GEOLOGISTS			
M.C.Hansen	(28/9, 14/10)	2 days @ $200/day	$ 400
N.W.Stacey	(2/6 to 4/6)	3 days @ $200/day	600
ASSISTANTS			
P.Livesey	(1/6 to 9/6, 8/8 to 10/8)	12 days @ $100/d.	1,200
G.Timms	(1/6 to 9/6, 8/8 to 10/8)	12 days @ $100/d.	1,200
TRANSPORT AND TRAVEL			
4WD	(1/6 to 9/6, 8/8 to 10/8, 28/9, 14/10)	14 d. @ $50/d.	700
Vancouver/Castlegar return airfares		50% of 3 x $200	300
FOOD AND ACCOMODATION			
32 man days @ $50/day			1,600
FUEL AND SUPPLIES			
Petrol, field supplies, freight etc.			500
ANALYSES			
83 samples for Pb, Ag @ $2-95/sample			245
237 samples for Ag, Pb, Zn @ $3-55/sample			841
REPORT PREPARATION			
research and preparation, drafting, typing, reproduction, binding			1,500
		TOTAL	$9,086

Respectfully submitted,



MARK C. HANSEN

M.C.Hansen

STATEMENT OF QUALIFICATIONS

I, Mark C. Hansen, of 340-885 Dunsmuir Street, Vancouver, B.C., do hereby declare that:

1) I am a graduate of the University of Auckland, New Zealand, with a B.Sc.(1974) and an M.Sc.(1978) in geology.

2) I have practised my profession in New Zealand, Australia, and North America.

3) I am an independent consulting geologist.

4) I am a Fellow of The Geological Association of Canada.

5) I am a minority shareholder of Almine Resources Ltd..

6) This report on the Marble Arch claim group is based on a field examination of the property and a study of relevant data and literature.

Dated this 5th day of July, 1984, at Vancouver, B.C.

M.C.Hansen

MARK C. HANSEN

REFERENCES

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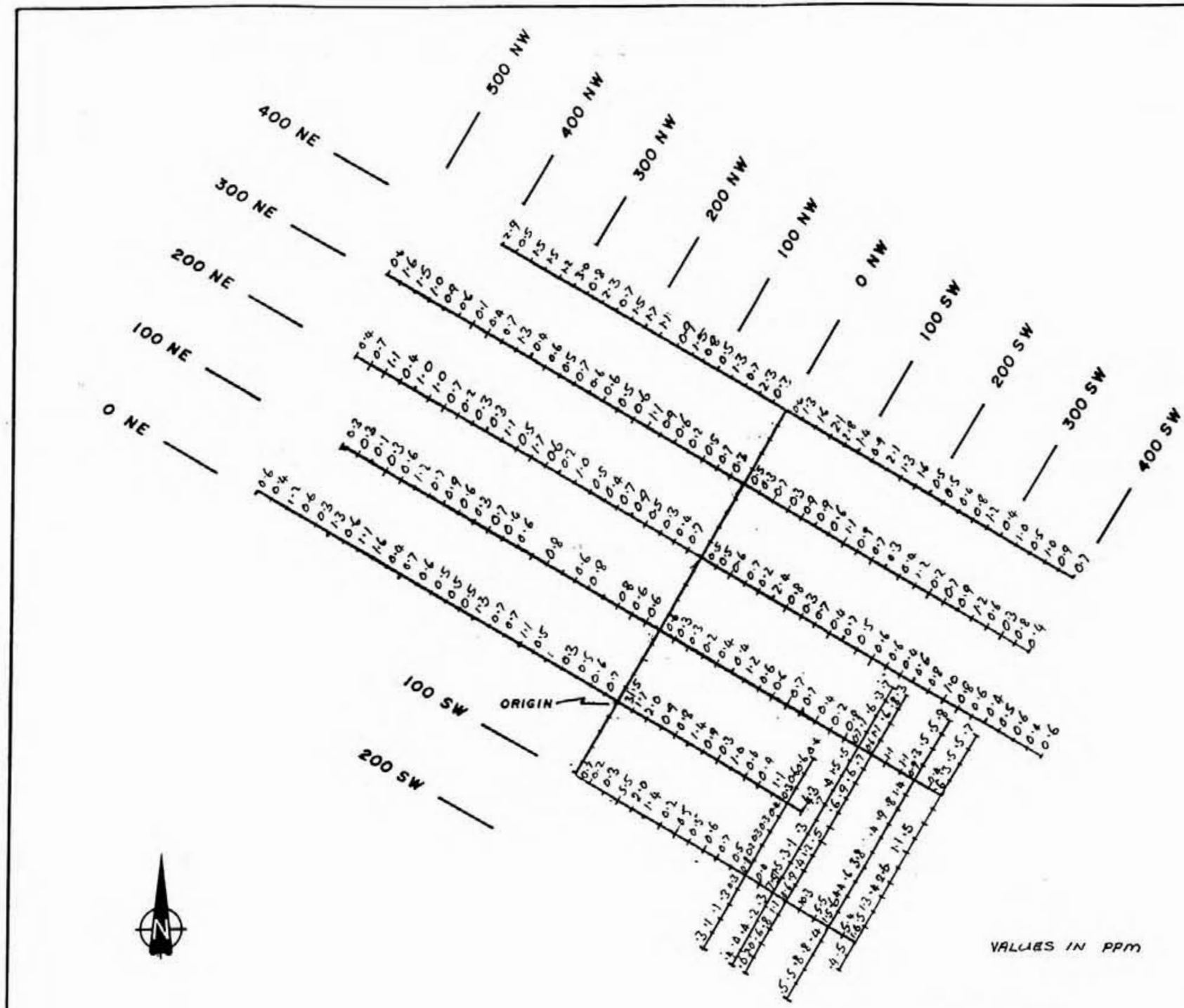
ANNUAL REPORTS OF THE MINISTER OF MINES, B.C.: for the years; 1917, 1918, 1919, 1926, 1927.

