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PERRON GOLD MINES LTD.
MAGNETOMETER SURVEY REPORT
ON THE MCKEE CREEK PROPERTY
Atlin Mining Division
NTS 104 N/5E,6W

FILMED

08/86

GEOLOGICAL BRANCH
ASSESSMENT REPORT

BY

R.A. Gonzalez, MSc., F.G.A.C., P.Eng.

JULY, 1985

14,336

CLAIMS WORKED

Claim Name	Units	Record No.	Anniversary Date
PENNY	12	1165	October 1
COX	8	1404	August 7

Lease No.	Tag No.	Date Issued	Expiry Date
PML 1790	269481M	April 13, 1973	October 23, 1985
PML 1791	269482M	April 13, 1973	October 23, 1985
PML 1655	872935	January 23, 1969	October 23, 1986
PML 1690	80689M	September 23, 1971	October 23, 1985
PL 2401	P6751	December 31, 1979	October 23, 1985

LOCATION: 59°29' N, 133° 32' W

OWNERS: J. Harvey and H. Evenden

OPERATOR: Perron Gold Mines Ltd.

CONSULTANT: Archean Engineering Ltd.

PROJECT GEOLOGIST: L. Dandy, B.Sc., Mark Management Ltd.

**MAGNETOMETER SURVEY REPORT
ON THE MCKEE CREEK PROPERTY
Atlin Mining Division
NTS 104 N/5E,6W**

SUMMARY

The property is a road accessible placer gold producer and lode prospect located 14.5 kilometres southeast of Atlin in northwestern British Columbia. A small programme consisting of a ground magnetometer survey was carried out over a selected portion of the property for the purpose of confirming and better delineating anomalous areas identified by a previous airborne magnetic survey. Results of the programme confirm the presence of two anomalous areas; however, the cause of these anomalous areas is not fully understood. Detailed geologic mapping suggests that the overall trend of the magnetics corresponds to the contact between contrasting rock types. Some of the highest magnetic readings are in areas believed to be underlain by argillites which normally give relatively low magnetic responses. It is possible that the high values correspond to near surface ultramafics which can be of potential economic significance.

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McKEE CREEK PROPERTY
Atlin Mining Division

1.0 INTRODUCTION

The McKee Creek property is a placer gold producer and lode gold prospect located in the historic Atlin placer gold camp in northwestern British Columbia (Fig. 1). The property is owned by J. Harvey and H. Evenden and held under option by Perron Gold Mines Ltd. of Vancouver, B.C.

Previous exploration work on the property included a 600 foot adit driven into the north bank of McKee Creek in 1940-41 by placer miners to exploit the gravels, a sampling programme by Cominco Ltd. in late 1941 and a percussion drilling programme by Dupont of Canada Exploration Ltd. in 1977. Samples collected by Cominco from a quartz vein zone returned gold values of up to 0.36 ounces per ton. In September 1983, a small geologic mapping and rock geochemistry programme was carried out over the main placer workings along McKee Creek to test the lode potential of the property. Results of a 1984 airborne geophysical programme led to follow-up geologic, geophysical, and geochemical work. A small rotary drilling programme followed. This work was supervised by Mark Management project geologist C. Wong under the guidance of A.G. Troup, P.Eng., of Archean Engineering Ltd.

1.1 LOCATION AND ACCESS

The McKee Creek property located 14.5 kilometres southeast of Atlin, covers an area of 16.25 square kilometres over the valleys of McKee and Eldorado Creeks. The claims are centred at latitude $59^{\circ}29'$ and longitude $133^{\circ}32'$ on NTS map sheets 104 N/5E and 6W (Fig. 2).

Atlin may be reached by car from Jake's Corner on the Alaska Highway (Mile 865), a distance of about 98 kilometres, along Highway 7. The distance from Jake's Corner to the major northern city of Whitehorse is about 84 kilometres along the Alaska Highway, which is paved over this entire length. Whitehorse is served with several flights a day from other major centres in Canada and Alaska.

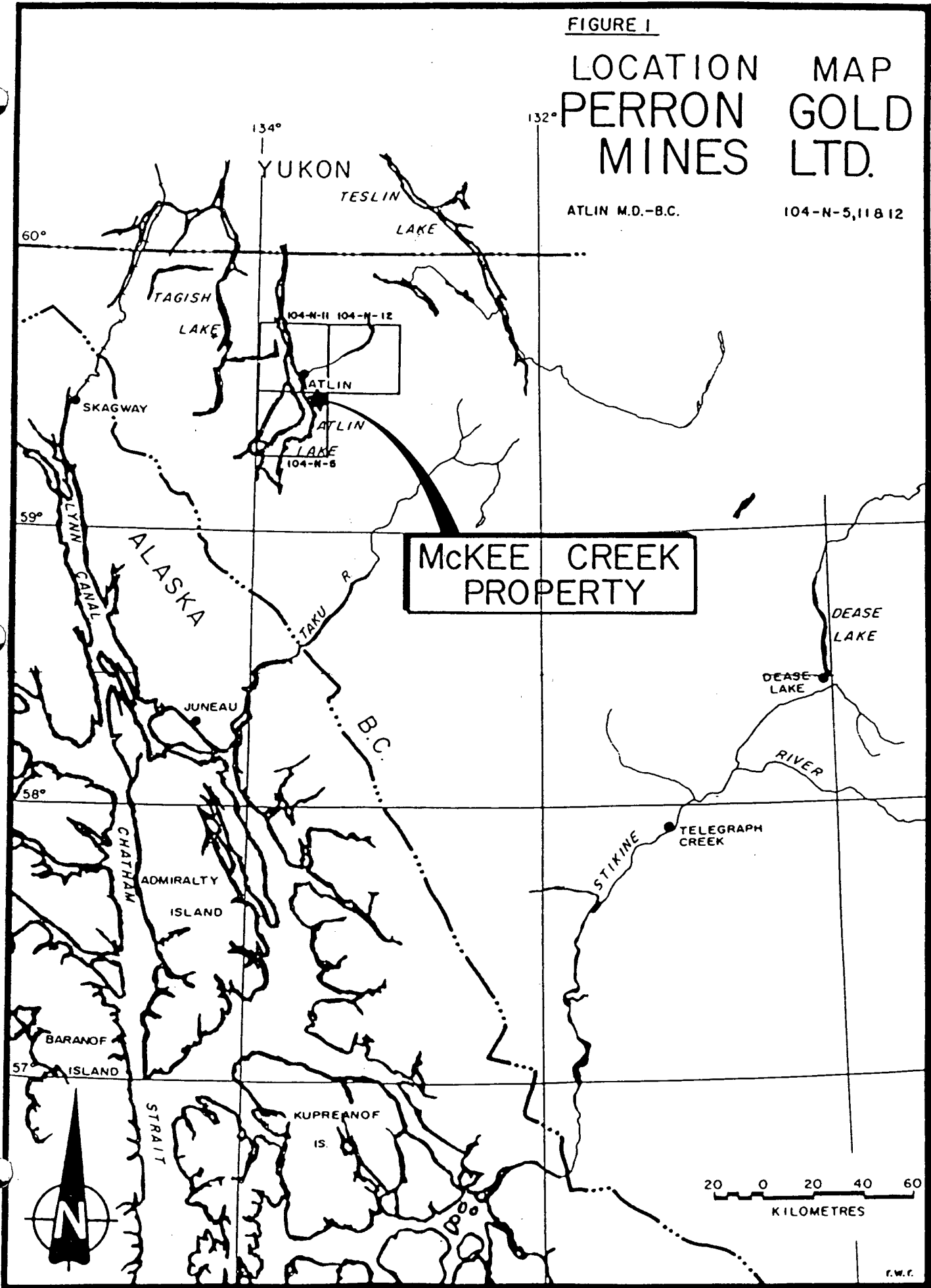
FIGURE 1

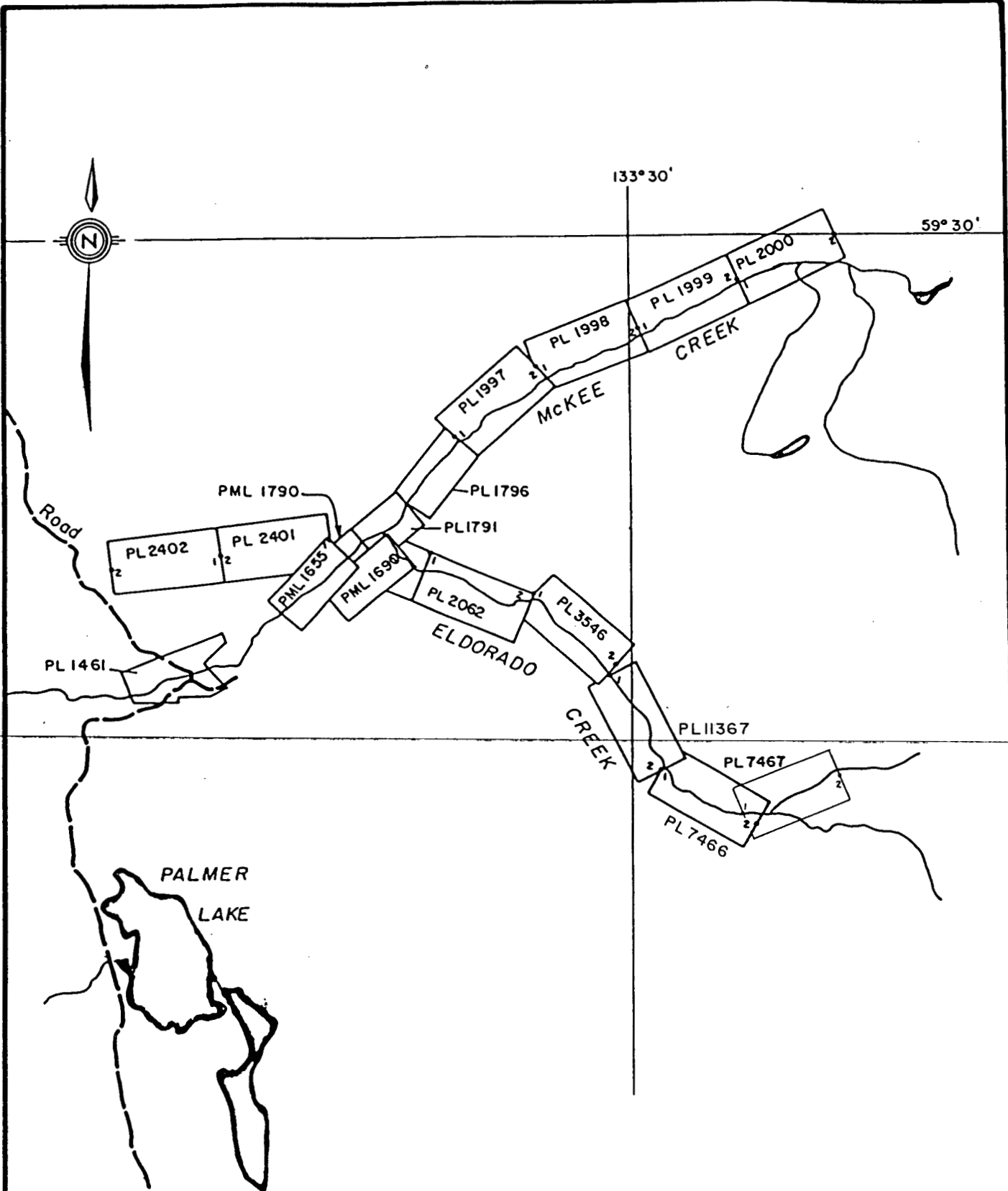
LOCATION MAP PERRON MINES GOLD LTD.

