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Soil Geochemical Assessment Report

Pie Claims

NTS 94F/6E, 7W

Omineca Mining Division

Latitude: 57° 28' N Longitude 125° 00' W

Owner: Ecstall Mining Corporation

Operator: Minnova Inc.

Pie 92 Group

- Pie 1
- Pie 2
- Pie 5
- Pie 6
- Pie 7
- Pie 10
- Pie 11
- Pie 99
- Pie 100

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

22,678

G. S. Wells
Minnova Inc.

November 1992
Vancouver, B.C.

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Soil Geochemical Assessment Report
Pie Claims

1. INTRODUCTION

Minnova acquired an option on the PIE claims from Ecstall Mining Corporation in June, 1992 to evaluate their potential for hosting a SEDEX-style Ba-Pb-Zn massive sulphide deposit. This report describes results of soil geochemical surveys carried out on the PIE 1, 2 and 7 claims during the period July 26th to 29th, 1992 inclusive.

a. Location, Access and Physiography

The Pie claims are located in the western ranges of the Rocky Mountains, 250 km northwest of MacKenzie, B.C. (Figure 1). Fort Ware, a small native community and Fletcher Challenge's Finbow logging camp are located on the Finlay River, 40 km west and 35 km southwest of the claims respectively.

Access to the area is improving due to logging and mining activity. The Stronsay mine road is located in the Paul River valley just west of the north end of the Pie claims. Logging activity in the Del creek watershed should provide access to the south end of the Pie claim group by 1994. During the current exploration program, the property was accessed using a Pacific Western Bell 206B helicopter which was based at the Finbow logging camp.

Topographic relief on the Pie claims is moderate to steep with elevations ranging between 1200 and 2100 meters ASL. Most of the area is above tree line which occurs at an elevation of approximately 1600 m. Creek valleys are covered with a dense forest of mature spruce, balsam and pine.

b. Mineral Rights

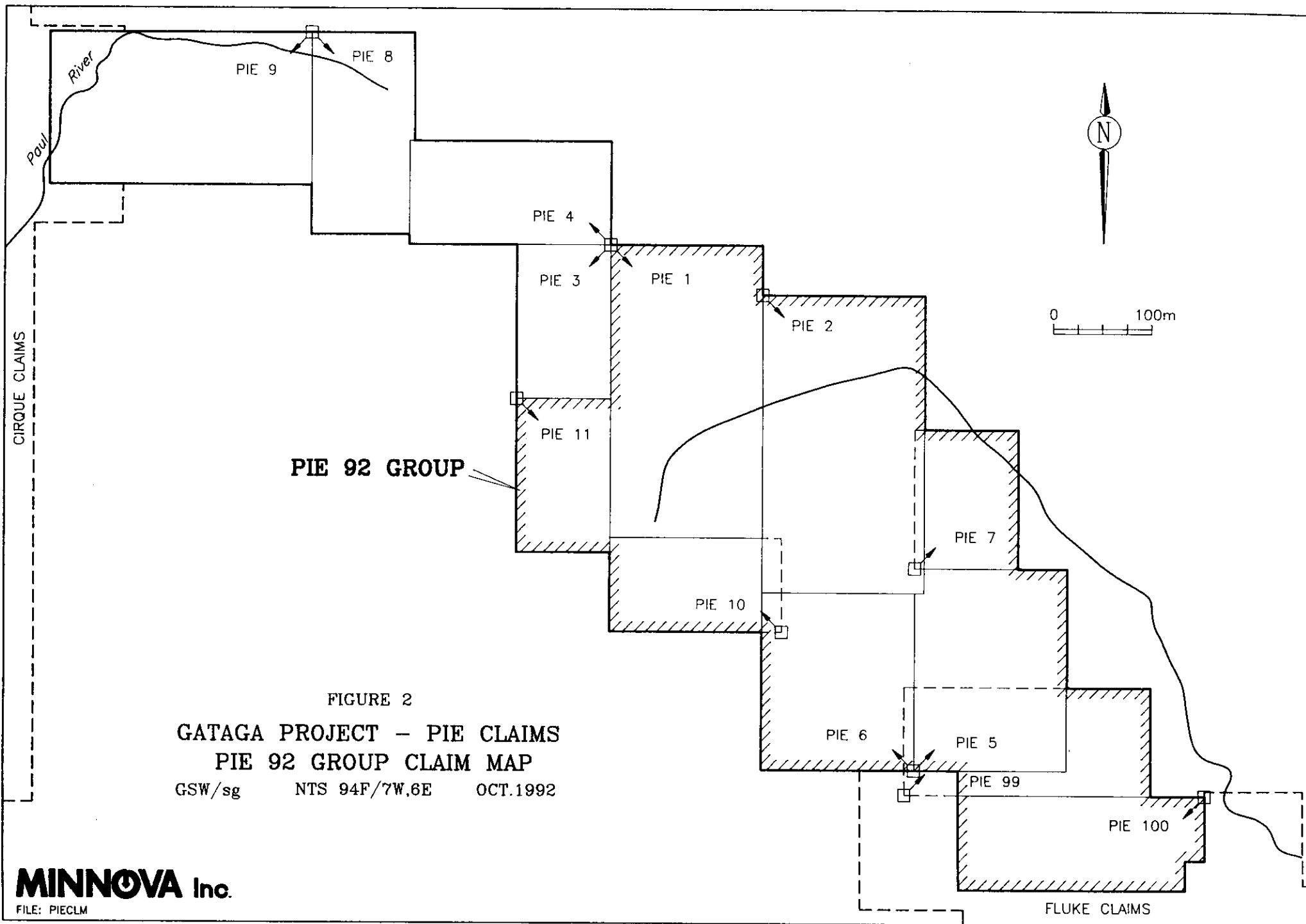
The soil sampling was carried out on the PIE 1, 2 and 7 claims which form part of the PIE92 group (Figure 2). The status of these claims is as follows:

<u>Claim</u>	<u>Title Number</u>	<u># of Units</u>	<u>Month of Record</u>
Pie 1	238030	18	July
Pie 2	238031	18	July
Pie 5	238034	12	July
Pie 6	238035	12	July
Pie 7	238036	6	July
Pie 10	238047	6	Sept
Pie 11	238048	6	Sept
Pie 99	241335	10	Oct
Pie 100	309109	12	May

c. Previous Work

The Pie claims were staked by Riocanex in 1978 following the discovery of the Cirque deposit (30 m tonnes @ 8.1% Zn, 2.2% Pb) by Cyprus Anvil and Hudson Bay Oil and Gas in 1977. Exploration work during the period of 1978 to 1982 consisted of soil geochemical surveys, limited VLF and HEM surveys, geological mapping, hand trenching and nine diamond drill holes (2365 m). This work discovered several barite and galena showings that occur near the contact between mid-Devonian Kwadacha limestones and upper Devonian Gunsteel shales (Figure 3). In addition, three areas of sphalerite mineralization were discovered in the limestones. The soil geochemical surveys outlined several large Pb-Zn anomalies which straddle the limestone-shale contact in the vicinity of the galena and barite showings.

Since 1982, the property has been controlled by Ecstall Mining Corporation and has remained largely dormant except for an airborne VLF-Mag survey which Ecstall did in 1991.