APPENDIX I

Analytical certificates for soil sample analysis, from Acme Analytical Laboratories Ltd., Vancouver, B.C.

MARK C. HANSEN



ALMINE RESOURCES LTD.

MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

GRID 1 - Ag - SOIL GEOCHEMISTRY

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:5,000	June 84	8	

500 NW
400 NW
300 NW
200 NW
100 NW
0 NW
100 SW
200 SW
300 SW
400 SW
400 NE
300 NE
200 NE
100 NE
0 NE
100 SW
ORIGIN
200 SW

N

VALUES IN PPM

100m 0 200m

ALMINE RESOURCES LTD.

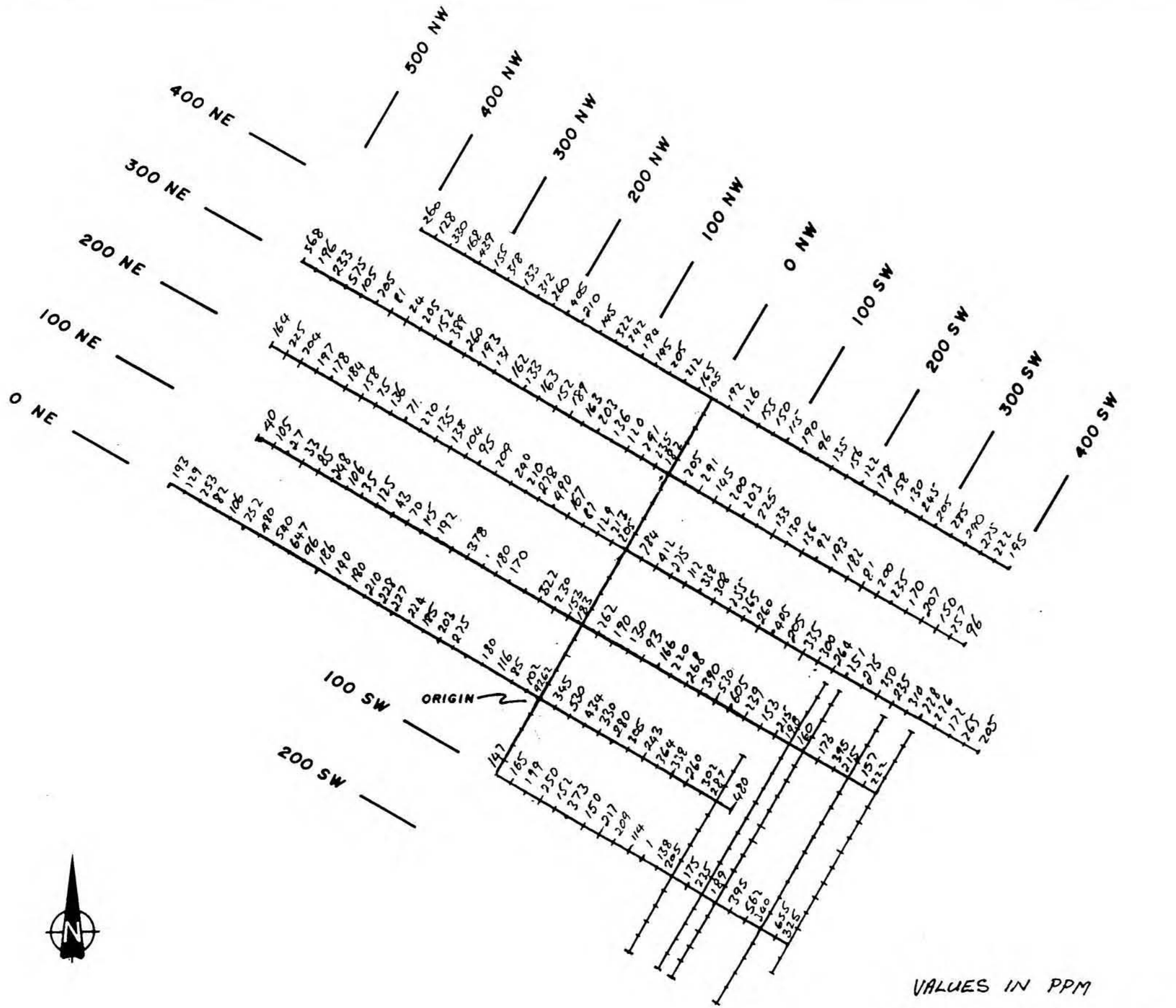
MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

