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1992 ASSESSMENT REPORT

KWANIKA/VALLEAU PROPERTY
GEOLOGICAL MAPPING, SOIL GEOCHEMICAL AND INDUCED POLARIZATION SURVEYS

OMINECA MINING DIVISION
NTS 93N/6, 7, 11
LATITUDE 55° 27', LONGITUDE 124° 57'

CLAIM OWNER AND OPERATOR
WESTMIN RESOURCES LIMITED

REPORT BY

MURRAY I. JONES, PROJECT GEOLOGIST
WESTMIN RESOURCES LIMITED

JANUARY 21, 1993

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,752

RPT/92-021

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1.0 SUMMARY

Fieldwork on the Kwanika/Valleau property (KC 24, 25 and 31 claims), in conjunction with work done on the Valley Girl property (VG 4 claim), was completed between June 18, 1992 and July 11, 1992. The work included linecutting, soil sampling, gradient-style induced polarization (IP) surveying and geological mapping.

The work was done on the Kwanika Extension Grid which straddles the boundary between the Kwanika/Valleau and Valley Girl properties (see Figure 5). An east-west baseline was established on the Valley Girl property and lines were cut perpendicular to the baseline at 1,000 m intervals to facilitate the induced polarization survey. Pace and compass flag lines were also established from the baselines, between the cut lines, at 200 m intervals, and the soil geochemistry and geophysical surveys were done on all grid lines. The grid also provided a base for geological mapping. The Kwanika Extension Grid covers the area grid north of the 1991 Kwanika/Valleau grid (to Line 5000N) easterly between Lines 5000E and 7000E.

There is a minor anomaly near the centre of the Kwanika Extension Grid, on the boundary between the Kwanika/Valleau and Valley Girl properties, consisting of anomalous concentrations of several elements in soil samples and a very strong chargeability response.

A small amount of trenching is recommended on the Kwanika Extension Grid to test the soil geochemistry and IP anomaly at grid location 6000E/4100N. Depending on the results of the trenching program, additional work such as pole-dipole induced polarization surveying and diamond drilling may be warranted.

2.0 INTRODUCTION

2.1 Exploration Target

The primary exploration target on this property is large tonnage low grade alkaline porphyry Au-Cu deposits of similar or better grade than the Mt. Milligan deposit. Secondary exploration target is moderate tonnage high grade Au-Cu-Zn sulphide deposits in fracture zones adjacent to or crosscutting Au-Cu porphyry mineralization.

2.2 Location and Access (Figure 1)

The Kwanika/Valleau property is situated 110 km north-northwest of Fort St. James, B.C., and 65 km northwest of the Mt. Milligan porphyry Au-Cu deposit.

Access is via helicopter from numerous bases in the area. Pacific Western Helicopters Ltd. operates a base at Tchentlo Lake Lodge, situated on the western end of Tchentlo Lake Lodge. The Kwanika/Valleau property is 36.5 km to the north-northeast from this base. In 1991 Westmin established an excavator access trail from the Germansen-Takla Landing road, near Twin Creek, through the Kwanika/Valleau property, to the western part of the VG 4 claim.

2.3 Topography

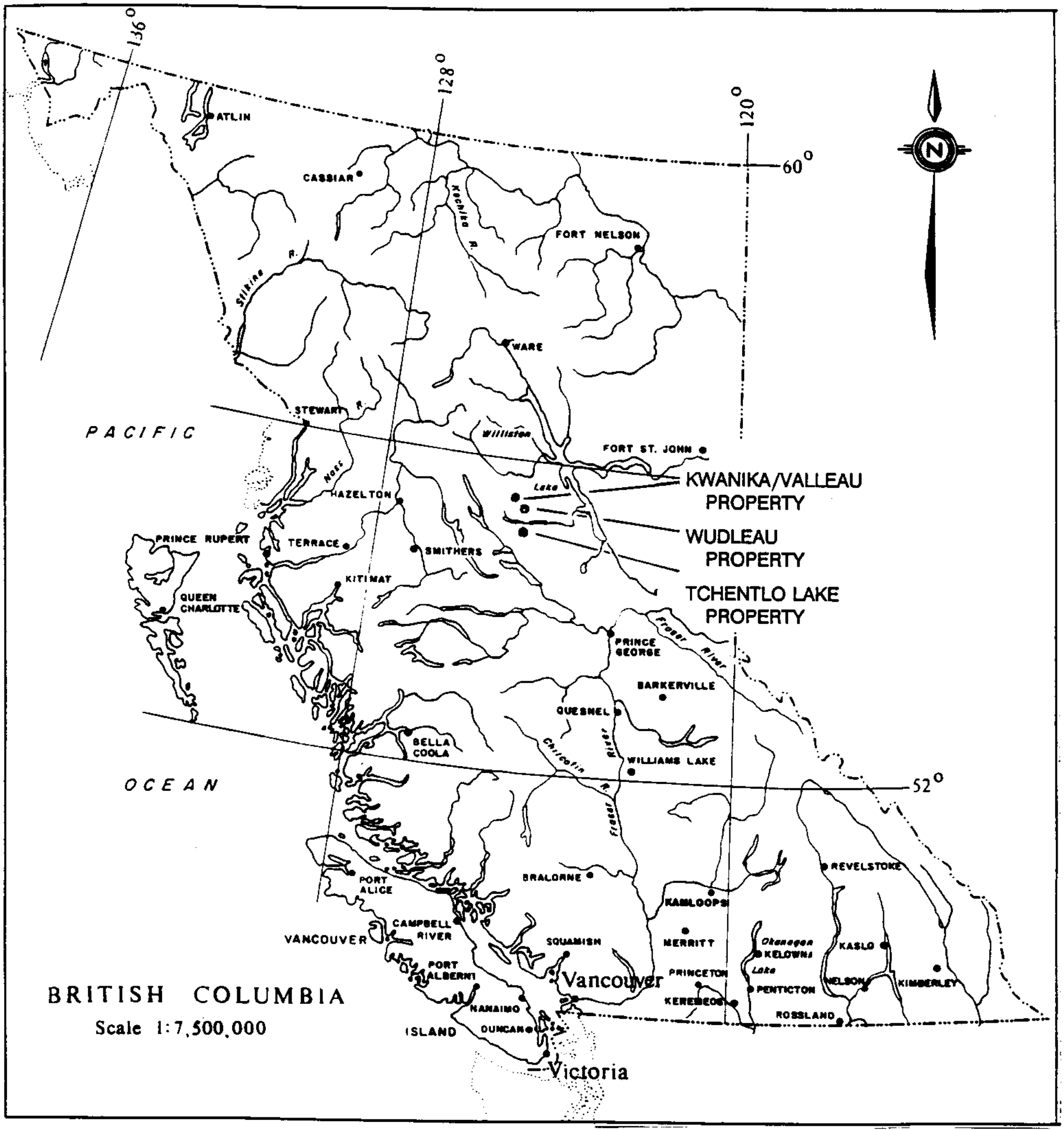
Topography varies from gently rolling to moderately steep, with elevations ranging from about 1150 m to 1,820 m. Most of the property is forest covered, consisting mainly of fir, balsam, pine and spruce, with alder in low lying, wet areas.

The area is extensively covered by thin to moderately thick glacial till, although outcrops are present, especially at higher elevations.

2.4 Exploration History

A minor amount of exploration was undertaken in the vicinity of Kwanika/Valleau prior to Westmin's staking of the property. The Valleau Creek drainage has been worked in the past for placer gold. It is summarized as follows:

1961, 1967, 1969	Regional scale airborne magnetics survey (lines spaced 0.5 miles apart) undertaken by Geological Survey of Canada, Department of Energy, Mines and Resources.
1971, 1972	Soil geochemical sampling of a 1,700 m by 3,660 m area of SAN and NIK claims (Cu, Mo, Zn), by Noranda Exploration Company Ltd. A 3,500+ m long northwest trending Cu soil geochemical anomaly was defined. The SAN and NIK claims (now lapsed) were located within what is now the northwest quarter of the Kwanika/Valleau property.
1978	Regional geological mapping (1:125,000 scale), by British Columbia Ministry of Mines and Petroleum Resources (Garnett, J.A., 1974).



Westmin Resources Limited
MINING DIVISION

Work By
R.W. Lane
Date Drafted
January, 1991
Drafted By
Date Revised
Revised By
N.T.S. Number

KWANIKA / VALLEAU PROPERTY

LOCATION MAP

0
200km
SCALE 1:7,500,000

Figure
1

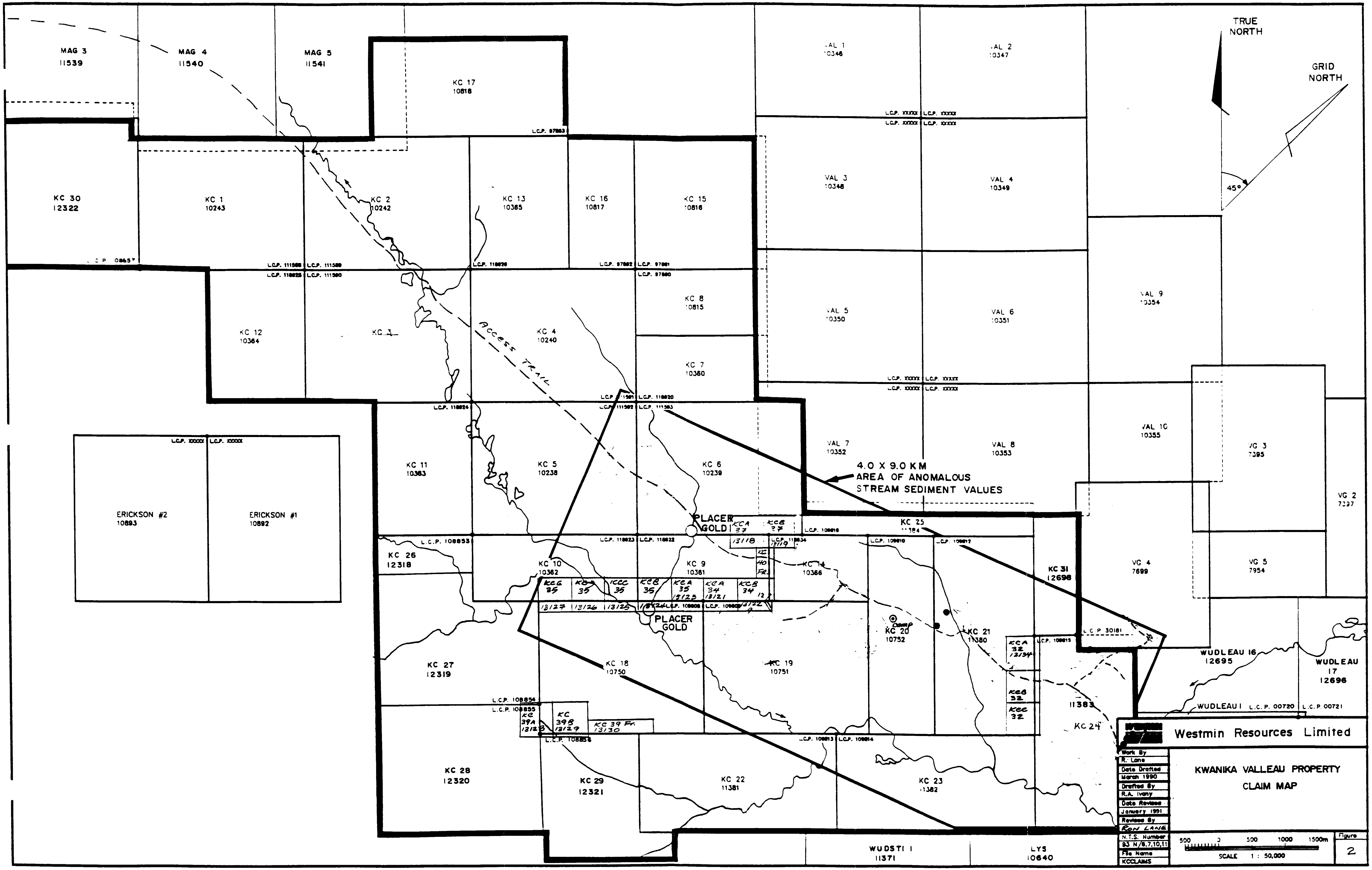
1983	Regional Stream Sediment and Water Geochemical Survey, Joint Canada/British Columbia program.
1984	Stream sediment and rock geochemical sampling (wide spaced, for Cu-Au) and geological mapping on Kwan 1 claims by B.P. Selco--assessment report by N. Humphries. A few anomalous Cu ± Au stream sediment values were defined. The Kwan 1 claim (now lapsed) plots within the northwest quarter of the Kwanika/Valleau property.
1989	Detailed airborne geophysics (Mag-VLF-HEM), stream, rock and soil geochemical sampling, and limited prospecting/geological mapping were undertaken by Westmin in 1989. This work identified several areas of anomalous response which merited followup.
1990	Detailed stream sediment and grid soil geochemical sampling were done in the southern half of the property by Westmin. This work defined additional areas of anomalous response as well as further refining existing anomalies.

In 1991 Westmin Resources Limited conducted an extensive, comprehensive exploration program on the Kwanika/Valleau property and the neighbouring Valley Girl property. This consisted of linecutting, induced polarization surveying, grid soil sampling, detailed geological mapping, excavator trenching and trench sampling and mapping.

The Kwanika/Valleau property is situated near several other properties currently being tested for porphyry Au-Cu deposits, including the neighbouring Wudleau (Westmin Resources Limited), Phil, Klawli (also Westmin Resources Limited), Chuchi and Col properties.

2.5 **Mineral Claims** (Figure 2)

The Kwanika/Valleau property is a 47 Claim (including fractions), 477 unit Au-Cu property which was acquired by staking and is 100% owned by Westmin Resources Limited. The property consists of the claims listed in the following table.