PIE 92 GROUP

FIGURE 2
GATAGA PROJECT – PIE CLAIMS
PIE 92 GROUP CLAIM MAP
 GSW/sg NTS 94F/7W,6E OCT.1992

2. GEOLOGY

a. Regional

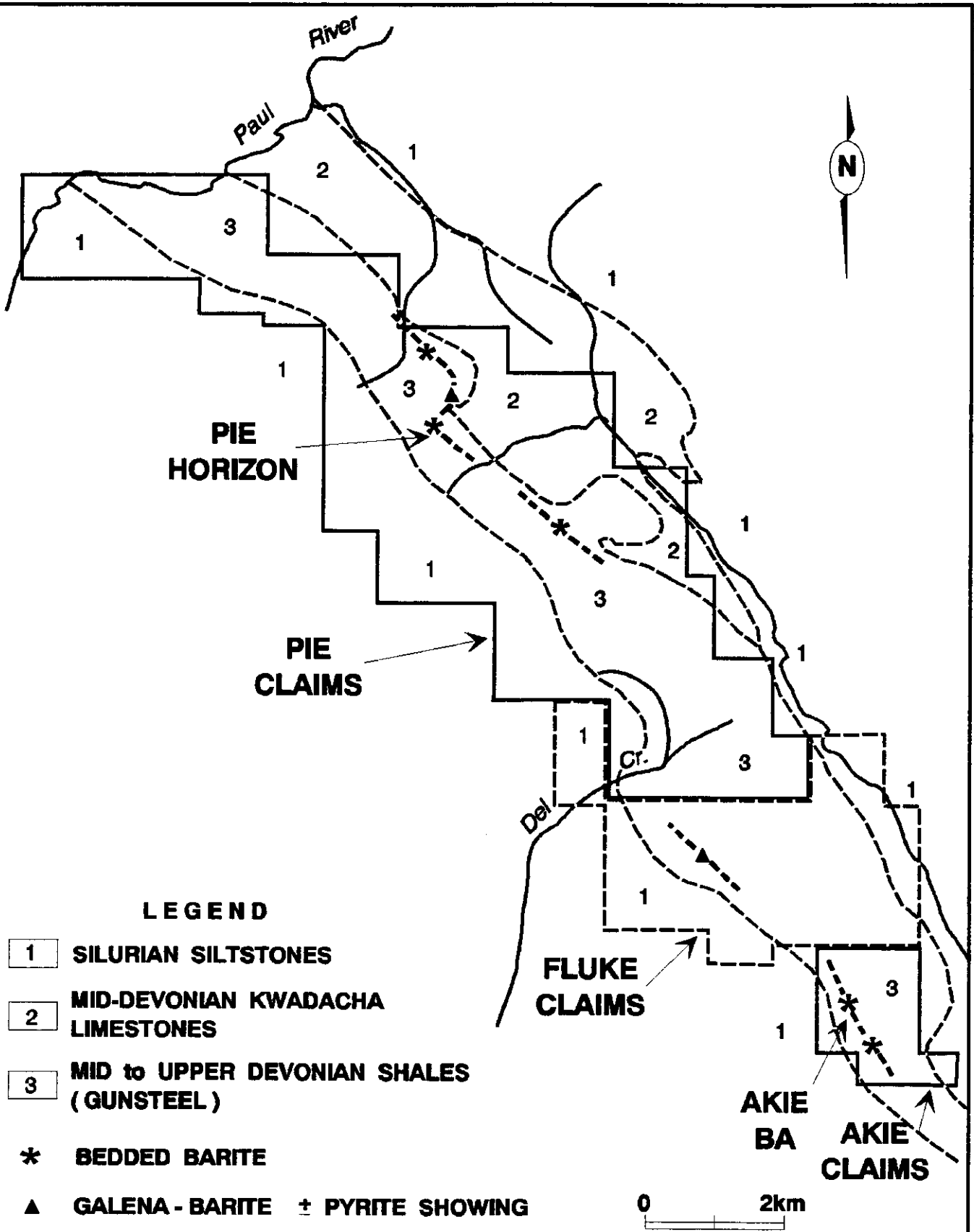
The Pie claims occur on the northeastern margin of the Kechika Trough which is the southeastern extension of the Selwyn Basin - a 1200 km belt of sediments which formed off the western edge of ancestral North America. The Kechika Trough is a 180 km long, northwesterly trending belt of Early Cambrian to Triassic sediments which occur in a number of southwest dipping thrust fault slices. A detailed review of the stratigraphy and descriptions of the various formations is given by MacIntyre (1992).

Exploration activity in the area has concentrated on stratiform barite - sulphide showings which are hosted in Devonian shales. Notable occurrences in the belt include Driftpile, Mt. Alcock, Elf and Cirque. The most developed prospect is the Cirque deposit which contains an estimated 30 m Tonnes @ 8.1% Zn and 2.2% Pb.

b. Local

The generalized stratigraphy of the Pie claims is presented in Figure 4. The claim group is underlain by 3 northwesterly trending zones of sediments (Figure 3). The most western belt consists of brown to orange weathering Silurian siltstones. The middle unit consists of recessive, steel grey to black weathering upper Devonian shales and siltstones. The most eastern belt of rocks consists of grey weathering, fossiliferous limestones of the mid-Devonian Kwadacha formation. More detailed descriptions of these units are given in a paper prepared by MacIntyre (1992).

The area is structurally complex due to a combination of folding and thrust faulting. The Kwadacha limestone is folded in a gentle anticlinal structure and the overlying Akie and Gunsteel shales and siltstones are folded into a slightly overturned



**PIE + AKIE CLAIMS
REGIONAL GEOLOGY**

FIGURE 3

FIGURE 4 : GENERALIZED STRATIGRAPHY – SOUTH GATAGA AREA
 (after MacIntyre 1992)



syncline. The Silurian siltstones are in thrust fault contact with the Devonian shales and appear to overly these younger rocks.

Mineralization on the Pie claims consists of 2 types. Disseminated sphalerite showings occur in the Kwadacha limestones. The second type of mineralization consists of stratiform bedded barite +/- galena which occurs at or near the contact between the limestones and shales.

3. SOIL GEOCHEMISTRY

a. Survey Objectives

A multi-element ICP soil survey was carried out over parts of the Pie claims

- i. to confirm the location of previously defined Pb-Zn anomalies
- ii. to trace the barite horizons in areas of vegetation cover
and
- iii. to identify multi-element anomalies which may be associated with a hidden barite-sphalerite-galena massive sulphide zone.

b. Sampling Procedures

Work was done on widely spaced (200m), northeasterly trending, flagged lines in the vicinity of the Pie galena occurrence and isolated airborne anomalies (see Figure 3). Samples of the B soil horizon were taken at 25 meter intervals along these lines. The B horizon is usually well developed, grey to brown in colour and occurs at depths ranging between 5 and 20cm below the surface. Samples varying in size between 300 and 500 grams were placed in Kraft paper bags. Samples were dried in the field and then sent to IPL Labs in Vancouver for analysis. Each sample was

analyzed for Cu, Pb, Zn, Ag, Cd, Fe, Mn and Ba using an ICP technique. Laboratory procedures for sample preparation and analysis are included in Appendix I.

Analytical certificates are included in Appendix II and the data is plotted at a 1:5000 scale on Figure 5a-d. Statistical data for soil sampling on the Pie claims is presented in Table 1. Frequency histograms were generated for each element to determine the type of population distribution (normal or log normal). Anomalous values are those greater than mean +2 standard deviations for normal populations or geometric mean + 2 standard deviations for log normal populations.

c. Results

i. Pie A Grid

The Pie A grid covers the Kwadacha limestone - Gunsteel shale contact in the vicinity of the Pie galena and bedded barite occurrences (Figures 5a-d). Four of the lines (64N-70N incl.) were extended over a hill of Gunsteel shale that occurs northeast of the showings.

Pb

Numerous highly anomalous Pb values are found on the PIE A grid. Anomaly A is a wide zone of Pb enrichment which is underlain primarily by limestones of the Kwadacha formation. Anomaly B is a 5 point zone near the west end of line 68N which corresponds to the PIE galena showing. Weak 1 point anomalies located along strike and north of this zone may correlate with the mineralized horizon.

Zn

Zinc soil anomalies are coincident with the Pb anomalies. Anomaly A is restricted to the limestones and Anomaly B is

Table 1 : PIE SOIL SAMPLES – STATISTICAL DATA

ELEMENT	UNITS	N	MINIMUM	MAXIMUM	DISTRIBUTION	MEAN	STANDARD DEVIATION	ANOMALOUS VALUES
Ag	ppm	283	0.05	5.1	normal	0.70	0.89	2.48
Ba	ppm	273	693.00	25481.0	log normal	2023.00	1.86	6982.00
Cd	ppm	277	0.05	71.9	normal	1.42	2.68	6.78
Cu	ppm	264	7.00	114.0	normal	21.10	9.20	39.60
Fe	%	267	0.50	15.5	normal	2.21	0.86	3.93
Mn	ppm	281	16.00	2341.0	log normal	120.00	2.97	1059.00
Pb	ppm	233	6.00	3175.0	log normal	30.80	2.00	123.00
Zn	ppm	237	27.00	18048.0	log normal	193.20	2.22	955.00

associated with the showing. One sample in the latter area yielded a value of 18048 ppm (i.e. 1.8% Zn).

Cu

A weak, 400 meter long Cu anomaly (A) occurs near the eastern edge of lines 64N, 66N and 68N. The anomaly is hosted in Gunsteel shales but may mark the contact with the Kwadacha limestones.

Cd

A 200 meter wide zone of cadmium enrichment occurs on line 64N and is open to the south. This anomaly and other isolated Cd highs correlate with high Pb and Zn soil values in areas underlain by limestone.