GRID 1 - Pb - SOIL GEOCHEMISTRY

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:5,000	June 84	9	



VALUES IN PPM

100m 0 200m

ALMINE RESOURCES LTD.

MARBLE ARCH CLAIM GROUP

TWELVE MILE CREEK

SLOCAN M. D.

GRID I- Zn -SOIL GEOCHEMISTRY

SCALE:	DATE:	FIGURE:	DRAWN BY:
1:5,000	June 84	10	

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED JULY 22 1983

DATE REPORTS MAILED July 26/83

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : PB, ZN, AG.
SAMPLE TYPE : SOIL - DRIED AT 60 DEG C., -80 MESH.

ASSAYER _____ DEAN TOYE, CERTIFIED B.C. ASSAYER

ALMINE RESOURCES LTD FILE # 83-1319 PROJECT:MARBLE PAGE# 1

SAMPLE	PB PPM	ZN PPM	AG PPM
4NE 4NW	33	260	2.9
4NE 3+80NW	24	128	.5
4NE 3+60NW	25	330	1.5
4NE 3+40NW	20	168	1.5
4NE 3+20NW	47	439	1.2
4NE 3NW	18	155	3.0
4NE 2+80NW	23	318	.8
4NE 2+60NW	17	133	2.3
4NE 2+40NW	18	312	.7
4NE 2+20NW	35	260	1.5
4NE 2ANW	15	115	1.7
4NE 2NW	34	405	1.8
4NE 1+80NW	26	210	1.1
4NE 1+60NW	28	145	.9
4NE 1+40NW	34	322	1.5
4NE 1+20NW	31	242	.8
4NE 1NW	26	194	.5
4NE 0+80NW	24	145	1.3
4NE 0+60NW	22	205	.7
4NE 0+40NW	26	212	2.3
4NE 0+20NW	28	165	.7
4NE 0NW	18	105	.6
4NE 0+20SE	26	192	1.3
4NE 0+40SE	25	126	1.6
4NE 0+60SE	32	155	2.1
4NE 0+80SE	34	150	2.8
4NE 1SE	29	115	1.4
4NE 1+20SE	36	190	.9
4NE 1+40SE	22	96	2.1
4NE 1+60SE	30	135	1.3
4NE 1+80SE	26	156	1.6
4NE 2SE	23	122	.5
4NE 2+20SE	24	178	.5
4NE 2+40SE	29	158	.4
4NE 2+60SE	22	130	.8
4NE 2+80SE	22	245	1.2
4NE 3SE	28	205	.4

