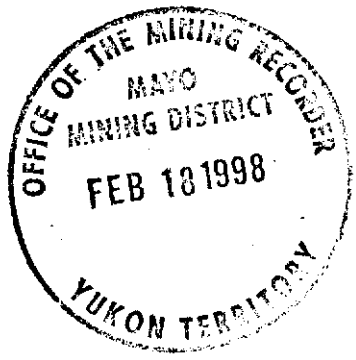

Geological Assessment Report

For The

Oly Lakes Mineral Property
[Nug 1-6 Claims]
NTS 105-O-2

For
Eagle Plains Resources [EPL:ASE]
And
Miner River Resources [MRG:ASE]
Joint-Venture

By
Bernie Kreft
October 16, 1997

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of $ 3000.00 .

M. Burke

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

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SUMMARY AND CONCLUSIONS

Exploration work completed on the Nug 1-6 quartz claims consisted of rock sampling. The purpose of the work was to sample in detail a previously known gold-bearing vein swarm, with a view towards assessing its bulk-tonnage gold potential.

Vein and fracture filling quartz-sulphide [arsenopyrite dominant] mineralization is common within a 150m x 400m zone [Fort Zone] covering the south-central portion of a biotite monzonite stock and its associated hornfels zone. Sixteen representative grab samples of mineralized veins returned an average grade of 1100 ppb Au. Chip sampling of weakly mineralized and fractured wall-rock returned mostly sub-anomalous values. A new zone [Knox Zone] was located N.W. of the Fort zone. The Knox Zone is an area of un-mineralized to weakly mineralized quartz-stockwork cutting biotite monzonite. Samples returned up to 1555 ppb Au.

Work to date has demonstrated the varied and widespread nature of gold mineralization associated with the Nug Stock. Further work is warranted, and necessary, to fully evaluate the claims.

INTRODUCTION

The Nug 1-6 claims lie in the Hess Mountains, on the north side of Oly Lakes, in the Macmillan Pass area of southeastern Yukon Territory. Elevations on the property range between 1100 and 1850 metres, with topography ranging from moderate to steep.

Access is best achieved by helicopter. Oly Lakes is large enough to handle all types of float equipped aircraft. The North Canol Road [summer use only] passes within 20 kilometres of the S.E. edge of the property.

The showing was originally staked as the Nuke claims by Canamax Resources in 1983. During 1983 and 1984 Canamax mapped and sampled the claims; unfortunately gold values for this work are not documented. The showing was re-staked as Nug 1-6 claims in March 1996 by Bernie Kreft for the Eagle Plains [EPL:ASE] and Miner River [MRG:ASE] joint-venture.

GEOLOGY

The claims overlie a series of Devonian aged shale, conglomerate, chert and argillite. Intrusive to this sedimentary package is a small Cretaceous aged granitic stock and several quartz feldspar porphyry dykes. The intrusion has caused the development of an extensive hornfels zone and numerous gossans in the adjacent sediments. Alteration of the stock is limited to the development of sericite along vein margins and un-mineralized fractures. Several of the QFP dykes along the south-west margin of the stock are weakly to moderately clay and sericite altered.

MINERALIZATION

Anomalous gold values have two distinct modes of occurrence: [1] within quartz-sulphide [arsenopyrite dominant] veins [2] within un-mineralized to weakly mineralized quartz-stockwork.

Quartz-sulphide veins are common within the 150m x 400m Fort Zone which is centered over the stock and its adjacent hornfels zone. Maximum vein width is 30cm, with most averaging 8cm. Veins tend to pinch and swell, as well as vary in their sulphide content along strike. Vein density is hard to gauge due to the rubbly nature of outcrop, but where measured, it varies from a maximum of 1 per metre to an average of 1 every 4 metres. Veins average 1100 ppb Au, while the vast majority of wall-rock samples were barren. Listed below are the top 6 vein-hosted gold values:

Vein Geochemistry

	Au [ppb]	Ag [ppm]	As [%]	Bi [ppm]	Pb [ppm]	Sb [ppm]	Cu [ppm]
CDN97R-5	2423	57.9	18.0	339	1258	522	3237
BKNUK-11	2313	73.5	7.4	1099	795	387	119
JDN97-8	1880	4.9	31.0	419	267	233	50
BKNUK-1	1702	3.8	6.2	17	197	71	145
JDN97-2	1686	28.5	1.8	422	10101	4000	227
CDN97R-8	1060	92.0	5.6	10	20000	18000	1313

The Knox Zone is a rubble and talus covered 30m x 50m area with anomalous gold values hosted by quartz stockworked monzonite. Due to the lack of outcrop in this area, and the early stage of exploration, maximum dimensions of the zone as well as controls on mineralization are unknown. Mineralization includes traces of disseminated, vein and fracture controlled arsenopyrite and chalcopyrite. Alteration is limited to weakly developed sericite along the margins of veins and fractures, along with occasional weak silicification and trace tourmaline. Quartz veins average 5mm wide, with an average density of 5 per metre. The average of 15 representative samples is 372 ppb Au. Listed below are the top 6 gold values from the Knox Zone.

Stockwork Geochemistry

	Au [ppb]	Ag [ppm]	As [ppm]	Bi [ppm]	Pb [ppm]	Sb [ppm]	Cu [ppm]
BKNUK-33	1555	1.0	263	57	91	<	129
BKNUK-35	1524	0.2	11	<	29	<	47
BKNUK-6	1340	6.2	1254	130	85	11	125
BKNUK-37	351	0.7	80	<	22	<	128
BKNUK-38	248	0.2	38	<	21	<	60
BKNUK-8	121	1.7	182	24	82	33	115

RECOMMENDATIONS

Further work is recommended for the claim group. This work should consist of claim-staking [18 units], contour soil/talus sampling [250 samples], detailed rock sampling of the Knox Zone [60 samples] and prospecting of any areas of intrusive stock and dykes not already covered. A budget of $19,000 is proposed.

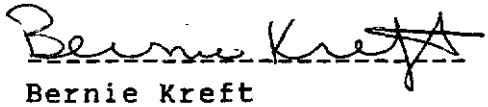
CERTIFICATION

I, Bernie Kreft, of 1409 Fir Street, Whitehorse, Yukon Territory, was present and witnessed the exploration work described herein.

I have twelve years experience prospecting in the Yukon.

This report is based on fieldwork conducted or witnessed by myself.

