6079

Geochemical and Geophysical Report

on the PR Mineral Claims,

Cariboo M.D.

PR

by

P.E. Fox, PhD. P.Eng.

Fox Geological Consultants Ltd

Kamloops, BC

November 15, 1976

93A/12W

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INTRODUCTION

This report describes exploration work done on the PR mineral claims. Work to date consists of 19.1 miles (32 km) of flagged grid, geochemical soil sampling, magnetometer survey, and geological mapping. This work was done between August 9 and September 22, 1976. The property (Figure 1) consists of four claims situated on the north side of the Quesnel River 35 miles southeast of Quesnel (93A12, 52°41'N, 121°48'W). Two years assessment work were filed on the PR2, PR3, PR4, and PR5 claims on October 1, 1976. Work described in this report will advance expiry dates two years. The following list gives record numbers and expiry dates as of October 7, 1976.

Claim Name	Record Number	Expiry Date
PR2	184	June 3, 1979
PR3	185	June 3, 1979
PR4	186	June 3, 1979
PR5	79	Oct. 7, 1978

ACCESS

All work was done from a helicopter-supported camp situated at Camp Lake (Figure 1). The property is about 30 minutes flying time from the Okanagan base at Williams Lake. Original plans called for preparation of an access road to the property but this work was postponed because of inclement weather. This road when completed will link the property to the Twenty Mile Pass area, about 10 miles to the west.