Westmin Resources Limited

KWANIKA VALLEAU PROPERTY
CLAIM MAP

Work By
R. Lane
Date Drafted
March 1990
Drafted By
R.A. Ivany
Date Revised
January 1991
Revised By
Ron Lane
N.T.S. Number
93 N/6,7,10,11
File Name
KCCLAIMS

500 0 500 1000 1500m
SCALE 1 : 50,000

Figure 2

Claim Name	Mineral Tenure	Units	Current Expiry Date
K.C. 1	240416	20	February 24, 1993
K.C. 2	240415	20	February 23, 1994
K.C. 3	240414	20	February 24, 1993
K.C. 4	240413	20	February 24, 1993
K.C. 5	240411	20	February 24, 1993
K.C. 6	240412	20	February 23, 1993
K.C. 7	240524	8	May 12, 1993
K.C. 8	240978	8	July 19, 1993
K.C. 9	240525	8	May 11, 1995
K.C. 10	240526	10	May 11, 1993
K.C. 11	240527	12	May 11, 1993
K.C. 12	240528	12	May 12, 1993
K.C. 13	240529	12	May 11, 1995
K.C. 14	240530	6	May 12, 1995
K.C. 15	240979	16	July 19, 1993
K.C. 16	240978	8	July 19, 1993
K.C. 17	240981	18	July 19, 1995
K.C. 18	240913	20	October 30, 1993
K.C. 19	240914	20	October 30, 1995
K.C. 20	240915	12	October 30, 1995
K.C. 21	241534	18	January 14, 1995
K.C. 22	241535	18	January 16, 1995
K.C. 23	241536	18	January 16, 1995
KC-24	241537	18	January 15, 1995
KC 25	241538	7	January 14, 1995
K.C. 26	242468	8	July 24, 1993
K.C. 27	242469	20	July 25, 1993
K.C. 28	242470	20	July 26, 1993
K.C. 29	242471	16	July 26, 1993
K.C. 30	242472	20	July 27, 1993
KC 31	242848	8	October 15, 1995
KCA-34	243271	1	March 26, 1995
KCB-35	243274	1	March 26, 1995
KCC-35	243275	1	March 26, 1995
KCD-35	243276	1	March 26, 1995
KCE-35	243277	1	March 26, 1995
KCA-37	243268	1	March 26, 1995
KCB-37	243269	1	March 26, 1995
KC-39A	243278	1	March 27, 1995
KC-39B	243279	1	March 27, 1995
KC-39 Fr.	243280	1	March 27, 1995
KC 40 Fr.	243270	1	March 26, 1995
KCA-32	243284	1	March 25, 1995
KCB-32	243285	1	March 25, 1995
KCC-32	243286	1	March 25, 1995
KCB 34	243272	1	March 26, 1995
KCA-35	243273	1	March 26, 1995
		477	

3.0 REGIONAL GEOLOGY (Figure 3)

The Kwanika/Valleau property is situated within the central portion of the Quesnel Trough, a 30 to 60 km wide by 1,300+ km long depositional basin which extends north-northwestward from the southern B.C. border (49th parallel) to the Stikine River in northern B.C. The boundaries of the trough are regional faults in some areas. For example, the Pinchi Fault, situated approximately 12 km west of the Kwanika/Valleau property, forms a portion of the western boundary of the trough.

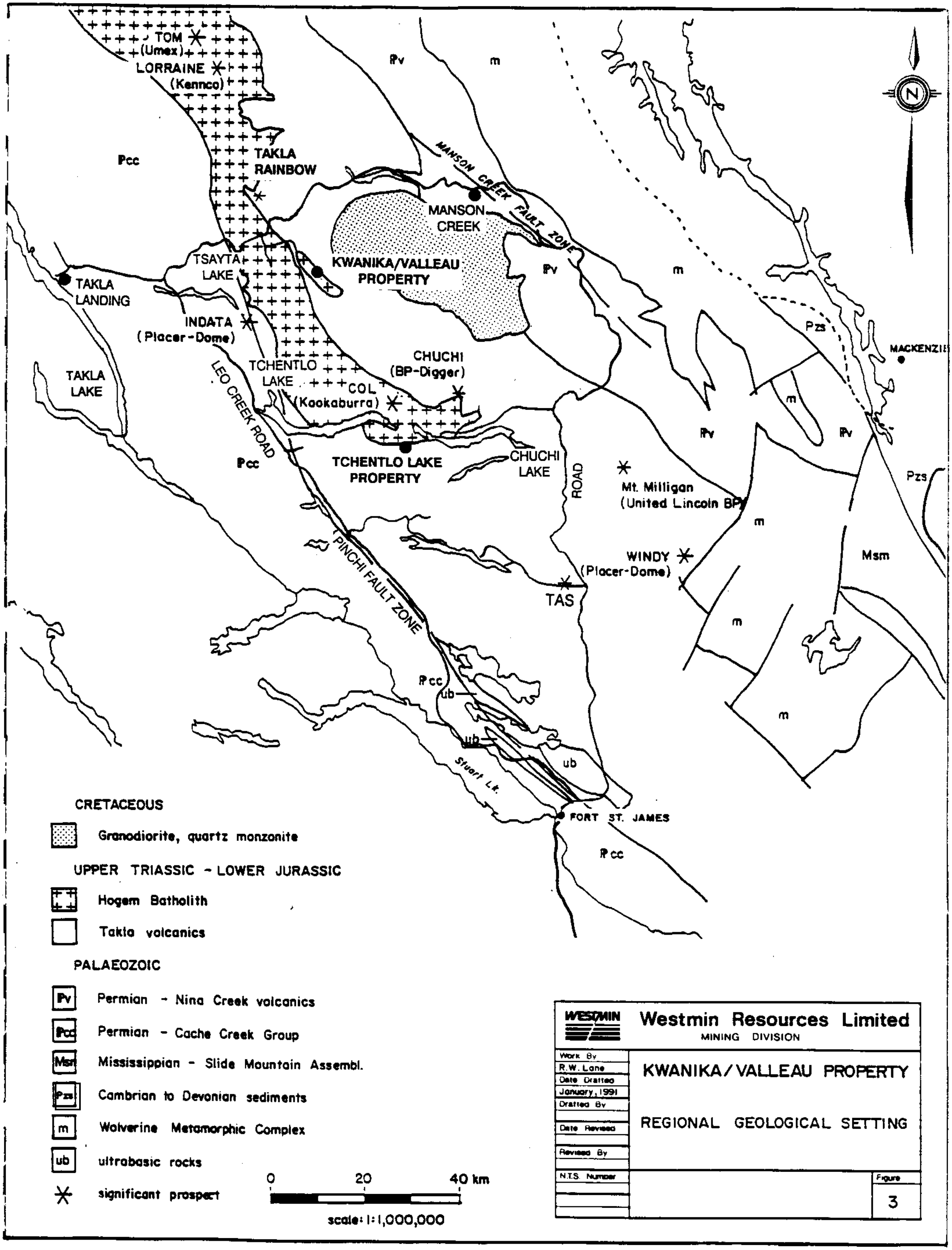
The trough contains an assemblage of alkalic and calc-alkalic volcanic and sedimentary rocks of Upper Triassic to Lower Jurassic age (Rossland, Nicola, Takla, Stuhini Groups), which are intruded by comagmatic plutons. The potential for porphyry Au-Cu deposits is considered to be quite good along the Quesnel Trough, especially in areas of well developed structural control. In the vicinity of the Kwanika/Valleau property comagmatic plutons form a portion of the Hogem Batholith. The Hogem intrusions range in composition from granite to monzonite to pyroxenite. The somewhat younger Lower Cretaceous, granite to K-spar megacrystic granodiorite of the Germansen Batholith occurs a few kilometres to the northeast and east of the Kwanika/Valleau property.

4.0 KWANIKA EXTENSION GRID

The Kwanika Extension Grid covered parts of the KC 24, 25 and 31 claims (Kwanika/Valleau property) and the southwest corner of the VG 4 claim (Valley Girl property option). The work done on the Kwanika Extension Grid included 6.65 km of linecutting, 16.6 km of induced polarization surveying, 127 soil samples taken at 100-m spacing along the cut and flagged lines, and geological mapping of areas of bedrock, as identified in the course of the soil sampling. The portion of this work which was done on the Kwanika/Valleau property includes 3.40 km of linecutting, 73 soil samples and 7.975 km of IP. In the course of geological mapping, 7 whole rock samples were taken.

4.1 Geological Mapping (Figure 4)

Bedrock exposure in the area of the Kwanika Extension Grid is poor, with the best exposures along Fox Creek in the north part of the grid, west of Line 5200E on the west edge of the grid, and immediately south of the grid in the Lines 6200E to 6600E area. The outcrops along Fox Creek are dominantly pyroxene porphyritic mafic volcanic rocks of the Witch Lake Formation (Unit 3a) of the Takla Group. There are aphyric mafic volcanic rocks (3d) and minor argillite (2a) units present as well. On the west side of the grid, the outcrop consists chiefly of aphyric and



WESTMIN

Westmin Resources Limited
MINING DIVISION

Work By R.W. Lane	KWANIKA / VALLEAU PROPERTY
Date Drafted January, 1991	
Drafted By	REGIONAL GEOLOGICAL SETTING
Date Revised	
Revised By	
N.T.S. Number	Figure 3

pyroxene porphyritic mafic volcanic rocks. At the south edge of the grid, there are several outcrops of gabbro (Unit 5a) with minor diorite (5d) and pyroxenite (5c) present. A small roadcut along the hoe trail established in 1991 has uncovered a tiny apophyse of gossanous weathering, altered monzonite (6b). The monzonite has trachytic texture and minor disseminated pyrite. Test pits done in 1991 near the centre of the Kwanika Extension Grid found mafic volcanic bedrock (3a, 3d), with local propylitic alteration. There is an outcrop of similar rocks just south of Test Pits 20 to 22, at 6050E to 6150E and 4000N to 4100N. Between Lines 6400E and 6600E, around 3600N to 3700N, there is an outcrop of gossanous weathering, sulphidic pyroxene porphyritic and agglomeratic mafic volcanic rock (3a, 3f). The sulphides are mostly disseminated pyrrhotite and pyrite, which occur pervasively and in fractures in the rock. Other than the presence of sulphides, there is no significant visual alteration in these rocks.

The geological mapping did not turn up any mineralized bedrock. Scattered, weakly carbonatized zones are exposed along Fox Creek, striking approximately 040°, with quartz-calcite veinlets and minor disseminated pyrite in the wall rock. These rocks were observed in the reconnaissance mapping in 1991 and samples from the zones did not give significant assay values. Rocks from Test Pit 8, at 5800E/4000N, contain significant propylitic alteration, and in addition, contain multiple stages of quartz-calcite veining. However, the rocks contain only minor pyrite and no visible chalcopyrite. A rock sample from Test Pit 8, containing multiple stages of veining and propylitic alteration, assayed 60 ppb Au and 300 ppm Cu. Prospecting in the area of Test Pits 10 and 8 turned up some interesting float. This includes an example of altered monzonite or diorite with abundant potassium feldspar alteration, quartz-carbonate(?) veining, and intense fracturing with 2% to 3% pyrite in the fractures.

4.2 **Soil Geochemistry** (Figures 5 and 6)

Soil samples were dug as deeply as possible, generally 30 to 50 cm, to try to obtain samples of unleached material, characterized by a greenish red-brown colour. The material sampled was generally glacial in origin, so interpretation of the soil geochemistry must be done with care. A soil survey on the Kwanika/Valleau property in 1991 demonstrated that in areas of relatively shallow overburden, less than 5 m depth, there is good spatial correlation between Au, and to a lesser extent Cu, anomalies in the soils and underlying mineralized bedrock. Consequently, it was assumed that there is some transfer of the metals to surface through the glacial overburden, even compact, clay-rich till. In areas of deeper overburden, there may be a component of down-ice movement of the surficial material to be considered, with coincident dilution of the metal concentrations. The spurious nature of geochemical values in samples from the 1991 survey taken in glacio-fluvial material makes interpretation of these samples impossible. Areas which are covered with thick glacio-fluvial material (e.g. outwash or esker material) were not sampled in this program. As a result the lines on the east side of the grid, towards Valleau Creek, have few soil samples.

Results from the soil sampling survey on the Kwanika Extension Grid are generally weak. The only multiple element, coincident anomaly occurs approximately from Lines 5800E to 6400E, between Stations 3900N and 4300N. This area has a weak, but well defined anomaly in As, Pb and Cu, with a weaker response in Zn and Mo. Au values are not apparently elevated in this area. In general, Au and Cu values are quite scattered on the Kwanika Extension Grid with no strong, defined anomalies for either element.

4.3 **Induced Polarization Survey** (Figures 7 and 8)

On the Kwanika Extension Grid, the IP survey defined a large area of highly chargeable, weakly resistive bedrock. This area represents chargeabilities of greater than 15 milliseconds, about equivalent to the response of mineralized zones covered by the 1991 survey on the Kwanika/Valleau property. Chargeability values within the area are as high as 40 milliseconds. The widespread nature of the chargeability response may indicate a rock-type related phenomenon, rather than a mineralized area of bedrock. In fact, volcanic outcrops within the area of highest chargeability response are apparently unmineralized, and only weakly altered, if at all. Carbonaceous argillite may be the cause of the high response near Fox Creek, but only in a restricted area. Otherwise, there does not seem to be a cause for the IP anomaly in the bedrock, such as concentrations of magnetite or ilmenite, in the surface exposures of bedrock.

Within the area of high chargeability, there are a few small anomalies. The most defined anomaly is located on Lines 5800E to 6400E, between Stations 3900N and 4300N. The anomaly straddles the boundary between the KC 24 and VG 4 claims. This corresponds to the area of apparently unmineralized bedrock described in the paragraph above.

4.4 Conclusion

Although there were no new areas of mineralized bedrock located in the Kwanika Extension Grid area, there are several examples of mineralized float which is encouraging. An explanation for the strong chargeability in the bedrock over a wide area is not obvious. Given the poor outcrop exposure in the area, there may be some potential for a buried zone of mineralization.