Fe

Two areas of iron enrichment are noted on the PIE A grid. Anomaly A which occurs near the eastern edge of lines 64N, 66N and 68N is hosted in the Gunsteel shales and is coincident with a weak copper soil anomaly. Anomaly B occurs near the western end of line 68N. It correlates with the PIE galena showing and has a coincident Pb and Zn soil anomaly.

Mn

An area of anomalous Mn occurs on line 78N. This area is underlain by Kwadacha limestone. Lead and spotty zinc, cadmium and copper soil anomalies are associated with this area of Mn enrichment.

Ag

Silver soil values on the PIE A grid are generally low. The only anomalous area occurs near the west ends of lines 64N, 66N and 68N. This area is underlain by Gunsteel shales and also has coincident Fe and Cu anomalies.

Ba

Barium soil values on the PIE A grid are generally low except for 2 areas of highly anomalous values (up to 2.5% Ba). Anomaly A occurs in the vicinity of BL 3800E between 67N and 75+50N. It corresponds to an abundance of bedded and blebby baritic float which occurs near the contact between the Kwadacha limestones and overlying Gunsteel shales.

Anomaly B occurs near the west end of lines 68N and 70N and has not been completely defined. The very high Ba values (up to 2.5% Ba) suggest that the anomaly is associated with a barite horizon.

ii. Pie B Grid

The Pie B grid is located to the south of the PIE A grid in an area of isolated airborne EM anomalies (Figures 5a-d). It is underlain by Gunsteel shales. Metal values in the soils taken on this grid are generally low but 2 anomalous areas have been identified.

Anomaly A occurs at the east end of lines 0 and 2N. It contains anomalous Zn, Ag, Cu and Fe values. The zone is open to the east, north and south.

Anomaly B is a 1 point sample which has anomalous Zn, Cu, Fe and Cd values. The strike extent of this zone has not been evaluated. The anomaly may mark the contact between the shales and limestones.

4. CONCLUSIONS AND RECOMMENDATIONS

Soil sampling was carried out over two grids on the Pie claims. A total 283 samples were collected and analyzed for 8 elements (Pb, Zn, Ag, Ba, Cu, Fe, Mn, Cd) using ICP techniques.

The PIE A grid covered the contact between Kwadacha limestones and Gunsteel shales in the vicinity of the PIE galena and barite showings. The soils from areas underlain by limestone

have highly anomalous Pb, Zn and Cd values. The soils from the PIE galena showing have anomalous Pb, Zn, Fe, Cu and Cd values. Isolated 1 point Pb anomalies located north of the showing on lines 72N and 70N may represent the extension of the mineralization. The survey was quite successful in defining a Ba soil anomaly associated with the barite occurrences. An open-ended Ba anomaly located near the west end of lines 68N and 70N is interpreted to be associated with a new barite occurrence. A Cu, Fe, Ag anomaly is associated with shales located near the eastern end of lines 64N, 66N and 68N. This anomaly may be marking mineralization which occurs at the contact between limestones and shales.

The PIE B grid covered an area of isolated airborne EM anomalies located south of the PIE galena showings. An open-ended, multi-element (Zn, Ag, Cu, Fe) soil anomaly is located at the eastern end of all 3 lines. A one point Zn, Cu, Fe and Cd anomaly located at the western edge of the most northern line may occur at the contact between the shales and limestones.

The multi-element soil survey successfully defined anomalous areas in limestones and shales. All of the zones defined by this work require ground followup in the form of prospecting, trenching and/or diamond drilling to see if the anomalies are associated with economic mineralization. In addition, further soil sampling will be required to determine the extent of some of the anomalies.

Gary Wells

5. COST STATEMENTClaim Group PIE 92

filed for \$16,000

-work done on claims PIE 1, 2 and 7

1. Salaries

M. Lorimer	5 days @ \$125/day	\$625
S. McCallum	5 days @ \$125/day	\$625
S. Blower	2 days @ \$300/day	\$600
G. S. Wells	3 days @ \$350/day	\$1050

2. Transportation

Truck rental and gas	\$500
Helicopter charter 9 hrs @ \$800/hr	\$7200
Air Service - McKenzie-Finbow (pro-rated crew mob-demob + sample shipments)	\$400

3. Accommodation/food at Finbow Camp

15 man days @ \$75/day (includes helicopter pilot)	\$1125
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4. Analysis

283 samples @ \$6.00/sample	\$1698
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5. Drafting

S. Gokool 2 days @ \$150/day	300.00
computer + plotting time	100.00

	\$14,223.00
PAC withdrawl	<u>\$ 1,777.00</u>

Total	\$16,000.00
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6. REFERENCES

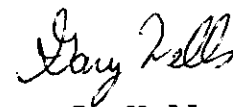
MacIntrye, D.G. 1992; Geological setting and genesis of sedimentary exhalative barite and barite-sulphide deposits, Gataga district, northeastern British Columbia. Exploration and Mining Geology Vol. 1 pp. 1-20.

7. STATEMENT OF QUALIFICATIONS

I, Gary S. Wells, hereby certify that:

1. I hold an Honours Bachelor of Science degree in combined geology and chemistry (1975) from Carleton University, Ottawa, Ontario and a Ph.D degree in geology (1980) from Queen's University, Kingston, Ontario.
2. I am an associate member of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.
3. I have practised by profession in exploration continuously since graduation in 1980.

Date: November 14, 1992



Gary S. Wells
Vancouver, B. C.

Appendix I

Sample Preparation and Analytical Procedures



2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7888

Method of sample preparation for Soil or Silt

- (a) Water content in sample is removed by convection in a low temperature dryer ($T < 60$ Degrees C.).
- (b) Dried samples are passed through an 80 mesh sieve. The minus 80 mesh fraction is transferred to a new bag for subsequent analyses. The plus 80 mesh fraction is discarded unless otherwise instructed.
- (c) If an insufficient amount of sample is less than 80 Mesh, the entire sample is passed through a 35 Mesh screen. The -35 Fraction is then pulverized and used as the portion for analyses.

QUALITY CONTROL

Cross contamination is minimized by constant cleaning of preparation equipment with high velocity compressed air. Ring pulverizers are cleaned with a quartz sand charge.



2036 Columbia Street
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Method of ICP Multi-element Analyses

- (a) 0.50 grams of sample is digested with diluted aqua regia solution by heating in a hot water bath for 90 minutes, then cooled, bulked up to a fixed volume with demineralized water, and thoroughly mixed.
- (b) The specific elements are determined using an inductively coupled Argon Plasma spectrophotometer. All elements are corrected for inter-element interference. All data are subsequently stored onto computer diskette.
- * Aqua regia leaching is partial for Al, Ba, Ca, Cr, K, La, Mg, Na, Sc, Sn, Sr, Th, Ti, W and Zr.

QUALITY CONTROL

The machine is first calibrated using six known standards and a blank. The test samples are then run in batches.

A sample batch consists of 38 or less samples. Two tubes are placed before a set. These are an Inhouse standard and an acid blank, which are both digested with the samples. A known standard with characteristics best matching the samples is chosen and placed after every fifteenth sample. After every 38th sample (not including standards), two samples, chosen at random, are reweighed and analysed. At the end of a batch, the standard and blank used at the beginning is rerun. The readings for these knowns are compared with the pre-rack knowns to detect any calibration drift.