ATLIN M.D.-B.C.

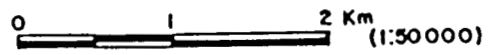
104-N-5, 11 & 12

**McKEE CREEK
PROPERTY**





PERRON GOLD MINES LTD.
 MCKEE CREEK PROPERTY
 ATLIN M.D.-B.C. NTS 104-N-5,6
PLACER LEASE MAP



DATE: JULY 1985

/r.w.r. C.E.T.
 FIGURE 3

Excellent access to the property is provided by the gravel-surfaced Atlin - O'Donnel River road. A rough four-wheel drive road leaves the Atlin - O'Donnel River road immediately south of the McKee Creek bridge and provides access to those portions of the property along lower McKee and Eldorado Creeks.

1.2 PHYSIOGRAPHY, VEGETATION AND CLIMATE

The Atlin area is located just east of the Coast Mountains on the Teslin Plateau. The town of Atlin lies on the east shore of Atlin Lake, the largest natural lake in British Columbia, at an elevation of 2,200 feet. The topography is moderately rugged on the McKee Creek property. Relief is on the order of 3,000 feet with slopes of up to 15° rising from the McKee Creek valley at an elevation of 3,000 feet to the peaks of the Johnson Range at elevations well over 5,500 feet. Prominent 200 foot cliffs of cross-bedded glaciofluvial material occur along lower McKee Creek. An unknown thickness of till extensively covers the property.

The claims are forested with lodgepole pine, black spruce, aspen and scrub birch with growths of alder and buckbrush in the valleys.

Atlin enjoys a pleasant summer climate with temperatures averaging 20°C and little precipitation. Winter temperatures average -15°C in January with moderate snowfall. Total annual precipitation has been measured at 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.

1.3 CLAIM INFORMATION

The property is located in the Atlin Mining Division and consists of six modified grid claims totalling 65 units, 13 placer leases and five placer mining leases (Figs. 2 and 3). Claim information is listed in Table 1.

TABLE 1

CLAIM STATUS

Claim Name	Units	Record No.	Anniversary Date
PENNY	12	1165	October 1
HARV	18	1385	July 30
COX	8	1404	August 7
KIA	6	1405	August 10
BINGO	12	1972	August 9
MARY	9	2058	October 7

PLACER LEASES

Lease No.	Tag No.	Date Issued	Expiry Date
PML 1655	872935	January 23, 1969	October 23, 1987
PML 1690	80689M	September 23, 1971	October 23, 1987
PML 1790	269481M	April 13, 1973	October 23, 1987
PML 1791	269482M	April 13, 1973	October 23, 1987
PML 1796	416024M	May 24, 1973	October 23, 1987
PL 1461	P2051	December 29, 1978	December 29, 1987
PL 1997	417005M	January 2, 1980	January 2, 1987
PL 1998	417006M	January 2, 1980	January 2, 1987
PL 1999	417073M	September 14, 1979	September 14, 1987
PL 2000	417074M	November 28, 1979	November 28, 1987
PL 2062	P2145	November 13, 1979	November 13, 1987
PL 2401	P6751	December 31, 1979	October 23, 1987
PL 2402	P6752	December 31, 1979	October 23, 1987
PL 3546	P901	June 30, 1980	June 30, 1987
PL 7466	P24419	November 19, 1981	November 19, 1987
PL 7467	P24420	November 24, 1981	November 24, 1987
PL 5235	P6754	November 23, 1981	November 23, 1987
PL 11367	P36780	December 30, 1983	December 30, 1987

1.4 HISTORY

Gold was first discovered in the Atlin area in 1897 by Fritz Miller while en route to Dawson. The first workings were on Pine Creek and by the end of 1898, more than 3,000 people were camped in the Atlin area. Only 8 creeks - Spruce, Pine, Birch, Boulder, Ruby, Otter, Wright and McKee - have been important producers in the Atlin camp. Gold production from these creeks in the period 1898 to 1946 is listed in Table 2.

TABLE 2
(from Holland, 1950)

Gold Recovery from Productive Creeks, Atlin Area, 1898-1946.

<u>Stream Name</u>	<u>Ounces of Gold Produced</u>
Spruce Creek	262,603
Pine Creek	138,144
Boulder Creek	67,811
Ruby Creek	55,272
McKee Creek	46,953
Otter Creek	20,113
Wright Creek	14,729
Birch Creek	12,898
All Others (21 creeks)	<u>15,624</u>
TOTAL PRODUCTION	634,147

Gold-bearing quartz veins were first discovered in the Atlin area in 1899 and by 1905 most of the known showings had been discovered. In 1940, an auriferous vein zone was discovered on McKee Creek by placer miners while driving an adit (Carter, 1983). Cominco examined the showing and immediately optioned the ground in October, 1941. A limited sampling programme was carried out with gold values ranging up to 0.36 oz/ton reported.

In 1983, Standard Gold Mines Ltd. announced a new lode gold discovery six kilometres northeast of the McKee Creek - Eldorado Creek confluence. News of the discovery and the similarity of geology prompted Perron Gold Mines Ltd. to option the McKee Creek property.

1.5 WORK DONE BY PERRON GOLD MINES LTD. IN 1985

The following field work was completed on the McKee Creek property by Perron Gold Mines Ltd. during the period June 13-15, 1985:

- 1) Grid line preparation consisting of 8.45 line km of base and cross lines; cross lines were 150 m apart with stations marked every 25 m.
- 2) A Geometric Proton Magnetometer was used to measure the earth's total magnetic field at each station; line profiles and contoured data are presented on Figures 4 & 5.

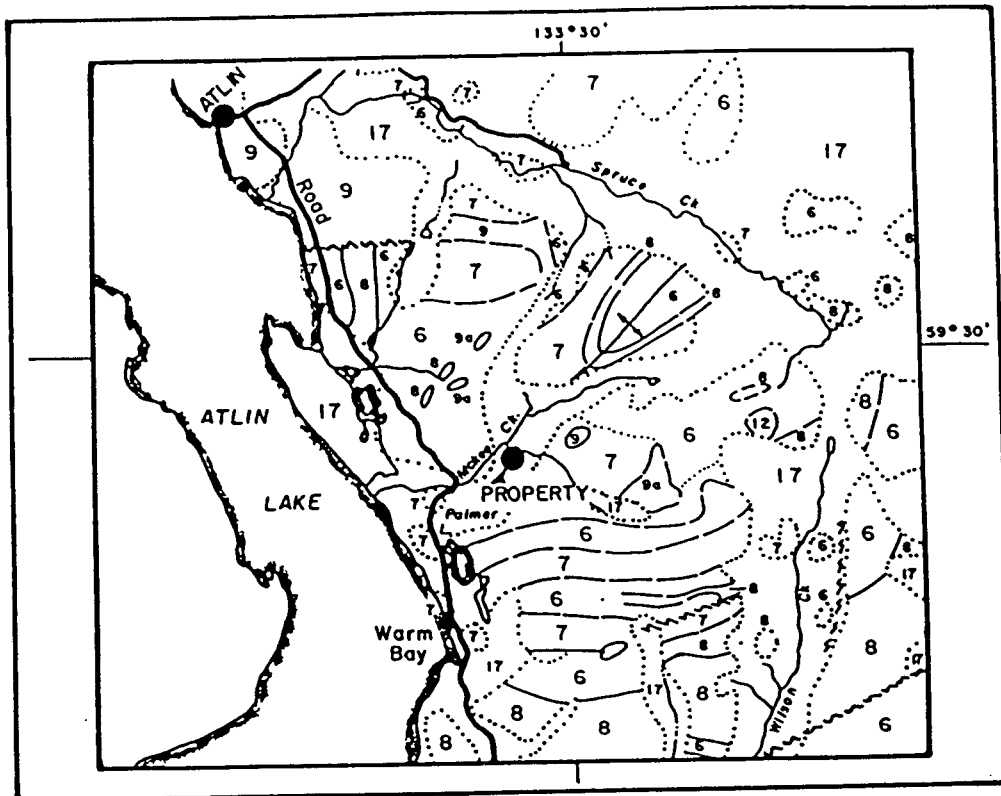
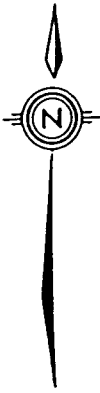
2.0 GEOLOGY

2.1 REGIONAL GEOLOGY

Geologic mapping of this area was undertaken in 1951-55 by J.D. Aitken of the Geological Survey of Canada (GSC) and compiled as Map 1082A (Figure 6). In 1966-68, J.W.H. Monger, also of the GSC, selectively mapped the Atlin area and published his findings in GSC Paper 74-47.

The Atlin region is located in a eugeosynclinal area composed of three distinct northwest striking tectonic belts; the St. Elias and Insular Belt, Coast and Cascades Belt and Intermontane Belt. The rocks of the area belong to the Atlin Terrane, which represents an independent tectonic entity of the oceanic sequence of the Intermontane Belt in the Canadian Cordillera. The Atlin Terrane consists of upper Paleozoic age radiolarian cherts, pelites, carbonates, volcanics and ultramafics. These rocks are intruded by Mesozoic granite, alaskite and quartz monzonite. The youngest rocks of the Atlin Terrane are composed of Tertiary and Quaternary volcanics. Till deposited by receding Pleistocene glaciers extensively covers the valleys.

The Atlin Terrane is bounded on the northeast by a northwest striking vertical fault and on the southwest by a northwest striking reverse fault. Structurally, the terrane is characterized by compressional deformation which is similar in style and trend to the southwest bounding faults (Monger, 1975). Minor fold axes generally strike northwest or trend southwest.



LEGEND

GENOZOIC	QUATERNARY PLEISTOCENE AND RECENT	17	Glacial drift, alluvium	
	TERTIARY AND QUATERNARY	16	Oligocene basalt and tuff; Miocene, Pliocene	
	TERTIARY (M)	15	T3a, quartz monzonite; T3b, granodiorite; T3c, gabbro and diorite	
	CRETACEOUS OR TERTIARY SLOPE GROUP	14	Andesite, basalt, rhyolite, dacite, and related pyroclastic rocks; conglomerates, sandstone	
	CRETACEOUS	13	13a, shales; 13b, quartz monzonite	
	JURASSIC (May be in part older and younger)	12	COAST intrusions Unfractionated granitic rocks; 12a, Black Mountain body; 12b, Fourth of July Creek body; 12c, pink granite; 12d, Mount McManis body; 12e, diorite; 12f, alkaline granite	
	JURASSIC	11	LADENGE GROUP Volcanic graywacke, andesite, mudstone, shale, conglomerates, minor concretionary sandy limestone	
	TRASSIC (M)	10	Granite, rhyolite, andesite, conglomerates, silt, clay, greenstone, minor limestone, sand	
	PALEOZOIC	PENNSYLVANIAN AND PERMIAN ATLIN intrusions	9	Pandora, mono-diorite and mono-gabbro, G ₁ , anorthosite, G ₂ , orthoclinal anorthosite, G ₃ , alk-bearing (anomalous) orthoclinal rocks
		CACHE CREEK GROUP	6, 7, 8	G, Quartz, amphibole, chlorite, epidote, calcic amphibole and chlorite lenses, detrital quartzite and schist; minor 7 and 8 7, Greenstone and volcanic granites; detrital amphibolites, minor 6 and 8 8, Limestone and limestone breccia

PERRON GOLD MINES LTD.
ATLIN M.D.-B.C. NTS 104-N-5,6,11,12

GENERAL GEOLOGY MAP

SCALE 1:253,440 (1"=4 MILE)
DATE: JAN. 1984 C.W./r.w.r. C.E.T.
AFTER GSC MAP 1082A FIGURE 6

2.2 PROPERTY GEOLOGY

Detailed geologic mapping was carried out over the McKee Creek valley at a scale of 1:2,000 (Fig. 5). Tailings from old placer workings extensively cover the valley bottom and obscure outcrop.

McKee Creek is underlain by Pennsylvanian and Permian age limestone, chert, argillite and andesite of the Cache Creek Group. Stratigraphic relationships between the units have not been deduced. The Cache Creek Group is intruded by ultramafic plugs of the Atlin Intrusions and cut by a diorite dyke. The ultramafic commonly shows pervasive carbonate alteration, ubiquitous mariposite and quartz stockwork veining. The chert also exhibits quartz stockwork veining wherever it occurs adjacent to a shear zone.

Many of the outcrops are intensely sheared and fractured with a principal orientation of northeast.

2.3 ECONOMIC GEOLOGY

The Atlin area has enjoyed a history of productive placer mining and to a lesser extent, hard rock mining. As is common in the Atlin area, the gold recovered from McKee Creek is coarse and often found intergrown with quartz. Much of the placer gold production has been from rich orange-red claybound Tertiary gravels in lower McKee Creek. A large 36.88 troy ounce nugget was recovered from McKee Creek in 1981 (J. Harvey, pers. comm., 1984). It is hypothesized that similar rich-paying Tertiary gravels are preserved and buried below the level of glacial scouring in Eldorado and upper McKee Creeks. This hypothesis was tested in the 1984 drilling programme.

In 1983, Standard Gold Mines Ltd. announced a new lode gold showing just northeast of the McKee Creek property. Work by Standard Gold indicated that the gold occurred in a quartz stockwork hosted by carbonatized ultramafic. Similar mineralization may exist on Perron Gold's McKee Creek property.

3.0 GEOPHYSICS

3.1 G-816 MAGNETOMETER SYSTEM

Two Model G-816 Proton Precision Magnetometers manufactured by Geometrics were utilized on this programme. The G-816 magnetometer is designed for precise mapping of very small or large amplitude anomalies and is ideal for detail follow-up of aeromagnetic reconnaissance surveys. Total Field measurements can be read with a resolution of about 1 gamma throughout the instruments measuring range. One G-816 was used for field measurements while the second unit was combined with an automatic analog recording device (Model G-826, Base Station System) to monitor the earth's total magnetic field including time variations and magnetic storms. All values recorded on grid lines were corrected for diurnal and day to day variations. All readings were recorded at 25 metre intervals along the grid lines.

3.2 DISCUSSION OF RESULTS

The technique employed for the airborne follow-up consisted of constructing six chained and flagged lines across the suspected strike of the magnetic axis. These grid lines were spaced at 200 m intervals; line spacing was controlled by an east-west perpendicular Base Line. Ground follow-up covered 8.45 line km. Approximately 340 individual magnetometer responses were recorded within the survey block.

The corrected data is presented on Figure 4 as line profile data and on Figure 5 as contoured data.

The results of the ground follow-up, although satisfactory, have complicated the geologic understanding of the area. The follow-up programme did confirm the existence and position, relative to the claim boundaries, of several magnetic anomalies identified by the airborne survey. However, our present understanding of the underlying geology suggests that the area should have had a relatively low magnetic response (ie. the area was thought to be underlain by a sedimentary sequence made up mainly of argillites). With the additional magnetic data it now appears that the magnetic anomalies are due to undetected, near surface, intrusives (ie. ultramafics) which are known to be associated with economic mineralization. This additional information will be important for planning future exploration programmes.

In order to better evaluate the potential for this property, greater geological scrutiny will be required on any future mapping programmes.

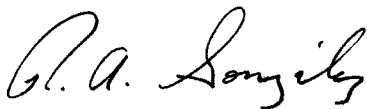
4.0 CONCLUSIONS

Previous geologic studies on the McKee Creek prospect indicate that the property is underlain by an assemblage of Cache Creek Group rocks, intruded by ultramafic plugs. Shears and fractures near the contacts of these main rock types appear to be important controls for mineralization as they provide pathways for percolating hydrothermal fluids. The importance of structure is further evidenced by the pervasive carbonate alteration and quartz stockwork veining near the contact between cherts and ultramafic bodies.

The ultramafic plugs are usually clearly delineated by distinct magnetic highs and represent the best potential exploration targets. Results over the area covered by this programme suggest a potential for near surface ultramafics intruding Cache Creek Group rocks in an area not previously thought to contain any ultramafics.

In order to better evaluate the potential for finding additional targets, greater scrutiny should be given to all areas of high magnetic responses. Prospecting and geologic mapping of these areas, to determine overburden thickness and underlying geology, would be a prerequisite to any ground follow-up.

Respectfully submitted,



R.A. Gonzalez, MSc., F.G.A.C., P.Eng.

5.0 REFERENCES

Aitken, J.D., 1960, Geology, Atlin, Cassiar District, British Columbia: Geological Survey of Canada, Map 1082A, Scale 1:253,440.

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Gonzalez, R.A., 1984, Geological, Geochemical, and Geophysical Assessment Report on the Sylvia Claim Group, Atlin Mining Division, B.C.: Assessment Report Dated October 1984.

Holland, S.S., 1950, Placer Gold Production of British Columbia: B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 28, 89 p.

Monger, J.W.H., 1975, Upper Paleozoic Rocks of the Atlin Terrane, Northwestern British Columbia and South-Central Yukon: Geological Survey of Canada, Paper 74-47, 63 p. and maps.

Troup, A.G. and Wong, C., 1983, Geochemical, Geological and Geophysical Report on the Shuksan Property: Engineer's Report dated October 1983.

6.0 COSTS STATEMENT

PERRON GOLD MINES LTD
 McKEE CREEK CLAIMS
 GROUND FOLLOW-UP MAGNETOMETER SURVEY
 12 JUNE - 18 JUNE 1985

SALARIES AND WAGES:

3 Pers, 9 man days @ \$ 88.67/day	\$ 798.00
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BENEFITS: @ 20.0%	159.60
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RENTALS:

Mark's 4WD Bronco, 13 and 15 June		
2 days @ \$43.00/day	\$ 86.00	
Kangeld's Base Station Proton Magnetometer and G-816 Proton Magnetometer		
3 unit days @\$27.00/day	81.00	
Ezekiel Camp Equipment, 6 man days @ \$6	<u>36.00</u>	203.00

FOOD AND ACCOMMODATION:

3 Pers, 7 man days @ \$28.88/day	202.19
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TELEPHONE CHARGES:	29.00
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SUPPLIES:	100.37
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SHIPPING/POSTAGE:	3.71
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CONSULTANT FEES:

Archean Engineering	1,235.00
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REPORT PREPARATION	<u>1,683.22</u>
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TOTAL MAGNETOMETER SURVEY COSTS	<u><u>\$4,414.09</u></u>
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7.0 STATEMENT OF PROFESSIONAL QUALIFICATIONS

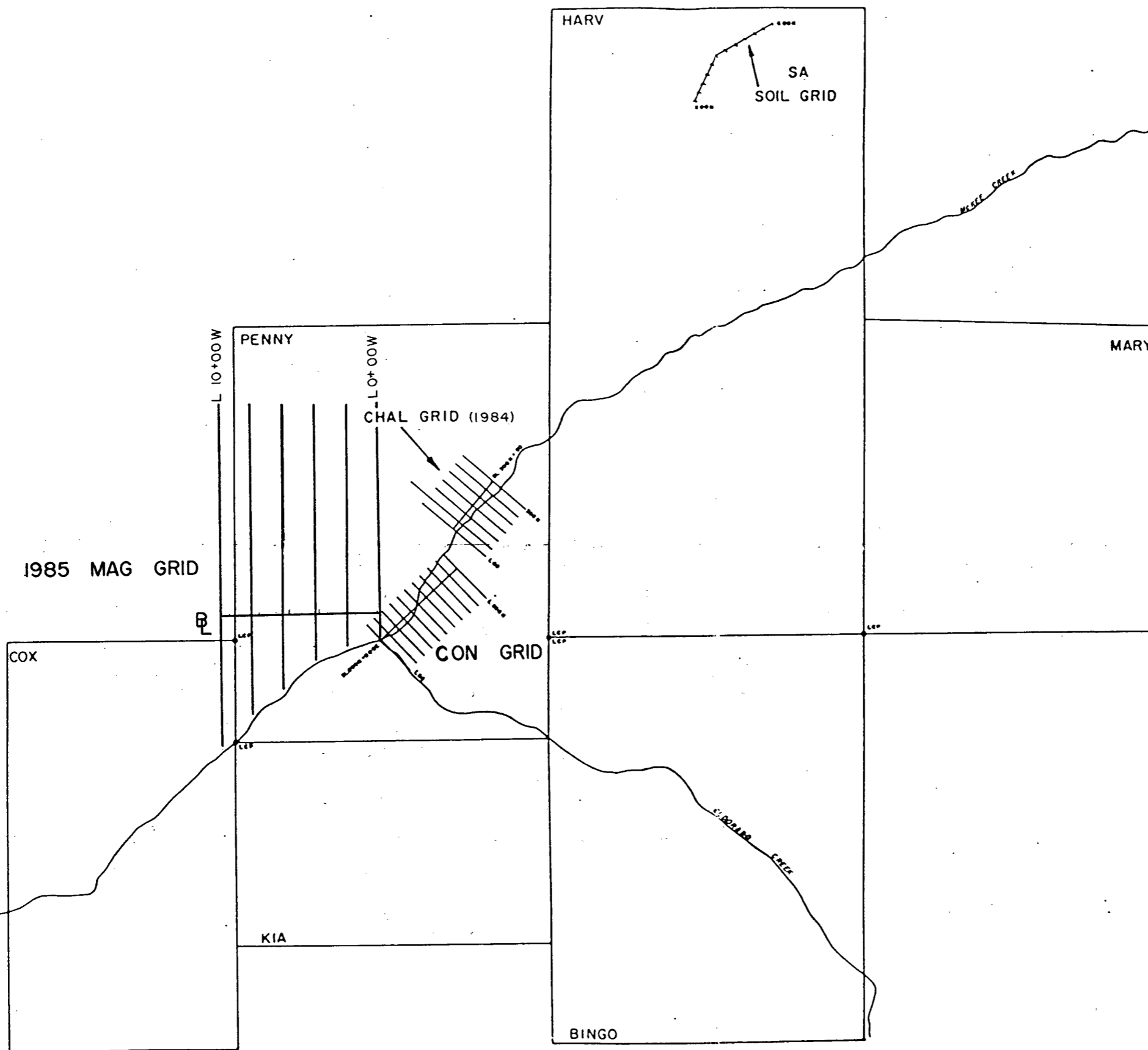
R.A. GONZALEZ, M.Sc., F.G.A.C., P.Eng.

ACADEMIC

1965	B.Sc. in Geology	The University of New Mexico, U.S.A.
1968	M.Sc. in Geology	The University of New Mexico, U.S.A.

PROFESSIONAL

1983	Archean Engineering Limited	Overseas Manager
1980-1983	Placer Development y Cia. Ltd. (Chile)	Ass't Exploration Manager
1977-1980	Consultant attached to the Geological Survey of Malaysia	Ass't Project Manager on a C.I.D.A. supported mineral exploration survey over Peninsular Malaysia
1977	Registered Professional Engineer in the Province of Manitoba	
1975-1977	Province of Manitoba	Resident Geologist for the Manitoba Dept. of Mines.
1971-1975	Giant Mascot Mines Limited	Senior Geologist
1970-1971	New Jersey Zinc (Canada) Ltd.	Exploration Geologist
1968-1970	Anaconda American Brass Ltd.	Research Geologist
1965-1966	Mex-Tex Mining Co. (U.S.A)	Geologist



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,336

PERRON GOLD MINES LTD.	
McKEE CK PROJECT	
ATLIN M.D.-B.C.	104-M-5
McKEE CREEK PROPERTY	
CLAIM MAP & GRID LOCATIONS	
0 100 200 300 400	
DATE: JULY 1985	
BY AB/14 (of Mr. B.L.W.)	FIGURE 2



L 10+00 W

L 8+00 W

L 6+00 W

L 4+00 W

L 2+00 W

L 0+00



PENNY M.C.

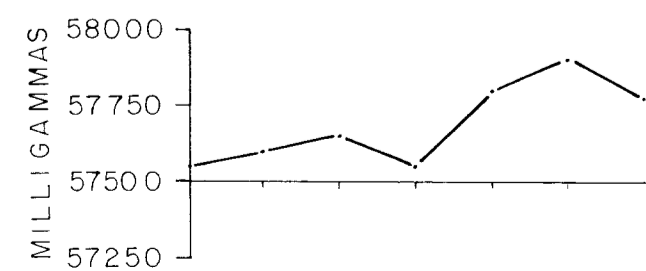
COX M.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,336

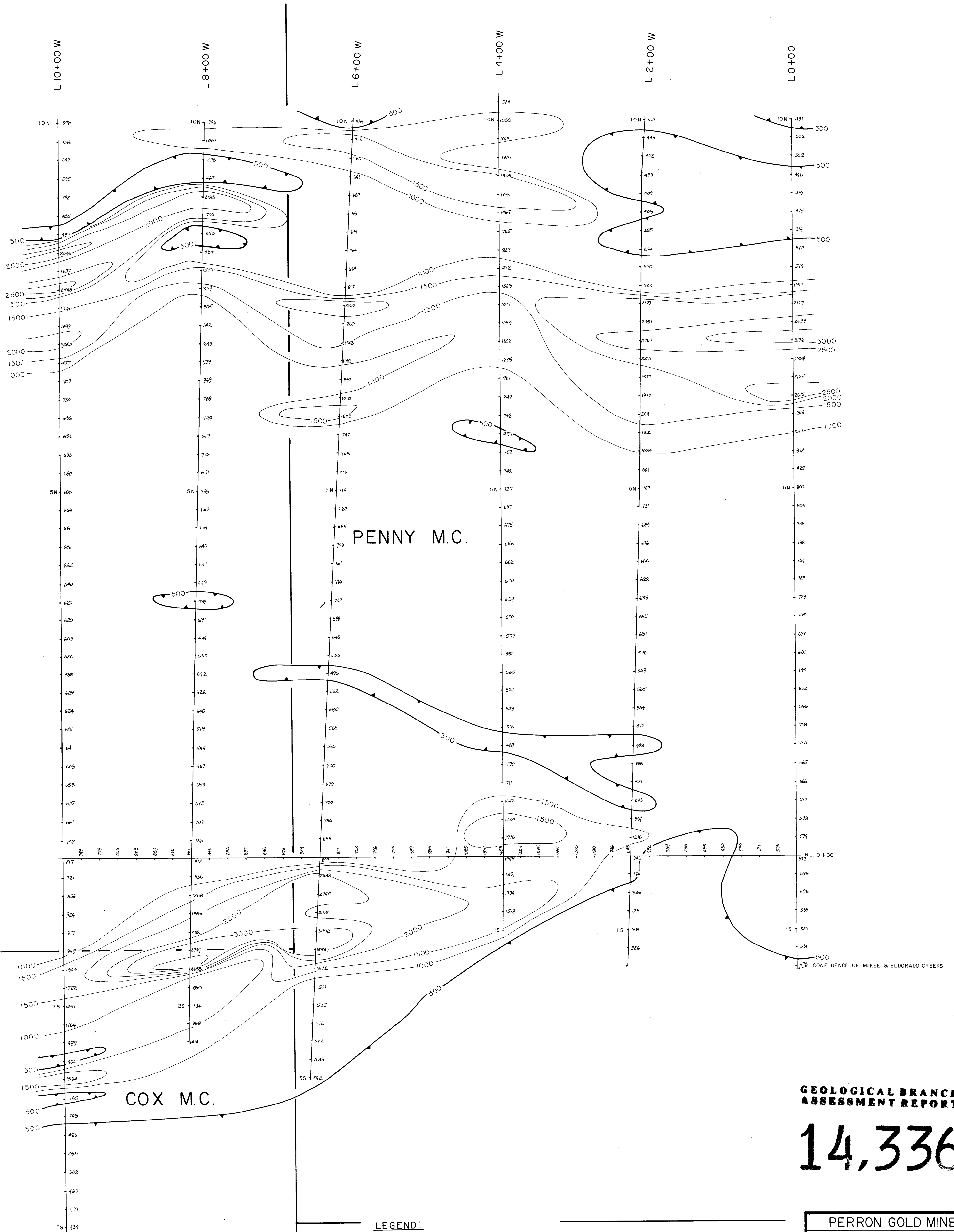
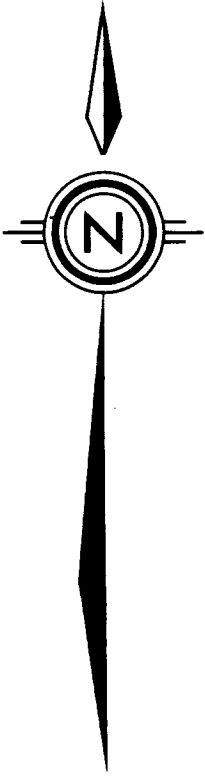
LEGEND:

MAGNETOMETER PROFILE SCALE



INSTRUMENT :

PERRON GOLD MINES LTD.	
McKEE CREEK PROPERTY ATLIN, B.C.	
PENNY & COX M.C. MAGNETOMETER SURVEY (PROFILES)	
0 100 200 metres (1:2500)	
BY:	MAP N° 4
DATE: JUNE 1985	



LEGEND:

- MAGNETOMETER READING (MILLIGAMMAS)
- CONTOUR INTERVAL = 500 MILLIGAMMAS
- NOTE: 0 = 57000 MILLIGAMMAS
- INSTRUMENT:

**GEOLOGICAL BRANCH
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PERRON GOLD MINES LTD.
MCKEE CREEK PROPERTY
ATLIN, B.C.
PENNY & COX M.C.
MAGNETOMETER SURVEY
(CONTOURS)

0 100 200 metres
(1:2500)

BY: L.D./r.w.r.
DATE: JUNE 1985
MAP No. 5