84-#802 - 12645 7/85

geological and geochemical

ASSESSMENT REPORT ON THE

PRINCE 2 and 3 CLAIMS

FOR

BOULDER MOUNTAIN RESOURCES LTD.

SIMILKAMEEN MINING DIVISION

NTS 92H/10W

LAT. 49°37'N LONG. 120°50'W

Vancouver, B.C.

September 20, 1984

Diane Howe, Project Geologist

OreQuest Consultants Ltd.

SUMMARY

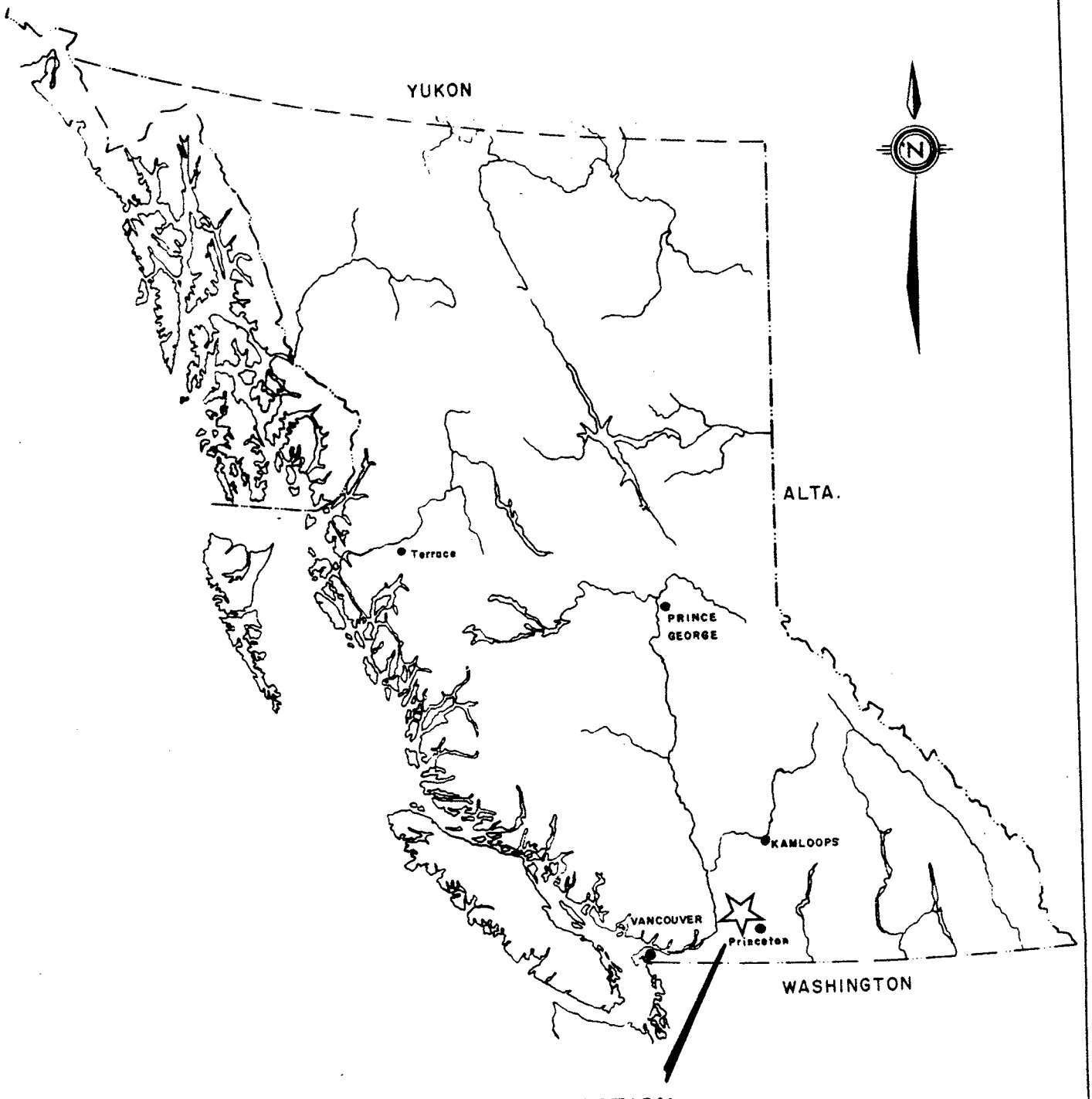
The Prince 2 and 3 claims are located in an area of gentle to moderaate topography, 7 kilometers north of Tulameen and 38 kilometers north-west of Princeton in southeastern British Columbia.

Previous work adjacent to the claim area involved programs of geological, geochemical and geophysical surveys and diamond drilling to test for massive sulphide and/or copper porphyry mineralization. The Prince group is presently held by Boulder Mountain Resources Ltd. of Vancouver who are examining the area as a potential to host an economic ore body.

Field work in 1984 consisted of establishing two detailed soil geochemical grids of which 128 soils and 5 rock samples were collected.

Predominate rock type in the area consist of Upper Triassic volcanoclastic flows and sedimentary rocks belonging to the Nicola group. Locally and regionally these rocks have been intruded by three different types intrusive rocks some of which are related to producing mines elsewhere in the Nicola group.

Based on exploration to date and encouraging results this year, further exploration is warranted.



PROPERTY LOCATION

SCALE

100 0 100 200 400 Km.

100 50 0 100 200 Miles

OreQuest Consultants Ltd.

B.C. LOCATION MAP

DATE

SCALE

DRAWN BY

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1.0 INTRODUCTION

1.1 Location and Access

The Prince 2 and 3 mineral claims are located on the flanks of Boulder Mountain approximately 67 kilometers northwest of Tulameen and 38 kilometers north-northwest of Princeton, B.C.

The claims are centered at 49°37' North Latitude and 120°50' West Longitude located on NTS Map Sheet 92H/10W.

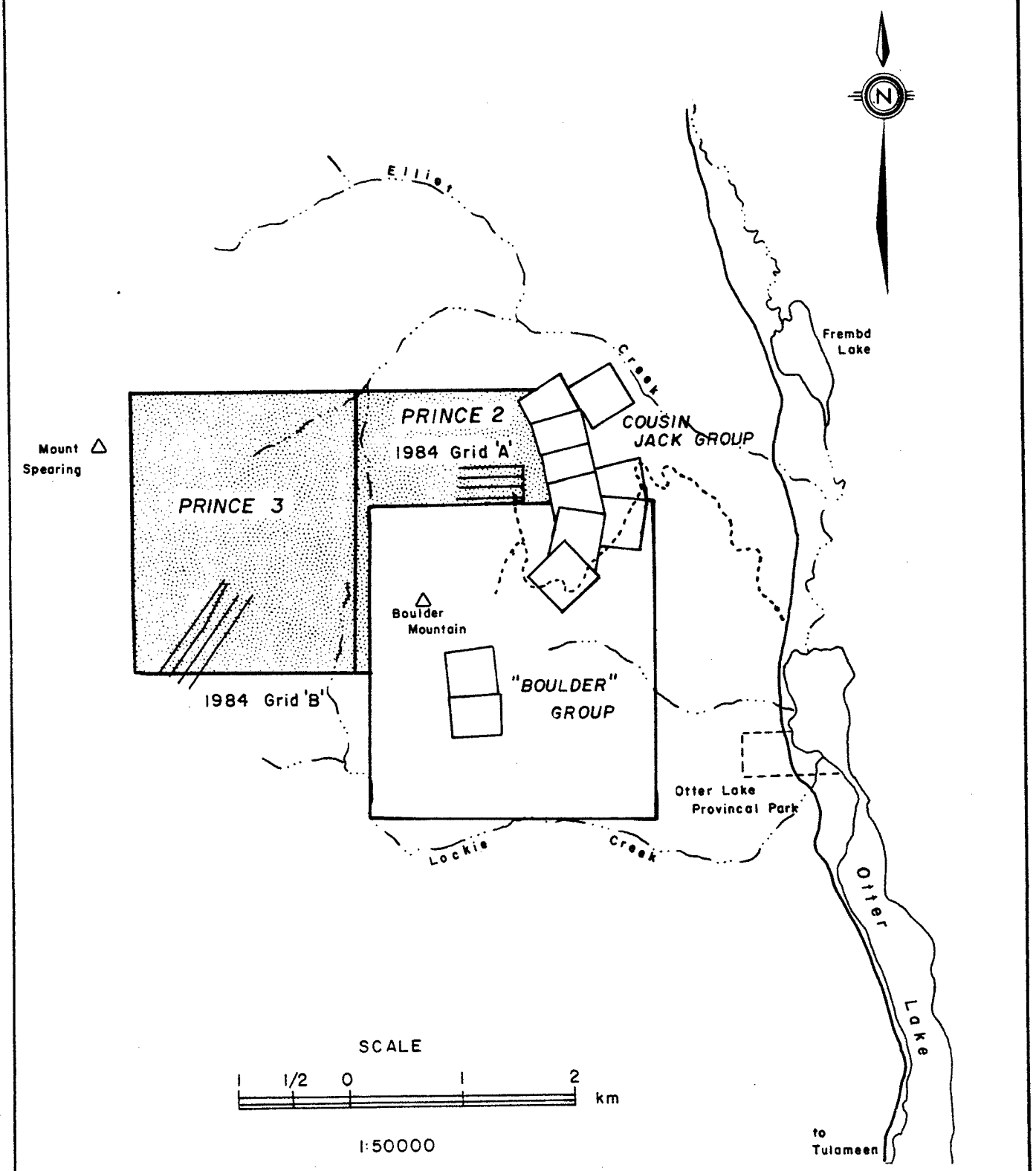
Easy access is available to the Prince 2 claims via a 6 kilometer steep four-wheel drive dirt road which exits off the Tulameen-Aspen all weather gravel road, 1 kilometer past the Provincial campsite, Otter Lake. Between the campsite and Princeton, a good paved road winds throught the Tulameen River canyon providing good access to the Southern Trans Provincial Highway #3 located at Princeton some 32 kilometers to the southwest.