SAMPLE	PB PPM	ZN PPM	AG PPM
4NE 3+20SE	35	285	1.0
4NE 3+40SE	25	290	.5
4NE 3+60SE	34	275	1.0
4NE 3+80SE	24	222	.9
4NE 4SE	29	195	.7
3NE 5NW	44	368	.6
3NE 4+80NW	34	196	1.6
3NE 4+60NW	45	233	1.5
3NE 4+40NW	74	575	1.0
3NE 4+20NW	30	105	.9
3NE 4NW	39	205	.6
3NE 3+80NW	15	81	.1
3NE 3+60NW	11	24	.4
3NE 3+40NW	35	205	.7
3NE 3+20NW	25	152	1.3
3NE 3NW	52	389	.4
3NE 2+80NW	50	260	.6
3NE 2+60NW	36	193	.5
3NE 2+40NW	28	131	.7
3NE 2+20NW	40	162	.6
3NE 2NW	26	133	.6
3NE 1+80NW	28	163	.5
3NE 1+60NW	29	152	.6
3NE 1+40NW	80	189	1.1
3NE 1+20NW	38	163	.9
3NE 1NW	28	203	.6
3NE 0+80NW	22	136	.2
3NE 0+60NW	18	120	.5
3NE 0+40NW	38	291	.7
3NE 0+20NW	39	235	.3
4NE 0NW	22	182	.5
3NE 0+20SE	36	205	.3
3NE 0+40SE	38	291	.7
3NE 0+60NW	29	145	.3
3NE 0+80NW	35	200	.9
3NE 1NW	35	203	.9
3NE 1+20SE	50	225	.6

SAMPLE	PB PPM	ZN PPM	AG PPM
3NE 1+40SE	39	133	1.1
3NE 1+60SE	27	130	.9
3NE 1+80SE	25	136	.7
3NE 2SE	20	92	.3
3NE 2+20SE	28	193	.4
3NE 2+40SE	24	182	1.2
3NE 2+60SE	24	81	.2
3NE 2+80SE	28	200	.7
3NE 3SE	30	235	.9
3NE 3+20SE	36	170	1.2
3NE 3+40SE	28	207	.6
3NE 3+60SE	25	150	.3
3NE 3+80S	26	257	.8
3NE 4SE	17	96	.4
2NE 4+80NW	32	164	.4
2NE 4+60NW	52	225	.7
2NE 4+40NW	43	204	1.1
2NE 4+20NW	50	197	.4
2NE 4NW	40	178	1.0
2NE 3+80NW	36	184	1.0
2NE 3+60NW	25	158	.7
2NE 3+40NW	24	75	.2
2NE 3+20NW	36	136	.3
2NE 3NW	19	71	.3
2NE 2+80NW	42	220	1.1
2NE 2+60NW	46	135	.5
2NE 2+40NW	32	138	1.7
2NE 2+20NW	20	104	.6
2NE 2NW	29	95	.2
2NE 1+80NW	42	209	1.0
2NE 1+60NW	46	240	.5
2NE 1+40NW	60	210	.4
2NE 1+20NW	76	278	.7
2NE 1NW	72	490	.9
2NE 0+80NW	44	167	.5
2NE 0+60NW	19	87	.3
2NE 0+40NW	24	129	.4
2NE 0+20NW	36	213	.7

SAMPLE	PB PPM	ZN PPM	AG PPM
2NE 0NW	43	205	.5
2NE 0SE	49	183	.4
2NE 0+20SE	42	284	.5
2NE 0+40SE	42	412	.6
2NE 0+60SE	50	275	.7
2NE 0+80SE	28	112	.2
2NE 1SE	38	338	2.4
2NE 1+20SE	42	308	.8
2NE 1+40SE	20	255	.3
2NE 1+60SE	40	265	.7
2NE 1+80SE	30	260	.4
2NE 2SE	42	405	.7
2NE 2+20SE	40	205	.5
2NE 2+40SE	42	335	.6
2NE 2+60SE	38	300	.6
2NE 2+80SE	29	264	.4
2NE 3SE	28	251	.6
2NE 3+20SE	29	275	.8
2NE 3+40SE	27	250	1.0
2NE 3+60SE	40	235	.8
2NE 3+80SE	39	310	.6
2NE 4SE	34	228	.4
2NE 4+20SE	44	226	.5
2NE 4+40SE	26	172	.6
2NE 4+60SE	34	265	.4
2NE 4+80SE	32	205	.6
1NE 4+40NW	18	40	.3
1NE 4+20NW	24	105	.3
1NE 4NW	10	27	.1
1NE 3+80NW	29	33	.3
1NE 3+60NW	24	85	.6
1NE 3+40NW	48	248	1.2
1NE 3+20NW	28	106	.7
1NE 3NW	21	35	.9
1NE 2+80NW	49	125	.6
1NE 2+60NW	20	43	.3
1NE 2+40NW	22	70	.7