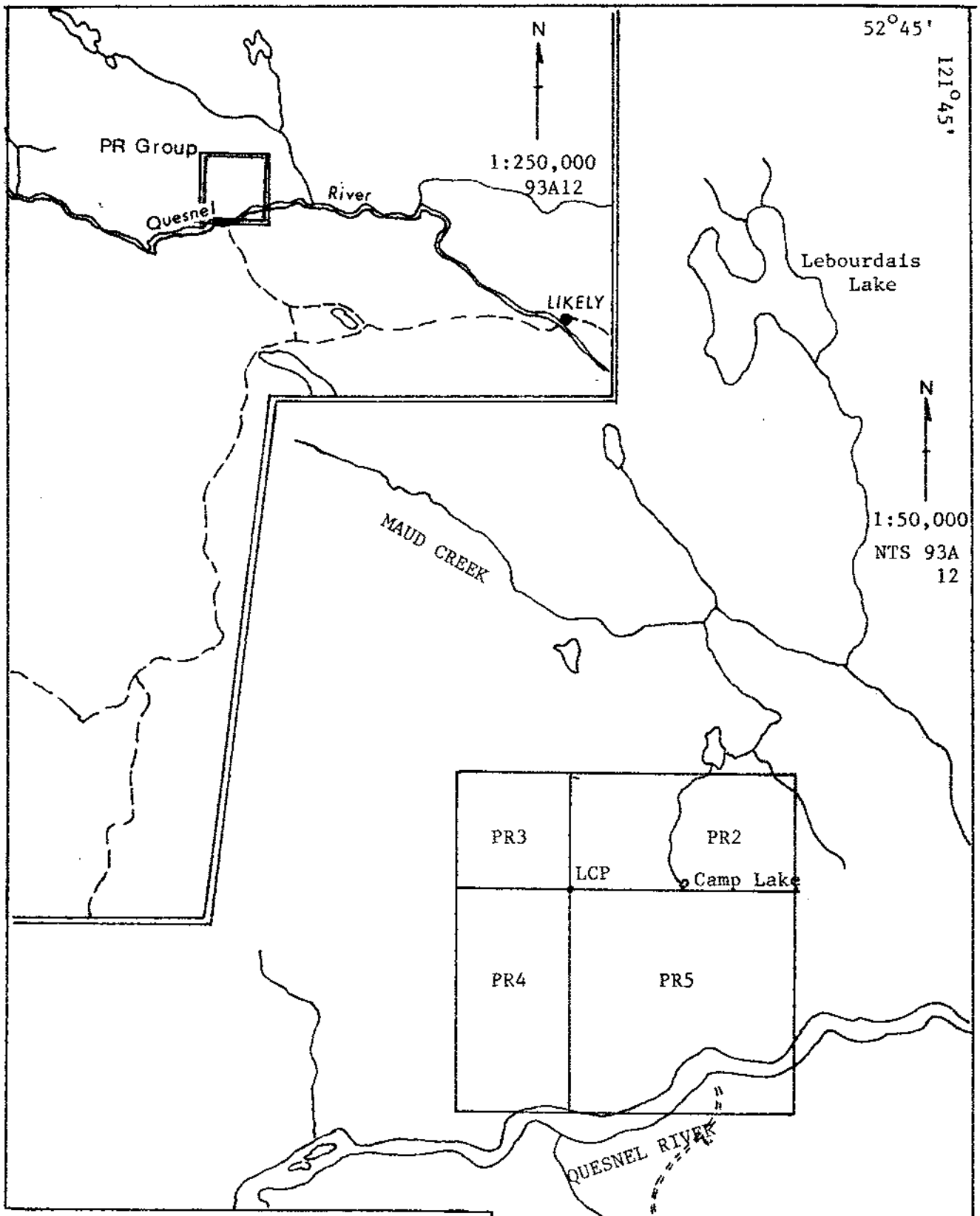

Figure 1. Location plan for the PR mineral claims, Cariboo MD. Scale: 1:50,000; inset map 1:250,000.
To accompany Geochemical and Geophysical Report on the PR Mineral Claims, by P.E. Fox. November 15, 1976

WORK PROGRAM

The 1976 work program consisted of grid preparation, geochemical soil sampling, and a ground magnetometer survey. The work was done between August 9 and September 22, 1976. A grid system consisting of 19.1 miles (32 km) of flagged lines was prepared by contract personnel using the legal corner post as 1000E and ON. Grid lines were spaced 400m apart as far as 800 E and 200m apart from 800E to 3000E. Grid lines were marked at 50 metre intervals.

The magnetic survey was done using a McPhar M700 magnetometer. Base stations were established along the baseline and all measurements were corrected for diural changes. Geochemical work consisted of soil sample collection at 100 metre intervals along established grid lines. Samples were collected from a well developed reddish horizon immediately below a layer of decayed forest litter. Samples were collected by grubhoe and stored in kraft paper bags. The -80 mesh fraction was analysed by Acme Analytical Laboratories for copper and gold. Results of the geochemical program are given in Appendix I and shown in plan form in Figure 2. Magnetometer measurements are given in Figure 3 and contoured using an interval of 200 gammas.

GEOLOGICAL SETTING

The Quesnel River property covers a dioritic stock and enclosing volcanic strata on the north side of the Quesnel River. The property is one of a group of alkalic stocks that are exposed

between Canim Lake and Quesnel. The property is 10 miles northwest of the Cariboo Bell copper-gold prospect situated on Polley Mountain. The alkalic intrusions are polyphase bodies consisting of diorite, monzodiorite, monzonite, and locally syenite, and various intrusive breccias. These rocks intrude thick successions of olivine basalt, augite basalt, trachybasalt, felsic breccias, and volcanic sediments. A large number of copper-gold porphyry type prospects are associated with the stock complexes. These occur either within the intrusive rocks or the enclosing volcanic strata. Bedrock exposures on the property are confined to rocky summits west of Camp Lake and on steep slopes of the Quesnel River valley. The remainder of the area consists of gentle slopes where bedrock is covered by several feet or more of glacial till.

Dark grey to black basaltic flows and thick layers of unstratified autobreccia form rocky summits and ridges west of Camp Lake. The same material forms small outcrops southwest of Camp Lake and a broad low hill to the east. Poorly bedded volcanic wackes and sedimentary grits outcrop at lower elevations east and west of Camp Lake and form steep limonite-stained bluffs above the Quesnel River near the east boundary of the PR5 claim. The bluffs comprise a conspicuous gossan zone visible for many miles to the south. The sediments strike easterly, dip 35° south, and apparently overlie basaltic rocks to the north.

Augite diorite and biotite monzodiorite form a composite stock exposed on steep bluffs and talus slopes north of the Quesnel River. The stock is exposed along the valley side for 2000 feet and

is inferred by magnetic measurements to extend 2500 feet farther west beyond the area of outcrop. Outcrops of diorite extend southerly almost to the Quesnel River but the stock is apparently covered by thick accumulations of glacial clay south of the River. The east and north part of the stock is highly fractured and altered to K-feldspar veinlets and irregular patches of epidote. Pyrite is abundant and forms disseminated grains and films on fractures. Pyrite content increases from west to east and comprises about 5% of the diorite at the east margin of the stock. Swarms of pyrite-rich hornblende porphyry dykes are also common along the east contact. Magnetite forms disseminated grains and small stockwork zones associated with K-feldspar and epidote. The pyrite zone extends to the east and north into the enclosing volcanic strata where pyrite content increases to as much as 10%.

Small amounts of malachite and disseminated grains of chalcopyrite were found in steep gulleys near the east margin of the stock but recent prospecting of this area and elsewhere along the bluffs failed to reveal any copper minerals in place.

GEOCHEMISTRY

Results of the soil sampling program are given in Figure 2. Analyses for copper and gold are plotted at the sample site and coded in red for samples above 99 ppm copper and/or 40 ppb gold. Approximately 43% of the samples contain 10 ppb or more gold and variable amounts of copper. Significant amounts of gold and/or copper in overburden materials forms a broad geochemical anomaly extending southeasterly from Camp Lake. The anomaly covers an area 2200 feet wide

and 4000 feet long. It is open to the southeast where colluvial rock and talus debris on the upper valley slopes are rich in both copper and gold. Other smaller anomalies are situated on Lines 400E, 800E, and 1000E. Exceptionally high gold contents of 2200 and 3200 ppb were obtained from samples taken on Line 0E. A third sample containing 2500 ppb gold was collected on Line 2400E northeast of Camp Lake.

MAGNETOMETER SURVEY

Results of the magnetometer survey are given in Figure 3. Steep magnetic gradients near the south end of the grid correspond to magnetite-rich dioritic rocks and clearly outlines the north contact of the stock. Elsewhere magnetic relief is low, rarely more than a few hundred gammas.

DISCUSSION

Anomalous amounts of copper and/or gold are associated with pyritic intrusive rocks and volcanic sediments. The overburden anomaly extends southeasterly for several thousand feet from Camp Lake. Talus material derived from the stock and nearby pyritic sediments are anomalous both in copper and gold. Soil material north of the steep valley slopes near Camp Lake are generally anomalous in gold only. The large anomaly south of Camp Lake is apparently due to the weathering of pyritic volcanic sediments and diorite exposed on the valley slopes and in several small outcrops southwest of Camp Lake. Anomalous samples farther west may be part of the same zone but do not form a continu-

ous anomaly because of thicker overburden in the southwestern part of the property.

High concentrations of gold on Lines OE were collected close to bedrock. Nearby outcrops on Line OE are barren augite basalt.

DISBURSEMENTS

Disbursements for assessment work are given below. Grid preparation, sample collection, and magnetometer work were done on a contract basis by D.G. Colley, Hornby Island, B.C. and R. Osterhout, Victoria, B.C. Helicopter support was required because of difficult access. Although the southern part of the claim group is accessible by road from Morehead Lake, access to the survey area is made difficult by the Quesnel River.

1.	Grid preparation by contract. D.G. Colley, R. Osterhout 19.11 miles (32 km) x $200/mile	$3822.00
2.	Geochemical soil survey by contract 299 samples x $2.50	747.00
3.	Magnetometer survey by contract 19.11 miles x $45/mile	859.00
4.	Accomodation and board for contract personnel	200.00
5.	Geochemical analyses 298 samples x $3.16/sample	942.00
6.	Helicopter 2.1 hours 206B	699.00
7.	Report preparation and work supervision by P.E. Fox, PhD.P.Eng.	300.00
8.	Travel for 2 men from Victoria	364.61
	TOTAL	$7933.61

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ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis
6455 Laurel St., Burnaby 2, B.C.

Tel: 299-5242

ANALYSES CERTIFICATE

File No. 6711
Type of Samples Soil
Disposition 1 Year

No.	Sample		Cu	Au										No.
01	2600E 200S		45	ND										01
02	300S		41	.01										02
03	400S		13	ND										03
04	500S		10	ND										04
05	600S		15	.08										05
06	700S		12	ND										06
07	800S		26	.04										07
08	900S		190	.23										08
09	1000S		410	.29										09
10	2600E 1100S		170	.47										10
11														11
12	2800E 0N		20	.01										12
13	100N		16	ND										13
14	200N		56	.02										14
15	300N		14	ND										15
16	400N		41	ND										16
17	500N		19	ND										17
18	600N		45	ND										18
19	700N		62	ND										19
20	800N		64	ND										20
21	900N		29	ND										21
22	1000N		56	ND										22
23	100S		14	ND										23
24	200S		33	ND										24
25	300S		50	ND										25
26	400S		21	ND										26
27	500S		20	.05										27
28	600S		21	ND										28
29	700S		30	ND										29
30	800S		52	.02										30
31	900S		56	.02										31
32	2800E 1000S		215	.22										32
33														33
34														34
35														35
36														36
37														37
38														38
39														39
40														40

All results are in parts per million.

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Work was paid for by Newconex Canadian Exploration Ltd. ($4,407) and Dome Exploration (Canada) Ltd. ($3,525).

Prepared by

FOX GEOLOGICAL CONSULTANTS LTD

P.E. Fox, PhD P.Eng.

November 15, 1976

APPENDIX I

Geochemical Analyses

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File No. 6711
Type of Samples Soil
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No.	Sample		Mo	Cu	Au									No.
01	0E 100N			41	.22									01
02	200N			64	ND									02
03	300N			38	ND									03
04	400N			37	ND									04
05	500N			33	ND									05
06	600N			40	.01									06
07	700N			42	ND									07
08	800N			46	ND									08
09	900N			82	ND									09
10	0E 1000N			80	ND									10
11	0S			29	.32									11
12	100S			42	.02									12
13	200S			50	.01									13
14	300S			52	ND									14
15	400S			48	.01									15
16	500S			56	.02									16
17	600S			16	.02									17
18	700S			22	ND									18
19	800S			29	ND									19
20	900S			28	ND									20
21	1000S			17	ND									21
22	0E 1100S			18	ND									22
23														23
24	400E 0N			72	ND									24
25	100N			21	ND									25
26	200N			52	.02									26
27	300N			68	.08									27
28	400N			25	ND									28
29	500N			43	ND									29
30	600N			40	ND									30
31	700N			78	ND									31
32	800N			38	ND									32
33	900N			345	ND									33
34	400E 1000N			28	.01									34
35														35
36														36
37														37
38														38
39														39
40														40

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Type of Samples Soil
Disposition 1 Year

No.	Sample		Cu	Au										No.
01	3000E ON		21	ND										01
02	100N		29	ND										02
03	200N		23	ND										03
04	300N		32	ND										04
05	400N		41	ND										05
06	500N		25	ND										06
07	600N		20	ND										07
08	700N		60	.08										08
09	800N		31	ND										09
10	100S		50	.03										10
11	200S		37	ND										11
12	300S		45	ND										12
13	400S		30	ND										13
14	500S		21	ND										14
15	600S		30	ND										15
16	700S		44	ND										16
17	800S		12	ND										17
18	900S		18	ND										18
19	3000E 1000S		126	.24										19
20														20
21														21
22														22
23														23
24														24
25														25
26														26
27														27
28														28
29														29
30														30
31														31
32														32
33														33
34														34
35														35
36														36
37														37
38														38
39														39
40														40

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Type of Samples Soils
Disposition 1 Year

No.	Sample		Mo	Cu	Au									No.
01	400E 100S			55	.01									01
02	200S			78	ND									02
03	300S			100	ND									03
04	400S			40	1.54									04
05	500S			31	.06									05
06	600S			45	.05									06
07	700S			46	ND									07
08	800S			39	.09									08
09	900S			43	ND									09
10	1000S			42	.10									10
11	400E 1100S			29	.03									11
12														12
13	800E 0N			49	.07									13
14	100N			50	ND									14
15	200N			34	ND									15
16	300N			29	ND									16
17	400N			25	ND									17
18	500N			53	.07									18
19	600N			63	.03									19
20	700N			120	.02									20
21	800N			35	ND									21
22	900N			35	.08									22
23	1000N			42	ND									23
24	100S			42	.02									24
25	200S			84	.15									25
26	300S			44	.02									26
27	400S			33	.01									27
28	500S			26	ND									28
29	600S			20	.01									29
30	700S			54	.02									30
31	800S			33	.10									31
32	900S			54	.36									32
33	1000S			22	.09									33
34	800E 1100S			23	ND									34
35														35
36														36
37														37
38														38
39														39
40														40

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No.	Sample		Cu	Au										No.
01	1000E ON		80	.01										01
02	100N		32	ND										02
03	200N		50	ND										03
04	300N		58	.01										04
05	400N		27	.06										05
06	500N		36	.07										06
07	600N		62	ND										07
08	700N		41	ND										08
09	800N		62	.01										09
10	900N		275	.02										10
11	1000N		43	.01										11
12	100S		60	.05										12
13	200S		33	.01										13
14	300S		82	ND										14
15	400S		26	.01										15
16	500S		60	.07										16
17	600S		16	.01										17
18	700S		33	.02										18
19	800S		43	ND										19
20	900S		68	ND										20
21	1000S		64	.01										21
22	1000E 1100S		43	.01										22
23														23
24	1200E ON		68	ND										24
25	100N		39	ND										25
26	200N		38	ND										26
27	300N		20	.03										27
28	400N		21	ND										28
29	500N		26	ND										29
30	600N		52	.01										30
31	700N		29	ND										31
32	800N		50	ND										32
33	900N		96	ND										33
34	1000N		310	.02										34
35	100S		70	ND										35
36	200S		38	.01										36
37	300S		82	ND										37
38	1200E 400S		40	.01										38
39														39
40														40

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Disposition 1 Year

No.	Sample		Cu	Au										No.
01	1200E 500S		82	.02										01
02	600S		62	.10										02
03	700S		25	.01										03
04	800S		33	ND										04
05	900S		74	.01										05
06	1000S		29	ND										06
07	1200E 1100S		46	.01										07
08														08
09	1400E ON		42	.02										09
10	100N		36	ND										10
11	200N		78	.04										11
12	300N		36	ND										12
13	400N		108	ND										13
14	500N		62	.01										14
15	600N		116	.01										15
16	700N		52	ND										16
17	800N		43	ND										17
18	900N		82	ND										18
19	100S		56	ND										19
20	200S		52	ND										20
21	300S		62	.01										21
22	400S		31	ND										22
23	500S		29	ND										23
24	600S		62	.02										24
25	700S		78	.01										25
26	800S		66	.02										26
27	900S		54	ND										27
28	1000S		35	.01										28
29	1400E 1100S		33	.06										29
30														30
31	1600E ON		46	.07										31
32	100N		60	.08										32
33	200N		72	.01										33
34	300N		64	ND										34
35	400N		31	ND										35
36	500N		62	.04										36
37	600N		47	.05										37
38	1600E 700N		82	.04										38
39														39
40														40

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No.	Sample	Cu	Au	No.
01	1600E 800N	132	ND	01
02	900N	385	.01	02
03	1000 N	100	ND	03
04	100S	39	ND	04
05	200S	96	.15	05
06	300S	45	.10	06
07	400S	70	ND	07
08	500S	68	ND	08
09	600S	86	.03	09
10	700S	102	.03	10
11	800S	86	.01	11
12	900S	No Sample		12
13	1000S	80	ND	13
14	1600E 1100S	200	ND	14
15				15
16	1800E 0N	66	ND	16
17	100N	230	.04	17
18	200N	62	ND	18
19	300N	82	.01	19
20	400N	112	ND	20
21	500N	30	ND	21
22	600N	48	ND	22
23	700N	50	.01	23
24	800N	54	ND	24
25	900N	62	ND	25
26	1000N	26	ND	26
27	100S	96	.18	27
28	200S	68	.04	28
29	300S	74	.05	29
30	400S	42	.05	30
31	500S	72	.35	31
32	600S	180	.02	32
33	700S	94	.02	33
34	800S	146	.07	34
35	900S	70	ND	35
36	900A$	130	.01	36
37	1000S	50	ND	37
38	1800E 1100S	96	.01	38
39				39
40				40

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No.	Sample		Cu	Au										No.
01	2000E 100N		72	ND										01
02	200N		70	ND										02
03	300N		52	ND										03
04	400N		72	ND										04
05	500N		150	ND										05
06	600N		56	ND										06
07	700N		68	ND										07
08	800N		62	ND										08
09	900N		25	ND										09
10	1000N		37	ND										10
11	200S		48	.03										11
12	300S		92	.35										12
13	400S		50	.11										13
14	500S		62	.05										14
15	600S		104	.16										15
16	700S		21	.05										16
17	800S		66	.01										17
18	900S		620	.03										18
19	2000E 1000S		215	.01										19
20														20
21	2200E 0N		26	ND										21
22	100N		17	ND										22
23	200N		56	ND										23
24	300N		23	ND										24
25	400N		62	ND										25
26	500N		140	ND										26
27	600N		43	ND										27
28	700N		72	ND										28
29	800N		31	ND										29
30	900N		27	ND										30
31	1000N		31	ND										31
32	100S		62	ND										32
33	200S		60	ND										33
34	300S		31	ND										34
35	400S		20	ND										35
36	500S		62	.03										36
37	600S		64	.16										37
38	2200E 700S		160	.13										38
39														39
40														40

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Consultants Ltd.,
827 Sicamore Dr.,
Kamloops, B. C.

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis
6455 Laurel St., Burnaby 2, B.C.

Tel: 299-5242

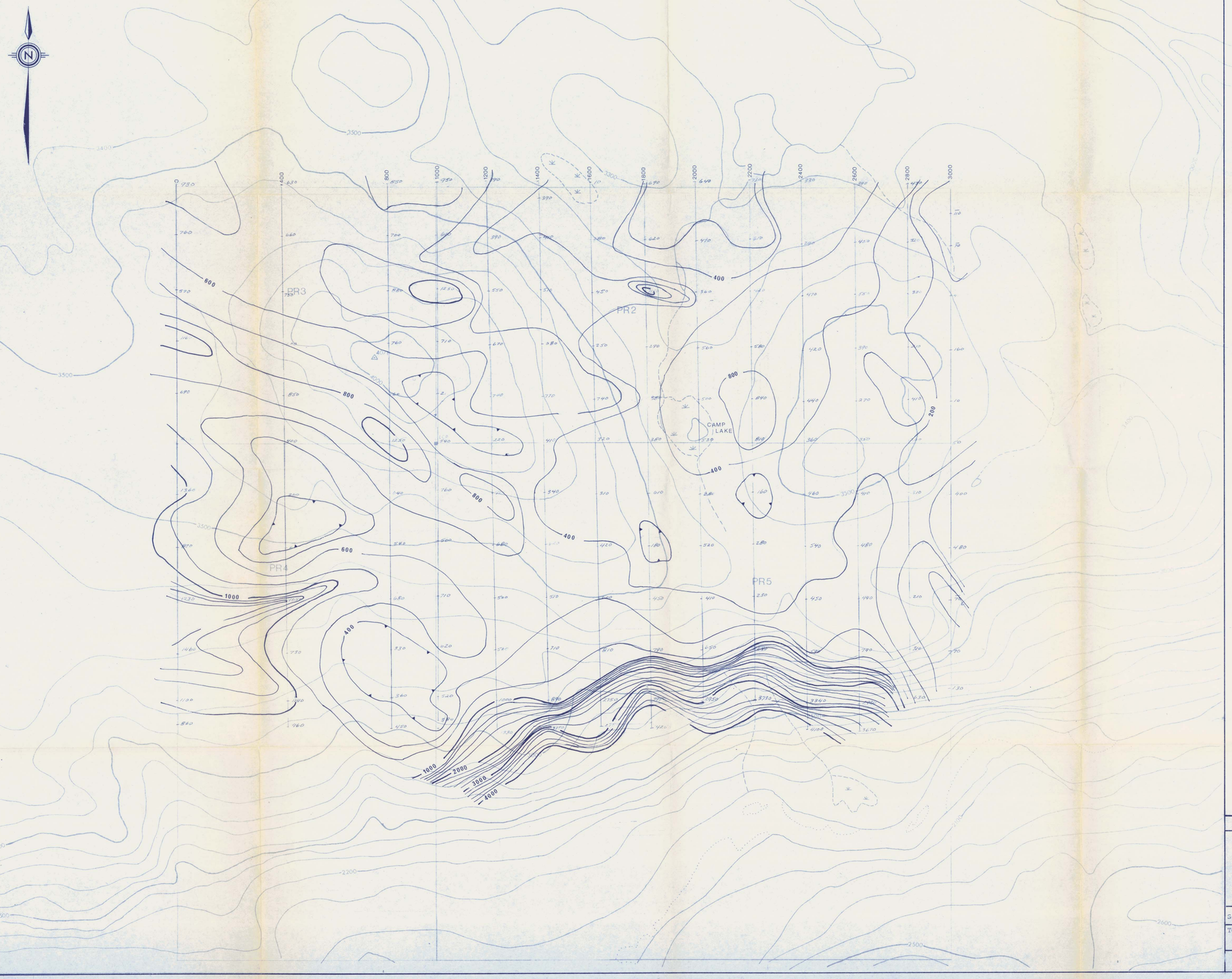
ANALYSES CERTIFICATE

File No. 6711
Type of Samples Soil
Disposition 1 Year

No.	Sample		Cu	Au										No.
01	2200E 800S		350	.04										01
02	900S		200	.08										02
03	2200E 1000S		144	.03										03
04														04
05	2400E 0N		36	.18										05
06	100N		62	.02										06
07	200N		52	ND										07
08	300N		33	ND										08
09	400N		72	2.50										09
10	500N		40	.01										10
11	600N		No Sample											11
12	700N		36	.01										12
13	800N		25	.02										13
14	900N		31	.03										14
15	1000N		43	.01										15
16	100S		26	ND										16
17	200S		62	.04										17
18	300S		26	.02										18
19	400S		12	.01										19
20	500S		21	.02										20
21	600S		29	ND										21
22	700S		23	.07										22
23	800S		52	.06										23
24	900S		78	.17										24
25	1000S		162	.23										25
26	2400E 1100S		265	.08										26
27														27
28	2600E 0N		62	ND										28
29	100N		46	ND										29
30	200N		41	ND										30
31	300N		30	ND										31
32	400N		33	.01										32
33	500N		31	ND										33
34	600N		62	ND										34
35	700N		23	ND										35
36	800N		50	.01										36
37	900N		46	ND										37
38	1000N		52	ND										38
39	2600E 100S		30	.01										39
40														40

All results are in parts per million.

DATE SAMPLES RECEIVED August 25, 1976.
DATE REPORTS MAILED August 31, 1976.
ANALYST Dean Toye



PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA

FOX GEOLOGICAL CONSULTANTS LTD

PR MINERAL CLAIMS
Cariboo M.D.

MAGNETOMETER SURVEY
Contour interval 200 gammas

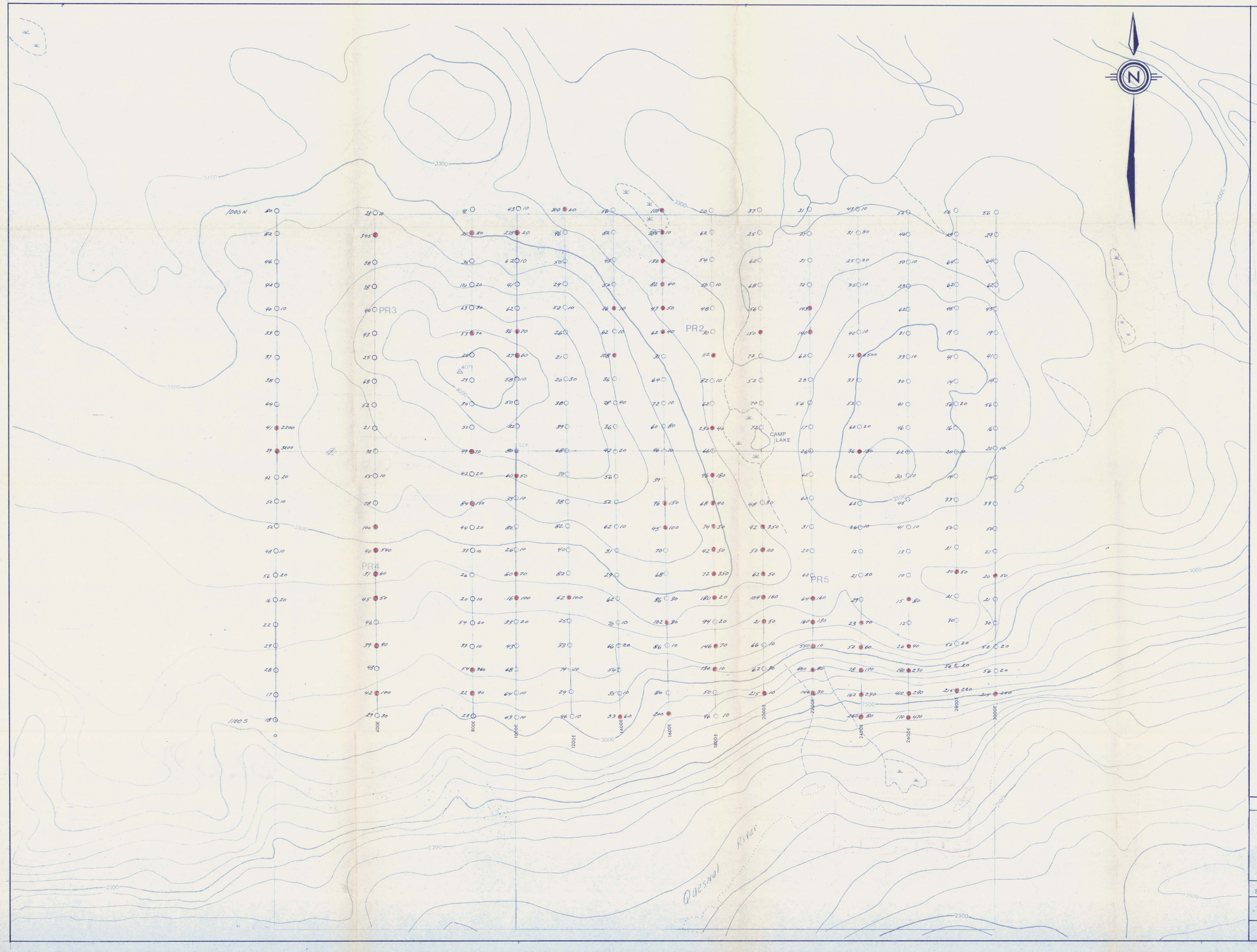
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6079
MAP NO. #2

Scale 1:6000 1"=500 ft | NTS 93A12 | Fig. 3

To accompany: Geochemical and geophysical report on the PR mineral claims, by P.E. Fox P.Eng. November 12, 1976

All grid references in metric units

6079



SYMBOLS

COPPER ppm GOLD ppb
80 20

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P.E. Fox

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PR MINERAL CLAIMS
Cariboo M.D.
GEOCHEMICAL MAP

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6079
MAP NO. #1

Scale 1:6,000
1" = 500 ft

NTS 93A12

Fig. 2

To accompany: Geochemical and geophysical report on the PR mineral Claims, by P.E. Fox P.Eng. November 12, 1976

Note: all grid references in metric units

6079