There is no easy access to the Prince 3 claims unless by foot or charter helicopter.

1.2 Claim Status

The Prince 2 and 3 claims consist of two 20 unit claim blocks staked on July 3, 1981, however, the Prince 2 claims overstaked a claim in good standing and in effect contains only 8 valid units.

The claim block is held 100% by Boulder Mountain Resources Ltd. and both



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CLAIM LOCATION

DATE	FIGURE NO. 2
DRAWN BY	SCALE

claims will have 1 more year added pending approval of this years assessment.

The claims are as follows:

	# of Units	Record #	Expiry Date Pending Assessment Approval
Prince 2	20	1448	July 3, 1985
Prince 3	20	1449	July 3, 1984

All claims are located in the Similkameen Mining Division of B.C.

1.3 History

Mining Records and research of assessment files indicate that the earliest recorded activity in the immediate area was in 1900 when copper mineralization on Boulder Mountain was discovered and 8 crown granted claims were recorded now collectively known as the Cousin Jack Group.

In 1905, Boulder Mountain Resources Ltd. developed several shafts and tunnels on their claim holdings. Since then intermittent work by various groups has been done on Cousin Jack Group as well as the areas to the west and south now known as the Boulder and Rabbit claim groups.

In 1967, Nelway Mines Ltd. conducted a soil geochemical survey and some diamond drilling on the Cousin Jack Group which then included 28 recorded claims and the original 8 crown grants. Assay values were low and subsequently Nelway Mines dropped the claims.

Between 1971 and 1974, Gold River Mines Ltd. conducted extensive linecutting with follow up soil geochemistry, VLF-EM and I.P. surveys which were to include part of the Prince 2 claims. Thirty three diamond drill holes were also completed totalling 5,800 feet. It is believed Gold River Mines Ltd. was testing the Cousin Jack Group as to its potential to host a porphyry copper deposit.

In 1979, the Boulder and Rabbit groups were optioned to Kenan Resources Ltd. whom contracted Venture West to conduct a geological study of the area which was also to include the Cousin Jack Group.

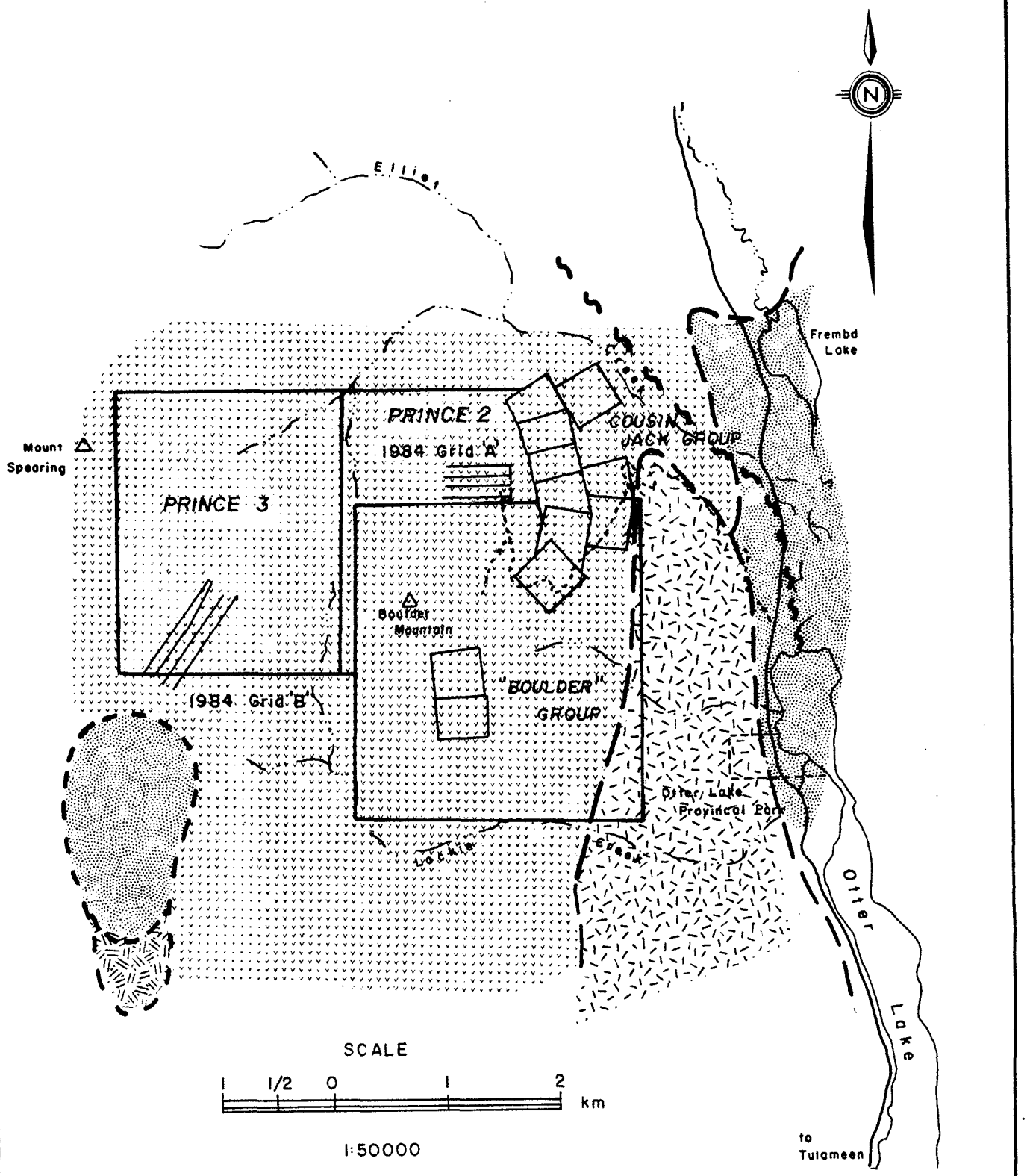
In 1980, Brican Resources Ltd. bought the Boulder and Rabbit claim groups and since then has conducted some geological work. There is no record as of yet of this work on file at the Mining Office.

In 1981, the Prince 1 to 3 claim blocks were staked with the Prince 1 claim being allowed to lapse due to overstaking of the Boulder 2 claims.

2.0 GEOLOGY

Outcrop exposure is good, but is largely confined to Boulder Mountain, stream gulleys and old trenching.

The oldest rocks underlying the claims consist of varicoloured flows and volcanoclastic sediments of the Upper Triassic Nicola group. The volcanic rocks



OREQUEST CONSULTANTS LTD.

GEOLOGY

BOULDER MTN RESOURCES

3

which underlie the majority of the claim area are dominated by intercalated andesitic to dacitic tuffs and breccias with lesser amounts of sandstone, conglomerates and limestones.

Metamorphism is of low grade-greenschist facies which is general for the Nicola group throughout.

Three separate intrusive rocks have been recognized in the map area. Small ultrabasic plugs of peridote and peroxinte believed related to the Olivine Mountain body located to the south are the oldest intrusives in the map area. Stocks and related dikes of siliceous granite belonging to the Jurassic or later age Coast Intrusions have also been observed crosscutting the volcanogenic Nicola sequence.

The youngest intrusions observed belong to the Otter Group which consist of pink grey granites and granodiorites which are distinctly different from the Coast Intrusions. A small plug of the Otter intrusions occurs on the southern edge of the Prince 3 claim group.

2.1 Mineralization

The Nicola group of rocks is a principal ore host for several deposits which have produced either in the past or at present. Examples such as Afton at Kamloops, Similkameen near Princeton and the Hedley Nickel Plate Mine to mention a few are all host in Nicola type rocks and are associated with a stock or plug intrusive or peripheral to the Nicola Group.

Local mineralization in the Boulder Moutain map area appears to be of two origins.

The Cousin Jack Group is believed to be epigenetic in origin characterized by northwest trending quartz veins and shear zones associated with brecciation and minor silicification. Both the quartz vein material and host rock have been mineralized with pyrite, sphalerite, galena and chalcopyrite with significant amounts of gold (up to 0.32 oz/T Au).

Just to the south of the Cousin Jack Group, stratiform, lensoidal massive sulphides dominantly host in acid fragmental rocks have been discovered. The stratiform horizons show remarkable strike length and are mineralized in pyrite, chalcopyrite, galena and sphalerite.

3.0 EXPLORATION RESULTS

Work conducted in 1984 was done to supplement the Phase I work program by L. Sookochoff done in 1982.

The area recommended and outlined as "A" in Sookochoff's 1982 report was soil sampled utilizing a small flagged line grid.

Soil samples were collected from the B horizon where possible at 25 metre intervals on grid lines 100 metres apart.

A second small soil grid was established on the south western edge of the

Prince 3 claim group. A small granitic stock has been mapped by the G.S.C. and this second soil grid was designed to test for any economic mineralization on the claim group associated with the stock intrusion.

Soil samples were collected from the B horizon were possible along 4, 1 kilometre grid lines spaced at 100 metres with samples taken every 50 metres.

A total of 128 soil samples and 5 rock samples were collected and sent to Vangeochem Labs in Vancouver for anaylsis. Sample preparation and anaylsis techniques is detailed in Appendix A.

GRID A

Values in general are low with isolated anomalies in zinc and copper indicated. Copper values range up to 134 ppm with "anomalies" centered on Line 0+00, Station 3+00 West and Line 1+00, Stations 1+25 to 1+50 West. One low value zinc anomalie located on Line 0+00, centered at Station 4+25 West ranges in value to 209 ppm. These anomalies are postulated to reflect bedrock highs. One sample on L 3+00 W, 0+00 West is a coincident copper (97 ppm), zinc (430 ppm) and silver anomaly (1.3 ppm).

GRID B

Two isolated molybdenum anomalies have been outlined on this grid. One on Line 3+00N, 1+00E, an 8 ppm molybdenum value is coincident with a 94 ppm copper anomaly. One Line 2+00N, 4+00E a 12 ppm molybdenum anomaly has been recorded. One isolated zinc value of 210 ppm has been recorded on L 0+00N, 10+00E. The causative of these anomalies has yet to be determined.

4.0 CONCLUSIONS and RECOMMENDATIONS

Results of all work to date suggest that there are no major near-surface concentrations of base or precious metal bearing sulphides on the claim block.

It is concluded however that this area does hold good potential to host a massive sulphide or precious metal vein deposit, and that all work to date has not effectively test the whole area.

At least two-thirds of the Prince 3 claim group has not been adequately explored and other areas outlined in Sookochoffs 82 report have had no follow up.

It is strongly recommended that the Prince 2 claims be abandoned and restaked as an 8 unit block, as it now stands such that one does not pay unnecessary assessment work.

ITEMIZED COST STATEMENT

WAGES

1 geologist - (D. Howe) - Research - 1 day @ $200/day		$ 200.00
Field Work - June 28-July 2 5 days @ $250/day		1,250.00
2 samplers - (P. York, (E. Kirk) Field Work - June 28-July 2 - 10 days @ $150/day		1,500.00
		$2,950.00
Truck Rental - 5 days @ $50/day		250.00
Materials and Supplies		500.00

DISBURSEMENTS

Meals and Accommodation		$ 642.05
Maps		6.95
Gas and Parking		64.50
Helicopter - 2.4 hours		1,174.40
Assay Costs		1,327.25
	15%	$ 482.27
		$3,697.42
		$7,397.42
Report Writing and Supervision		1,300.00
TOTAL OF COST STATEMENT		$8,697.42

QUALIFICATIONS

I, Diane Howe, of 21394-126th Avenue, Maple Ridge, British Columbia hereby certify:

1. I am a graduate of the University of British Columbia (1980) and hold a BSc. degree in geology.
2. I am presently employed as a project geologist with OreQuest Consultants Ltd. of 404-595 Howe Street, Vancouver, British Columbia.
3. I have been employed in my profession by various mining companies for the past five years.
4. I am a member of the Canadian Institute of Mining.
5. The information contained in this report was obtained from a property examination in June of 1984 and from the reports and files listed in the Bibliography.
6. Neither OreQuest Consultants Ltd. nor myself have direct or indirect interest in the property described nor in the securities of Boulder Mountain Resources Ltd.
7. This report may be used by Boulder Mountain Resources Ltd. for all corporate purposes and including any public financing.

D. Howe

Diane Howe
Project Geologist

DATED at Vancouver, British Columbia, this 20th day of September, 1984.

BIBLIOGRAPHY

BETMAIS, A.I.
1979: Report on Diamond Drilling on the Jane X-1 claims for Northern Lights Resources Ltd., A.S. 7159

BRITISH COLUMBIA MINISTRY OF MINES REPORTS
1901: p. 1088, 1178
1922: p. 168
1933: p. 173-174
1934: p. p. 21, 22

BRITISH COLUMBIA MINISTRY OF MINES REPORT
1967: Summary Report , p. 177

CAMSELL, C.
1913: Geology and Mineral Deposits of the Tulameen District, B.C. G.S.C. Memoir 26

COCKEFIELD, W.E.
1948: Geology and Mineral Deposits of the Nicola Map Area, G.S.C. Memoir 244

MILLICAN, J.A.
1966: Geochemistry Survey Report on the Cousin Jack Group, Tulameen, B.C. (for Nelway Mines Ltd.), A.R. 944

MITCHELL, J.A.
1971: Geochemistry Report on the Cousin Jack Group, Similkameen Mining District (Gold River Mines Ltd.), A.R. 3398

PRETO, V.A.
1979: Geology of the Nicola Group between Merrit and Princeton, B.C., B.C. Ministry of Energy and Mineral Petroleum Resources Bulletin 69

RICE, H.M.A.
1947: Geology and Mineral Deposits of the Princeton Map Area, B.C. G.S.C. Memoir 243

THORSTAD, L.E.
1980: Geological Report on the Rabbit Property and the Boulder-Rabbit claim groups, Similkameen Mining Division, B.C., AS 8411

APPENDIX A

(Vangeochem Assays)

VANGEOCHEM LAB LIMITED
1521 Pemberton Avenue
North Vancouver B.C. V7P 2S3
(604) 986-5211 Telex: 04-352578

PREPARED FOR: DREQUEST CONSULTANTS LTD.

NOTES: nd = none detected
: -- = not analysed
: is = insufficient sample

REPORT NUMBER: 84-66-032 JOB NUMBER: 84192

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
BM84S 001	4	97	79	430	1.3	5
BM84S 002	3	40	26	107	.6	nd
BM84S 003	3	56	28	135	.9	5
BM84S 005	4	49	27	141	.7	nd
BM84S 006	3	41	23	80	.3	5
BM84S 007	4	40	20	100	.6	nd
BM84S 008	2	32	19	101	.4	nd
BM84S 009	3	36	20	92	.3	5
BM84S 010	3	23	18	73	.1	5
BM84S 011	3	16	16	86	.3	5
BM84S 012	4	37	17	105	.2	nd
BM84S 013	3	39	20	96	.5	5
BM84S 014	2	25	19	84	.3	nd
BM84S 015	4	29	21	106	.2	nd
BM84S 016	3	32	24	101	.3	nd
BM84S 017	4	54	29	91	nd	5
BM84S 018	3	29	18	80	.3	nd
BM84S 019	5	33	21	125	.2	nd
BM84S 020	3	16	19	100	.2	nd
BM84S 021	2	18	16	83	.2	nd
BM84S 022	2	24	19	94	.1	nd
BM84S 023	3	19	21	101	.2	15
BM84S 025	3	61	30	95	.6	15
BM84S 026	3	22	20	90	.2	nd
BM84S 027	4	24	23	92	.4	nd
BM84S 028	4	20	19	66	.1	nd
BM84S 029	3	21	20	74	.2	nd
BM84S 030	5	24	18	91	.4	5
BM84S 031	3	30	16	76	.1	nd
BM84S 032	4	25	17	74	.1	5
BM84S 033	3	24	15	94	.4	nd
BM84S 034	3	44	20	115	.2	10
BM84S 035	3	47	21	116	.1	5
BM84S 036	5	79	22	106	.4	nd
BM84S 037	3	45	26	135	.3	5
BM84S 038	4	42	25	109	.3	nd
BM84S 039	3	38	21	119	.1	nd
BM84S 040	3	65	21	70	nd	5
BM84S 041	8	94	15	40	.5	5
DETECTION LIMIT	1	1	2	1	0.1	5

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REPORT NUMBER: 84-66-032 JOB NUMBER: 84192