Respectfully submitted,



Bernie Kreft

ROCK SAMPLE DESCRIPTIONS

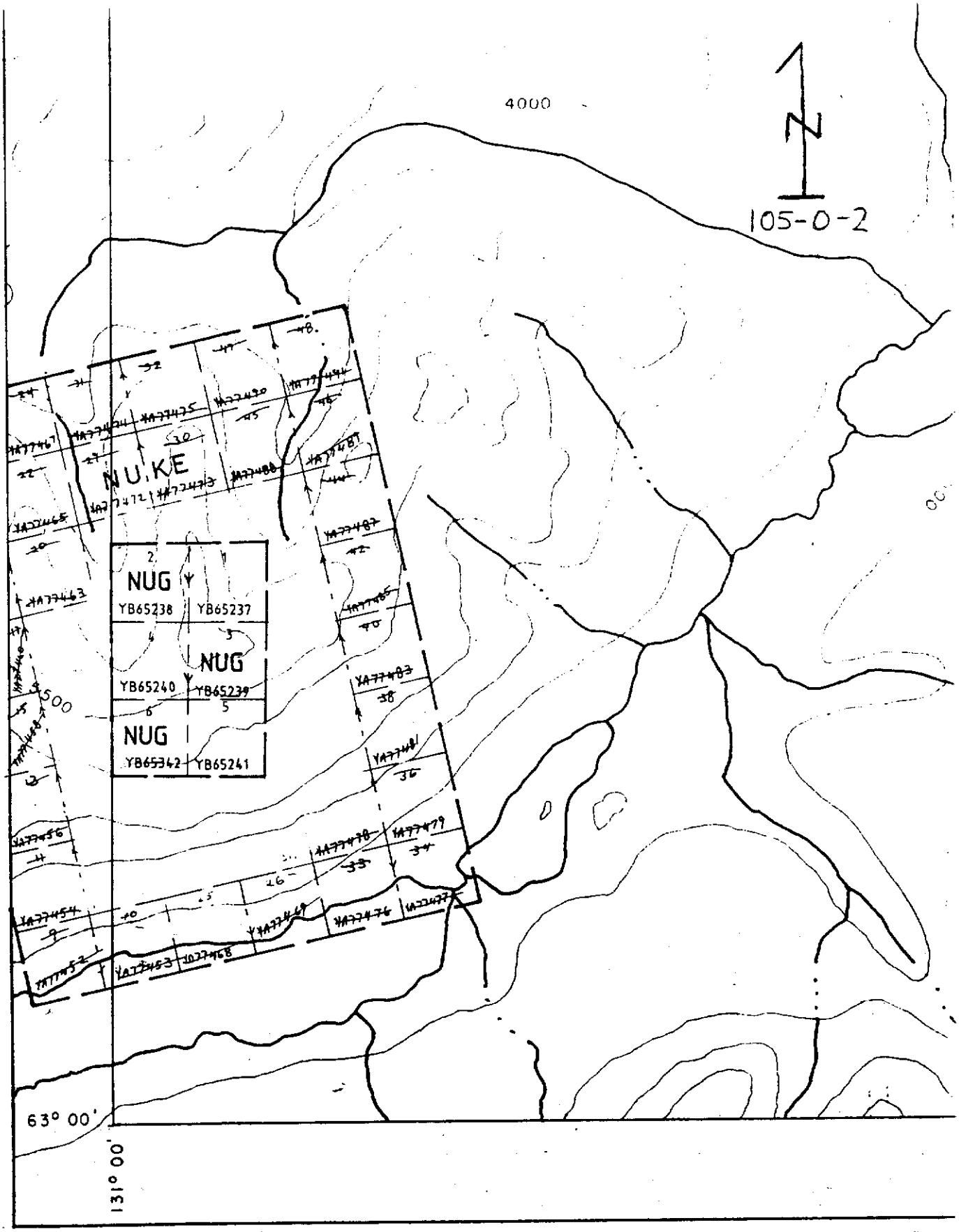
BKNUK-01 > Rep grab of 8.0cm qtz As vein
BKNUK-02 > 1.0m chip across wallrock to above
BKNUK-03 > 0.3m chip across anastomosing qtz vein trace sulphide
BKNUK-04 > 1.3m chip across siltstone cut by two 2cm qtz As veins
BKNUK-05 > 1.3m chip across fractured siltstone trace diss Po
BKNUK-06 > 0.5m chip across granite cut by three 0.5cm qtz veins min. with trace arseno
BKNUK-07 > as above, un-mineralized
BKNUK-08 > grab granite cut by a qtz filled fracture with trace As in fracture
BKNUK-09 > 0.3m chip across granite several fractures with Cu/As
BKNUK-10 > grab barren granite from site of -09
BKNUK-11 > grab 3.0cm qtz As vein
BKNUK-12 > granite adjacent to a fracture has been silicified and flooded with chalco and As, gossan zone in stock
BKNUK-13 > 0.3m chip granite cut by three 5mm wide barren qtz veins
BKNUK-14 > grab 20cm pc granite with 2 rusty fractures
BKNUK-15 > grab 10cm wide vuggy Q.V. with 0.5% Py, 0.5% As
BKNUK-16 > 1.0m chip adjacent to above
BKNUK-17 > 1.5m chip across 3 As filled fractures in granite
BKNUK-18 > 1.5m chip as above
BKNUK-19 > 1.0m chip hfls siltstone cut by weak qtz stockwork weak scorodite staining
BKNUK-20 > 1.0m chip as above with trace galena?
BKNUK-30 > grab 15cm pc granite cut by one 5mm Q.V. and one rusty fracture; trace diss pyrite
BKNUK-31 > grab 10cm pc granite cut by one 3mm rusty Q.V.
BKNUK-32 > as above
BKNUK-33 > grab 10cm pc granite cut by four 2mm Q.V. trace chalco along a fracture
BKNUK-34 > grab 15cm pc granite with 3 rusty fractures
BKNUK-35 > grab 15cm pc granite cut by three 2mm Q.V. trace sulphide along Q.V., possibly arseno
BKNUK-36 > as above with increased biotite content
BKNUK-37 > 0.7m chip granite cut by four 4mm Q.V. trace chalco in one of the Q.V.
BKNUK-38 > grab 15cm pc granite cut by a 1cm wide Q.V. with trace tourmaline
BKNUK-39 > as above, no tourmaline
BKNUK-40 > 0.6m chip granite cut by 4 rusty fractures
BKNUK-41 > grab 15cm pc granite cut by one 1cm wide Q.V. trace As along a fracture
CDN97R-01 > granite with several rusty fractures
CDN97R-02 > granite with clay veining
CDN97R-03 > grab 8.0cm wide qtz Py/As vein cutting granite
CDN97R-04 > 1.2m chip granite cut by three 1cm Q.V. trace As
CDN97R-05 > grab 10cm Q.V. with 5% As
CDN97R-06 > grab wallrock to above, silicified granite with 5% diss. Py/As; moderate biotite hfls