Appendix II

Analytical Certificates

iPL Report: 9200591 M Minnova Canada
Project: 677

In: Aug 05, 1992
Out: Aug 10, 1992

255 Soil

Page 1 of 4

Section 1 of 1
Certified BC Assayer

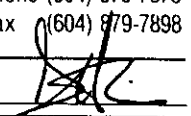
David Chiu

Sample Name	Ag	Cu	Pb	Zn	Cd	Ba	Mn	Fe	Sample Name	Ag	Cu	Pb	Zn	Cd	Ba	Mn	Fe		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%		ppm	ppm	ppm	ppm	ppm	ppm	ppm	%		
L 0+00N 0+25E	S	0.5	21	15	84	<0.1	1027	41	1.29	L 2+00N 4+25E	S	1.7	55	21	308	0.2	976	106	5.08
L 0+00N 0+50E	S	0.8	34	23	238	<0.1	1155	63	2.77	L 2+00N 4+50E	S	2.2	81	44	327	0.8	1062	175	7.65
L 0+00N 0+75E	S	0.5	26	18	138	<0.1	1122	53	1.85	L 2+00N 5+00E	S	2.2	75	38	323	0.7	979	152	6.91
L 0+00N 1+25E	S	0.5	31	27	143	<0.1	1773	36	2.05	L 2+00S 0+00 BL	S	0.8	27	206	23	<0.1	1.0%	18	0.91
L 0+00N 1+75E	S	0.4	23	17	76	<0.1	693	53	2.01	L 2+00S 0+25E	S	0.2	8	27	29	<0.1	2387	43	0.78
L 0+00N 2+00E	S	1.4	39	26	195	<0.1	1005	51	2.41	L 2+00S 0+50E	S	0.6	7	57	20	<0.1	4149	25	0.63
L 0+00N 2+50E	S	0.2	47	24	193	<0.1	1382	39	3.20	L 2+00S 0+75E	S	1.1	18	202	34	<0.1	3019	23	2.81
L 0+00N 2+75E	S	0.3	42	17	140	<0.1	1129	68	2.43	L 2+00S 1+00E	S	2.7	30	166	117	<0.1	7380	33	1.85
L 0+00N 3+00E	S	0.4	23	21	119	<0.1	1018	41	1.46	L 2+00S 1+25E	S	1.5	26	164	149	<0.1	8357	40	2.45
L 0+00N 3+50E	S	3.3	94	26	1087	4.1	754	220	7.75	L 2+00S 1+50E	S	0.5	17	115	50	<0.1	6865	33	1.24
L 0+00N 0+25W	S	0.2	16	34	67	<0.1	4388	59	2.25	L 2+00S 2+00E	S	0.7	8	44	36	<0.1	2387	36	0.93
L 0+00N 0+50W	S	0.5	39	28	220	<0.1	3284	101	4.42	L 2+00S 2+25E	S	0.4	8	34	33	<0.1	4130	35	0.82
L 0+00N 0+75W	S	0.3	19	53	123	<0.1	4231	73	4.73	L 2+00S 2+75E	S	0.2	11	52	73	<0.1	4211	48	1.32
L 0+00N 1+00W	S	0.3	21	17	143	<0.1	3564	144	2.07	L 2+00S 3+00E	S	0.3	8	47	35	<0.1	2848	83	1.17
L 0+00N 1+50W	S	0.5	28	25	225	<0.1	4193	79	3.64	L 2+00S 3+25E	S	0.2	10	26	30	<0.1	4053	25	0.72
L 0+00N 2+25W	S	0.9	36	26	227	<0.1	2977	110	3.58	L 2+00S 3+50E	S	0.1	10	21	24	<0.1	3155	35	0.62
L 0+00N 2+50W	S	0.4	33	19	211	<0.1	2876	152	3.24	L 2+00S 3+75E	S	0.2	9	28	38	<0.1	3644	44	1.00
L 0+00N 2+75W	S	0.4	31	15	218	<0.1	2824	318	2.61	L 2+00S 4+00E	S	<0.1	8	15	37	<0.1	3478	38	1.24
L 0+00N 3+00W	S	0.6	37	10	122	<0.1	2.3%	310	3.31	L 2+00S 0+50W	S	1.4	10	44	19	<0.1	3525	30	0.58
L 0+00N 3+25W	S	0.4	18	22	113	<0.1	8071	51	1.77	L 2+00S 0+75W	S	1.0	17	161	29	<0.1	6997	43	1.78
L 0+00N 3+50W	S	0.4	10	11	50	<0.1	3639	110	1.09	L 2+00S 1+00W	S	0.5	17	24	53	<0.1	4763	32	1.21
L 0+00N 4+00W	S	1.2	25	22	89	<0.1	5562	36	3.09	L 2+00S 1+25W	S	0.5	20	32	102	<0.1	3971	33	1.50
L 0+00N 4+25W	S	2.0	77	6	289	<0.1	2549	282	7.63	L 2+00S 1+50W	S	0.7	18	28	128	<0.1	3895	77	1.88
L 0+00N 4+75W	S	0.2	8	5	39	<0.1	2045	174	0.67	L 2+00S 1+75W	S	0.3	18	31	80	<0.1	2888	39	1.38
L 0+00N 5+00W	S	0.1	19	8	144	<0.1	1594	128	1.96	L 2+00S 2+50W	S	0.4	23	69	193	<0.1	4035	37	2.17
L 2+00N 0+25E	S	0.6	20	353	82	<0.1	5960	36	2.94	L 2+00S 2+75W	S	0.4	30	32	225	<0.1	3294	113	2.30
L 2+00N 0+50E	S	0.8	15	382	62	<0.1	1979	62	3.84	L 2+00S 3+00W	S	0.2	27	14	112	<0.1	2374	47	1.33
L 2+00N 0+75E AC	S	0.7	12	109	56	<0.1	5212	29	2.27	L 2+00S 3+25W	S	0.9	27	17	137	<0.1	2.3%	224	2.63
L 2+00N 0+75E PC	S	0.3	26	21	145	<0.1	1425	46	1.99	L 2+00S 3+75W	S	0.1	13	16	68	<0.1	3137	64	1.22
L 2+00N 1+00E	S	0.7	18	29	89	<0.1	1090	102	2.03	L 2+00S 4+00W	S	0.3	21	42	84	<0.1	2759	48	1.78
L 2+00N 1+25E	S	0.7	23	28	80	<0.1	916	41	1.76	L 4+00N 0+00E BL	S	0.4	42	38	272	<0.1	6124	245	3.00
L 2+00N 1+50E	S	1.4	36	31	113	<0.1	1076	38	2.44	L 4+00N 0+25E AC	S	0.2	33	42	204	<0.1	7735	185	2.69
L 2+00N 1+75E	S	1.3	26	22	125	<0.1	1049	63	2.23	L 4+00N 0+25E PC	S	<0.1	25	31	69	<0.1	1621	41	1.72
L 2+00N 2+00E	S	0.4	31	19	135	<0.1	918	49	1.99	L 4+00N 0+50E	S	0.9	23	45	70	<0.1	1566	27	1.47
L 2+00N 2+25E	S	0.4	31	16	179	<0.1	712	32	1.85	L 4+00N 0+75E	S	0.9	56	67	318	<0.1	1240	97	4.04
L 2+00N 2+75E	S	0.5	29	34	108	<0.1	1568	25	2.85	L 4+00N 1+00E	S	1.0	31	69	211	<0.1	1471	36	2.69
L 2+00N 3+00E	S	0.7	31	53	265	0.3	1148	40	2.32	L 4+00N 1+25E	S	0.3	22	44	95	<0.1	1269	44	1.76
L 2+00N 3+75E	S	5.1	114	46	1148	13.3	732	2341	10.79	L 4+00N 2+50E	S	0.6	13	32	85	<0.1	1056	44	1.31
L 2+00N 4+00E	S	2.3	76	43	345	1.1	966	237	6.89	L 4+00N 3+00E	S	1.3	11	28	71	<0.1	917	66	0.99

Min Limit 0.1 1 2 1 0.1 2 1 0.01
 Max Reported* 99.9 9999 9999 9999 99.9 9999 9999 99.99
 Method ICP ICP ICP ICP ICP ICP ICP ICP

0.1 1 2 1 0.1 2 1 0.01
 99.9 9999 9999 9999 99.9 9999 9999 99.99
 ICP ICP ICP ICP ICP ICP ICP ICP

--No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pu/P U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate



Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %	Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %
L 4+00N 3+25E	S 1.5	35	59	88	<0.1	1907	40	2.35	L17+00N 17+75W	S <0.1	11	28	33	<0.1	1977	43	0.62
L 4+00N 3+50E	S 1.3	16	31	78	<0.1	1115	44	1.37	L17+00N 18+00W	S 0.3	24	37	111	<0.1	3945	95	1.67
L 4+00N 3+75E	S 0.4	13	32	103	<0.1	1190	41	1.21	L17+00N 18+25W	S 0.1	24	31	99	<0.1	4286	44	1.36
L 4+00N 0+25W	S 0.8	77	46	407	2.1	4988	1275	5.91	L17+00N 18+50W	S 0.2	21	43	80	<0.1	5431	49	1.59
L 4+00N 0+25W PC	S 0.4	18	26	79	<0.1	1111	57	1.47	L17+00N 19+00W	S 0.7	81	46	356	0.5	5045	226	4.75
L 4+00N 0+50W	S <0.1	13	17	75	<0.1	1260	54	1.22	L17+00N 19+25W	S 0.5	31	44	147	<0.1	5836	60	2.23
L 4+00N 0+75W	S 0.5	19	37	137	<0.1	1729	115	2.56	L17+00N 19+50W	S 0.8	31	45	108	<0.1	5461	57	2.55
L 4+00N 1+25W	S 0.2	27	23	165	<0.1	1639	57	1.98	L17+00N 19+75W	S 1.2	58	37	115	<0.1	919	46	4.50
L 4+00N 1+50W	S 0.2	29	19	192	<0.1	1436	64	1.82	L18+00N 0+25W	S 1.4	66	58	397	0.2	875	457	7.33
L 4+00N 1+75W	S 0.2	10	14	72	<0.1	2010	39	0.93	L18+00N 0+50W	S 1.0	113	52	1639	15.3	4571	407	4.16
L 4+00N 2+00W	S 0.1	11	17	53	<0.1	2922	16	0.73	L18+00N 1+00W	S <0.1	113	41	1441	1.2	1288	1664	9.25
L 4+00N 2+25W	S 2.5	61	34	2394	27.0	2779	681	6.76	L18+00N 1+25W	S <0.1	11	45	44	<0.1	2452	25	3.01
L 4+00N 2+50W	S <0.1	11	30	280	2.5	1972	1097	1.79	L18+00N 1+75W	S <0.1	6	59	47	<0.1	1975	26	0.56
L 4+00N 2+75W	S 0.1	9	33	369	0.8	1765	604	2.39	L18+00N 2+25W	S 0.1	28	46	187	0.1	3004	76	2.86
L 4+00N 3+00W	S <0.1	21	29	251	0.1	5592	57	3.11	L18+00N 2+50W	S 1.0	217	74	1946	27.5	3349	741	5.44
L 4+00N 3+25W	S <0.1	10	25	322	0.5	2255	434	2.39	L18+00N 2+75W	S 0.9	68	23	861	5.6	1110	620	2.25
L 4+00N 3+50W	S 0.2	10	21	71	<0.1	2762	24	1.05	L18+00N 3+00W	S 0.1	39	25	366	1.6	1168	297	1.91
L 4+00N 4+00W	S 0.3	12	23	72	<0.1	2588	29	1.10	L18+00N 3+25W	S <0.1	19	25	82	<0.1	1033	449	1.81
L 6+00N 0+00E	S 0.9	18	38	131	0.6	1782	1292	1.69	L18+00N 3+50W	S <0.1	46	25	209	0.7	1098	242	2.76
L 6+00N 0+25E	S 0.3	17	22	125	1.5	1224	603	1.56	L18+00N 4+00W	S 0.2	32	26	191	0.9	1311	269	2.06
L 6+00N 0+50E	S 0.1	18	16	174	1.8	1070	346	1.07	L18+00N 4+25W	S <0.1	24	23	161	0.5	1325	184	2.26
L 6+00N 0+75E	S 0.1	25	25	153	0.8	1496	203	1.77	L18+00N 5+75W	S 0.1	16	28	137	0.3	978	203	1.90
L 6+00N 1+00E	S 0.1	19	20	178	1.5	907	283	1.14	L18+00N 6+25W	S <0.1	16	22	113	<0.1	1074	71	1.82
L 6+00N 0+25W	S 0.1	31	26	186	1.1	1730	400	2.28	L18+00N 6+50W	S <0.1	21	28	148	<0.1	1282	392	2.45
L 6+00N 0+50W	S 0.1	27	22	162	1.3	1444	372	1.90	L18+00N 7+25W	S <0.1	22	23	109	<0.1	1128	492	2.06
L 6+00N 0+75W	S 0.2	30	25	159	1.3	1504	382	2.03	L18+00N 7+75W	S 0.2	27	25	149	<0.1	1130	128	3.07
L 6+00N 1+00W	S 0.2	27	26	155	0.9	1539	326	2.04	L18+00N 8+25W	S 0.2	16	29	165	0.5	1378	918	1.75
L 6+00N 1+25W	S 0.1	20	23	130	0.2	1402	370	1.90	L18+00N 8+50W	S <0.1	13	26	118	<0.1	1346	572	1.69
L 6+00N 1+50W	S <0.1	22	25	130	<0.1	1642	462	2.13	L18+00N 8+75W	S 0.1	16	28	157	0.6	1233	1157	1.76
L 6+00N 1+75W	S <0.1	23	19	139	0.9	1509	338	1.83	L18+00N 9+25W	S <0.1	23	24	203	0.1	1093	165	1.77
L17+00N 15+00W	S 0.2	20	25	124	<0.1	2261	101	2.87	L18+00N 9+75W	S 0.1	18	25	159	<0.1	925	80	1.75
L17+00N 15+25W	S 0.1	20	29	121	<0.1	2259	486	1.81	L18+00N 10+00W	S 0.1	14	25	142	0.2	1141	181	1.66
L17+00N 15+50W	S 0.1	25	23	154	<0.1	2240	229	1.96	L18+00N 10+25W	S <0.1	22	25	174	0.9	1302	682	2.08
L17+00N 15+75W	S 0.1	16	30	95	<0.1	2241	52	1.59	L18+00N 10+50W	S <0.1	27	25	219	2.1	1315	284	2.22
L17+00N 16+00W	S 0.8	15	17	73	<0.1	1964	55	1.21	L18+00N 10+75W	S 0.3	30	26	80	0.5	1186	377	3.31
L17+00N 16+25W	S 0.2	19	26	171	0.9	2600	62	1.86	L18+00N 11+00W	S <0.1	30	32	212	<0.1	1060	104	2.29
L17+00N 17+00W	S 0.1	23	30	85	<0.1	3192	141	1.52	L18+00N 11+25W	S 0.6	37	34	265	1.3	1250	204	2.08
L17+00N 17+25W	S 0.4	21	40	74	<0.1	3343	68	2.15	L18+00N 12+00W	S <0.1	20	28	192	0.2	1264	367	1.92
L17+00N 17+50W	S 0.3	17	33	47	<0.1	2460	37	1.43	L18+00N 13+00W	S <0.1	18	24	133	0.1	1177	97	1.57



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 Project: 677

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 Out: Aug 10, 1992

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Section 1 of 1
 Certified BC Assayer

[Signature] David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %	Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %
L64+00N 38+00E BL	S <0.1	13	163	240	0.4	2757	54	1.39	L64+00N 41+50E	S <0.1	16	183	1019	3.5	3019	205	2.47
L64+50N 38+00E BL	S 0.2	18	348	433	1.3	4227	243	2.47	L64+00N 41+75E	S 0.7	39	426	2836	21.7	2360	874	3.19
L65+00N 38+00E BL	S <0.1	12	271	491	0.2	1537	270	2.45	L64+00N 42+00E	S 0.2	22	160	2101	10.8	1918	641	2.84
L65+50N 38+00E BL	S 0.4	17	263	339	0.7	2521	303	2.36	L64+00N 42+25E	S 0.4	33	160	1477	15.2	2785	339	2.07
L66+00N 38+00E BL	S 0.6	16	217	579	1.4	3563	281	2.73	L64+00N 42+50E	S <0.1	14	64	303	0.2	1515	47	1.41
L66+50N 38+00E BL	S 0.3	15	292	309	0.4	4710	117	2.15	L64+00N 42+75E	S 0.5	38	385	871	7.9	1359	348	2.38
L67+00N 38+00E BL	S 3.0	42	3175	988	3.5	9384	597	2.74	L64+00N 43+75E	S 4.0	34	22	157	0.5	1230	146	1.95
L67+50N 38+00E BL	S 0.2	19	378	253	<0.1	8970	159	2.50	L64+00N 44+00E	S 2.4	30	18	121	<0.1	1278	94	2.28
L68+00N 38+00E BL	S 0.5	18	93	158	<0.1	4572	61	2.04	L64+00N 44+25E	S 2.7	38	17	152	<0.1	1275	75	2.81
L68+50N 38+00E BL	S 0.2	17	136	206	<0.1	6331	72	1.95	L64+00N 44+50E	S 2.3	32	18	111	<0.1	1239	123	2.32
L69+00N 38+00E BL	S 0.1	20	43	256	0.9	8222	442	2.41	L64+00N 44+75E	S 1.5	22	19	99	<0.1	1125	40	1.61
L69+50N 38+00E BL	S 0.7	20	45	242	0.7	2915	230	2.83	L64+00N 45+00E	S 1.2	29	20	104	<0.1	1121	49	1.84
L70+00N 38+00E BL	S 0.3	12	49	137	<0.1	2359	369	1.83	L64+00N 45+25E	S 1.4	28	25	169	<0.1	1294	59	2.65
L70+50N 38+00E BL	S 0.4	15	86	196	0.1	3711	236	1.82	L64+00N 45+50E	S 3.6	35	29	247	<0.1	1312	46	3.78
L71+00N 38+00E BL	S 0.6	28	100	572	3.7	6037	679	2.34	L64+00N 45+75E	S 2.7	46	33	205	<0.1	1435	64	4.75
L71+50N 38+00E BL	S 0.4	34	48	347	0.3	5959	437	3.88	L64+00N 46+00E	S 2.8	26	25	192	0.3	1372	110	2.76
L72+00N 38+00E BL	S 0.6	29	22	390	1.3	6028	179	2.63	L64+00N 46+25E	S 1.0	22	24	147	<0.1	1035	57	2.13
L72+50N 38+00E BL	S 0.2	13	50	286	0.1	7647	181	2.18	L64+00N 47+00E	S 1.2	23	9	53	<0.1	1649	24	1.03
L73+00N 38+00E BL	S 0.3	14	45	280	0.9	8016	1011	2.06	L64+00N 47+25E	S 2.7	17	9	27	<0.1	1911	30	0.94
L74+00N 38+00E BL	S 1.9	31	668	825	0.8	2490	201	9.27	L64+00N 47+50E	S 0.2	9	9	54	<0.1	1732	39	0.74
L74+50N 38+00E BL	S 0.6	13	180	324	<0.1	1.1%	42	3.95	L64+00N 47+75E	S 0.8	18	28	124	<0.1	2409	37	1.56
L75+00N 38+00E BL	S 0.2	11	244	277	<0.1	5328	114	4.00	L64+00N 48+00E	S 0.9	9	9	38	<0.1	1198	50	0.66
L75+50N 38+00E BL	S 0.2	13	251	281	0.1	7260	98	2.46	L64+00N 48+25E	S 1.4	35	41	110	<0.1	2359	61	2.38
L76+00N 38+00E BL	S <0.1	7	141	180	<0.1	2598	109	2.34	L64+00N 48+50E	S 0.9	15	15	46	<0.1	1343	27	0.72
L76+50N 38+00E BL	S 0.4	19	117	458	1.7	1269	729	2.72	L64+00N 48+75E	S 0.6	13	16	78	<0.1	1044	36	1.05
L78+00N 38+00E BL	S 0.1	17	46	426	1.2	987	1367	2.29	L64+00N 49+00E	S 0.5	13	13	70	<0.1	1010	58	1.14
L64+00N 38+25E	S 0.1	13	757	1104	4.5	1838	487	3.97	L66+00N 41+00E	S 0.1	14	183	1005	4.7	2799	438	2.12
L64+00N 38+50E	S <0.1	12	500	736	1.9	1533	324	2.90	L66+00N 41+25E	S 0.7	35	295	2218	9.0	6026	176	2.18
L64+00N 38+75E	S 0.1	18	699	851	3.2	2810	816	3.35	L66+00N 41+50E	S 0.1	19	191	1261	4.6	4673	236	2.06
L64+00N 39+00E	S 0.3	26	2494	2205	3.8	3925	675	3.06	L66+00N 41+75E	S <0.1	30	258	775	2.8	4203	323	2.53
L64+00N 39+25E	S 0.4	26	327	1113	3.0	3640	418	2.65	L66+00N 42+00E	S <0.1	26	66	328	0.7	4095	101	1.90
L64+00N 39+50E	S 0.4	37	346	906	2.9	2931	272	3.80	L66+00N 42+75E	S 0.2	21	496	2693	5.5	2290	383	3.36
L64+00N 39+75E	S 0.4	27	233	1546	8.2	2128	1251	2.45	L66+00N 43+00E	S 0.2	17	191	750	2.6	1764	232	2.00
L64+00N 40+00E	S 0.2	18	286	1255	2.5	2326	380	2.38	L66+00N 43+25E	S 0.4	25	165	865	2.8	1598	146	2.17
L64+00N 40+25E	S 0.2	45	344	1239	8.0	1467	450	3.16	L66+00N 43+50E	S 0.1	22	179	627	1.7	1632	275	2.38
L64+00N 40+50E	S 0.3	35	430	2221	14.5	2624	685	2.28	L66+00N 43+75E	S 1.4	31	107	853	6.8	1578	391	2.52
L64+00N 40+75E	S 0.3	29	322	1934	6.1	2769	293	2.93	L66+00N 44+00E	S 0.6	23	1060	1315	5.1	1931	219	2.88
L64+00N 41+00E	S 0.5	25	206	2775	9.8	2340	1195	3.28	L66+00N 44+25E	S 1.2	34	1701	2054	11.1	3506	388	2.30
L64+00N 41+25E	S <0.1	17	229	1195	6.7	1811	278	1.79	L66+00N 44+50E	S 0.4	35	119	1136	3.0	1488	329	2.50


Min Limit 0.1 1 2 1 0.1 2 1 0.01 0.1 1 2 1 0.1 2 1 0.01
 Max Reported* 99.9 9999 9999 9999 99.9 9999 9999 99.99 99.9 9999 9999 9999 99.9 9999 9999 99.99
 Method ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP
 ---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898