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
BM84S 042	3	34	20	90	.2	10
BM84S 043	4	36	19	95	.5	5
BM84S 044	3	45	21	106	.2	5
BM84S 046	3	31	20	86	.4	5
BM84S 047	3	32	20	89	.6	nd
BM84S 048	3	26	24	99	.5	nd
BM84S 049	4	32	24	122	.3	nd
BM84S 050	4	34	23	115	.4	nd
BM84S 051	4	31	25	127	.4	nd
BM84S 052	2	25	20	93	.2	nd
BM84S 053	3	48	23	87	.2	nd
BM84S 054	3	29	25	85	.4	5
BM84S 055	4	31	24	100	.7	nd
BM84S 056	3	25	25	87	.3	5
BM84S 058	5	94	19	95	.6	5
BM84S 059	3	28	18	60	.4	15
BM84S 060	3	50	21	86	.3	nd
BM84S 061	4	66	24	72	.3	nd
BM84S 101	2	27	20	82	.1	nd
BM84S 102	3	24	16	70	.2	nd
BM84S 103	3	26	23	97	nd	nd
BM84S 104	2	27	20	95	.3	nd
BM84S 105	4	71	18	45	.6	5
BM84S 106	3	56	15	18	.3	5
BM84S 107	2	22	20	78	.4	nd
BM84S 108	3	20	21	66	.3	10
BM84S 109	2	30	17	61	.2	5
BM84S 110	2	19	16	57	.2	10
BM84S 111	3	20	15	64	.2	nd
BM84S 112	3	49	20	72	.1	nd
BM84S 113	4	134	24	96	nd	nd
BM84S 114	3	59	21	107	.4	nd
BM84S 115	2	17	20	80	.3	5
BM84S 117	4	13	22	190	.3	5
BM84S 118	2	19	23	209	nd	nd
BM84S 119	4	22	23	176	.4	nd
BM84S 120	3	19	17	124	.3	nd
BM84S 121	2	14	16	103	.1	5
BM84S 122	1	23	19	83	.1	nd
DETECTION LIMIT	1	1	2	1	0.1	5

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REPORT NUMBER: 84-66-032 JOB NUMBER: 84192

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
BM84S 123	2	21	16	83	.2	nd
BM84S 124	3	20	20	109	.1	nd
BM84S 125	2	16	21	92	.3	5
BM84S 126	2	13	23	119	.4	nd
BM84S 127	2	25	20	80	.5	nd
BM84S 128	2	18	24	112	.2	5
BM84S 129	3	20	21	95	.1	nd
BM84S 130	2	14	19	80	.1	5
BM84S 131	1	19	20	97	.1	nd
BM84S 132	2	38	18	169	.2	nd
BM84S 133	2	16	17	92	nd	nd
BM84S 134	2	17	19	135	nd	5
BM84S 135	2	24	20	70	nd	5
BM84S 136	4	73	30	110	.7	5
BM84S 137	3	24	19	78	.2	5
BM84S 138	3	30	24	89	.2	nd
BM84S 139	4	25	19	72	.1	nd
BM84S 140	3	29	23	61	nd	nd
BM84S 141	2	28	23	55	nd	10
BM84S 142	2	23	18	76	nd	nd
BM84S 143	2	15	15	84	.1	nd
BM84S 144	3	88	26	93	nd	nd
BM84S 145	3	112	24	58	.5	5
BM84S 146	4	30	21	102	.4	5
BM84S 147	3	44	25	101	.2	nd
BM84S 148	2	40	22	77	.1	nd
BM84S 149	4	34	23	95	.2	nd
BM84S 150	3	38	21	127	.4	5
BM84S 151 ✓	5	56	21	51	.4	nd
BM84S 152	4	49	19	70	.1	nd
BM84S 154	2	81	22	83	.3	5
BM84S 155	12	30	20	106	.3	5
BM84S 156	2	30	23	72	.2	nd
BM84S 157	4	29	26	80	.2	nd
BM84S 158	4	30	25	70	.2	nd
BM84S 159	4	8	12	8	.1	10
BM84S 160	3	33	28	121	.5	5
BM84S 161	3	19	24	87	.4	nd
BM84S 162	3	38	26	210	.5	nd
DETECTION LIMIT	1	1	2	1	0.1	5

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NOTES: nd = none detected
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: is = insufficient sample

REPORT NUMBER: 84-66-032 JOB NUMBER: 84192

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
BM84S 163	4	30	25	105	.3	nd
BM84S 164	4	37	28	96	.3	nd
BM84S 165	3	25	24	108	.5	nd
BM84S 166	3	39	24	66	.4	5
BM84S 167	3	35	25	80	.5	5
BM84S 168	4	26	26	95	.6	nd
BM84S 169	4	24	23	65	.4	5
BM84S 170	3	23	23	76	.6	nd
BM84S 171	3	81	24	74	.4	5
BM84S 172	4	30	24	125	.4	nd
BM 84S 116	2	25	19	123	.2	nd
DETECTION LIMIT	1	1	2	1	0.1	5

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NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 84-66-033 JOB NUMBER: 84193

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
BM84R - 201	3	72000	16	690	13.6	110
BM84R - 202	4	34400	19	1160	14.4	140
BM84R - 203	3	134	10	23	.3	10
BM84R - 204	4	26	11	35	.4	5
BM84R - 205	5	14	10	12	.2	5
DETECTION LIMIT	1	1	2	1	0.1	5

APPENDIX B

(Vangeochem Techniques)

VGC
NGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C. CANADA V7P 2S3
986-5211
xxxxxxxx

Nov.8, 1983

To: Orequest Consultants
#404 - 595 Howe St.
Vancouver, B C V6C 2T5

From: Vangeochem Lab Ltd.
1521 Pemberton Avunue
North Vancouver, B.C. V7P 2S3

Subject: Analytical procedure used to determine hot acid soluble Mo, Cu, Pb, Zn, Ag in geochemical silt, soil and rock samples.

1983 samples

1. Sample Preparation

(a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 3½ x 6½ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.

(b) The wet samples were dried in a ventilated oven.

(c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.

(d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Methods of Digestion

(a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.

(b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).

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(C) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Mo, Cu, Pb, Zn, Ag analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamps. The digested samples were aspirated directly into an air and acetylene flame, but Mo digestion were aspirated into an acetylene and nitrous flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit and displayed in a strip chart recorder.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and the labroatory staff.

5. Back Ground Correction

A Hydrongen continunnm lamp is used to correct the silver groung interferencesa.

Eddie Tang
VANGEOCHEM LAB LTD.

ET:jl

VGC

VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-986-5211
V7P 2S3

Nov.8, 1983

To: Orequest Consultants
#404 - 595 Howe St.
Vancouver, B C V6C 2T5

From: Vangeochem Lab Ltd.
1521 Pemberton Ave.
North Vancouver, B.C. V7P 2S3

Subject: Analytical procedure used to determine Aqua Regia soluble gold in geochemical samples.

For soil and humus samples

1. Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4 x 6 Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.

(b) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieve, The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was tracsferred into a new bag for analysis later.

(c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Method of Digestion

(a) 5.00 - 10.00 grams of the minus 80-mesh samples were used. Samples were wrighed out by using a top-loading balance into beakers.

(b) 20 ml of Aqua Regia (3:1 $HCl:HNO_3$) were used to digest the samples over a hot plate vigorously.

(c) The digested samples were filtered and the washed pulps were discarded and the filtrate was reduced to about 5 ml.

(d) The Au comples ions were extracted into diisobutyl ketone and thiourea medium. (Anion exchange liquids "Aliquot 336").

... 2

(e) Separate Funnels were used to separate the organic layer.

3. Method of Detection

The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode Lamp. The results were read out on a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and his laboratory staff.

Eddie Tang
VANGEOCHEM LAB LTD.

ET: jl

VGC

986-5211

VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-XXXX
V7P 2S3

Nov. 8 1983

TO: Orequest Consultants
#404 - 595 Howe St.
Vancouver, B C V6C 2T5

FROM: Vangeochem Lab Ltd.
1521 Pemberton Ave.
North V ncouver, B.C. V7P 2S3

SUBJECT: Analytical procedure used to determine hot acid soluble arsenic in geochemical silt, soil, lake sediments and rock samples.

for geochem soil humus , rock samples

1. Sample Preparation

(a) Geochemical soil, silt, lake sediments or rock samples were received in the laboratory in wet-strength 3½ x 6½ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.

(b) The wet samples were dried in a ventilated oven.

(c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a nwq bag for analysis later.

(d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Method of Digestion

(a) 0.25 gram of the minus 80-mesh sample was used. Samples were weighed out by using a top-loading balance.

(b) Samples were heated in a sand bath with concentrated perchloric acid (70 - 72% $HCLO_4$ by weight) at a medium heat for four hours.

(c) The digested samples were diluted with demineralized water.