CDN97R-07 > grab 10cm wide qtz As vein in granite
CDN97R-08 > as above
CDN97R-09 > 0.3m chip granite cut by three 1.5cm Qtz As veins
CDN97R-10 > 1.2m chip granite cut by six 1cm qtz As veins
adjacent to above
CDN97R-11 > 0.25m chip granite silicified with manganese stained
fractures adjacent to above
CDN97R-12 > 1.6m chip as per -10 adjacent to above
CDN97R-13 > 0.15m chip qtz As vein adjacent to above
CDN97R-14 > grab fault gouge zone in siltstone
CDN97R-15 > grab 0.25m wide qtz As vein float
CDN97R-16 > grab rusty weathering siltstone with 0.5% Py diss
JDN97-01 > grab anastomosing qtz vein weak sericite in granite
JDN97-02 > grab 7.0cm qtz As vein cutting granite
JDN97-03 > 0.8m chip granite cut by three 5mm wide As veins
JDN97-04 > rep grab of two 2mm As veins cutting 15cm pc granite
JDN97-05 > 10cm wide grab of 5mm wide qtz As vein in granite
JDN97-06 > grab 12cm qtz As vein cutting granite
JDN97-07 > grab 2cm wide qtz As vein in granite
JDN97-08 > grab 7cm qtz As vein in granite
JDN97-09 > grab 4cm qtz As vein in granite
JDN97-10 > grab 20cm wide qtz As vein talus
JDN97-11 > 0.5m chip across qtz stockwork in siltstone scorodite
JDN97-12 > as above abundant As
JDN97-13 > grab pyritic fault breccia in siltstone
JDN97-14 > grab bleached fault breccia and gouge in siltstone
JDN97-15 > 2.0m chip across four 1cm qtz As veins in siltstone

EXPENSE SUMMARY

Wages [Bernie Kreft 2.0 days @ $375.00/day]	=	$750.00
Wages [John Dickie 2.0 days @ $375.00/day]	=	$750.00
Wages [Chuck Downey 2.0 days @ $375.00/day]	=	$750.00
Assays [63 samples @ $22.47/sample]	=	$1415.61
Helicopter	=	$743.34
Total	=	$4408.95

I would like to apply $3,000.00 worth of the above listed expenses towards renewal of the Nug 1-6 quartz claims.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NUG
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500
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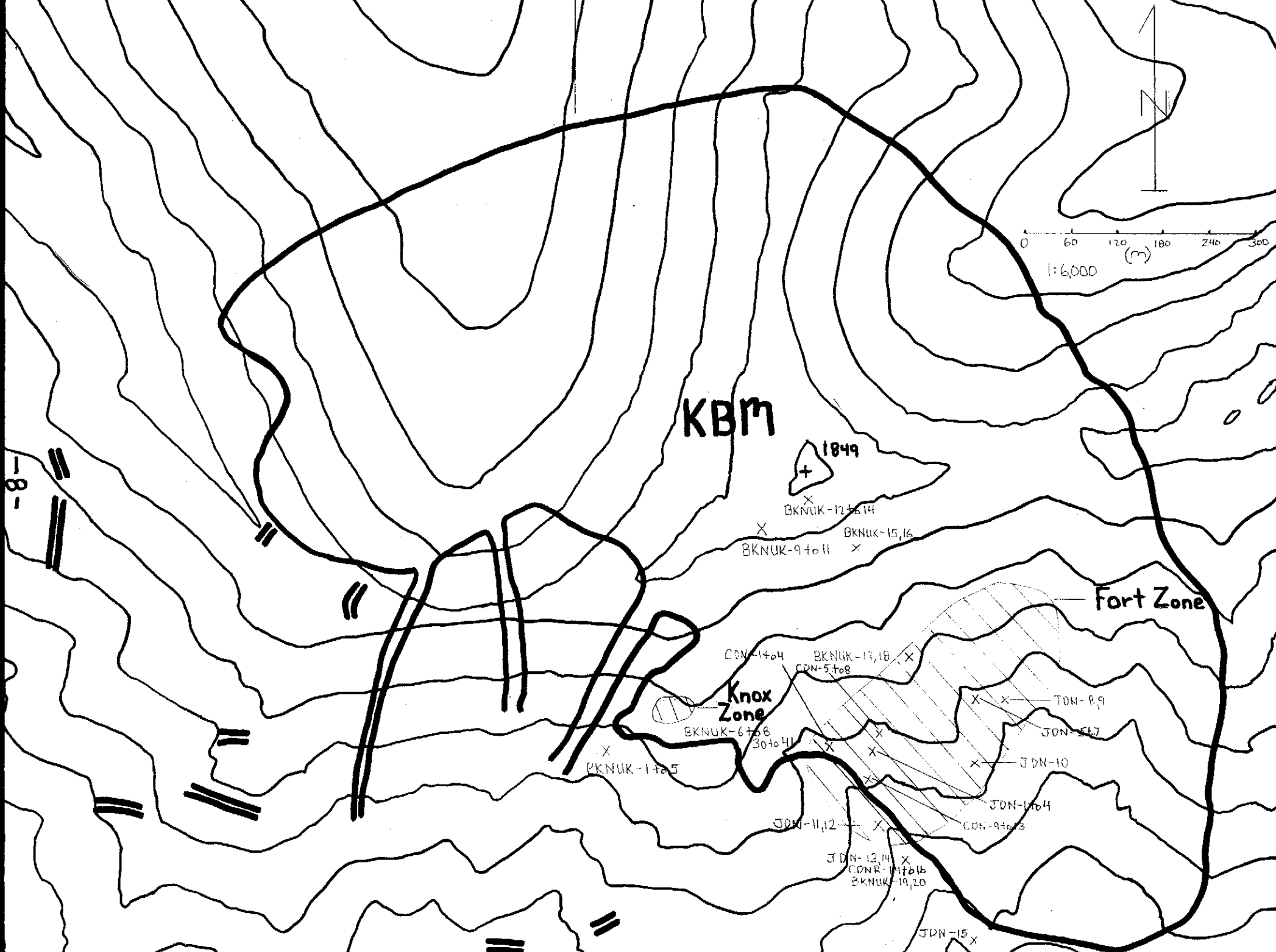
131° 00'


KBM
1849
BKNUK-12 to 14
BKNUK-15,16
BKNUK-9 to 11
Fort Zone
CDN-1 to 4
BKNUK-17,18
CDN-5 to 8
Knox Zone
BKNUK-6 to 8
30 to 41
BKNUK-1 to 5
TDN-8,9
JDN-5 to 7
JDN-10
JDN-1 to 4
JDN-11,12
CDN-9 to 13
JDN-13,14
CDNR-1 to 16
BKNUK-19,20
JDN-15
N
0 60 120 180 240 300
(m)
1:6,000

Northern Analytical Laboratories ltd.