SAMPLE	PB PPM	ZN PPM	AG PPM
1NE 2+20NE	30	115	.4
1NE 2NE	40	192	.6
1NE 1+60NE	64	378	.8
1NE 1+20NE	44	180	.6
1NE 1NE	60	170	.8
1NE 0+60NE	58	322	.8
1NE 0+40NE	40	230	.6
1NE 0+20NE	46	153	.6
1NE 0SE	31	183	.6
1NE 0+20SE	39	262	.3
1NE 0+40SE	38	190	.3
1NE 0+60SE	23	130	.2
1NE 0+80SE	22	93	.4
1NE 1SE	42	166	.4
1NE 1+20SE	59	220	1.2
1NE 1+40SE	45	268	.6
1NE 1+60SE	52	390	.6
1NE 1+80SE	62	530	.7
1NE 2SE	54	605	.7
1NE 2+20SE	44	239	.4
1NE 2+40SE	26	153	.2
1NE 2+60SE	58	215	.8
1NE 2+80SE	40	198	.7
1NE 3SE	36	160	.6
1NE 3+20SE	42	173	1.1
1NE 3+40SE	50	395	1.1
1NE 3+60SE	39	215	.9
1NE 3+80SE	19	157	.4
1NE 4SE	54	222	.6
0 5NW	45	193	.6
0 4+80NW	38	129	.4
0 4+60NW	120	253	1.2
0 4+40NW	29	82	.6
0 4+20NW	30	106	.3
0 4NW	66	252	1.3
0 3+80NW	116	480	.6
0 3+60NW	160	540	1.1

SAMPLE	PB PPM	ZN PPM	AG PPM
0 3+40NW	292	647	1.6
0 3+20NW	48	96	.4
0 3NW	75	186	.7
0 2+80NW	49	140	.6
0 2+60NW	65	180	.5
0 2+40NW	48	210	.5
0 2+20NW	52	228	.5
0 2NW	72	227	1.3
0 1+80NW	52	224	.7
0 1+60NW	44	185	.7
0 1+40NW	52	203	1.1
0 1+20NW	74	275	.5
0 0+80NW	42	180	.3
0 0+60NW	75	116	.5
0 0+40NW	48	85	.6
0 0+20NW	29	102	.7
0 0NW	6233	9262	31.5
0 0+20SE	50	345	1.7
0 0+40SE	132	530	2.0
0 0+60SE	72	434	.9
0 0+80SE	70	330	.8
0 1SE	58	280	1.4
0 1+20SE	50	305	.9
0 1+40SE	56	243	.3
0 1+60SE	54	364	1.0
0 1+80SE	50	338	.6
0 2SE	45	260	.9
0 2+20SE	48	302	1.1
0 2+40SE	42	287	.3
0 2+60SE	238	480	4.3
1SW 0SE	27	147	.7
1SW 0+20SE	32	165	.2
1SW 0+40SE	34	199	.3
1SW 0+60SE140	250	250	5.5
1SW 0+80SE	50	152	2.0
1SW 1SE	70	373	1.4
1SW 1+20SE	32	150	.2

SAMPLE	PB PPM	ZN PPM	AG PPM
15W 1+40SE	31	217	.5
15W 1+60SE	42	209	.5
15W 1+80SE	27	114	.6
15W 2SE	18	1	.7
15W 2+20SE	24	138	.5
15W 2+40SE	100	205	.8
15W 2+60SE	49	175	.4
15W 2+80SE	60	235	.9
15W 3SE	58	189	.6
15W 3+20SE	235	395	10.3
15W 3+40SE	138	562	5.5
15W 3+60SE	155	340	1.5
15W 3+80SE	426	655	5.4
15W 4SE	130	325	1.6

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED AUG 11 1983

DATE REPORTS MAILED Aug 15/83

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : PB, AG.
SAMPLE TYPE : SOIL - DRIED AT 60 DEG C., -80 MESH.

ASSAYER ___ DEAN TOYE, CERTIFIED B.C. ASSAYER

ALMINE RESOURCES PROJECT # MARBLE ARCH FILE # 83-1594 PAGE# 1

SAMPLE	PB PPM	AG PPM
240SE 60NE	28	.4
240SE 40NE	38	.6
240SE 20NE	66	.6
240SE 20SW	32	.4
240SE 40SW	96	.3
240SE 60SW	40	.3
240SE 80SW	54	.2
240SE 100SW	87	.2
240SE 120SW	44	.3
240SE 140SW	40	.3
240SE 160SW	18	.1
240SE 180SW	38	.1
240SE 200SW	40	.3
280SE 180NE	59	.7
280SE 160NE	77	.3
280SE 140NE	38	.6
280SE 120NE	77	.1
280SE 100NE	54	.8
280SE 80NE	64	.5
280SE 60NE	88	1.5
280SE 40NE	47	.4
280SE 20NE	85	.7
280SE 20SW	61	.3
280SE 40SW	52	.1
280SE 60SW	44	.3
280SE 80SW	64	1.5
280SE 100SW	1570	7.5
280SE 120SW	85	.3
280SE 140SW	38	.2
280SE 160SW	48	.4
280SE 180SW	40	.4
280SE 200SW	31	.4
320SE 180NE	59	.3
320SE 160NE	41	.8
320SE 140NE	79	.6
320SE 120NE	69	1.1

SAMPLE	PB PPM	AG PPM
320SE 80NE	60	.7
320SE 60NE	25	.6
320SE 40NE	79	.9
320SE 20NE	160	.6
320SE 20SW	45	.5
320SE 40SW	93	1.2
320SE 60SW	36	.4
320SE 80SW	84	.9
320SE 100SW	72	.5
320SE 120SW	89	1.1
320SE 140SW	35	.8
320SE 160SW	40	.6
320SE 180SW	83	2.0
320SE 200SW	52	.6
360SE 200NE	49	.9
360SE 180NE	43	.8
360SE 160NE	52	.5
360SE 140NE	36	.5
360SE 120NE	29	.3
360SE 100NE	50	.6
360SE 80NE	48	1.4
360SE 60NE	52	.8
360SE 40NE	85	.9
360SE 20NE	105	.4
360SE 20SW	380	3.8
360SE 40SW	88	.6
360SE 60SW	838	4.4
360SE 80SW	79	.6
360SE 100SW	32	.8
360SE 120SW	30	.4
360SE 140SW	32	.8
360SE 160SW	27	.8
360SE 180SW	41	.5
360SE 200SW	45	.5
400SE 180NE	57	.7
400SE 160NE	54	.5
400SE 140NE	48	.5
400SE 120NE	43	.3

SAMPLE	PB PPM	AG PPM
400SE 40NE	71	.5
400SE 20NE	105	1.1
400SE 20SW	461	2.6
400SE 40SW	22	.4
400SE 60SW	94	1.3
400SE 80SW	103	.5
400SE 100SW	73	.3
400SE 120SW	42	.5
400SE 140SW	32	.4

117° 05'

49° 59'

KASLO

HIGHWAY 31 A

To KASLO 17 Km

RIVER

MARBLE ARCH 5

MARBLE ARCH

MARBLE ARCH 1

MARBLE ARCH 2

MARBLE ARCH 3

MARBLE ARCH 4

HELEN

KENO

Washout

400 NE

400 NW

200 NW

200 NE

0 NW

0 NE

200 SW

400 SW

GRID 1

CALIFORNIA

ORIGIN

BIG BEN

MARBLE ARCH

CALIFORNIA

UTICA MINE SITE

Twelve Mile Creek

7000

6500

6000

5500

5000

4500

4000

3500

N

LEGEND

- Road
- Trail
- Drainage
- 5000 Contour interval (feet)
- Property boundary
- Claim boundary
- Legal corner post
- Highway
- River
- Cabin
- Shaft
- Adit
- BIG BEN Name of working

N.T.S. 82 F/14 E
82 K/3 E

250m 0 500 m

To Accompany Report By: MARK C. HANSEN, Geologist.

ALMINE RESOURCES LTD.

MARBLE ARCH CLAIM GROUP
TWELVE MILE CREEK
SLOCAN M. D.

GRID PLAN

Scale:	Date:	Figure:	Drawn By:
1:5,000	June 84.	4	B. D. S.