...2

3. Method of Analysis

(a) Potassium iodide and stannous chloride in HCL were added to the digested samples.

(b) Zinc metal was introduced and the arsenic in solution was gassed off as arsene through a glass wool scrubber plug saturated with lead acetate and into a solution of silver diethyldithiocarbamate in chloroform with l-ephedrine, forming a red complex with the silver diethyldithiocarbamate.

(c) The concentration of the arsenic was determined colorimetrically by comparing the intensity of the color of the red complex with a set of known standards prepared in a similar fashion as the samples.

4. The analyses were supervised or determined by Mr. Eddie Tang or Mr. Conway Chun and their laboratory staff.

Eddie Tang

VANGEOCHEM LAB LTD.

VANGEOCHEM LAB LTD.
1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA V7P 2S3 (604) 986-5211

Nov.8 1983

To: Orequest Consultants
#404 - 595 Howe St.
Vancouver, B C V6C 2T5

From: Vangeochem Lab Ltd.
1521 Pemberton Avenue
North Vancouver, B.C. V7P 2S3

Subject: Analytical procedure used to determine gold by fire-assay method and detected by atomic absorption spec. in geological samples.

For samples requested for Fireassays- AAS finished

1. Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 4" x 6" Kraft paper bags or rock samples sometimes in 8" x 12" plastic bags.

(b) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.

(c) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Method of Extraction

(a) 20.0 - 30.0 grams of the pulp samples were used. Samples were weighed out by using a top-loading balance into a fusion pot.

(b) A Flux of litharge, soda ash, silica, borax, flour, or potassium nitrite is added, then fused at 1900°F and a lead button is formed.

(c) The gold is extract by cupellation and part with diluted nitric acid.

(d) The gold bead is saved or measurement later.

... 2

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3. Method of Detection

(a) The gold bead is disolved by boiling with sodium cyanide, hydrogen peroxide and amonium hydroxide.

(b) The gold analyses were detected by using a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values in parts per billion were calculated by comparing them with a set of gold standards.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. David Chiu and his laboratory staff.

David Chiu
VANGEOCHEM LAB LTD.

DC:jl

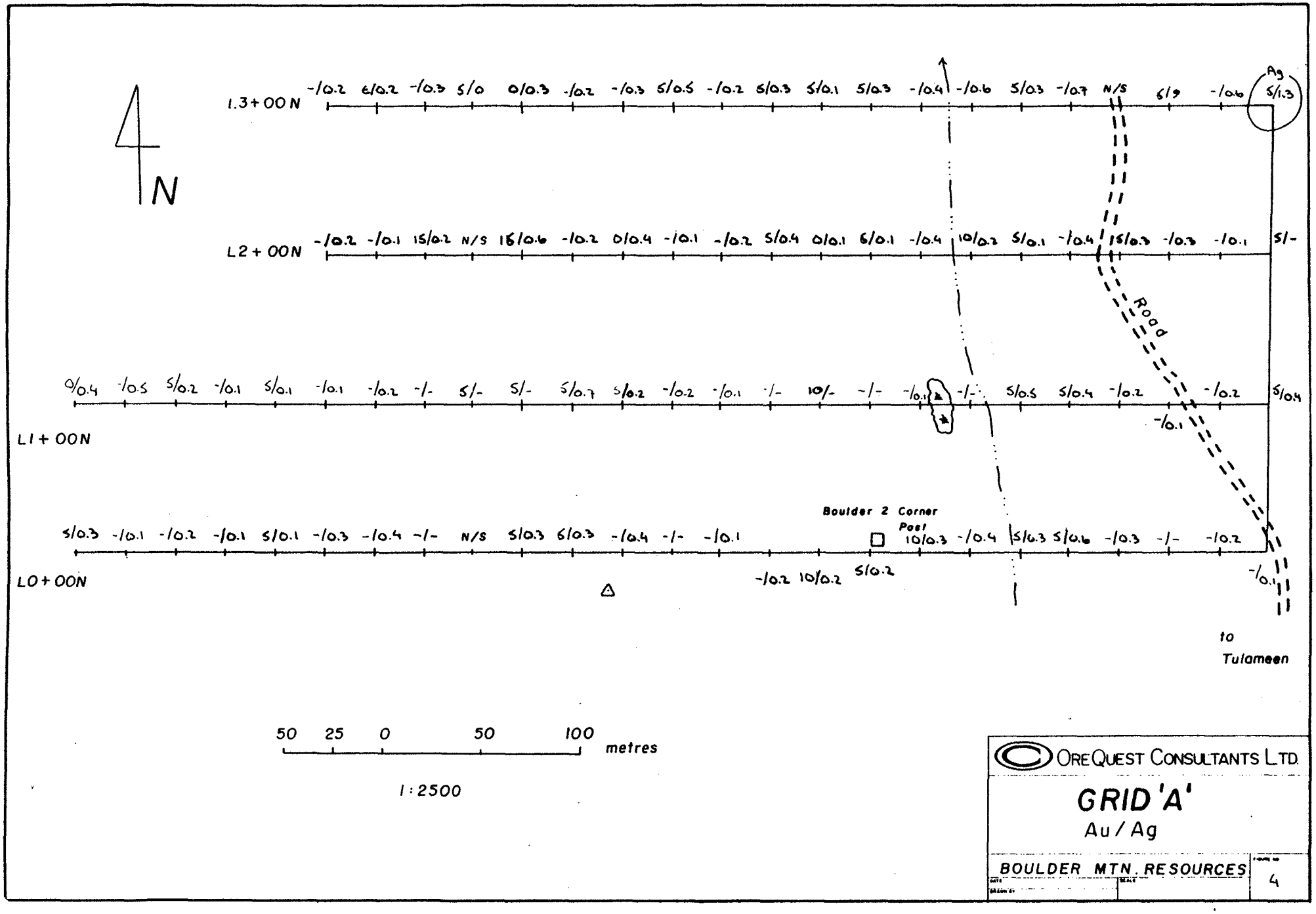
ITEMIZED COST STATEMENT

WAGES

1 geologist - (D. Howe) - June 27 to July 2 - 1 day @ $200/day		$ 200.00
2 samplers - (P. York) - 5 days @ $250/day		1,250.00
- (E. Kirk) - June 28, to July 2 - 10 days @ $150/day		1,500.00
		$2,950.00
Truck Rental - 5 days @ $50/day		250.00
Materials and Supplies		500.00

DISBURSEMENTS

Meals and Accommodation		$ 642.05
Maps		6.95
Gas and Parking		64.50
Helicopter - 2.4 hours		1,174.40
Assay Costs		1,327.25
	15%	$ 482.27
		$3,697.42
		$7,397.42
Report Writing and Supervision		1,300.00
TOTAL OF COST STATEMENT		$8,697.42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L2+00N
L1+00N
L0+00N
Road
Boulder 2 Corner Post
to Tulameen
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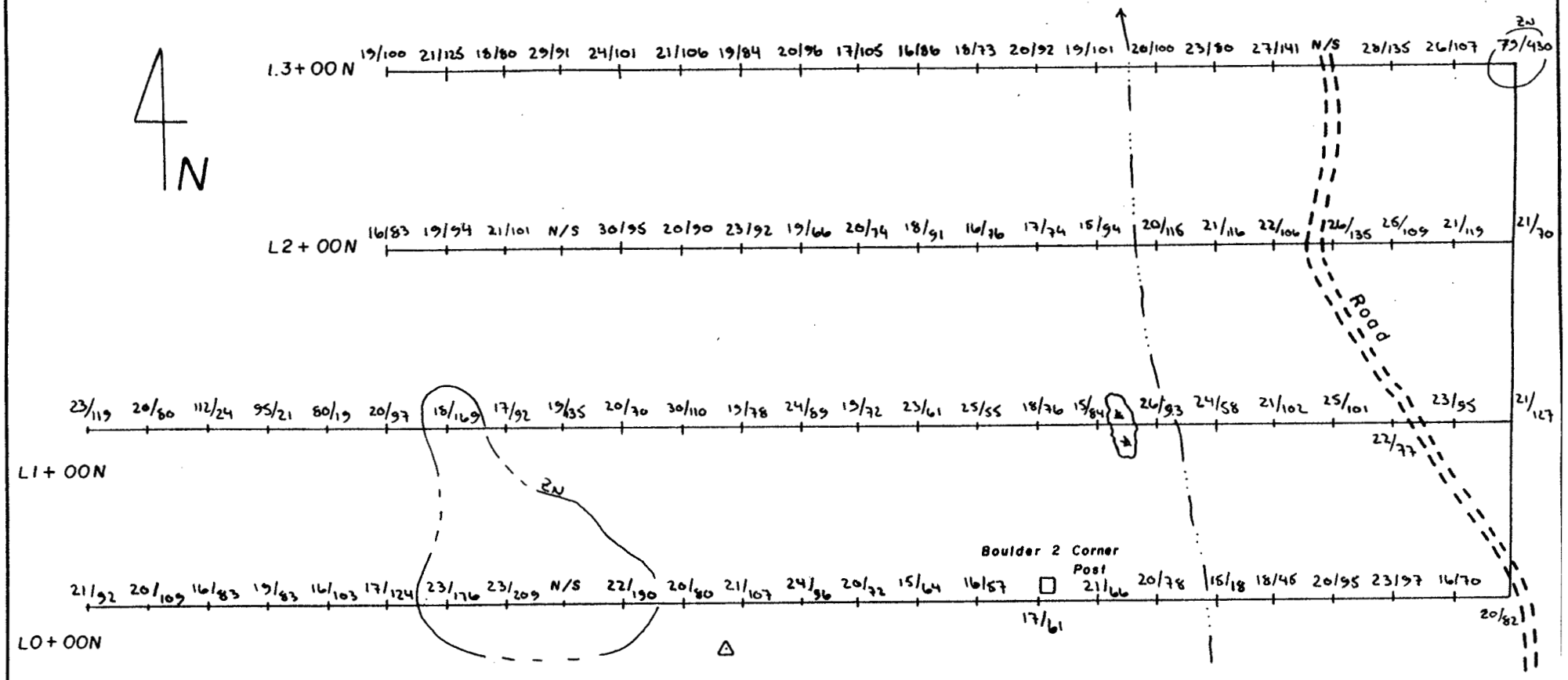
OreQuest Consultants Ltd.
GRID 'A'
Au / Ag
BOULDER MTN. RESOURCES
4



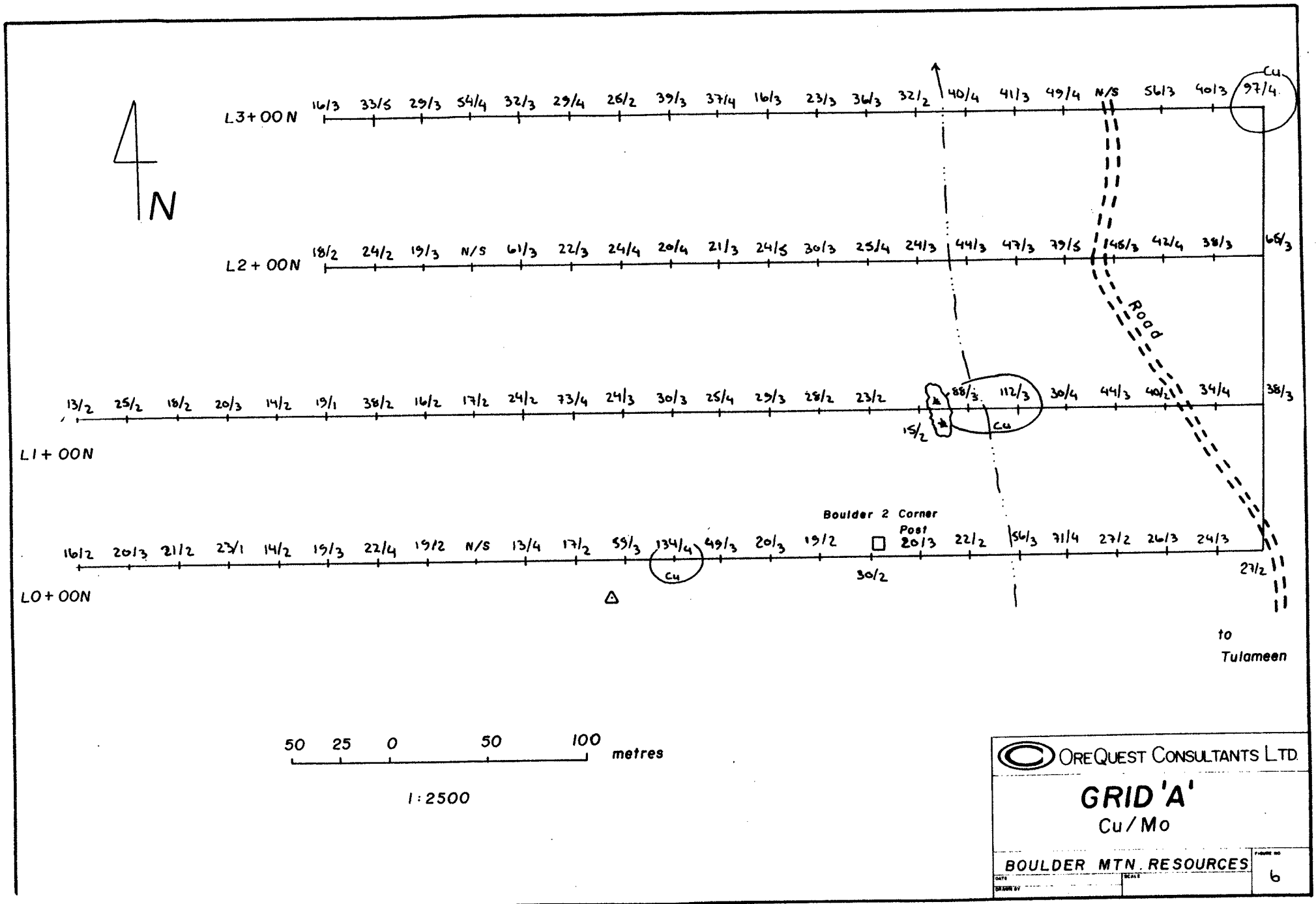
OreQuest Consultants Ltd.

GRID 'A'

Pb / Zn

BOULDER MTN. RESOURCES

5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Cu
L2+00N
18/2 24/2 19/3 N/S 61/3 22/3 24/4 20/4 21/3 24/5 30/3 25/4 24/3 44/3 47/3 39/5 146/3 42/4 38/3 66/3
Road
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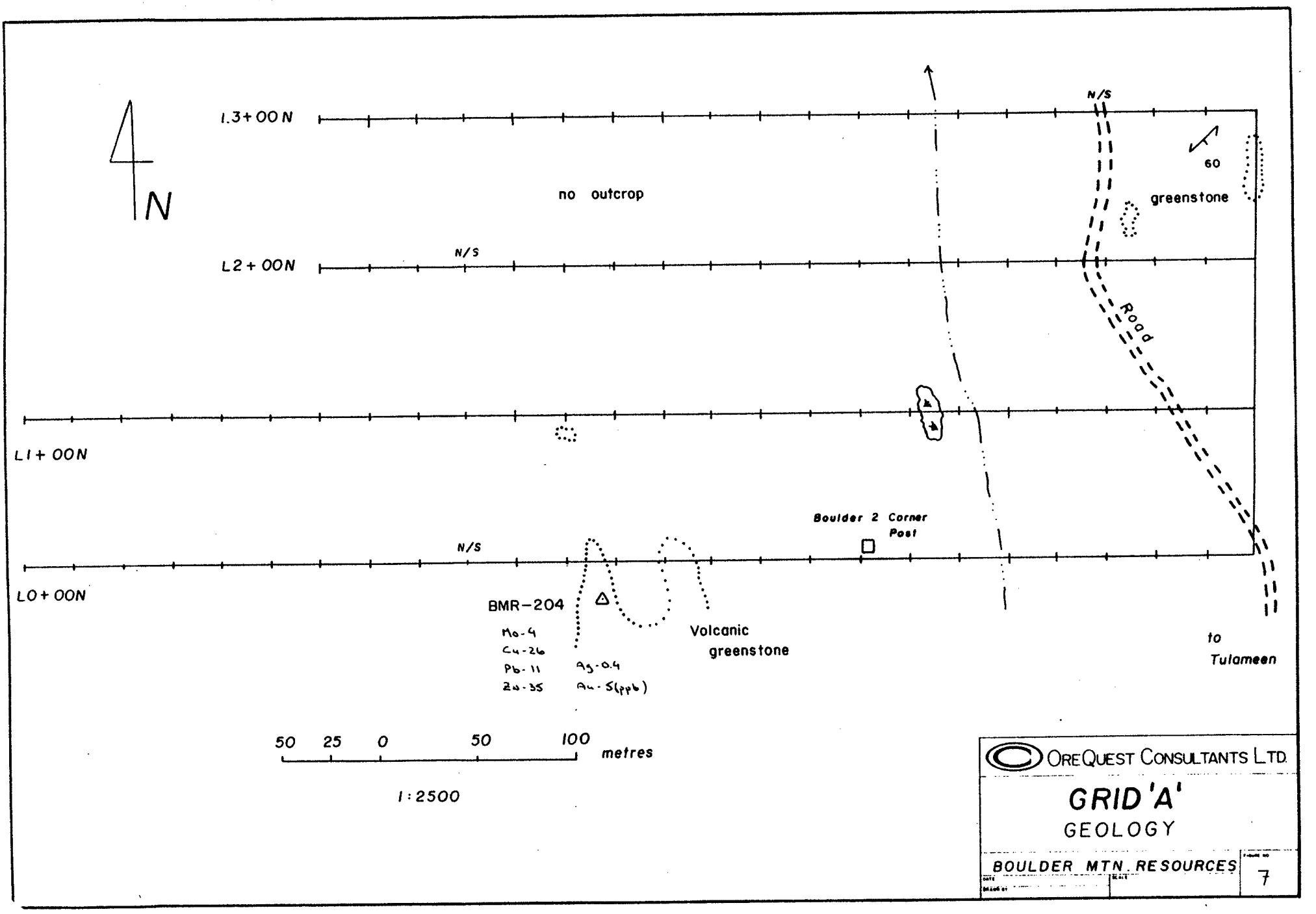
13/2 25/2 18/2 20/3 14/2 19/1 38/2 16/2 17/2 24/2 73/4 24/3 30/3 25/4 29/3 28/2 23/2 15/2 88/3 112/3 30/4 44/3 40/2 34/4 38/3
Cu
L0+00N
16/2 20/3 21/2 23/1 14/2 19/3 22/4 19/2 N/S 13/4 17/2 59/3 134/4 49/3 20/3 19/2 30/2 Boulder 2 Corner Post 20/3 22/2 56/3 31/4 27/2 26/3 24/3 27/2
Cu
to Tulameen
50 25 0 50 100 metres
1:2500
OreQuest Consultants Ltd.
GRID 'A'
Cu / Mo
BOULDER MTN. RESOURCES
DATE
DRAWN BY
SCALE
FIGURE NO. 6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L2+00N
L1+00N
L0+00N
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N/S
N/S
N/S
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greenstone
60
Road
Boulder 2 Corner Post
BMR-204
Mo-4
Cu-26
Pb-11
Zn-35
Ag-0.4
Au-5(ppb)
Volcanic greenstone
to Tulameen
50 25 0 50 100 metres
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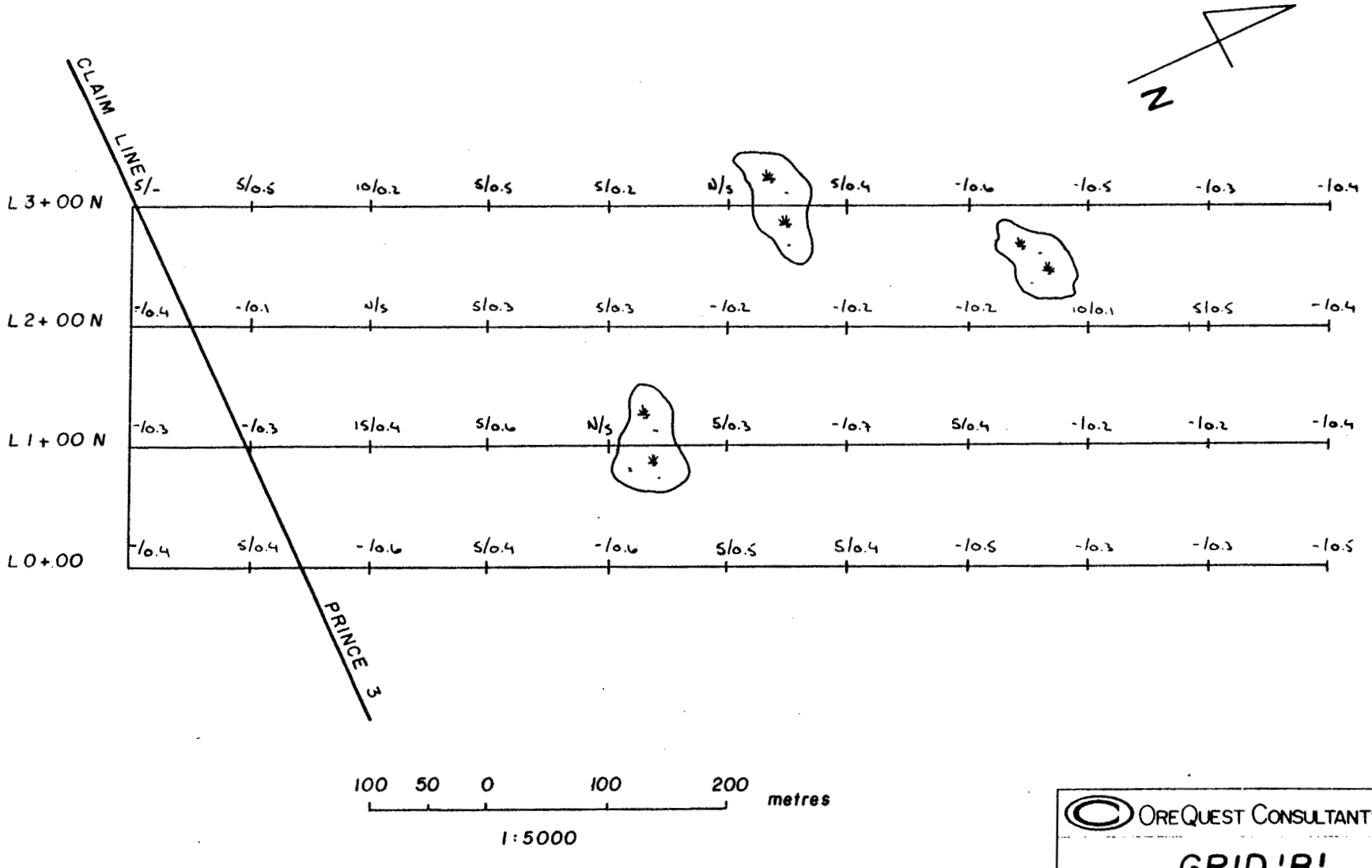
OREQUEST CONSULTANTS LTD.
GRID 'A'
GEOLOGY
BOULDER MTN. RESOURCES
7



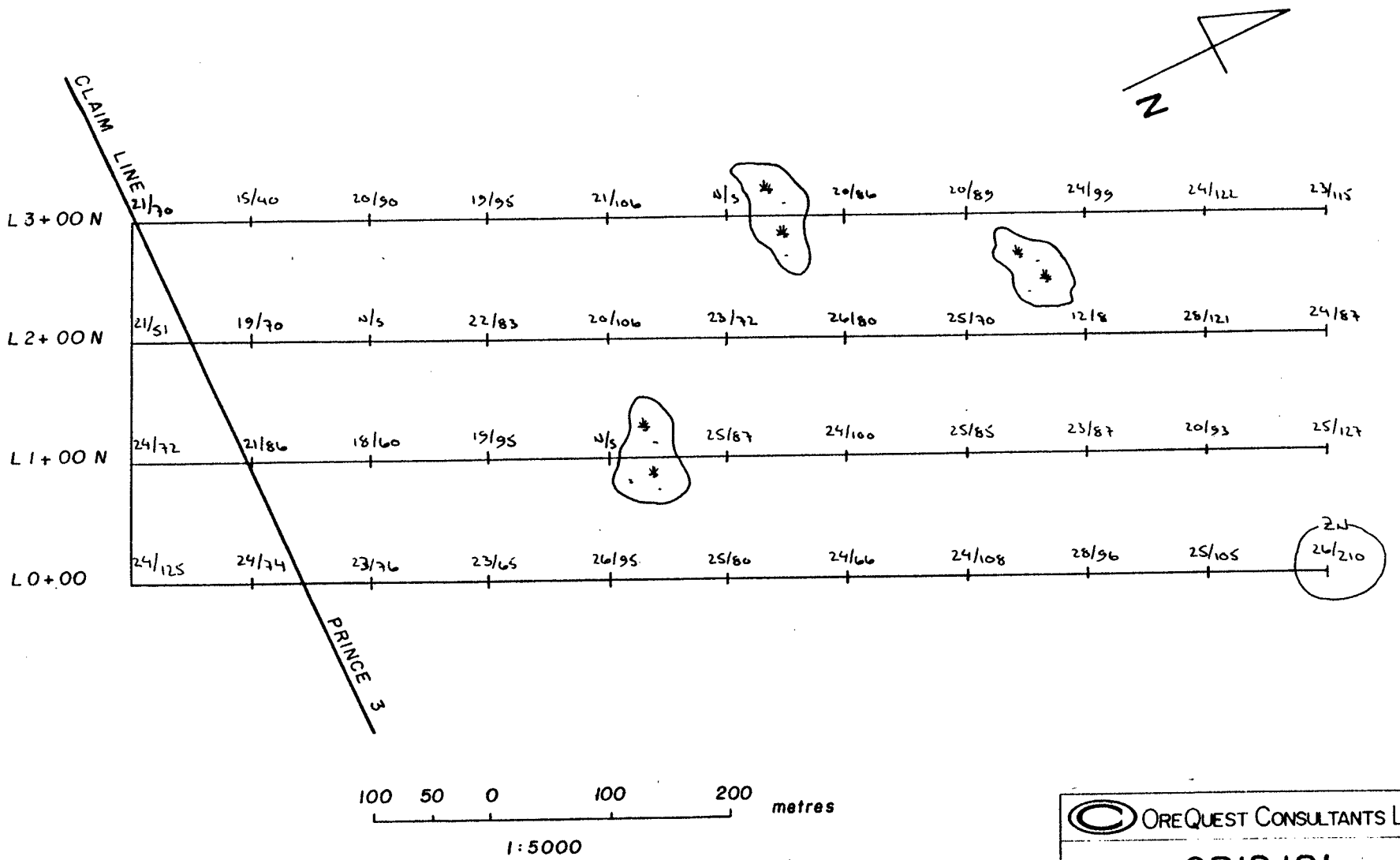
OreQuest Consultants Ltd.