iPL Report: 9200592 M Minnova Canada
Project: 677

In: Aug 05, 1992
Out: Aug 10, 1992

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Certified BC Assayer

 David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %	Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %
L66+00N 44+75E	S 3.8	55	38	255	0.2	2073	124	3.20	L68+00N 38+50E	S <0.1	12	126	176	<0.1	5578	73	1.72
L66+00N 45+00E	S 4.2	56	47	297	0.6	2144	67	3.97	L68+00N 38+75E	S 0.8	14	179	353	1.7	1.1%	220	1.83
L66+00N 45+75E	S 1.8	35	23	198	0.2	1069	68	3.02	L68+00N 39+00E	S 0.4	24	415	629	2.3	7833	538	3.00
L66+00N 46+00E	S 3.8	50	24	230	<0.1	957	130	5.29	L68+00N 39+25E	S 0.1	18	292	536	1.1	5093	275	2.59
L66+00N 46+25E	S 1.2	24	29	239	<0.1	1340	55	3.56	L68+00N 39+50E	S 0.4	22	209	966	14.7	3767	899	1.34
L66+00N 46+50E	S 1.1	27	19	151	<0.1	1263	65	2.43	L68+00N 39+75E	S 0.6	33	290	1466	6.0	6524	455	2.46
L66+00N 46+75E	S 1.7	61	24	396	0.5	1074	425	8.50	L68+00N 40+00E	S 0.4	27	247	1166	7.3	3237	221	2.03
L66+00N 47+00E	S 1.4	39	19	387	0.5	1669	121	4.00	L68+00N 40+25E	S 0.9	38	413	838	3.6	8721	571	3.21
L66+00N 47+25E	S 1.7	38	19	272	0.1	1573	158	3.21	L68+00N 40+50E	S 0.3	18	202	824	2.8	3934	944	2.66
L66+00N 47+50E	S 1.9	33	22	209	0.1	1451	122	3.13	L68+00N 40+75E	S <0.1	13	74	312	0.3	3147	127	1.80
L66+00N 47+75E	S 1.1	24	19	127	<0.1	1347	58	2.22	L68+00N 41+00E	S 0.4	26	155	750	1.3	4746	332	2.79
L66+00N 48+00E	S 3.4	23	18	65	<0.1	2339	29	1.36	L68+00N 41+25E	S <0.1	24	83	634	0.7	2657	289	3.54
L66+00N 48+25E	S 3.4	27	16	70	<0.1	2306	24	1.34	L68+00N 41+50E	S 0.4	7	47	239	<0.1	1733	66	1.38
L66+00N 48+50E	S 1.1	16	14	102	<0.1	1157	54	1.30	L68+00N 41+75E	S 0.1	11	309	615	2.2	1517	866	2.01
L66+00N 48+75E	S 0.7	11	18	65	<0.1	1077	23	0.85	L68+00N 42+00E	S 0.2	15	199	1723	5.8	1441	248	2.65
L66+00N 49+00E	S 0.2	10	10	70	<0.1	901	50	0.97	L68+00N 42+25E	S 0.3	20	166	1240	4.6	1856	332	2.88
L68+00N 32+50E	S 0.4	15	19	79	<0.1	5534	27	2.31	L68+00N 42+50E	S 0.3	27	212	1111	1.7	2197	353	2.92
L68+00N 32+75E	S 0.2	19	8	118	<0.1	3210	19	2.99	L68+00N 42+75E	S 0.2	25	104	497	0.3	1575	64	2.44
L68+00N 33+00E	S 2.1	23	10	269	<0.1	4970	241	3.50	L68+00N 43+00E	S 0.1	20	95	310	<0.1	1294	57	1.59
L68+00N 33+25E	S 0.3	18	26	178	<0.1	7134	136	2.53	L68+00N 43+25E	S 0.1	11	54	65	<0.1	1399	34	1.01
L68+00N 33+50E	S <0.1	13	22	96	<0.1	1735	45	1.19	L68+00N 43+50E	S 0.3	11	33	89	<0.1	1386	73	1.48
L68+00N 33+75E	S <0.1	13	21	121	<0.1	2548	59	1.50	L68+00N 43+75E	S 1.0	19	20	134	<0.1	1451	40	1.70
L68+00N 34+00E	S 0.1	10	28	83	<0.1	1586	101	1.03	L68+00N 44+00E	S 0.3	16	27	63	<0.1	1711	22	0.94
L68+00N 34+25E	S 0.1	10	29	133	<0.1	1719	72	1.23	L68+00N 44+25E	S 0.3	14	34	72	<0.1	1426	50	1.25
L68+00N 34+50E	S 0.1	15	492	1054	<0.1	8674	112	4.44	L68+00N 45+00E	S 1.7	36	17	96	0.1	1434	41	2.40
L68+00N 34+75E	S 0.1	17	378	1201	0.9	4376	191	4.66	L68+00N 45+50E	S 2.3	57	20	270	0.1	1023	68	3.87
L68+00N 35+00E	S 0.2	27	349	1108	0.3	4619	167	5.87	L68+00N 45+75E	S 1.4	45	18	222	0.1	987	109	3.91
L68+00N 35+25E	S 0.5	44	944	1.8742.1	2962	971	9.06	L68+00N 46+00E	S 3.6	96	29	590	0.9	1342	150	8.11	
L68+00N 35+50E	S 0.8	60	950	4908	2.8	4496	294	15.49	L68+00N 46+25E	S 3.7	60	32	227	0.2	1278	102	5.00
L68+00N 35+75E	S 0.6	36	21	162	<0.1	4677	36	1.64	L68+00N 46+50E	S 3.1	75	46	477	1.3	1451	59	8.28
L68+00N 36+00E	S 1.5	22	82	231	<0.1	4278	36	2.31	L68+00N 46+75E	S 1.7	47	26	238	<0.1	1214	54	4.09
L68+00N 36+25E	S 0.3	12	104	117	<0.1	2988	32	1.35	L68+00N 47+00E	S 2.4	46	20	234	0.2	1190	132	3.93
L68+00N 36+50E	S 0.2	9	88	65	<0.1	3102	20	0.94	L68+00N 47+50E	S 1.9	34	24	158	<0.1	1165	202	2.48
L68+00N 36+75E	S 0.2	10	60	67	<0.1	6231	38	1.24	L68+00N 47+75E	S 0.6	25	27	154	<0.1	1377	41	1.56
L68+00N 37+00E	S 0.2	17	118	166	<0.1	8411	108	2.13	L68+00N 48+00E	S 1.2	30	32	221	<0.1	1265	46	2.29
L68+00N 37+25E	S 0.1	12	42	224	0.2	1831	154	1.90	L68+00N 48+25E	S 0.4	14	18	71	<0.1	818	35	0.95
L68+00N 37+50E	S 0.1	14	161	133	<0.1	4187	87	1.57	L68+00N 48+50E	S 0.6	16	18	106	<0.1	877	29	1.08
L68+00N 37+75E	S 0.2	14	121	98	<0.1	6511	61	1.38	L68+00N 48+75E	S 0.3	26	19	102	<0.1	907	48	1.31
L68+00N 38+25E	S 0.2	12	361	87	<0.1	4152	68	1.70	L68+00N 49+00E	S 1.0	31	37	111	0.4	1174	153	1.69

Min Limit 0.1 1 2 1 0.1 2 1 0.01 0.1 1 2 1 0.1 2 1 0.01
 Max Reported* 99.9 9999 9999 9999 99.9 9999 9999 99.99 99.9 9999 9999 9999 99.9 9999 9999 99.99
 Method ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP
 ---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898



2036 Columbia Street
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 Canada V5Y
 Phone (604) 879-7878
 Fax (604) 879-7898

iPL Report: 9200592 M Minnova Canada
 Project: 677

In: Aug 05, 1992
 Out: Aug 10, 1992

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Section 1 of 1
 Certified BC Assayer

David Chiu

Sample Name	Ag	Cu	Pb	Zn	Cd	Ba	Mn	Fe	Sample Name	Ag	Cu	Pb	Zn	Cd	Ba	Mn	Fe
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%		ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
L70+00N 33+00E	S 0.7	28	12	561	3.2	2.5%	337	2.19	L70+00N 43+75E	S 0.2	20	168	2389	16.7	1218	745	3.82
L70+00N 33+25E	S 1.0	20	6	520	1.5	2.5%	272	2.63	L70+00N 44+25E	S 0.2	68	354	1.2%	71.9	1583	994	4.10
L70+00N 33+50E	S <0.1	18	23	161	<0.1	2748	62	2.22	L70+00N 44+50E	S 0.1	16	76	452	0.5	1342	74	1.57
L70+00N 33+75E	S 0.1	17	27	158	<0.1	2143	73	1.81	L70+00N 44+75E	S 0.2	24	154	1073	3.6	1787	377	2.49
L70+00N 34+00E	S 0.2	16	34	134	<0.1	2186	71	1.85	L70+00N 45+00E	S 0.1	31	94	764	6.2	1851	202	2.30
L70+00N 34+25E	S 0.2	15	39	146	<0.1	1061	78	2.00	L70+00N 45+25E	S <0.1	23	79	758	4.8	1253	584	2.23
L70+00N 34+50E	S 0.3	16	30	142	<0.1	1381	418	3.58	L70+00N 45+50E	S <0.1	15	55	226	0.1	1504	55	1.52
L70+00N 34+75E	S 0.1	14	22	123	<0.1	1406	75	1.56	L70+00N 45+75E	S 0.6	19	41	203	<0.1	1275	49	1.54
L70+00N 35+25E	S 0.9	21	57	215	0.3	2316	34	2.62	L70+00N 46+00E	S <0.1	17	47	313	0.3	1313	78	1.56
L70+00N 35+50E	S 0.7	27	45	115	<0.1	1875	95	2.77	L70+00N 46+25E	S 1.1	23	7	66	<0.1	1377	21	1.23
L70+00N 35+75E	S 0.3	17	43	122	<0.1	3859	57	2.07	L70+00N 46+50E	S 0.1	11	29	91	<0.1	1224	41	1.06
L70+00N 36+00E	S 0.8	18	50	122	<0.1	5110	105	2.41	L70+00N 46+75E	S 0.7	26	10	71	<0.1	1319	27	1.12
L70+00N 36+25E	S 0.5	14	18	61	<0.1	7535	46	1.00	L70+00N 47+00E	S 0.2	9	6	49	<0.1	857	32	0.61
L70+00N 36+50E	S 0.5	15	49	112	<0.1	5727	42	1.64	L70+00N 47+25E	S 0.1	9	11	44	<0.1	922	18	0.61
L70+00N 36+75E	S 0.7	25	62	262	0.4	2691	108	3.23	L70+00N 47+50E	S <0.1	13	7	43	<0.1	810	23	0.58
L70+00N 37+00E	S 0.5	29	58	151	<0.1	2040	129	2.88	L70+00N 47+75E	S <0.1	11	7	37	<0.1	807	30	0.58
L70+00N 37+25E	S 0.3	16	76	330	0.3	3203	259	2.73	L70+00N 48+00E	S <0.1	11	8	75	<0.1	1151	37	0.85
L70+00N 37+50E	S 0.4	19	70	166	<0.1	1.1%	56	2.19	L70+00N 48+25E	S 0.3	16	27	122	<0.1	1102	27	1.24
L70+00N 38+50E	S 0.3	15	71	232	0.1	1.2%	186	2.89	L70+00N 48+50E	S 0.2	7	7	28	<0.1	975	35	0.50
L70+00N 38+75E	S 0.3	17	60	222	<0.1	1.2%	151	2.53	L70+00N 48+75E	S 0.5	13	18	89	<0.1	1113	28	1.12
L70+00N 39+00E	S 0.2	13	53	180	<0.1	5580	154	1.87	L70+00N 49+00E	S 0.5	16	70	332	<0.1	1341	57	2.30
L70+00N 39+25E	S 0.2	14	91	828	2.6	4638	681	2.74	L72+00N 33+00E	S <0.1	16	27	186	2.5	3275	84	1.45
L70+00N 39+50E	S <0.1	13	53	199	<0.1	4109	532	2.06	L72+00N 33+25E	S <0.1	9	9	78	<0.1	1511	266	0.96
L70+00N 39+75E	S 0.4	11	50	633	2.0	7712	351	1.95	L72+00N 33+50E	S <0.1	10	24	139	<0.1	1191	37	1.24
L70+00N 40+00E	S 0.3	14	71	871	2.3	5871	492	2.38	L72+00N 33+75E	S <0.1	12	28	160	<0.1	1571	48	1.48
L70+00N 40+25E	S 0.2	20	269	1139	2.2	2343	571	3.35	L72+00N 34+00E	S <0.1	12	24	99	<0.1	1711	122	1.33
L70+00N 40+50E	S 0.4	28	68	969	3.0	2048	755	3.78	L72+00N 34+25E	S <0.1	14	27	171	<0.1	1659	74	1.61
L70+00N 40+75E	S 1.1	15	66	529	0.9	1995	245	3.06	L72+00N 34+50E	S 0.1	13	32	210	<0.1	1230	63	1.77
L70+00N 41+00E	S 0.3	17	69	700	2.3	3262	563	2.55	L72+00N 34+75E	S <0.1	9	8	92	<0.1	1011	107	1.56
L70+00N 41+25E	S 0.6	22	82	1631	7.8	4855	666	2.87	L72+00N 35+00E	S <0.1	11	25	176	<0.1	1573	148	1.67
L70+00N 41+50E	S 0.2	9	25	110	<0.1	1927	44	0.80	L72+00N 35+25E	S <0.1	16	36	235	<0.1	1813	106	2.01
L70+00N 41+75E	S 0.3	8	35	248	0.5	3413	98	1.04	L72+00N 35+50E	S 0.1	14	33	181	<0.1	1848	54	1.54
L70+00N 42+00E	S 0.6	25	155	1286	5.6	2262	419	3.49	L72+00N 36+00E	S 0.5	21	41	190	<0.1	2038	62	2.32
L70+00N 42+25E	S 0.7	18	84	1051	3.0	2452	164	2.58	L72+00N 36+25E	S <0.1	17	125	205	<0.1	2048	159	2.02
L70+00N 42+50E	S <0.1	12	66	445	0.2	1557	127	2.30	L72+00N 36+50E	S <0.1	18	27	194	<0.1	1666	174	2.07
L70+00N 42+75E	S 0.5	21	169	1399	8.6	1706	422	2.76	L72+00N 37+00E	S 0.9	19	49	129	<0.1	3708	32	1.80
L70+00N 43+00E	S 0.7	24	146	1663	13.1	1648	587	3.14	L72+00N 37+25E	S 0.9	54	13	136	<0.1	1.0%	22	1.77
L70+00N 43+25E	S 0.3	23	629	1659	3.7	1885	322	3.21	L72+00N 37+50E	S 0.7	31	22	141	<0.1	1.0%	47	1.76
L70+00N 43+50E	S 0.2	17	292	1816	4.8	1430	239	2.59	L72+00N 37+75E	S 0.9	27	51	264	0.3	1.0%	112	2.74

Min Limit 0.1 1 2 1 0.1 2 1 0.01 0.1 1 2 1 0.1 2 1 0.01
 Max Reported* 99.9 9999 9999 9999 99.9 9999 9999 99.99 99.9 9999 9999 9999 99.9 9999 9999 99.99
 Method ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP
 ---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pu/P U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898



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iPL Report: 9200592 M Minnova Canada
 Project: 677

In: Aug 05, 1992
 Out: Aug 10, 1992

239 Soil

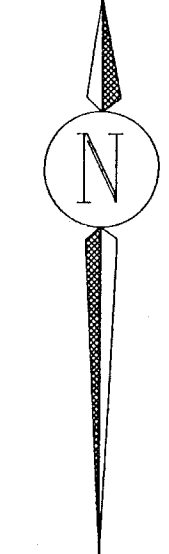
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Section 1 of 1
 Certified BC Assayer

[Signature]
 David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %	Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Cd ppm	Ba ppm	Mn ppm	Fe %
L78+00N 37+00E	S 0.2	20	306	884	7.7	1175	1123	2.12									
L78+00N 37+25E	S 0.2	18	163	812	4.4	893	1377	2.45									
L78+00N 37+50E	S 0.3	18	182	706	4.3	950	1070	2.53									
L78+00N 39+00E	S 0.3	45	96	1244	6.6	2019	610	3.40									
L78+00N 39+25E	S 0.2	16	113	574	8.1	858	1932	1.99									

Min Limit 0.1 1 2 1 0.1 2 1 0.01 0.1 1 2 1 0.1 2 1 0.01
 Max Reported* 99.9 9999 9999 9999 99.9 9999 9999 99.99 99.9 9999 9999 9999 99.9 9999 9999 99.99
 Method ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP
 ---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898



ANOMALOUS VALUES
 Pb ppm Zn ppm
 — Pb >123 ppm
 — Zn >955 ppm

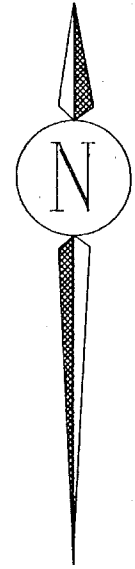
GEOLOGICAL BRANCH
 ASSESSMENT REPORT

22,678

MINNOVA Inc. MAP No. 5a

GATAGA PROJECT
 PIE CLAIMS
 SOIL GEOCHEMISTRY
 Pb ppm Zn ppm *Day 2000*

DATE : DECEMBER 1992 FILE : PIESOILS
 DRAWN BY : GSW/sg SCALE : 1:5,000
 REVISED : 0 100 200 300 400 500m
 NTS: 94F77W.0E



ANOMALOUS VALUES
 Cu ppm Fe ppm
 — Cu >40 ppm
 — Fe >393 %

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

22,678

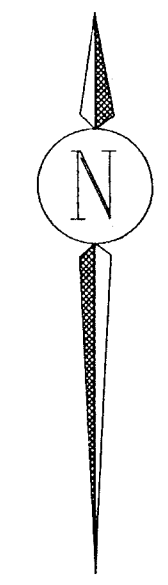
MINNOVA Inc.

GATAGA PROJECT
 PIE CLAIMS
 SOIL GEOCHEMISTRY
 Cu ppm Fe %

DATE : DECEMBER 1992 FILE : PIESOILS
 DRAWN BY : GSW/sq SCALE : 1:5,000
 REVISED : 0 100 200 300 400 500m
 NTS: 94F17W,6E

MAP No.
 5b

Gay Hill



ANOMALOUS VALUES
 Ba ppm Ag ppm
 — Ba >6982 ppm
 — Ag >25 ppm

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

22,678

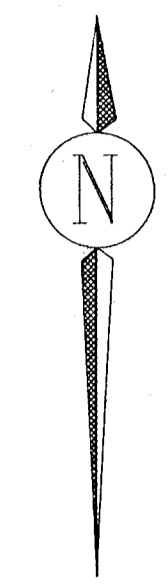
MINNOVA Inc.

GATAGA PROJECT
 PIE CLAIMS
 SOIL GEOCHEMISTRY
 Ba ppm Ag ppm

DATE : DECEMBER 1992 FILE : PIESOILS
 DRAWN BY : GSW/sg SCALE : 1:5,000
 REVISED : 0 100 200 300 400 500m
 NTS: 94F/7W.6E

MAP No.
 5c

Gray Hills



ANOMALOUS VALUES
 Mn ppm Cd ppm
 --- Mn >1059 ppm
 --- Cd >6.8 ppm

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

22,678
MINNOVA Inc.

GATAGA PROJECT PIE CLAIMS SOIL GEOCHEMISTRY Mn ppm Cd ppm		MAP No. 5d
DATE : DECEMBER 1992	FILE : PIE/SOILS	
DRAWN BY : GSW/sg	SCALE : 1:5,000	
REVISED :	0 100 200 300 400 500m	
NTS: 94F/7W,6E		