24/09/97

Assay Certificate

Bernie Kreft

WO# 07925

Certified by

Sample #	Au ppb
BKNUK-30	42
BKNUK-31	11
BKNUK-32	25
BKNUK-33	1555
BKNUK-34	50
BKNUK-35	1524
BKNUK-36	92
BKNUK-37	351
BKNUK-38	248
BKNUK-39	76
BKNUK-40	15
BKNUK-41	28

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Northern Analytical Laboratories ltd.

Bernie Kreft

WO# 07872

Certified by

Sample #	Au ppb
BKALP - 11	101
BKALP - 12	19
BKALP - 13	20
BKALP - 14	13
BKALP - 15	34
BKALP - 16	48
BKALP - 17	27
BKALP - 18	19
BKALP - 19	14
BKALP - 20	12
BKALP - 21	7
BKALP - 22	<5
BKALP - 23	20
BKALP - 24	35
BKALP - 25	<5
BKNUK - 1	1702
BKNUK - 2	19
BKNUK - 3	22
BKNUK - 4	173
BKNUK - 5	19
BKNUK - 6	1340
BKNUK - 7	108
BKNUK - 8	121
BKNUK - 9	<5
BKNUK - 10	13
BKNUK - 11	2313
BKNUK - 12	1690
BKNUK - 13	14
BKNUK - 14	55
BKNUK - 15	549

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Bernie Kreft

WO# 07872

Certified by

Sample #	Au ppb
BKNUK - 16	18
BKNUK - 17	51
BKNUK - 18	51
BKNUK - 19	32
BKNUK - 20	19
CON97R - 1	82
CON97R - 2	20
CON97R - 3	206
CON97R - 4	27
CON97R - 5	2423
CON97R - 6	283
CON97R - 7	695
CON97R - 8	1060
CON97R - 9	331
CON97R - 10	98
CON97R - 11	55
CON97R - 12	23
CON97R - 13	647
CON97R - 14	107
CON97R - 15	608
CON97R - 16	39
JDN97 - 1	43
JDN97 - 2	1686
JDN97 - 3	153
JDN97 - 4	148
JDN97 - 5	125
JDN97 - 6	599
JDN97 - 7	97
JDN97 - 8	1880
JDN97 - 9	659

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Analytical
Laboratories ltd.

Bernie Kreft

WO# 07872

Certified by

Sample #	Au ppb
JDN97 - 10	823
JDN97 - 11	391
JDN97 - 12	844
JDN97 - 13	69
JDN97 - 14	65
JDN97 - 15	70

Note: For "ALPC-" series, suffixes "A" & "B" designate separate splits of same sample.

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INTERNATIONAL PLASMA LABORATORY LTD.

2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

CERTIFICATE OF ANALYSIS
iPL 97H0759

Client : Northern Analytical Laboratories
Project: WO# 7872

86 Samples
86=Pulp

[075916:58:37:79081897]