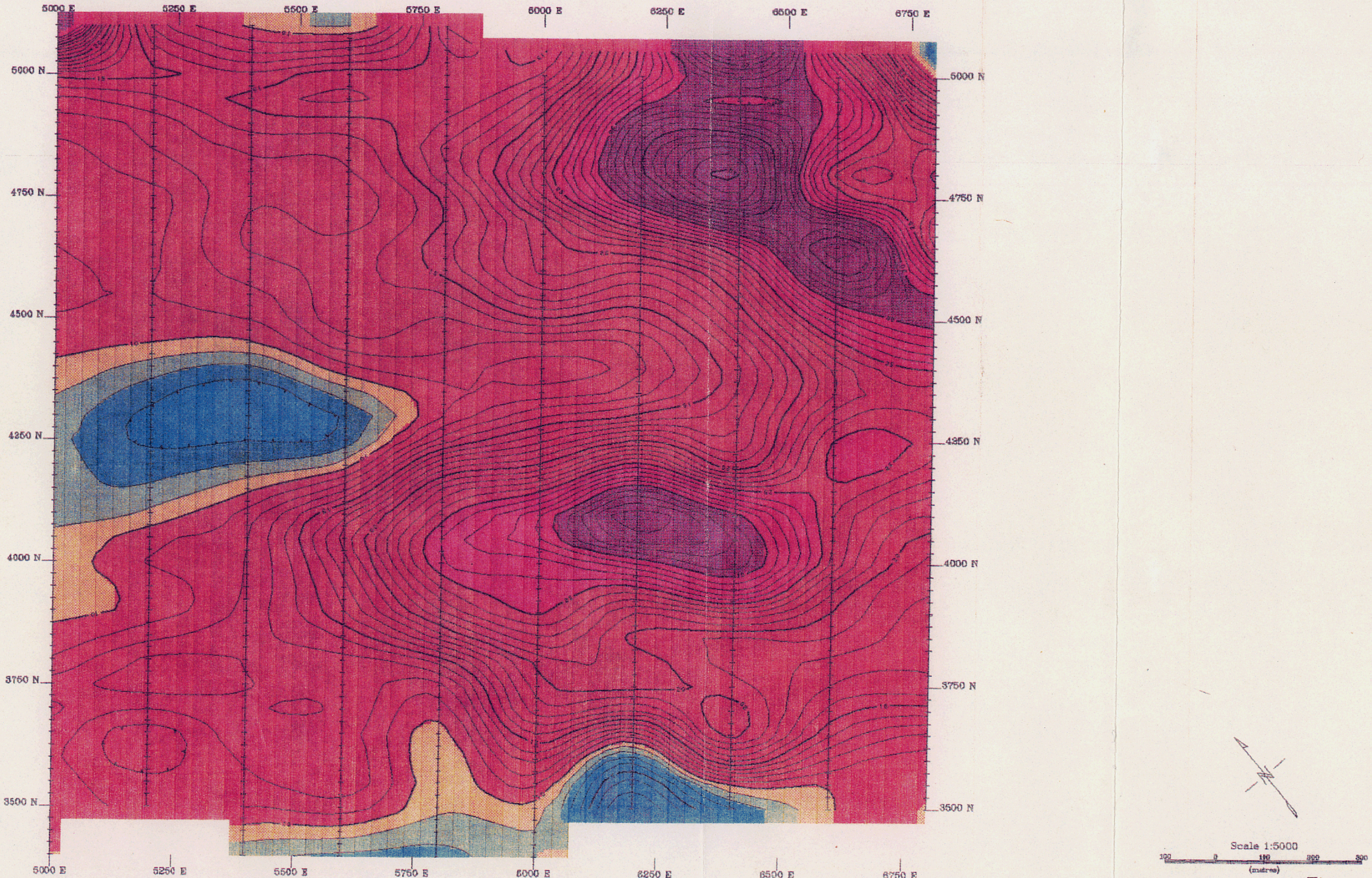


Figure 7

WESTMIN RESOURCES/KWANIKA EXTENSIONS

CHARGEABILITY PLAN
Nominal AB= 1400m

Contour interval 1 mV/V
BRGM Instruments
June 1992

Delta Geoscience

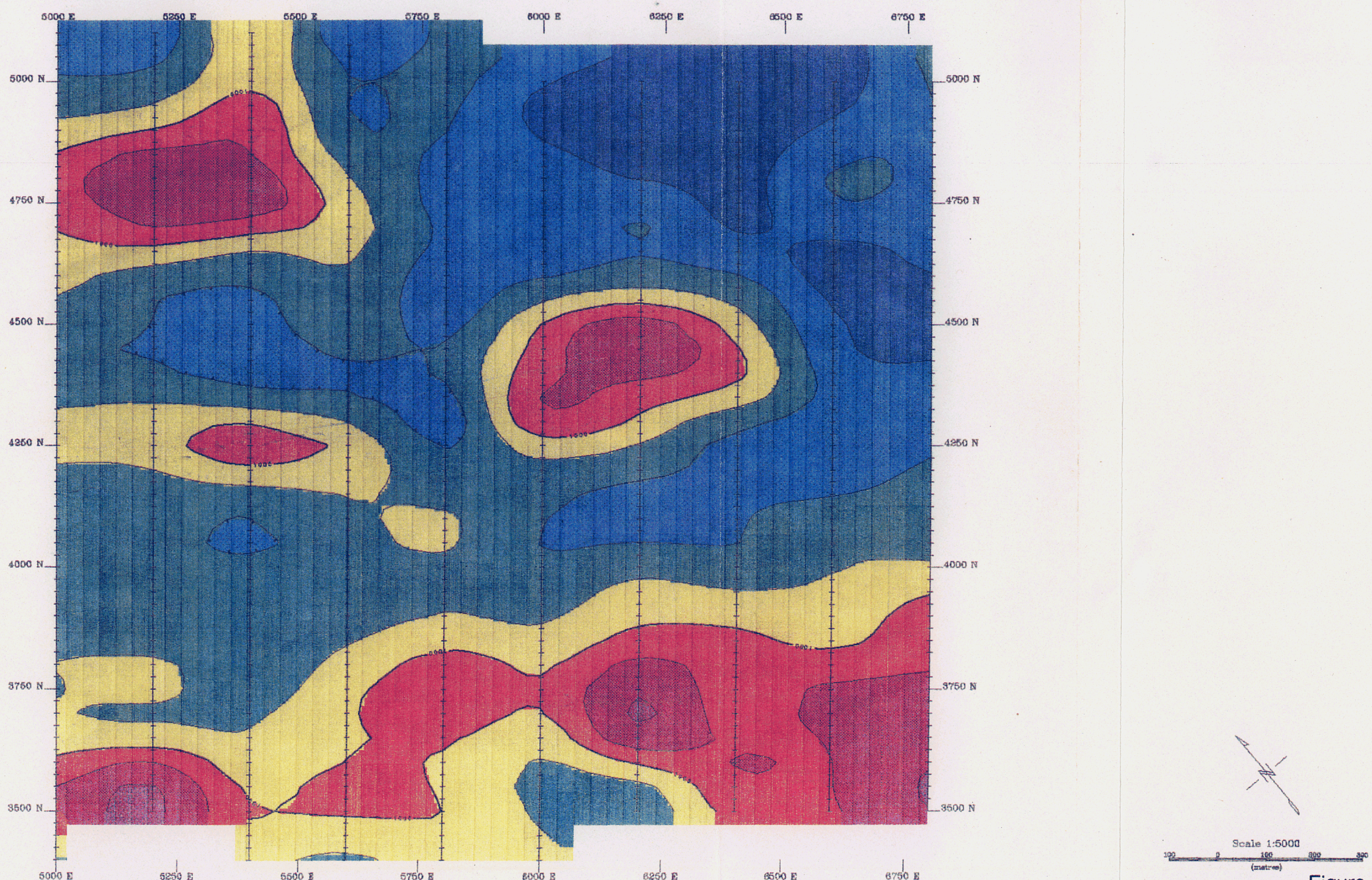


Figure 8

WESTMIN RESOURCES/KWANIKA EXTENSION

RESISTIVITY PLAN
Nominal AB= 1400m

Contour interval 200 ohm-m
BRGM Instruments
June 1992

Delta Geoscience

There is a coincident soil geochemistry and induced polarization (chargeability) anomaly located on Lines 5800E to 6400E, roughly between Stations 3900N and 4300N. Although mapping has indicated that bedrock in this area is not mineralized or strongly altered, there is evidence of alteration and mineralization immediately to the west of this anomaly, both in bedrock (Test Pits 8 and 10) and in float (Test Pit 16). The presence of an apophyse of monzonite a few hundred metres to the south adds to the attractiveness of this anomaly. The potential for buried mineralization in this area cannot be ruled out. The anomaly may represent the extension of a porphyry-style alteration and mineralization system observed a few kilometres to the southwest on the Kwanika/Valleau property.

5.0 RECOMMENDATIONS

Further work should be done on the Kwanika Extension Grid. A small amount of trenching in the area of the soil and IP anomaly, centred around Line 6000E/4100N, should give a clearer idea of the potential there. Additionally, a pole-dipole IP survey in this area would allow a more detailed interpetation for the IP anomaly located with the gradient survey. The pole-dipole array may show whether or not there is buried mineralization, not necessarily reflected in the outcrops observed to date. Depending on the results of the trenching and pole-dipole IP survey, the next step would be diamond drilling in the most promising areas.

6.0 STATEMENT OF EXPENDITURES

Field Costs		
Mapping		
Murray Jones, 3 days at $225 per day	$ 675	
Colin Russell, 3 days at $165 per day	495	
	1,170 (0.5)	$ 585
Soil Sampling		
Murray Jones, 4 days at $225 per day	900	
Colin, Russell, 3 days at $165 per day	495	
Martin Zahorec, 2 days at $125 per day	250	
	1,645 (0.5)	823
IP survey (Delta Geophysics)		
5 days at $1,450 per day (0.5)	3,625	
Mob-demob, 0.20 x $4,100	820	
	4,445	4,445
Linecutting		
0.2 x $17,500		3,500
Soil samples		
73 samples at $13 per sample		949
Rock samples		
Whole rocks, 7 at $42.85 each		300
Total field costs		**10,602**

Non-Field Office/Travel Costs		
Time		
Preparation		
Murray Jones, 2 days at $225 per day		450
Martin Zahorec, 1 day at $125 per day		125
Report		
Murray Jones, 2 days at $225 per day		450
Drafting		
8.5 hours at $35 per hour		298
		1,323
Travel Time		
Mob to Tchentlo		
Martin Zahorec, 2 days at $125 per day	250	
Colin Russell, 1 day at $165	165	
	415 (0.2)	83
Camp Mob/Setup		
Murray Jones, 3 days at $225 per day	675	
Colin Russell, 3 days at $165 per day	495	
Martin Zahorec, 3 days at $125 per day	375	
	1,545 (0.2)	309
Camp Breakdown		
Murray Jones, 1 day at $225 per day	225	
Colin Russell, 3 days at $165 per day	495	
Martin Zahorec, 4 days at $125 per day	500	
	1,220 (0.2)	244
Demob to Vancouver		
Colin Russell, 1 day at $165 per day	165	
Martin Zahorec, 2 days at $125 per day	250	
	415 (0.2)	83
Total non-field office/travel costs		**2,042**

Project Costs		
Charters		
Fixed wing		374
Helicopter		3,170
		3,544
Other		
Cook, 27 days at $175 per day (0.2)		945
Camp expense		1,573
Materials/supplies		156
Fuel for Camp (0.5 x $316 because of second trip for 4-Trac)		180
Meals		68
Travel costs		294
Automotive rental		675
Telecommunications		17
Equipment rental, $823 (0.2)		165
Maps and reports		95
		4,168
Total project costs		**7,712**
Total expenditures		**$20,355**

7.0 STATEMENT OF QUALIFICATIONS

I, Murray I. Jones, of the District of North Vancouver, in the Province of British Columbia, hereby certify that:

1. I am a geologist residing at 1240 Shavington Street, North Vancouver, British Columbia with a business address at Suite 904, 1055 Dunsmuir Street, P.O. Box 49066, The Bentall Centre, Vancouver, British Columbia, V7X 1C4.

2. I graduated with a B.Sc. (Honours) in Geology from the University of British Columbia, Vancouver, B.C. in 1982 and with a M.Sc. in Geology from the University of Ottawa in 1992.

3. I am an associate member of the Geological Association of Canada.

4. I have practised geology in Canada from 1979 to 1992.

DATED this 28th day of January, 1993 at Vancouver, British Columbia.

Murray Jones

Murray I. Jones, M.Sc.