GRID 'B'

Au / Ag

BOULDER MTN. RESOURCES

8



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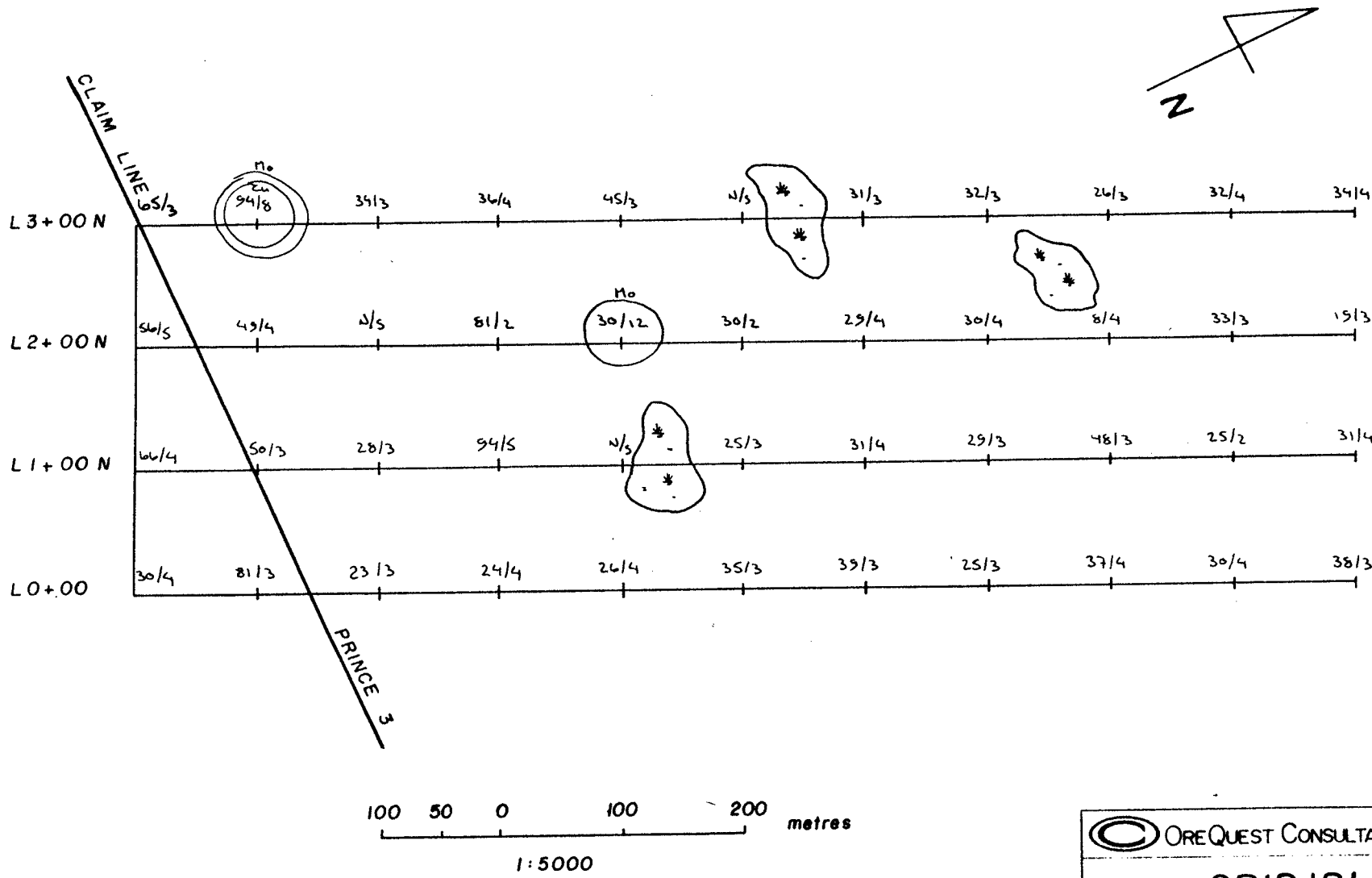
GRID 'B'

Pb / Zn

BOULDER MTN. RESOURCES

9



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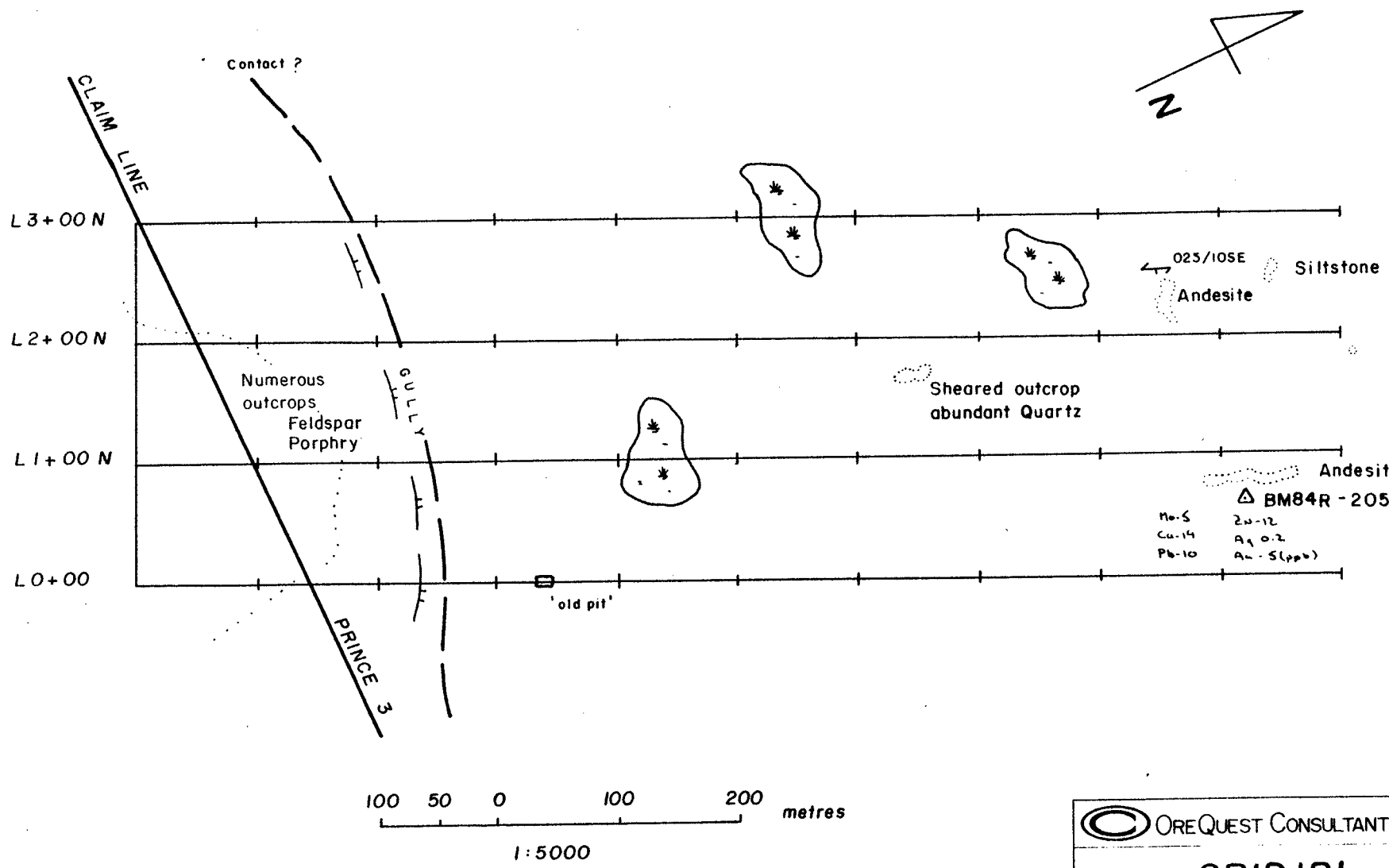
GRID 'B'

Cu / Mo

BOULDER MTN. RESOURCES

10



OreQuest Consultants Ltd.

GRID 'B'

GEOLOGY

BOULDER MTN. RESOURCES

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