Out: Aug 18, 1997
In : Aug 11, 1997

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
ALPC - 1	P	2.0	14	323	40	3114	48	<	1	<	<	<	<	8	52	<	49	2	31	2	12	11	<	<	0.72	0.03	1.60	0.07	0.16	0.04	0.02
ALPC - 2	P	45.5	45	71	26	1.5%	99	<	<	<	14	<	1	6	14	<	55	<	13	<	4	12	<	<	0.48	0.01	1.48	0.03	0.15	0.03	0.01
ALPC - 3	P	0.4	9	20	37	3767	17	<	<	<	<	0.2	1	4	33	<	57	<	46	<	5	9	<	<	0.58	0.03	0.85	0.08	0.13	0.04	<
ALPC - 4	P	0.5	10	23	26	1.4%	59	<	<	<	<	<	1	4	32	<	49	<	44	2	6	11	<	<	0.52	0.05	1.74	0.07	0.13	0.03	<
ALPC - 5	P	1.3	35	22	24	1.9%	72	<	<	<	33	<	1	8	11	<	76	<	31	<	3	9	2	<	0.71	<	1.86	0.07	0.13	0.03	0.02
ALPC - 6	P	2.6	9	83	7	4875	17	<	<	<	<	0.2	<	3	60	<	51	<	12	3	4	9	<	<	0.45	<	0.76	0.02	0.20	0.02	0.01
ALPC - 7	P	0.4	7	14	81	1.2%	30	<	<	<	<	0.3	3	14	28	<	51	<	76	2	13	14	<	<	0.38	0.05	1.65	0.03	0.15	0.03	<
ALPC - 8	P	0.5	8	39	68	2339	15	<	1	<	<	0.3	1	7	36	<	57	<	94	<	9	11	<	<	0.51	0.09	0.70	0.04	0.15	0.04	<
ALPC - 9	P	0.7	29	18	22	9238	22	<	<	<	3	<	1	5	24	<	58	<	28	2	8	9	<	<	0.56	0.08	0.91	0.06	0.13	0.03	0.01
ALPC - 10	P	0.3	10	29	38	4020	24	<	<	<	<	0.4	1	6	37	<	40	2	20	2	4	11	<	<	0.58	<	0.93	0.05	0.13	0.03	0.02
BKALP- 1	P	0.4	93	7	72	2959	8	<	2	<	<	<	6	20	288	<	34	16	20	22	34	9	1	0.01	0.79	<	1.96	0.21	0.35	0.02	0.06
BKALP- 2	P	0.2	69	2	93	1338	5	<	3	<	<	<	10	36	184	<	33	20	34	22	17	17	1	<	1.07	<	1.76	0.30	0.34	0.03	0.03
BKALP- 3	P	0.2	110	4	154	591	<	<	3	<	<	0.2	14	48	300	<	45	24	35	31	14	13	1	0.01	1.51	<	2.03	0.35	0.35	0.03	0.04
BKALP- 4	P	0.1	58	4	33	245	<	<	3	<	<	1.0	5	23	278	<	27	20	44	29	12	17	1	<	1.30	<	2.00	0.43	0.23	0.03	0.02
BKALP- 5	P	0.1	70	3	94	250	<	<	4	<	<	0.5	15	39	286	<	30	20	44	28	14	14	1	<	1.29	<	2.01	0.48	0.25	0.03	0.03
BKALP- 6	P	<	29	4	21	105	<	<	3	<	<	<	9	27	201	<	33	21	39	26	13	18	1	<	1.23	<	1.56	0.49	0.30	0.03	0.02
BKALP- 7	P	<	44	2	39	429	<	<	4	<	<	0.2	7	18	395	<	45	31	25	25	22	20	1	0.02	1.25	<	1.43	0.39	0.41	0.02	0.03
BKALP- 8	P	<	43	3	32	437	<	<	5	<	<	0.3	5	23	239	<	29	30	21	23	13	18	1	0.02	1.28	<	2.02	0.34	0.35	0.02	0.03
BKALP- 9	P	<	23	3	24	772	<	<	4	<	<	0.1	4	18	388	<	28	32	21	26	27	15	1	0.02	1.52	<	1.63	0.36	0.38	0.02	0.04
BKALP- 10	P	<	36	4	149	719	<	<	2	<	<	0.1	14	41	246	<	36	25	48	23	15	16	1	<	1.47	<	1.85	0.48	0.29	0.02	0.03
BKALP- 11	P	<	71	<	6	3286	<	<	4	<	<	0.2	2	4	175	<	57	9	16	32	18	8	2	<	0.23	<	0.72	0.02	0.12	0.02	0.03
BKALP- 12	P	0.2	22	2	16	1083	5	<	3	<	<	0.2	2	7	332	<	46	16	12	25	31	11	1	<	0.77	<	2.29	0.12	0.34	0.03	0.03
BKALP- 13	P	0.1	41	4	83	394	5	<	3	<	<	0.3	9	31	260	<	36	18	14	23	24	9	1	<	0.85	<	2.47	0.18	0.30	0.03	0.04
BKALP- 14	P	0.1	26	5	50	291	<	<	3	<	<	0.4	4	14	459	<	32	30	105	30	18	18	2	0.02	1.92	<	2.65	0.80	0.42	0.04	0.03
BKALP- 15	P	2.2	152	11	52	64	6	<	13	<	<	0.1	4	33	25	<	156	159	72	10	24	32	7	0.02	1.75	0.06	3.05	0.74	0.23	0.05	0.03
BKALP- 16	P	1.8	192	9	101	70	<	<	7	<	<	<	11	100	19	<	155	152	84	11	13	40	9	0.02	1.81	0.05	3.78	0.61	0.26	0.04	0.02
BKALP- 17	P	<	6	11	40	48	<	<	<	<	<	0.3	12	11	336	<	101	67	244	23	36	3	10	0.24	2.45	0.82	2.91	1.36	1.08	0.18	0.05
BKALP- 18	P	<	15	8	29	61	<	<	1	<	<	0.4	11	9	263	<	129	53	225	29	37	5	5	0.21	2.04	0.83	2.24	0.98	0.81	0.20	0.04
BKALP- 19	P	0.9	404	14	46	340	5	<	2	<	<	<	14	12	319	<	139	69	214	35	38	4	7	0.25	2.29	0.63	3.33	1.19	0.83	0.19	0.05
BKALP- 20	P	0.3	97	28	113	51	<	<	1	<	<	<	8	7	445	<	35	143	306	29	179	25	17	0.29	5.83	2.44	4.55	1.83	1.94	0.44	0.06
BKALP- 21	P	<	19	10	32	149	<	<	1	<	<	0.2	15	12	365	<	123	67	215	31	56	3	6	0.27	2.64	0.89	2.72	1.22	1.12	0.26	0.05
BKALP- 22	P	<	7	19	33	22	5	<	<	<	<	0.3	11	8	168	<	100	49	241	34	23	8	6	0.21	1.79	0.59	2.24	0.96	0.78	0.14	0.04
BKALP- 23	P	0.3	375	11	47	296	5	<	2	<	<	0.5	20	14	370	<	118	72	265	32	59	3	7	0.29	2.67	0.92	2.92	1.38	1.18	0.22	0.05
BKALP- 24	P	0.6	564	11	50	70	6	<	1	<	84	0.5	13	9	219	<	104	58	255	29	20	3	6	0.22	1.85	0.52	2.52	1.15	0.76	0.10	0.05
BKALP- 25	P	0.5	373	10	39	38	5	<	1	<	<	0.4	10	10	203	<	127	58	245	31	27	3	6	0.21	1.90	0.70	2.52	1.15	0.64	0.11	0.05
BKNUK- 1	P	3.8	145	197	35	6.2%	71	<	7	<	17	0.8	7	9	67	<	128	41	39	22	8	3	2	<	0.38	0.02	4.81	0.06	0.13	0.01	0.02
BKNUK- 2	P	0.5	93	10	44	775	9	<	10	<	<	0.5	3	17	353	<	105	183	42	15	14	4	3	<	0.98	0.04	1.53	0.37	0.29	0.02	0.03
BKNUK- 3	P	0.4	86	5	60	777	16	<	4	<	<	0.4	18	42	114	<	126	20	258	12	6	2	2	<	0.51	0.05	2.02	0.09	0.16	0.02	0.01
BKNUK- 4	P	0.4	133	8	40	9283	18	<	7	<	<	<	13	37	54	<	109	102	130	11	11	3	4	0.02	1.33	0.06	3.63	0.84	0.47	0.02	0.04
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % P=Pulp

INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS
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Client : Northern Analytical Laboratories
Project: WO# 7872

86 Samples
86=Pulp

[075916:58:37:79081897]