APPENDIX A

SOIL SAMPLING GEOCHEMICAL RESULTS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Westmin Mines Ltd. (Van) PROJECT KWANIKA PN#6202 File # 92-1855 Page 1

Box 49066 The Bentall Cen, Vancouver BC V7X 1C4 Submitted by: Murray I. Jones

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
L5000E 5000N	2	96	6	91	.4	45	17	371	4.03	3	5	ND	2	44	.2	2	2	78	.36	.083	9	66	1.40	52	.18	3	2.35	.03	.04	2	12
L5000E 4900N	1	79	2	81	.1	13	18	464	5.91	2	5	ND	1	50	.2	2	2	154	.40	.068	3	23	1.53	72	.27	2	2.75	.02	.11	1	8
RE L5000E 4500N	1	73	2	89	.2	22	22	663	5.21	2	5	ND	1	59	.2	2	2	117	.72	.062	5	38	1.86	88	.20	3	2.86	.03	.15	1	12
L5000E 4800N	2	113	5	66	.1	16	17	404	4.57	2	5	ND	1	46	.2	2	2	103	.48	.088	5	27	1.51	41	.17	3	2.82	.02	.03	1	12
L5000E 4700N	1	83	2	98	.1	37	31	870	5.82	2	5	ND	1	67	.2	2	2	135	1.20	.130	5	82	2.45	87	.19	2	2.67	.02	.20	1	9
L5000E 4600N	1	134	4	96	.3	28	23	662	5.17	6	5	ND	3	50	.4	2	2	110	.54	.074	8	39	1.75	112	.19	4	3.11	.03	.16	1	15
L5000E 4500N	1	74	2	86	.3	23	21	647	5.01	2	6	ND	1	57	.2	2	2	113	.71	.061	6	38	1.83	86	.19	4	2.76	.03	.15	1	10
L5000E 4400N	1	107	2	114	.1	17	29	1250	5.51	2	5	ND	1	83	.2	2	2	135	1.20	.072	4	18	2.57	112	.28	2	3.05	.03	.17	1	8
L5000E 4300N	1	290	2	100	1.3	10	18	1116	3.26	2	5	ND	1	116	.2	2	2	84	2.10	.110	8	16	1.05	193	.10	3	2.27	.02	.17	1	9
L5000E 4200N	1	138	2	107	.4	13	34	881	3.66	2	5	ND	1	58	.2	2	2	124	.92	.041	5	8	2.11	49	.30	5	2.60	.02	.09	1	7
L5000E 4100N	1	105	2	98	.1	22	28	577	5.47	2	5	ND	1	57	.2	2	2	134	.76	.084	4	33	2.00	87	.25	3	2.95	.02	.14	1	7
L5000E 4000N	2	83	4	71	.2	16	17	402	5.12	2	5	ND	1	51	.2	2	2	111	.34	.144	7	44	1.19	53	.16	4	2.60	.03	.10	1	21
L5000E 3900N	1	278	2	109	.1	16	34	612	5.21	2	5	ND	1	61	.2	2	2	149	.61	.065	2	11	2.64	91	.31	3	3.27	.02	.41	1	6
L5000E 3800N	1	115	5	70	.1	19	22	478	5.72	2	5	ND	1	62	.2	2	2	119	.51	.136	6	48	1.44	65	.17	2	2.58	.02	.11	1	32
L5000E 3700N	1	51	2	109	.1	10	13	374	4.81	2	5	ND	1	57	.2	2	2	104	.42	.194	4	16	.95	49	.19	2	2.34	.02	.03	1	8
L5000E 3600N	1	24	5	48	.3	11	9	302	3.38	2	5	ND	1	56	.2	2	2	92	.43	.071	4	35	.85	55	.19	2	1.89	.02	.06	1	10
L5000E 3500N	1	107	3	95	.3	23	27	669	5.82	4	5	ND	1	49	.2	2	2	125	.58	.135	6	64	1.61	50	.16	2	2.46	.02	.10	1	14
L5000E 3400N	1	128	2	64	.2	16	14	425	4.35	2	5	ND	1	53	.2	2	2	92	.50	.105	8	61	1.16	51	.12	3	2.30	.02	.13	1	42
L5200E 5000N	1	200	2	66	.4	26	25	696	5.55	5	5	ND	3	55	.2	2	2	104	.58	.103	12	77	1.31	83	.12	2	2.43	.02	.18	1	57
L5200E 4900N	1	261	2	71	.1	16	18	558	4.33	2	5	ND	1	50	.2	2	2	101	.51	.033	5	32	1.40	75	.21	2	2.52	.02	.05	1	15
L5200E 4800N	2	62	2	63	.1	17	14	340	4.63	2	5	ND	1	36	.2	2	3	91	.28	.106	5	48	1.07	48	.16	2	2.79	.02	.05	1	11
L5200E 4700N	1	104	2	94	.1	18	20	959	6.38	2	5	ND	1	62	.2	2	2	159	.73	.062	3	29	2.02	122	.28	2	2.74	.02	.09	1	14
L5200E 4600N	1	43	4	65	.1	14	12	309	4.68	2	5	ND	2	41	.2	2	3	108	.29	.097	5	31	1.02	73	.21	3	2.68	.02	.08	1	6
L5200E 4500N	1	91	2	71	.1	23	18	447	4.65	2	5	ND	3	45	.2	2	2	96	.34	.067	6	40	1.41	78	.19	2	2.98	.02	.11	1	12
L5200E 4400N	1	101	2	99	.1	14	25	716	4.47	2	5	ND	1	76	.2	2	2	105	1.15	.055	3	18	1.88	117	.24	2	2.50	.02	.16	1	10
L5200E 4300N	1	416	3	106	.1	21	28	1154	5.15	3	5	ND	1	57	.2	2	2	148	.93	.036	7	26	1.76	115	.25	2	2.94	.02	.10	1	11
L5200E 4200N	1	101	2	87	.1	20	28	575	5.23	2	5	ND	1	55	.2	2	2	126	.60	.092	3	39	2.22	123	.27	2	2.97	.02	.25	1	11
L5200E 4100N	1	49	2	92	.1	10	24	506	3.79	2	5	ND	1	49	.2	2	2	126	.62	.036	2	6	2.04	58	.34	2	2.46	.02	.20	1	5
L5200E 4000N	1	139	2	67	.1	19	23	610	5.41	4	5	ND	2	57	.2	2	2	103	.45	.144	7	46	1.27	52	.14	3	2.54	.03	.11	1	48
L5200E 3900N	1	95	2	53	.1	13	14	478	3.96	2	5	ND	1	50	.2	2	2	81	.52	.115	8	45	1.04	39	.13	2	1.73	.02	.07	1	77
L5200E 3800N	1	118	2	85	.1	24	23	644	5.14	2	5	ND	1	58	.2	2	2	103	.58	.085	5	45	1.65	70	.14	2	2.89	.02	.19	1	42
L5200E 3700N	1	56	2	73	.1	18	18	688	4.88	2	5	ND	1	64	.2	2	3	101	.71	.175	7	52	1.21	57	.11	2	1.96	.02	.14	1	41
L5200E 3600N	1	89	2	57	.1	21	14	401	4.25	2	5	ND	2	55	.2	2	3	84	.81	.148	11	64	1.23	75	.10	2	2.05	.02	.06	1	19
L5200E 3500N	1	74	4	63	.1	21	14	590	4.10	4	5	ND	1	56	.2	2	2	88	.63	.100	8	49	1.25	48	.15	3	1.90	.03	.07	1	19
L5200E 3400N	1	101	2	66	.1	20	18	695	5.20	3	5	ND	1	65	.2	2	2	100	.88	.155	9	66	1.33	56	.11	2	1.72	.02	.15	1	43
L5400E 5000N	1	93	2	83	.1	20	22	501	4.98	2	5	ND	1	48	.2	2	4	107	.46	.112	5	36	1.69	110	.24	2	2.67	.02	.21	1	15
L5400E 4900N	1	80	3	69	.1	24	18	497	4.60	5	5	ND	1	47	.2	2	5	95	.45	.075	6	48	1.40	68	.15	3	2.69	.02	.11	1	4
STANDARD C/AU-S	18	58	38	134	6.9	72	30	1033	3.97	38	21	6	36	52	17.7	18	20	55	.48	.090	35	58	.88	178	.09	34	1.91	.08	.14	11	52

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU** ANALYSIS BY FA/ICP FROM 30 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 10 1992 **DATE REPORT MAILED:** July 21/92 **SIGNED BY**.......D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
L5400E 4800N	1	135	2	62	.2	21	18	437	4.72	2	5	ND	1	48	.2	2	2	100	.43	.047	4	37	1.39	71	.21	4	2.70	.02	.06	1	15
L5400E 4700N	1	81	2	73	.1	22	20	550	4.79	2	5	ND	1	57	.2	2	2	94	.39	.116	5	36	1.62	48	.17	4	2.92	.02	.07	1	16
L5400E 4600N	1	80	3	83	.1	16	19	508	5.31	2	5	ND	1	46	.2	2	2	114	.48	.105	5	25	1.73	74	.20	3	3.19	.02	.19	1	43
L5400E 4500N	1	89	2	74	.1	18	17	497	5.43	2	5	ND	1	51	.2	2	2	109	.47	.112	5	32	1.45	67	.18	5	2.91	.02	.16	1	13
L5400E 4400N	1	115	2	88	.1	23	20	596	5.41	2	5	ND	1	56	.2	2	2	102	.52	.099	6	36	1.65	70	.18	3	3.33	.03	.17	1	14
L5400E 4300N	1	85	2	81	.3	26	20	882	4.71	4	5	ND	2	54	.2	2	2	92	.62	.096	7	47	1.55	83	.15	4	2.65	.04	.16	1	13
L5400E 4200N	1	89	2	101	.1	21	24	621	5.52	2	5	ND	1	61	.2	2	2	122	.62	.063	4	30	1.85	129	.21	4	3.40	.02	.28	1	9
L5400E 4100N	1	102	2	67	.1	21	19	495	5.00	4	5	ND	4	51	.2	2	2	96	.37	.114	6	47	1.28	55	.16	4	2.71	.03	.10	1	39
L5400E 4000N	1	75	2	79	.1	27	18	526	5.09	2	5	ND	1	55	.2	2	2	97	.49	.132	6	57	1.28	63	.12	4	2.91	.03	.10	1	11
L5400E 3900N	1	88	2	85	.3	25	18	764	4.96	5	5	ND	1	63	.2	3	2	102	.62	.086	7	51	1.38	93	.12	3	2.74	.04	.15	1	22
L5400E 3800N	1	132	2	78	.1	24	23	857	5.54	3	5	ND	1	71	.2	2	3	112	.82	.158	9	66	1.45	71	.13	3	2.50	.03	.23	1	26
L5400E 3700N	1	131	2	73	.1	25	23	656	5.76	4	5	ND	2	57	.2	2	2	108	.53	.158	8	65	1.57	44	.16	4	2.75	.03	.16	1	67
L5400E 3600N	1	78	2	71	.1	20	16	395	3.63	2	5	ND	1	48	.2	2	2	98	.48	.100	6	56	1.32	36	.13	2	2.57	.02	.19	1	34
L5400E 3500N	1	139	2	103	.1	17	18	595	5.93	2	5	ND	1	37	.2	2	2	97	.41	.213	7	47	1.25	40	.08	2	2.80	.01	.08	1	83
L5600E 4800N	1	87	2	75	.2	25	21	598	5.68	3	5	ND	2	40	.2	2	4	110	.44	.115	6	46	1.42	65	.17	3	3.30	.02	.14	1	27
L5600E 4700N	1	70	2	51	.1	22	17	460	4.28	3	5	ND	2	42	.2	2	3	86	.39	.082	6	46	1.14	65	.16	3	2.27	.02	.07	1	12
L5600E 4600N	1	65	2	71	.2	17	17	422	4.72	2	5	ND	2	44	.2	2	2	96	.32	.126	5	34	1.22	42	.18	5	2.92	.02	.08	1	13
L5600E 4500N	1	69	2	76	.1	16	19	418	4.84	2	5	ND	2	54	.4	2	2	106	.47	.164	6	31	1.32	50	.17	3	2.78	.02	.10	1	87
L5600E 4400N	1	58	3	58	.3	17	16	391	4.22	2	5	ND	2	58	.2	2	2	91	.42	.101	7	38	1.15	56	.17	3	2.33	.03	.11	1	16
L5600E 4300N	1	67	2	103	.1	17	22	514	5.68	2	5	ND	1	57	.2	2	2	121	.54	.157	4	25	1.75	109	.20	3	2.90	.03	.23	1	15
RE L5600E 4500N	1	70	2	75	.1	14	18	402	4.80	2	5	ND	1	56	.2	2	2	107	.47	.163	5	29	1.32	51	.18	4	2.75	.02	.08	1	151
L5600E 4200N	1	72	2	91	.1	29	21	636	6.02	4	5	ND	1	45	.2	2	2	104	.41	.129	6	47	1.48	83	.10	4	3.30	.02	.11	1	15
L5600E 4000N	1	108	3	52	.3	20	16	451	5.16	6	5	ND	3	58	.2	3	2	95	.51	.171	8	60	1.13	35	.14	3	2.31	.02	.12	1	40
L5600E 3900N	1	122	2	55	.1	20	20	649	4.97	3	5	ND	1	59	.2	2	2	101	.64	.148	8	63	1.45	28	.17	3	2.01	.02	.16	1	26
L5600E 3800N	1	126	2	57	.1	19	17	526	4.80	7	5	ND	1	54	.2	2	2	101	.63	.154	7	57	1.43	29	.16	5	2.38	.02	.15	1	22
L5600E 3700N	1	76	4	58	.1	20	17	443	4.11	2	5	ND	1	58	.2	2	2	96	.58	.106	6	59	1.44	34	.20	4	2.29	.03	.11	1	16
L5600E 3600N	1	78	2	49	.1	18	16	543	4.27	3	5	ND	1	61	.2	2	2	87	.67	.139	8	61	1.09	39	.15	3	1.61	.04	.10	1	19
L5800E 5000N	1	120	2	92	.1	26	27	579	5.72	2	5	ND	1	52	.2	2	2	125	.51	.140	4	31	1.92	70	.20	3	3.20	.03	.14	1	12
L5800E 4900N	1	121	5	76	.3	37	14	341	4.08	3	5	ND	2	56	.2	2	2	88	.45	.048	10	47	1.04	66	.13	3	2.30	.03	.06	1	24
L5800E 4800N	1	97	3	81	.1	29	23	861	4.92	5	5	ND	1	53	.2	2	2	97	.69	.119	8	49	1.51	79	.14	4	2.30	.04	.15	1	19
L5800E 4700N	1	81	2	70	.1	23	21	800	4.57	3	5	ND	1	59	.2	2	2	100	.67	.086	7	46	1.51	81	.19	3	2.15	.04	.14	1	10
L5800E 4600N	1	104	2	73	.1	23	21	597	4.68	2	5	ND	2	52	.2	2	2	95	.46	.096	7	40	1.43	71	.17	4	2.59	.02	.14	1	25
L5800E 4500N	1	79	2	66	.2	24	18	589	4.66	2	5	ND	1	55	.2	2	2	91	.55	.094	8	46	1.29	62	.13	3	2.22	.02	.10	1	42
L5800E 4400N	1	116	3	82	.1	26	21	805	5.08	3	5	ND	1	62	.2	2	2	101	.69	.104	7	50	1.36	86	.11	5	2.52	.03	.14	1	15
L5800E 4300N	1	41	2	64	.2	19	17	505	4.64	5	5	ND	1	59	.2	4	2	100	.83	.117	7	58	1.43	35	.15	4	1.75	.02	.09	1	20
L5800E 4200N	1	101	4	80	.1	20	21	546	5.17	5	5	ND	1	50	.2	2	2	102	.58	.128	7	55	1.46	36	.15	2	2.53	.02	.13	1	26
L5800E 4100N	1	92	2	73	.1	28	22	745	6.65	17	5	ND	1	31	.2	6	2	146	.42	.080	5	74	2.45	27	.18	3	3.21	.02	.10	1	13
STANDARD C/AU-S	17	58	38	132	6.7	74	32	1084	4.00	40	17	7	39	54	18.8	14	19	58	.49	.091	38	58	.89	181	.09	35	1.93	.08	.15	11	51

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
L5800E 4000N	1	55	2	64	.1	17	16	405	5.54	6	5	ND	1	54	.2	2	2	99	.49	.132	5	56	1.18	38	.14	5	1.99	.02	.10	2	18
L5800E 3900N	1	65	2	53	.1	19	17	600	4.56	2	5	ND	1	61	.2	2	2	90	.94	.148	7	71	1.18	44	.12	5	1.44	.03	.15	2	52
L5800E 3800N	1	36	2	77	.1	21	21	499	4.58	5	5	ND	2	56	.2	3	2	116	1.12	.203	7	52	1.69	31	.18	4	1.86	.02	.10	1	11
L5800E 3700N	1	50	2	57	.1	19	17	519	4.65	2	5	ND	1	65	.2	2	2	96	.89	.154	7	76	1.27	54	.13	4	1.68	.02	.16	1	12
L5800E 3600N	1	56	2	53	.1	19	16	578	4.31	3	5	ND	2	60	.2	2	2	93	.91	.170	8	68	1.24	54	.13	5	1.45	.02	.17	1	11
L5800E 3500N	1	95	2	86	.1	26	23	505	5.41	3	9	ND	3	69	.2	2	2	112	.93	.137	9	76	1.23	98	.13	5	2.29	.02	.24	1	11
L5800E 3400N	1	56	2	76	.1	18	14	455	4.29	2	5	ND	1	63	.2	2	2	82	.89	.168	9	63	.99	57	.09	4	1.66	.02	.15	1	15
L6000E 5000N	1	49	2	64	.1	20	13	340	3.83	5	5	ND	2	31	.2	2	2	78	.30	.077	5	44	.86	59	.11	4	1.97	.02	.06	1	11
L6000E 4900N	1	49	2	56	.1	17	12	308	4.21	4	5	ND	2	36	.2	6	2	87	.38	.107	6	41	.87	77	.12	5	1.61	.01	.07	2	6
L6000E 4800N	1	60	2	61	.1	20	20	1177	4.22	2	5	ND	1	40	.2	2	2	85	.40	.076	5	49	1.13	84	.09	5	1.88	.02	.10	1	12
L6000E 4400N	1	52	2	66	.1	16	15	376	4.84	7	5	ND	1	48	.2	3	2	101	.49	.078	5	48	1.22	38	.17	7	1.96	.02	.06	1	26
L6000E 4300N	1	53	2	67	.1	17	14	343	5.58	9	5	ND	1	39	.2	3	2	108	.37	.149	5	53	1.15	36	.11	4	2.18	.02	.06	2	16
L6000E 4200N	2	55	4	70	.4	19	18	396	6.23	20	7	ND	2	38	.2	6	3	111	.45	.077	5	46	1.24	34	.15	4	2.30	.02	.06	2	10
L6000E 4100N	1	57	2	61	.1	47	22	412	4.46	10	5	ND	1	33	.2	2	2	76	.50	.082	3	148	1.61	36	.13	5	2.09	.03	.06	1	5
L6000E 4000N	1	61	2	73	.1	22	20	413	5.16	5	5	ND	1	47	.2	2	2	103	.38	.121	5	67	1.22	45	.15	3	2.26	.02	.12	1	24
L6000E 3900N	1	104	2	78	.3	19	21	436	5.18	2	7	ND	2	37	.2	3	2	109	.45	.138	6	68	1.41	32	.20	3	2.08	.02	.29	1	35
L6000E 3800N	1	59	2	58	.2	22	17	395	4.07	3	6	ND	3	45	.5	3	2	91	.45	.131	7	80	1.08	46	.17	4	1.84	.02	.15	1	18
L6000E 3700N	1	62	2	58	.1	18	15	332	5.16	2	5	ND	1	46	.2	2	3	102	.41	.174	6	63	.99	43	.15	3	2.26	.02	.08	1	14
L6000E 3500N	1	76	3	62	.1	20	16	482	4.74	3	5	ND	1	55	.2	4	2	96	.51	.144	7	62	1.04	51	.15	7	2.21	.02	.13	2	53
L6000E 3400N	1	15	5	37	.1	9	7	195	3.65	2	5	ND	1	40	.2	2	2	101	.28	.099	6	35	.53	40	.18	5	1.64	.02	.04	1	21
L6200E 5000N	1	92	3	120	.1	36	20	413	4.95	10	5	ND	3	35	.2	4	2	90	.31	.064	8	53	1.03	110	.12	4	3.01	.02	.08	1	37
L6200E 4900N	1	99	3	92	.2	29	22	498	5.12	10	5	ND	2	36	.2	8	2	97	.34	.145	6	47	1.40	55	.15	6	2.97	.02	.06	3	9
L6200E 4800N	1	87	2	109	.1	15	23	635	4.59	4	5	ND	1	40	.2	4	2	99	.38	.143	4	26	1.60	65	.20	5	3.11	.02	.13	1	9
L6200E 4700N	1	75	2	88	.1	37	26	1197	5.16	4	5	ND	1	75	.3	4	2	96	.52	.088	6	64	1.82	77	.14	4	2.45	.03	.10	1	9
L6200E 4600N	1	88	2	89	.1	17	17	1387	5.70	3	5	ND	1	48	.2	2	2	105	.48	.092	6	44	1.07	90	.13	3	2.50	.02	.07	1	20
L6200E 4500N	1	113	2	44	.1	17	17	600	4.53	2	5	ND	1	45	.2	2	2	83	.54	.140	8	47	.91	35	.12	4	1.34	.02	.12	1	71
L6200E 4400N	1	42	2	70	.1	14	12	300	5.07	7	5	ND	1	38	.2	2	2	87	.35	.106	6	53	.97	41	.13	3	2.27	.02	.05	1	26
L6200E 4300N	1	90	2	108	.1	29	22	416	5.81	15	5	ND	1	33	.2	2	2	98	.40	.157	5	88	1.31	42	.14	4	2.44	.01	.06	1	14
L6200E 4200N	1	99	2	83	.1	30	24	479	5.73	14	6	ND	2	43	.2	5	4	103	.38	.111	6	69	1.29	38	.16	7	2.26	.02	.09	2	19
L6200E 4100N	1	89	9	136	.1	26	27	537	6.46	15	5	ND	1	44	.2	2	2	111	.33	.109	4	61	1.49	44	.17	5	2.84	.02	.08	1	25
RE L6200E 4300N	1	95	2	118	.1	31	24	450	6.21	18	5	ND	1	36	.2	2	2	104	.43	.167	5	91	1.41	44	.15	4	2.58	.02	.06	1	14
L6200E 4000N	1	485	2	89	.1	42	29	557	6.44	8	5	ND	1	49	.2	3	2	139	.72	.200	5	109	1.85	43	.19	5	2.83	.03	.12	1	19
L6200E 3900N	1	75	2	71	.1	44	26	422	6.15	13	5	ND	1	42	.2	4	2	110	.44	.119	4	126	1.63	40	.16	5	2.60	.02	.08	1	9
L6200E 3800N	1	82	2	83	.6	46	28	620	5.63	8	5	ND	2	43	.2	4	2	109	.75	.087	7	138	2.18	49	.15	3	2.67	.02	.16	1	13
L6200E 3700N	1	74	3	91	.1	23	17	400	5.76	5	5	ND	2	40	.2	2	2	105	.33	.146	5	64	1.31	43	.17	3	2.43	.02	.09	1	16
L6200E 3600N	1	87	3	77	.1	34	18	396	4.73	14	5	ND	1	54	.2	4	4	85	.53	.199	5	69	1.16	109	.17	4	3.16	.04	.10	1	8
L6200E 3500N	1	63	2	47	.1	21	15	367	4.88	5	5	ND	1	67	.2	2	2	94	.74	.127	7	61	1.10	64	.16	6	2.33	.03	.12	1	13
STANDARD C/AU-S	18	58	37	126	7.0	69	30	1038	3.88	39	16	7	35	53	17.8	13	18	55	.47	.088	36	55	.87	174	.09	35	1.86	.08	.14	10	51

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
L6400E 4100N	2	22	16	54	.6	16	14	290	4.61	4	5	ND	2	34	.2	2	2	92	.27	.117	5	62	.59	46	.15	2	1.72	.01	.04	1	8
L6400E 4000N	1	82	10	54	.5	76	42	498	6.19	18	5	ND	2	45	1.1	2	2	108	.67	.100	3	136	1.55	35	.16	3	2.20	.02	.06	1	8
L6400E 3700N	3	42	15	58	.5	14	15	303	4.52	5	5	ND	2	53	.6	2	2	98	.47	.043	5	55	.88	68	.20	2	1.93	.02	.06	1	14
L6400E 3600N	2	61	12	78	.6	20	22	411	6.05	4	5	ND	2	40	.2	2	4	112	.30	.130	4	65	1.34	54	.15	3	2.63	.01	.08	1	12
L6400E 3500N	2	80	13	64	.6	24	25	437	5.99	8	5	ND	3	45	.7	2	2	110	.33	.106	4	69	1.34	54	.16	2	2.55	.01	.09	1	18
L6600E 5000N	2	169	5	165	.6	35	27	2163	5.36	7	5	ND	1	48	1.0	2	2	109	.62	.088	5	56	1.38	129	.14	2	3.35	.01	.10	1	5
L6600E 4900N	2	69	8	105	.4	28	22	549	4.75	4	5	ND	3	35	.2	2	2	88	.28	.100	6	56	1.36	65	.15	2	2.81	.01	.08	1	10
L6600E 4800N	2	74	12	82	.3	31	24	877	4.91	2	5	ND	1	41	.2	2	2	93	.53	.088	6	63	1.35	77	.12	2	2.05	.01	.08	1	45
L6600E 4700N	2	66	12	129	.4	30	26	1173	5.14	8	5	ND	1	38	.8	2	2	97	.44	.105	4	63	1.37	91	.13	2	2.28	.01	.08	1	20
L6600E 4600N	2	33	14	82	.4	8	15	564	3.77	2	5	ND	1	54	.4	2	4	92	.45	.110	3	23	1.08	71	.22	2	2.29	.01	.09	1	12
L6600E 4500N	2	45	12	86	.3	11	17	490	4.55	2	5	ND	1	40	.2	2	2	93	.33	.139	4	37	1.02	58	.16	2	2.30	.01	.07	1	11
L6600E 4400N	2	79	10	88	.5	18	24	559	5.20	2	5	ND	2	43	.4	2	2	107	.38	.099	3	38	1.35	81	.17	2	2.80	.01	.11	1	12
L6600E 4300N	1	89	8	105	.5	22	25	538	6.00	5	5	ND	2	41	.7	2	2	111	.35	.169	3	57	1.39	53	.16	2	3.17	.01	.08	1	11
L6600E 4200N	1	65	11	112	.4	18	24	531	6.10	2	5	ND	2	47	.9	2	2	122	.44	.213	4	29	1.55	67	.19	2	3.02	.01	.14	1	112
L6600E 4100N	2	31	15	82	.4	12	19	834	5.24	2	5	ND	1	38	.6	2	2	102	.32	.117	3	32	.98	91	.16	2	2.30	.01	.12	1	35
L6600E 4000N	2	59	11	79	.6	15	17	412	4.38	2	5	ND	3	36	.4	2	2	85	.28	.179	5	42	.92	56	.12	4	2.73	.01	.06	1	10
L6600E 3900N	2	18	12	36	.3	7	8	299	3.60	5	5	ND	4	37	.2	2	3	81	.25	.137	5	38	.44	55	.13	2	1.60	.01	.04	1	7
RE L6600E 3500N	2	52	14	52	.2	15	14	339	5.04	2	5	ND	3	44	.2	2	2	110	.41	.304	4	49	.98	49	.14	2	2.20	.01	.08	1	16
L6600E 3800N	2	50	9	58	.3	18	15	365	4.16	2	5	ND	7	41	.3	2	2	84	.34	.194	6	41	.90	80	.13	2	2.92	.02	.08	1	11
L6600E 3700N	2	27	16	33	.3	12	13	214	4.86	2	5	ND	3	33	.7	2	2	92	.22	.152	4	92	.62	32	.11	2	1.63	.01	.04	1	15
L6600E 3600N	2	53	8	75	.3	40	25	924	4.81	6	5	ND	1	36	.5	2	2	91	.57	.089	3	72	1.91	51	.15	2	2.23	.02	.08	1	1
L6600E 3500N	2	55	12	54	.3	15	15	353	5.13	2	5	ND	2	43	.5	2	2	111	.42	.296	4	49	1.02	52	.14	2	2.26	.02	.08	1	32
L6800E 4800N	2	50	6	94	.4	18	16	389	4.32	2	5	ND	5	40	.6	2	2	84	.29	.165	5	45	.99	60	.15	2	3.06	.02	.06	1	16
STANDARD C/AU-S	19	58	38	133	7.0	71	31	1037	3.96	41	18	7	38	52	18.5	14	19	56	.48	.090	37	59	.88	176	.09	33	1.90	.07	.15	11	48

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

APPENDIX B

ROCK SAMPLE--DESCRIPTIONS AND GEOCHEMICAL RESULTS

APPENDIX B

ROCK SAMPLE DESCRIPTIONS

Sample	Location	Description
560151	6390E/4800N	pyrox. por. dyke, 4a?
560152	6265E/4760N	pyrox. por. volc. rock, 4a
560153	5810E/4100N	hornbl. por. dyke, biotite?, diss. po
560154	5935E/4100N	altered volcanic rock, ab?, po in frac.
560155	6025E/4100N	4a?, hornbl. phenos?, diss. po
560156	6025E/4100N	banded, aphanitic tuff?, ab?
560157	6460E/3280N	6b, or 5d, altered, plag laths, cb, ser
560169	6500E/3700N	4a, f.gr., biotite?, diss. po/py
560174	5802E/4000N	propylit. alt. 4a, qz-cal-py vnlts
560201	5000E/5000N	4a, pyrox. por. volcanic rock
560202	5010E/4835N	4a, altered, chl, trace py
560203	5000E/4300N	4a, altered, ep-chl
560204	5700E/4060N	4a, ep altered, qz-cb vns
560205	5220E/4110N	hornbl/pyrox dyke

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VANCOUVER, BC
V7X 1C4

A9217595

Comments: ATTN: MURRAY JONES

CERTIFICATE A9217595

WESTMIN MINES LTD.

Project: 6202
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 27-JUL-92.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	30	Geochem ring to approx 150 mesh
274	30	0-15 lb crush and split
200	30	Whole rock fusion
238	30	Nitric-aqua-regia digestion

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	30	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
594	30	Al2O3 %: Whole rock	ICP-AES	0.01	99.99
588	30	CaO %: Whole rock	ICP-AES	0.01	99.99
590	30	Cr2O3 %: Whole Rock	ICP-AES	0.01	100.00
586	30	Fe2O3(total) %: Whole rock	ICP-AES	0.01	99.99
821	30	K2O %: Whole rock	ICP-AES	0.01	99.99
593	30	MgO %: Whole rock	ICP-AES	0.01	99.99
596	30	MnO %: Whole rock	ICP-AES	0.01	99.99
599	30	Na2O %: Whole rock	ICP-AES	0.01	99.99
597	30	P2O5 %: Whole rock	ICP-AES	0.01	99.99
592	30	SiO2 %: Whole rock	ICP-AES	0.01	99.99
595	30	TiO2 %: Whole rock	ICP-AES	0.01	99.99
475	30	L.O.I. %: Loss on ignition	FURNACE	0.01	99.99
540	30	Total %	CALCULATION	0.01	105.00
891	30	Ba ppm		10	10000
973	30	Nb ppm	ICP	10	10000
1067	30	Rb ppm		10	10000
898	30	Sr ppm		10	10000
974	30	Y ppm	ICP	10	10000
978	30	Zr ppm	ICP	10	10000
1929	30	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	30	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1938	30	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	30	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	30	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	30	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

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KWANIKA EXT.

GRID LOCATION SAMPLE	PREP CODE		Au ppb FA+AA	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
560151 6390E/4800N	205	274	15	12.27	12.01	0.02	11.13	2.53	8.15	0.17	0.97	0.28	47.85	0.74	2.41	98.53
560152 6265E/4760N	205	274	5	18.28	7.06	< 0.01	10.38	1.13	5.18	0.14	4.18	0.23	48.02	0.95	2.98	98.54
560153 5810E/4100N	205	274	25	16.96	6.65	< 0.01	9.24	2.46	8.06	0.19	3.07	0.20	47.56	0.67	3.12	98.19
560154 5935E/4100N	205	274	< 5	14.91	6.93	< 0.01	10.82	3.59	4.98	0.14	3.12	0.38	50.62	0.95	2.12	98.58
560155 6025E/4100N	205	274	< 5	15.64	6.57	0.02	9.94	2.48	5.50	0.14	3.86	0.29	51.15	0.75	2.17	98.51
560156 6025E/4100N	205	274	< 5	17.29	5.85	< 0.01	9.68	1.72	3.89	0.12	4.65	0.21	52.13	0.96	2.01	98.52
560157 6460E/3280N	205	274	< 5	17.34	4.20	< 0.01	6.62	6.64	1.90	0.13	3.02	0.39	52.24	0.57	6.86	99.93
560158	205	274	< 5	16.67	6.95	< 0.01	9.62	2.57	5.68	0.18	3.58	0.35	50.56	0.86	2.22	99.25
560159	205	274	< 5	16.79	6.49	< 0.01	6.21	0.33	2.42	0.14	3.90	0.26	61.18	0.53	2.30	100.55
560163	205	274	< 5	13.39	0.19	0.02	1.05	0.48	0.28	< 0.01	0.12	0.14	79.38	0.82	5.45	101.30
560166	205	274	< 5	10.60	11.74	0.01	9.25	2.89	6.51	0.17	0.61	0.25	36.35	0.59	18.98	97.95
560167	205	274	< 5	17.84	5.63	< 0.01	4.36	0.50	2.02	0.08	5.58	0.20	62.00	0.40	2.23	100.85
560169 6500E/3700N	205	274	< 5	15.89	10.76	< 0.01	9.37	1.18	5.34	0.18	3.19	0.21	49.19	0.85	2.81	98.97
560170	205	274	< 5	14.94	6.67	0.01	10.36	1.52	7.60	0.17	3.47	0.10	48.21	0.82	4.60	98.47
560171	205	274	< 5	12.94	7.38	< 0.01	4.67	0.78	2.22	0.08	2.46	0.13	67.05	0.56	2.32	100.60
560172	205	274	< 5	15.57	10.16	0.01	10.44	0.22	7.62	0.17	2.88	0.09	47.40	0.79	3.10	98.45
560173	205	274	< 5	16.80	9.24	< 0.01	8.16	0.68	3.83	0.12	3.49	0.25	51.98	1.14	4.11	99.81
560201 5000E/5000N	205	274	< 5	12.02	8.90	0.05	10.69	0.40	10.10	0.20	3.06	0.12	48.82	0.83	3.07	98.26
560202 5010E/4835N	205	274	< 5	16.70	7.13	< 0.01	6.04	0.55	2.54	0.14	3.93	0.23	60.48	0.50	2.17	100.40
560203 5000E/4300N	205	274	60	18.22	8.36	0.03	8.24	2.23	2.76	0.17	4.15	0.39	52.65	0.71	1.80	99.71
560204 5700E/4060N	205	274	< 5	14.66	3.33	0.01	3.94	2.84	1.39	0.08	3.66	0.11	70.07	0.41	0.79	101.30
560205 5220E/4110N	205	274	< 5	15.84	7.49	< 0.01	10.54	1.82	4.46	0.26	3.66	0.30	51.13	0.96	1.83	98.32
560206	205	274	20	18.70	7.58	< 0.01	9.59	1.34	4.56	0.14	4.02	0.15	49.01	0.86	2.65	98.61
560207	205	274	< 5	13.01	4.46	0.01	4.05	1.80	1.37	0.10	3.10	0.11	72.26	0.36	0.71	101.35
560208	205	274	< 5	17.63	10.85	< 0.01	11.06	0.99	6.58	0.19	1.86	0.11	45.35	0.80	2.80	98.24
560209	205	274	< 5	19.00	6.79	< 0.01	11.27	1.31	6.13	0.17	3.03	0.14	45.26	1.02	4.07	98.20
560211	205	274	< 5	13.47	7.08	0.02	9.88	0.61	8.72	0.18	1.72	0.05	42.02	0.65	13.54	97.94
560213	205	274	< 5	18.15	5.59	< 0.01	4.65	2.21	2.14	0.07	4.29	0.29	59.80	0.45	2.91	100.55
560215	205	274	< 5	15.42	8.26	0.01	8.76	1.25	4.93	0.15	3.33	0.15	46.90	0.78	9.65	99.60
560219	205	274	< 5	8.30	12.78	< 0.01	24.50	2.37	9.36	0.24	0.36	1.01	35.33	2.03	1.94	98.23

CERTIFICATION:

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SAMPLE	PREP CODE		Ba ppm	Nb ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Co ppm	Cu ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm		
560151	205	274	1220	< 10	44	400	20	30	20	110	< 1	26	< 2	32		
560152	205	274	520	< 10	33	470	20	50	20	188	< 1	24	< 2	62		
560153	205	274	3730	< 10	65	370	20	30	18	112	< 1	21	< 2	50		
560154	205	274	1200	< 10	60	360	20	50	23	110	2	17	< 2	24		
560155	205	274	1200	< 10	65	330	20	40	23	110	< 1	15	< 2	26		
560156	205	274	700	< 10	55	420	20	70	19	139	< 1	21	2	46		
560157	205	274	850	< 10	120	460	20	50	10	112	< 1	3	4	62		
560158	205	274	870	< 10	55	600	20	50	16	35	< 1	19	< 2	66		
560159	205	274	270	< 10	27	350	20	90	9	52	< 1	7	< 2	52		
560163	205	274	170	< 10	27	50	< 10	40	3	18	< 1	6	< 2	8		
560166	205	274	1040	< 10	65	500	10	30	17	84	< 1	27	4	66		
560167	205	274	190	< 10	28	290	10	70	8	65	< 1	7	< 2	38		
560169	205	274	560	< 10	38	510	20	50	29	126	< 1	22	< 2	26		
560170	205	274	470	< 10	49	170	20	40	19	110	< 1	37	< 2	58		
560171	205	274	310	< 10	33	290	20	50	15	113	< 1	20	< 2	10		
560172	205	274	140	< 10	27	290	20	30	19	92	< 1	38	< 2	44		
560173	205	274	280	< 10	33	270	30	100	20	236	< 1	26	< 2	24		
560201	205	274	150	< 10	27	310	20	40	26	69	< 1	61	< 2	48		
560202	205	274	240	< 10	22	440	10	50	10	32	< 1	7	< 2	54		
560203	205	274	700	< 10	50	880	20	70	13	88	< 1	5	< 2	70		
560204	205	274	810	< 10	60	240	20	100	5	16	< 1	3	< 2	34		
560205	205	274	460	< 10	44	660	20	80	19	57	< 1	8	< 2	132		
560206	205	274	760	< 10	33	500	20	50	16	119	< 1	12	< 2	60		
560207	205	274	730	< 10	44	260	10	80	5	53	< 1	2	< 2	24		
560208	205	274	230	< 10	33	560	20	50	21	128	< 1	18	< 2	58		
560209	205	274	610	< 10	38	440	20	60	16	163	< 1	35	< 2	80		
560211	205	274	170	< 10	27	200	10	30	24	91	< 1	80	< 2	122		
560213	205	274	770	< 10	49	590	10	80	1	63	< 1	1	< 2	6		
560215	205	274	470	< 10	38	280	10	40	15	56	< 1	22	< 2	68		
560219	205	274	1100	< 10	71	320	30	30	31	125	< 1	16	6	106		

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Comments: ATTN: MURRAY JONES

CERTIFICATE A9217596

WESTMIN MINES LTD.

Project: 6203
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 21-JUL-92.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	13	Geochem ring to approx 150 mesh
274	13	0-15 lb crush and split
229	13	ICP - AQ Digestion charge

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	13	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
13	13	As ppm: HNO3-aqua regia digest	AAS-HYDRIDE/EDL	1	10000
1005	13	Ag ppm: 9 element,soil and rock	ICP-AES	0.5	200
1929	13	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	13	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	13	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	13	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	13	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	13	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	13	Pb ppm: 9 element,soil and rock	ICP-AES	5	10000
1950	13	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6203
Comments: ATTN: MURRAY JONES

Page Number : 1
Total Pages : 1
Certificate Date: 21-JUL-92
Invoice No. : 19217596
P.O. Number :
Account : GP

CERTIFICATE OF ANALYSIS A9217596

KWANIKA EXT'N. GRID LOCATION SAMPLE	PREP CODE		Au ppb FA+AA	As ppm	Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm			
560160	205	274	< 5	62	< 0.5	12	94	2.27	455	< 1	19	2	28			
560161	205	274	< 5	60	< 0.5	12	121	4.81	1110	< 1	11	2	60			
560162	205	274	< 5	140	< 0.5	13	62	3.83	1160	< 1	28	4	42			
560164	205	274	< 5	66	< 0.5	2	49	1.01	35	< 1	5	< 2	6			
560165	205	274	< 5	2	< 0.5	10	178	3.91	655	< 1	14	2	52			
560168	205	274	< 5	600	< 0.5	19	276	3.83	295	< 1	54	< 2	26			
560174 @ TEST PIT 8 5795E/3995N	205	274	60	2	0.5	18	300	5.60	790	1	15	18	86			
560210	205	274	< 5	2	< 0.5	1	6	0.44	105	< 1	5	< 2	2			
560212	205	274	40	4	< 0.5	11	74	4.21	1235	< 1	17	2	54			
560214	205	274	< 5	26	< 0.5	20	69	7.07	1590	< 1	35	4	48			
560216	205	274	425	18	< 0.5	12	61	4.71	1170	4	9	8	94			
560217	205	274	< 5	44	< 0.5	21	98	6.75	1270	< 1	20	2	124			
560218	205	274	< 5	16	< 0.5	19	408	5.27	1270	< 1	9	2	78			

CERTIFICATION:

APPENDIX C

REPORT ON GEOPHYSICAL SURVEY
BY GRANT HENDRICKSON, DELTA GEOPHYSICS

GEOPHYSICAL REPORT

KWANIKA EXTENSION AND WUDLEAU PROPERTIES
TCHENTLO LAKE AREA, B.C.
NORTH OF FORT ST. JAMES, B.C., NTS 93N7

FOR

WESTMIN RESOURCES LIMITED

BY

DELTA GEOSCIENCE LTD.

FEBRUARY 9, 1993.

GRANT A. HENDRICKSON, P.GEO.

TABLE OF CONTENTS

INTRODUCTION

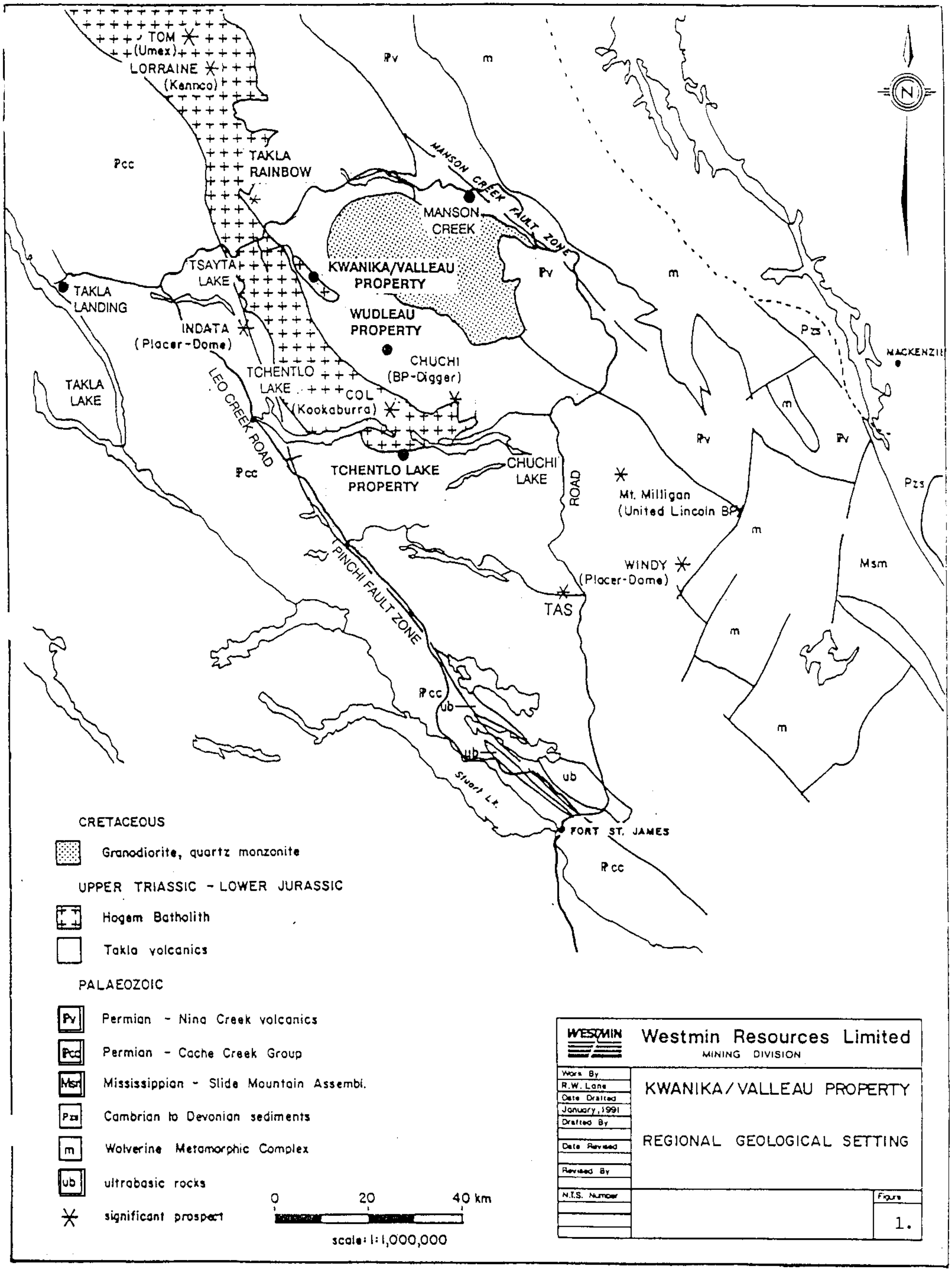
At the request of Westmin Resources Limited, Delta Geoscience conducted Induced Polarization and Resistivity surveys on the Wudleau and Kwanika extension properties. The properties are located in northwestern British Columbia, approx. 30 km northeast of the Tchentlo Lake Lodge. Tchentlo Lake is approx. 95 km northwest of Fort St. James, B.C.

The exploration target was porphyry copper style mineralization associated with intrusive rocks of the Jurassic age Hogem Batholith system.

The geophysical work described in this brief report was conducted during the period June 27 to July 9, 1992. In all, approx. 51 km of I.P/Resistivity surveying was completed during the above period, 34 km on the Wudleau grid and 17 km on the Kwanika extension.

This geophysical survey was designed to be a rapid low cost Induced Polarization and Resistivity reconnaissance of the areas porphyry copper potential.

The survey area has moderate topographic relief and is covered by fairly open forest. Overburden thickness likely varies from zero to 20 meters, with an average thickness of approx. 5 meters.



CRETACEOUS

▨ Granodiorite, quartz monzonite

UPPER TRIASSIC - LOWER JURASSIC

+ Hogem Batholith

☐ Takla volcanics

PALAEOZOIC

Pv Permian - Nina Creek volcanics

Pcc Permian - Cache Creek Group

Msm Mississippian - Slide Mountain Assembl.

Pzs Cambrian to Devonian sediments

m Wolverine Metamorphic Complex

ub ultrabasic rocks

✳ significant prospect

WESTMIN

Westmin Resources Limited
MINING DIVISION

Work By R.W. Lane	KWANIKA/VALLEAU PROPERTY
Date Drafted January, 1991	
Drafted By	REGIONAL GEOLOGICAL SETTING
Date Revised	
Revised By	
N.T.S. Number	Figure 1.

PERSONNEL

Tom Peregoodoff - Geophysicist/Crew Chief
Kevin Gerlitz - Junior Geophysicist
Mark Rudolf - Junior Geophysicist
Chris Slind - Junior Geophysicist
Peter Van Wesenbeeck - Geologist
Grant Hendrickson - Senior Geophysicist/Supervisor

Murray Jones of Westmin Resources was on site throughout the survey to review the results.

EQUIPMENT

2 - BRGM IP-6 Induced Polarization Receivers.
1 - Huntec 7.5 kva Induced Polarization Transmitter.
6 - Motorola VHF Radios.
1 - Toshiba T3100SX Field Computer.
1 - Fujitsu DL2600 Printer/Plotter.
2 - Toyota 4x4 Trucks.

DATA PRESENTATION

Maps of the gradient array Induced Polarization/Resistivity data are presented as contoured plans at a scale of 1:10,000.

Contour plans give a good view of the spatial intensity and line to line correlation of the data.

Contoured plans of the data were provided to Westmin Resources in the field. Westmin subsequently had these maps reproduced in their Vancouver office. This report will reference these geophysical maps. This report should be appended to the overall Westmin exploration report.

SURVEY PROCEDURE

Westmin personnel ensured grid lines were established prior to the arrival of the Delta Geoscience crew. Line separation was 200m with survey stations established every 50m.

The gradient array I.P. work was carried out with an average current electrode separation (AB) of 1400 meters. Potential electrode separation (MN) was 50m. Overlap on each reading was 50%, i.e. 25m moves. Generally, it's preferable to keep the MN separation as small as signal strength will allow. This array minimizes operational problems, which generally results in a very cost effective survey. Productivity averaged 3.9 km/day.

The large size of the survey area necessitated surveying the grids as a series of east-west gradient blocks. The data at the edges of the blocks can vary slightly due to the different location of the current electrodes. A 4 station overlap was used to compare the blocks. Differences in the overlap, both across and along strike, were averaged out after careful comparison of the data.

The gradient array does provide high horizontal resolution of anomalies and a deep depth of investigation. For the array size used in this survey the signal was focused at approx. the 125m depth, however the ground response can be characterized as the average chargeability (sulphide content?) over the 25 to 200m depth range.

The wavelength of the gradient array responses can provide an indication of the average target depth. The dip of the geology is generally well revealed by the gradient array survey, particularly when compared to other arrays. Dipping bodies have an asymmetrical response, thus contour lines tend to drop off more slowly on the downdip flank of an anomaly.

DISCUSSION OF THE DATE

WUDLEAU GRID

Overall, there is a good correlation of low resistivity with high chargeability within this grid. In particular, the stronger parts of many of the I.P. anomalies lie near the flank of the high resistivity areas. This correlation suggests the source is pyritic, graphitic metasediments partly related to contact metamorphism along the flanks of the numerous narrow high resistivity zones (intrusives?). Dikes or apophysis of the larger intrusive bodies are probably fairly widespread within the proposed metasediments. The apparent contact metamorphism has produced some very narrow, but strong chargeability anomalies coincident with significant resistivity lows. Two good examples of possible contact metamorphic sulphide/graphite zones are at 79000E, 47725N and at 81500E, 47100N.

The larger high resistivity zones (the intrusives?) generally have a low chargeability response, which is discouraging. The relatively large high resistivity zone centered around 79750E and 48000N does have a correlating series of minor chargeability responses, which may be of some significance for porphyry style copper mineralization. Unfortunately this target appears to be of rather small dimensions for a deposit.

There appears to be a dominant northwest orientation to the lenticular areas of high resistivity that has been broken up by a secondary northeast trend. An apparent intersection of these two structural trends may occur close to the area mentioned above for some porphyry copper potential. Dip generally appears to be steeply to the south.

KWANIKA EXTENSION

The broad areas of low resistivities directly coincident with high chargeability responses that occur in the northeast corner of this grid, are probably related to pyritic, graphitic metasediments.

The areas of highest resistivity are coincident with low chargeability responses, which suggest unmineralized intrusive rock as a source.

The large northwest trending chargeability anomaly centered at 6000E and 4075N occurs within relatively resistive rocks (volcanics or intrusive with a minor metasediment component), that appears as a transition zone (approx. 800 ohm-m) between metasediments to the north and intrusives (high resistivity) to the south. The orientation of this significant chargeable zone, in conjunction with the relatively high resistivities, makes it a possible candidate for porphyry copper style mineralization, perhaps associated with a separate small intrusive event.

Dip appears to be steeply to the southwest, with a possible gentle plunge to the northwest.

CONCLUSION AND RECOMMENDATIONS

The gradient array Induced Polarization and Resistivity surveying has provided a cost effective evaluation of the geology and apparent sulphide mineralization within the two large grids. Productivity averaged very close to 4 km per day.

The minor overburden thickness in much of the survey area suggests the information from soil geochemistry surveys will provide some indication of the significance of many of the I.P. anomalies.

A limited program of trenching will probably be necessary to more fully evaluate the significance of the chargeability anomalies.

Within this report, general comments on the probable geology (metasediments and intrusives) have been made. These comments should be checked to ensure they fit in with the detail geology maps of the area.

Grant A. Hendrickson, P.Geo.

REFERENCES

Coggon, J.H., 1973: A Comparison of I.P. Electrode Arrays: Geophysics, Vol. 38, 737-761.

Malmqvist, L., 1978: Some Applications of I.P-Technique for Different Geophysical Prospecting Purposes: Geophysical Prospecting 26, 97-121.

Ward, Stanley H., 1990: Resistivity and Induced Polarization Methods: Geotechnical and Environmental Geophysics, Vol. 1, Investigations in Geophysics 5, 147-190.

STATEMENT OF QUALIFICATIONS

Grant A. Hendrickson.

- B.Science, University of British Columbia, Canada, 1971, Geophysics option.
- For the past 22 years, I have been actively involved in mineral exploration projects throughout Canada, the United States, Europe and Central and South America.
- Registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia, Canada.
- Registered as a Professional Geophysicist with the Association of Professional Engineers, Geologists and Geophysicsts of Alberta, Canada.
- Active member of the Society of Exploration Geophysicsts, European Association of Exploration Geophysicists and the British Columbia Geophysical Society.

Dated at Delta, British Columbia, Canada, this 9 day of Feb, 1993.

G. Hendrickson

Grant A. Hendrickson, P.Geo.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,752

UTM NORTH

LEGEND

LOWER CRETACEOUS: GERMANSEN BATHOLITH

11	K–Spar Megacrystic Granodiorite.

LOWER/MIDDLE JURASSIC: HOGEM BATHOLITH–PHASE II

10	Quartz–Feldspar Porphyritic Syenite (10a); Biotite–Feldspar Porphyritic Syenite (10b).

UPPER TRIASSIC/LOWER JURASSIC: HOGEM BATHOLITH–PHASE I

HOGEM GRANODIORITE:

9	Granodiorite (9a); Quartz Monzodiorite (9b); Granite (9c).

HOGEM BASIC SUITE:

8	Diorite Intrusives. Hornblende Diorite Porphyry (8a); Plagioclase Porphyritic Diorite (8b); Diorite Dyke (8c).
7	Crowded Plagioclase Porphyritic Monzonite.
6	Equigranular Monzodiorite (6a); Monzonite (6b); Monzogabbro (6c).
5	Gabbro (5a); Porphyritic Gabbro (5b); Pyroxenite (5c); Diorite (5d).

UPPER TRIASSIC/LOWER JURASSIC: TAKLA GROUP

CHUCHI LAKE FORMATION:

4	Pyroxene Porphyritic Mafic Volcanic (4a); Plagioclase Porphyritic Mafic Volcanic (4b); Plagioclase–Pyroxene Porphyritic Mafic Volcanic (4c); Aphyric Mafic Volcanic (4d); Mafic Tuff (4e); Mafic Agglomerate (4f).

WITCH LAKE FORMATION:

3	Pyroxene Porphyritic Mafic Volcanic (3a); Plagioclase Porphyritic Mafic Volcanic (3b); Plagioclase–Pyroxene Porphyritic Mafic Volcanic (3c); Aphyric Mafic Volcanic (3d); Mafic Tuff (3e); Mafic Agglomerate (3f).
2	Argillite–tuffaceous, carbonaceous (2a); Cherty Argillite (2b); Chert (2c).
1	Volcaniclastic Siltstone and Wacke.

ABBREVIATIONS

ab	albite	alt	altered
arg	argillite	amyg	amygdaloidal
aspy	arsenopyrite	bx'd	brecciated
bi	biotite	c.g.	coarse grained
cb	carbonate	diss	disseminated
chl	chlorite	f.g.	fine grained
cpy	chalcopyrite	fol'd	foliated
ep	epidote	frac'd	fractured
goss	gossanous	F	abundant local float
hm	hematite	F	local float
Kf	potassium feldspar	GF	glacial float
mag	magnetite	hnfls	hornfels
po	pyrrhotite	plag	plagioclase
py	pyrite	vesic	vesicular
qtz	quartz	vns	veins
ser	sericite	vnlts	veinlets
sil	silica	vols	volcanics
		wk	weak

SYMBOLS

Outcrop
Outcrop (less than mappable size) *
Geological Contact (observed)
Geological Contact (inferred)
Glacial Debris, Moraine, Eskers, etc.
Fault
Foliation (strike & dip) 173 68
Spot Height + 78.6
Horizontal Control △
Road ROAD
Creek
Indefinite Creek
Lake
Swamp
Esker >>>>>
Test Pit ⊗
Property Boundary
Claim Boundary
L.C.P. (Legal Corner Post)
 – location exact ⊕
L.C.P. (Legal Corner Post)
 – location approximate ⊕
TRAVERSE ------------
ROCK SAMPLE • 560068 (Sample #)
1 Au(ppb), 38 Cu(ppm)

UNIVERSAL TRANSVERSE MERCATOR ZONE 10 NAD 1983

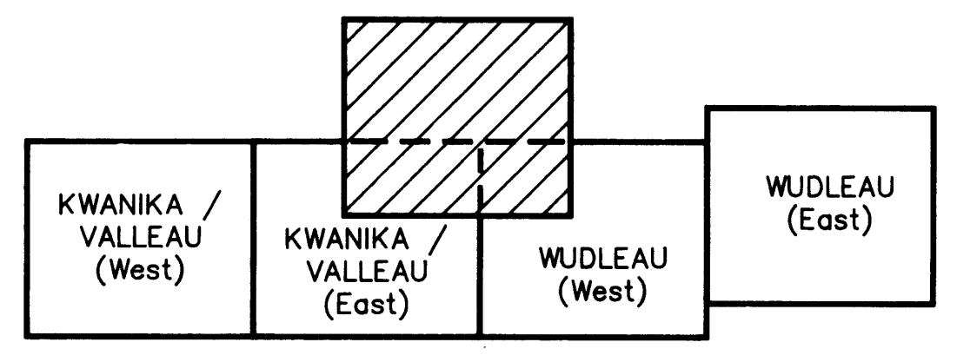
UTM GRID NORTH IS 1° 40' WEST OF TRUE NORTH

THE 1990 MAGNETIC BEARING IS 24°56' EAST OF GRID NORTH

ANNUAL CHANGE DECREASING 12'

LOWER PORTION OF MAP COMPILED BY HUGH HAMILTON LIMITED USING 1987 1:70,000 AERIAL PHOTOS. UPPER PORTION OF MAP COMPILED FROM 1975 TOPOGRAPHIC MAP OF ENERGY, MINES & RESOURCES, OTTAWA, AT 1:50,000 SCALE.

PHOTO CONTROL DERIVED FROM B.C. GOVERNMENT TRIM PROJECT



MAP KEY

Westmin Resources Limited

Work By	D.W. / M.J.
Date Drafted	27/11/91
Drafted By	R.A. Ivany
Date Revised	16/12/92
Revised By	M. Jones
N.T.S. Number	93 N/7
File Name	VG_GEOL

KWANIKA / VALLEAU PROPERTY

GEOLOGY MAP

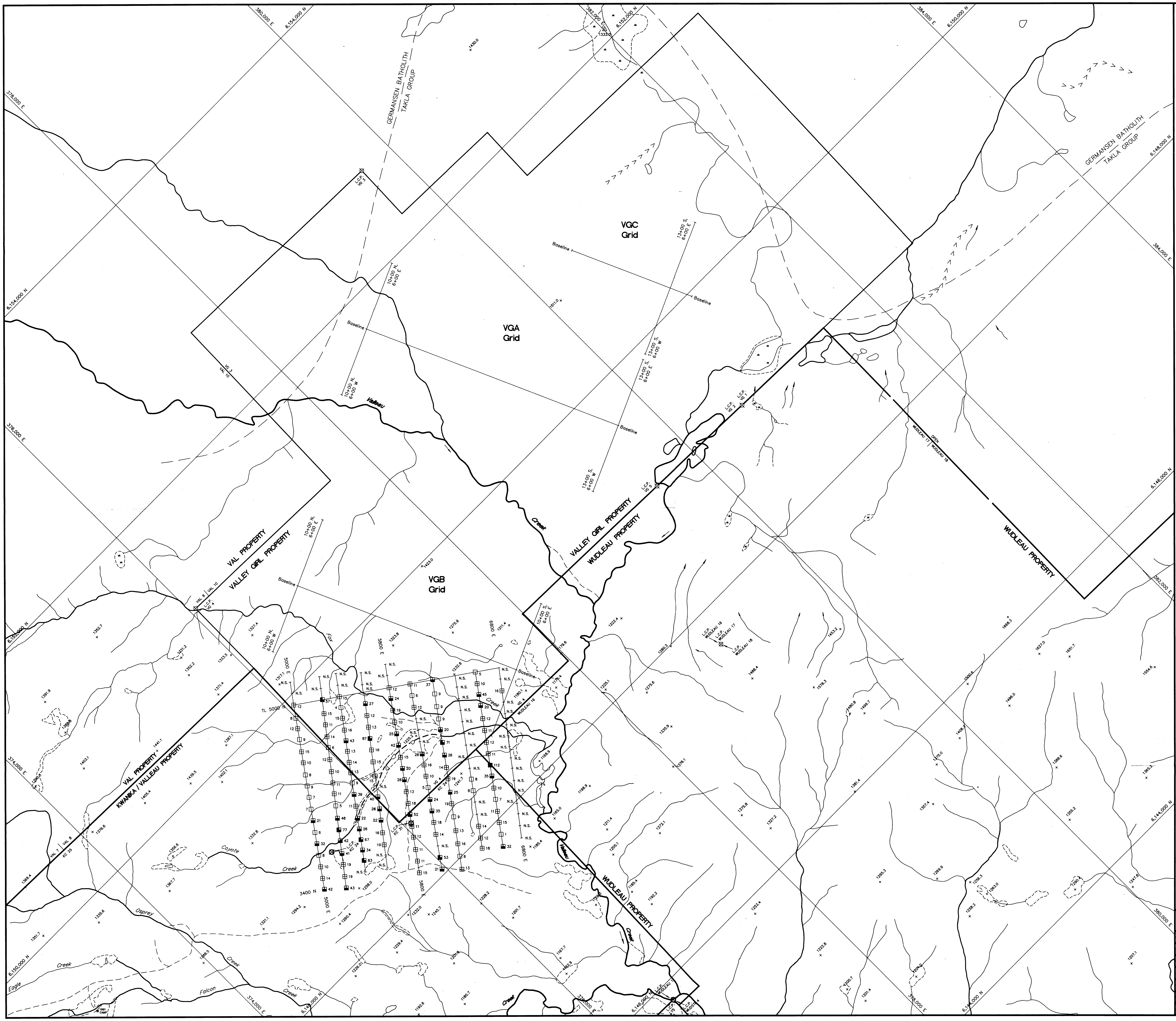
200 0 200 400 600m

SCALE 1 : 10,000

Figure 4

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,752



SOIL GEOCHEMISTRY

Au – ppb

⊡	1 – 9
⊞	10 – 19
▨	20 – 49 (Anomalous)
◪	50 – 99
■	100 – 199
●	200 + (Very Anomalous)

6
21
1
4
14
1
35
2

SOIL SAMPLE LOCATIONS – Au in ppb

SYMBOLS

Spot Height	+ 78.6
Horizontal Control	△
Road	— — —
Creek	———
Indefinite Creek	—— ——
Lake	⬭
Swamp	⬚
Esker	>>>>>
Property Boundary	━━━
Claim Boundary	———
L.C.P. (Legal Corner Post) – location exact	⊕
L.C.P. (Legal Corner Post) – location approximate	⌖

UNIVERSAL TRANSVERSE MERCATOR ZONE 10 NAD 1983

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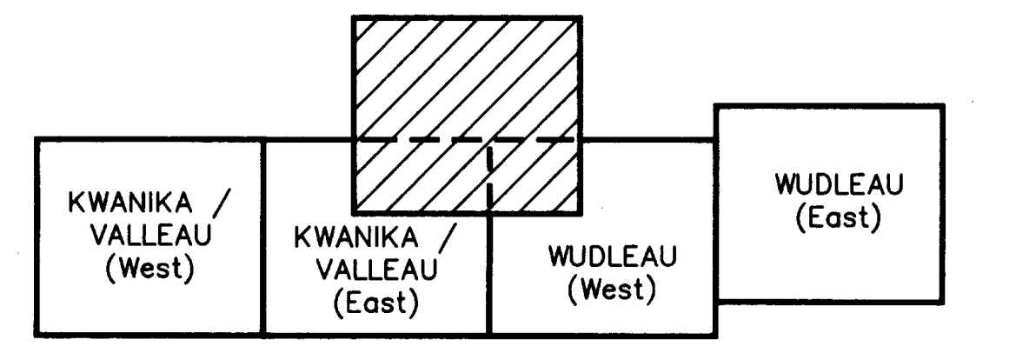


MAP KEY

Westmin Resources Limited

Work By	M. Jones
Date Drafted	16/12/92
Drafted By	R.A. Ivany
Date Revised	
Revised By	
N.T.S. Number	93 N/7
File Name	VG_SOIL

KWANIKA / VALLEAU PROPERTY

Au SOIL GEOCHEMISTRY

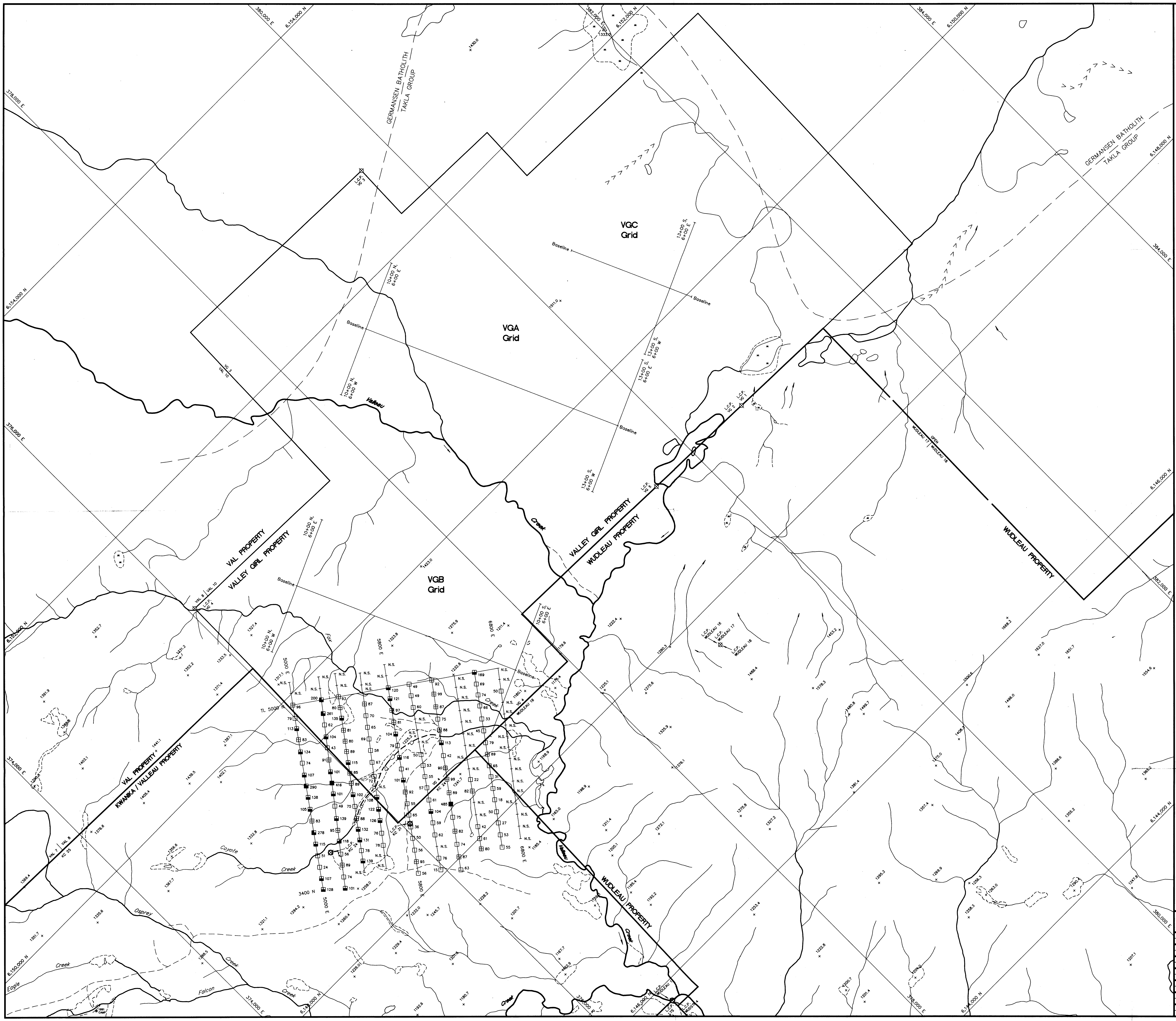
200 0 200 400 600m

SCALE 1 : 10,000

Figure 5

GEOLOGICAL BRANC
ASSESSMENT REPORT

22,752



SOIL GEOCHEMISTRY

Cu – ppm

⊡	1 – 79
⊞	80 – 99
▨	100 – 199 (Anomalous)
▨	200 – 399
■	400 – 799
●	800 + (Very Anomalous)

55
41
131
67
265
78
92
23

SOIL SAMPLE LOCATIONS – Cu in ppm

SYMBOLS

Spot Height	+ 78.6
Horizontal Control	▵
Road	— — —
Creek	———
Indefinite Creek	—— ——
Lake	⬭
Swamp	⬭
Esker	>>>>>
Property Boundary	━━━
Claim Boundary	———
L.C.P. (Legal Corner Post) – location exact	⊕
L.C.P. (Legal Corner Post) – location approximate	⊕

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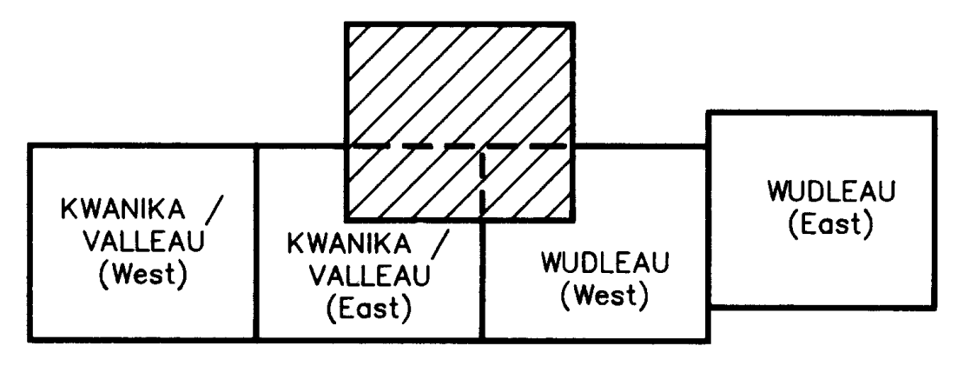

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Drafted By	R.A. Ivany
Date Revised	
Revised By	
N.T.S. Number	93 N/7
File Name	VG_SOIL

KWANIKA / VALLEAU
PROPERTY

Cu SOIL GEOCHEMISTRY

200 0 200 400 600m

SCALE 1 : 10,000

Figure 6