Out: Aug 18, 1997
In : Aug 11, 1997

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Tl %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
BKNUK- 5	P	0.5	56	8	35	241	11	<	13	<	<	0.4	3	14	173	<	102	88	91	13	22	4	3	0.01	1.12	0.07	2.47	0.50	0.41	0.02	0.03
BKNUK- 6	P	6.2	125	85	63	1254	11	<	2	<	130	0.6	20	14	306	<	111	84	302	15	169	3	10	0.28	6.03	3.15	3.41	1.77	1.11	0.54	0.05
BKNUK- 7	P	0.2	119	9	49	48	<	<	2	<	<	0.6	11	3	255	<	66	23	258	28	111	4	5	0.25	2.68	1.11	2.80	0.79	0.78	0.28	0.05
BKNUK- 8	P	1.7	115	82	59	182	33	<	2	<	24	0.9	13	3	225	12	61	21	290	29	94	3	5	0.22	2.66	1.24	2.85	0.84	0.75	0.24	0.05
BKNUK- 9	P	0.2	69	15	60	53	<	<	1	<	<	0.6	10	2	193	<	92	19	366	23	109	3	5	0.22	2.82	1.24	2.89	0.71	0.81	0.28	0.05
BKNUK- 10	P	<	36	12	55	34	<	<	1	<	<	0.4	11	3	252	<	80	20	357	23	117	2	5	0.25	3.08	1.16	2.96	0.72	1.05	0.36	0.05
BKNUK- 11	P	73.5	119	795	31	7.4%	387	<	4	<	1099	6.6	148	13	<	<	149	<	33	2	8	1	<	<	0.07	0.02	5.28	<	0.03	0.02	<
BKNUK- 12	P	31.0	7679	87	87	2.3%	28	<	1	<	351	2.7	90	2	<	<	39	26	151	4	41	3	4	0.05	1.89	0.91	5.35	0.89	0.13	0.12	0.04
BKNUK- 13	P	0.8	183	22	36	401	8	<	1	<	3	0.8	7	2	71	<	90	14	539	16	44	3	3	0.10	1.45	1.04	2.11	0.53	0.40	0.12	0.04
BKNUK- 14	P	0.4	178	15	27	954	5	<	1	<	<	0.6	9	3	61	<	77	19	170	15	54	3	4	0.13	1.79	1.03	2.39	0.63	0.28	0.11	0.05
BKNUK- 15	P	7.3	145	11860	3582	816	0.4%	<	<	<	17	73.7	6	3	19	<	97	<	3676	7	68	1	<	<	0.38	2.31	2.71	0.10	0.13	0.02	0.02
BKNUK- 16	P	0.6	136	167	137	204	59	<	1	<	<	3.2	9	2	138	<	83	21	368	19	43	3	5	0.18	2.02	0.77	2.56	0.68	0.63	0.20	0.05
BKNUK- 17	P	0.3	27	36	76	4548	13	<	2	<	<	1.0	8	3	131	<	50	11	317	18	43	3	3	0.10	1.84	0.63	2.78	0.53	0.45	0.16	0.05
BKNUK- 18	P	2.0	107	140	32	5605	16	<	1	<	<	0.2	10	4	154	<	67	17	235	33	61	5	4	0.11	2.35	0.66	3.33	0.81	0.43	0.14	0.06
BKNUK- 19	P	2.4	156	81	82	5933	88	<	7	<	<	1.1	4	50	32	<	97	108	43	12	20	4	2	<	0.72	0.55	2.89	0.15	0.30	0.02	0.26
BKNUK- 20	P	10.0	434	514	55	6582	39	<	2	<	24	2.2	4	44	50	<	150	19	29	6	4	1	1	<	0.27	0.03	2.41	0.03	0.11	0.02	0.01
CDN97R- 1	P	0.1	29	16	47	130	9	<	2	<	<	1.8	11	3	133	<	58	23	354	39	71	3	5	0.22	2.45	1.32	3.00	0.83	0.35	0.18	0.05
CDN97R- 2	P	0.2	30	23	61	143	5	<	1	<	<	0.9	9	2	105	<	38	20	409	36	86	4	5	0.16	3.78	2.45	2.97	0.79	0.34	0.04	0.05
CDN97R- 3	P	1.9	96	1492	269	1746	62	<	2	<	<	5.6	9	2	36	<	42	19	299	35	35	4	4	0.19	2.36	1.37	3.73	0.66	0.16	0.04	0.05
CDN97R- 4	P	2.0	328	74	61	1389	23	<	1	<	<	1.4	14	3	143	11	67	15	334	31	59	4	4	0.12	1.97	0.85	2.59	0.66	0.47	0.16	0.05
CDN97R- 5	P	57.9	3237	1258	95	18%	522	<	4	<	339	5.3	118	30	<	5	119	78	234	12	12	14	4	<	1.21	0.33	14%	1.36	0.04	<	0.13
CDN97R- 6	P	9.3	1048	96	62	5021	149	<	5	<	57	<	13	9	3	<	93	155	481	15	14	7	10	0.07	3.00	0.42	12%	2.80	0.11	0.01	0.28
CDN97R- 7	P	76.6	3266	2.2%	194	18%	0.7%	<	2	<	81	12.9	4	3	<	<	80	27	58	4	103	3	<	<	0.55	0.26	13%	0.05	0.45	0.01	0.01
CDN97R- 8	P	92.0	1313	2.0%	11232	5.6%	1.8%	<	<	<	10	0.2m	2	2	<	<	119	3	97	<	7	1	<	<	0.05	0.06	7.20	0.01	0.01	0.01	<
CDN97R- 9	P	40.5	320	16936	4892	1.1%	0.8%	<	1	<	<	0.2m	12	11	<	<	72	20	2863	7	27	3	9	<	0.57	0.95	5.61	0.39	0.30	0.02	0.04
CDN97R- 10	P	8.9	245	11467	11494	2106	0.7%	<	<	<	<	0.3m	23	23	17	<	101	63	4691	11	65	2	16	0.05	2.31	2.49	4.55	1.72	0.48	0.09	0.04
CDN97R- 11	P	5.0	165	440	1921	1005	269	<	3	<	<	45.0	16	23	68	<	75	21	1.6%	8	101	1	13	<	0.74	3.59	3.37	1.29	0.26	0.01	0.05
CDN97R- 12	P	1.6	132	155	2370	450	165	<	2	<	<	58.8	21	23	131	<	104	86	6573	11	93	2	15	0.09	3.57	3.07	4.57	2.14	0.57	0.18	0.04
CDN97R- 13	P	76.3	322	17988	10390	9924	1.4%	<	<	<	<	0.4m	13	10	<	<	58	12	1257	3	18	1	2	<	0.33	0.17	10%	0.10	0.20	0.01	0.02
CDN97R- 14	P	2.8	85	759	174	4167	188	<	2	<	<	3.9	1	10	87	<	151	19	78	6	2	1	1	<	0.24	0.02	2.60	0.04	0.08	0.01	0.01
CDN97R- 15	P	0.2m	15939	1031	313	7.0%	416	<	2	<	215	14.6	5	64	<	<	143	38	46	<	5	5	1	<	0.04	0.03	8.01	<	<	0.01	0.06
CDN97R- 16	P	0.8	243	31	80	1728	46	<	3	<	<	1.9	3	40	66	<	129	39	147	3	56	2	1	<	0.20	2.23	1.29	0.08	0.08	0.01	<
JDN97 - 1	P	1.1	174	34	105	312	28	<	2	<	<	2.4	5	3	23	<	146	8	171	21	22	4	2	0.06	1.15	1.32	1.86	0.36	0.19	0.04	0.04
JDN97 - 2	P	28.5	227	10101	80	1.6%	0.4%	<	3	<	422	3.3	19	4	65	<	148	10	212	26	37	3	3	0.07	1.54	0.62	3.36	0.38	0.38	0.11	0.04
JDN97 - 3	P	3.0	266	253	52	2423	75	<	2	<	51	1.8	12	4	162	<	90	14	248	33	58	3	4	0.12	2.20	0.88	2.90	0.71	0.52	0.18	0.05
JDN97 - 4	P	0.8	69	66	32	1.2%	27	<	2	<	6	<	23	3	110	<	62	12	276	31	62	4	3	0.09	1.84	0.93	3.43	0.52	0.49	0.16	0.05
JDN97 - 5	P	0.4	68	23	55	1.5%	16	<	2	<	<	<	25	5	128	<	51	73	377	12	187	2	8	0.14	6.14	3.43	4.59	1.44	0.93	0.46	0.05
JDN97 - 6	P	19.3	211	16013	550	7.7%	0.7%	<	2	<	29	31.2	6	3	<	<	151	2	404	<	5	1	<	<	0.08	0.03	7.12	0.01	0.03	0.02	<
JDN97 - 7	P	12.4	2557	137	140	7721	60	<	2	<	<	4.9	50	3	<	39	19	53	317	34	100	2	7	<	2.71	4.11	4.76	2.59	0.27	0.02	0.06
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % P=Pulp

INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS
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Client : Northern Analytical Laboratories
Project: WO# 7872

86 Samples
86=Pulp

[075916:58:37:79081897]

Out: Aug 18, 1997
In : Aug 11, 1997

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
JDN97 - 8	P	4.9	50	267	9	31%	233	4	5	<	419	<	42	3	<	<	40	12	66	<	38	3	<	0.01	0.29	0.52	24%	0.10	0.14	0.01	<
JDN97 - 9	P	24.0	462	7081	59	11%	0.4%	<	1	<	783	3.6	15	7	<	<	96	39	117	5	51	2	5	0.05	1.41	0.40	8.05	0.65	0.35	0.07	0.01
JDN97 - 10	P	66.0	4594	2.1%	2365	5.0%	1.0%	5	1	<	<	0.1m	3	4	<	<	113	2	177	2	8	1	<	<	0.10	0.07	6.42	0.02	0.01	0.01	0.01
JDN97 - 11	P	2.0	261	291	27	3.6%	211	<	16	<	46	0.8	5	8	28	<	118	85	20	4	4	7	2	<	0.23	0.06	3.50	0.05	0.11	0.02	0.09
JDN97 - 12	P	37.5	1601	1092	672	14%	510	<	7	<	379	38.0	4	21	<	<	103	91	45	<	8	12	2	<	0.29	0.11	10%	0.27	0.11	0.01	0.07
JDN97 - 13	P	4.3	59	147	14	3958	153	<	3	<	<	0.5	1	5	69	<	110	16	16	2	3	1	<	<	0.10	0.02	1.12	0.01	0.06	0.02	0.02
JDN97 - 14	P	10.9	194	138	63	3230	83	<	8	<	59	<	1	4	149	49	67	78	61	2	6	4	1	0.01	0.15	0.15	5.54	0.01	0.06	0.01	0.09
JDN97 - 15	P	3.6	346	32	63	7165	71	<	15	<	<	<	4	33	118	<	169	252	49	7	50	3	3	<	0.37	1.11	4.77	0.03	0.17	0.02	0.89
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % P=Pulp

CERTIFICATE OF ANALYSIS
iPL 97I0959

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Client : Northern Analytical Laboratories
Project: 7925

86 Samples
86=Pulp

[095914:46:19:79100297]

Out: Oct 02, 1997
In : Sep 25, 1997

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
BKNUK - 30	P	1.3	71	252	382	18	<	<	1	<	<	2.4	10	5	245	<	85	20	261	23	82	4	5	0.20	2.37	0.92	2.57	0.74	0.82	0.23	0.04
BKNUK - 31	P	1.2	52	327	134	53	<	<	2	<	<	1.1	9	5	289	<	82	21	227	24	104	2	5	0.22	2.44	1.03	2.43	0.78	0.80	0.25	0.05
BKNUK - 32	P	0.7	99	94	163	38	<	<	2	<	<	1.2	9	4	225	9	77	16	284	30	133	4	4	0.18	2.17	1.02	2.37	0.66	0.82	0.23	0.04
BKNUK - 33	P	1.0	129	91	104	263	<	<	3	<	57	1.1	12	4	227	<	67	16	218	29	71	3	4	0.17	2.19	1.12	2.39	0.71	0.72	0.22	0.05
BKNUK - 34	P	0.5	85	37	81	98	<	<	2	<	<	0.9	10	6	227	<	75	16	192	25	90	4	4	0.18	2.19	0.87	2.26	0.61	0.75	0.26	0.05
BKNUK - 35	P	0.2	47	29	71	11	<	<	2	<	<	0.6	9	4	223	<	68	18	217	25	70	3	5	0.19	2.30	1.02	2.32	0.75	0.74	0.22	0.05
BKNUK - 36	P	0.7	30	45	80	29	<	<	1	<	<	0.8	10	5	273	<	85	21	199	24	90	2	5	0.24	2.68	1.14	2.57	0.76	0.96	0.32	0.06
BKNUK - 37	P	0.7	128	22	62	80	<	<	1	<	<	0.6	12	4	236	<	66	20	230	23	100	5	5	0.24	2.62	1.23	2.65	0.71	0.86	0.28	0.05
BKNUK - 38	P	0.2	60	21	70	38	<	<	2	<	<	1.1	11	8	151	<	91	62	264	8	125	1	5	0.19	4.43	2.47	2.62	1.11	0.84	0.39	0.03
BKNUK - 39	P	0.2	24	26	90	38	<	<	1	<	<	1.1	15	13	251	<	89	86	274	11	154	1	5	0.20	5.72	3.00	2.74	1.50	1.20	0.54	0.04
BKNUK - 40	P	0.2	95	20	47	78	<	<	2	<	<	0.8	16	10	180	<	65	71	233	12	147	2	6	0.21	5.43	2.89	2.88	1.34	0.89	0.48	0.05
BKNUK - 41	P	0.2	37	18	59	46	<	<	2	<	<	0.9	14	13	234	<	87	75	296	8	160	1	4	0.19	5.21	2.95	2.51	1.33	0.97	0.50	0.03
MAY - 01	P	0.2	14	20	187	4885	5	<	1	<	<	1.7	12	11	303	<	115	50	367	46	73	1	4	0.13	1.78	0.78	2.29	0.75	0.67	0.17	0.07
MAY - 02	P	0.1	9	23	113	53	<	<	1	<	<	0.7	10	11	692	<	129	59	389	39	65	3	4	0.22	1.94	0.59	2.27	0.87	0.99	0.17	0.07
MAY - 03	P	0.2	11	36	612	35	<	<	2	<	<	3.5	9	13	616	<	145	56	535	43	49	3	6	0.15	1.79	0.68	2.48	0.73	0.61	0.11	0.07
MAY - 04	P	0.4	18	42	128	2.4%	19	<	2	<	<	2.9	8	10	22	8	102	24	134	13	94	1	2	0.04	1.93	0.92	2.89	0.46	0.44	0.22	0.06
MAY - 05	P	0.1	18	21	128	1040	<	<	3	<	<	1.5	8	10	497	6	115	54	416	41	59	3	6	0.15	1.68	0.66	2.23	0.82	0.69	0.14	0.07
MAY - 06	P	0.2	10	22	84	4126	<	<	1	<	<	1.2	10	10	396	<	99	44	263	33	102	1	3	0.12	1.85	0.86	1.89	0.59	0.57	0.20	0.08
MAY - 07	P	0.3	41	31	102	2054	<	<	2	<	<	1.4	10	10	125	5	99	41	235	31	153	1	3	0.09	2.76	1.28	2.27	0.67	0.58	0.27	0.08
MAY - 08	P	0.8	4	35	166	1292	<	<	1	<	<	1.1	11	11	687	6	121	56	345	28	106	1	4	0.20	1.87	0.67	2.20	0.79	0.97	0.18	0.07
MAY - 09	P	<	46	20	80	727	<	<	3	<	<	0.8	12	12	163	79	113	46	271	31	115	6	3	0.13	2.12	1.03	2.25	0.64	0.55	0.23	0.08
MAY - 10	P	<	36	22	55	2560	<	<	2	<	<	0.7	11	11	205	24	110	38	230	29	152	1	2	0.10	2.31	1.17	1.99	0.54	0.42	0.26	0.08
MAY - 11	P	0.1	42	29	49	100	<	<	2	<	<	0.7	12	10	116	7	124	38	184	26	190	1	3	0.13	3.16	1.78	2.16	0.52	0.39	0.42	0.08
MAY - 12	P	0.2	36	109	82	63	14	<	8	<	<	0.1	17	31	152	<	127	62	314	26	47	1	8	0.25	3.46	0.95	3.88	1.08	1.61	0.19	0.03
MAY - 13	P	0.2	49	41	92	8214	5	<	1	<	<	1.2	17	36	56	6	92	39	179	16	68	<	5	0.08	2.39	0.80	2.98	0.73	0.70	0.23	0.07
MAY - 14	P	0.4	35	38	89	8673	<	<	1	<	<	0.6	14	34	53	814	108	29	159	11	62	<	4	0.06	2.16	0.77	2.76	0.66	0.68	0.22	0.04
MAY - 15	P	<	29	8	60	237	<	<	2	<	<	<	11	21	309	23	79	50	214	33	16	1	6	0.20	2.64	0.08	4.14	1.17	1.96	0.04	0.03
MAY - 20	P	0.6	162	14	173	134	<	<	2	<	<	1.1	12	28	71	9	116	54	308	14	72	1	7	0.13	2.73	0.83	3.54	0.80	0.85	0.21	0.01
MAY - 21	P	0.4	115	18	752	106	<	<	<	<	<	10.2	9	30	66	42	64	39	593	20	128	1	4	0.10	2.89	1.42	2.05	0.47	0.39	0.42	0.03
MAY - 22	P	0.2	117	12	89	43	<	<	7	<	<	0.3	14	42	56	<	88	73	228	13	66	1	7	0.12	3.28	1.03	3.49	1.14	1.24	0.25	0.02
MAY - 23	P	<	42	14	49	13	<	<	2	<	<	0.3	6	13	39	<	112	35	138	9	10	2	3	0.04	1.17	0.18	1.44	0.56	0.24	0.06	0.01
MAY - 24	P	0.1	122	10	84	49	<	<	2	<	<	0.6	9	24	77	8	95	43	251	17	26	2	5	0.13	2.05	0.64	2.49	0.78	0.85	0.14	0.07
MAY - 25	P	0.7	158	16	113	59	<	<	3	<	<	1.3	10	24	43	<	92	33	156	23	80	1	4	0.11	2.23	0.99	2.31	0.55	0.49	0.28	0.01
MAY - 26	P	0.3	73	13	116	19	<	<	1	<	<	<	21	47	69	<	74	57	222	24	38	4	6	0.18	3.48	1.18	4.17	1.06	1.47	0.28	0.11
MAY - 27	P	0.3	109	15	144	747	<	<	1	<	<	1.1	16	37	53	<	91	48	254	18	30	2	5	0.11	2.21	0.55	3.61	0.90	0.66	0.18	0.03
MAY - 28	P	0.4	91	15	106	39	<	<	2	<	<	0.6	12	24	62	<	85	34	236	14	21	2	4	0.10	1.59	0.26	3.30	0.78	0.87	0.09	0.02
MAY - 29	P	1.4	343	3	266	<	<	<	2	<	26	0.9	6	7	3	24	75	5	1205	8	11	2	1	0.03	1.27	0.68	5.81	0.12	0.08	0.05	<
MAY - 30	P	1.2	245	7	144	1484	<	<	2	<	22	0.5	9	17	98	34	136	55	778	15	28	1	8	0.19	2.38	0.53	4.67	0.95	1.60	0.12	0.07
MAY - 40	P	0.6	128	11	93	2451	<	<	3	<	<	1.1	14	12	157	86	103	40	487	20	49	1	4	0.11	1.86	0.59	2.77	0.70	0.73	0.13	0.05
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp