LOG NO: march 26/9/ RD. ACTION:

FILE NO:

ZC

R P P

88

0 G I C A L S S M E N T

L

0 0

A E S E

1990 SUMMARY REPORT ON THE GAB 6 MINERAL CLAIM FOR THUMPER RESOURCES CORP.

Ś

.

Located in the Iskut River Area Liard Mining Division British Columbia NTS 104B/15W

> 56°51' North Latitude 130°52' West Longitude

- Prepared by -S.L. TODORUK, Geologist C.K. IKONA, P.Eng.

March, 1991

GEOLOGICAL REPORT on the GAB 6 MINERAL CLAIM

¢ .

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
2.0	LIST OF CLAIMS	2
3.0	LOCATION, ACCESS AND GEOGRAPHY	2
4.0	AREA HISTORY	3
5.0	REGIONAL GEOLOGY	- 9 7
6.0	PROPERTY GEOLOGY	12 11
7.0	MINERALIZATION AND GEOCHEMISTRY	13-12
8.0	DISCUSSION AND CONCLUSIONS	13

LIST OF FIGURES

.

		Following Page
Figure 1	Property Location	1
Figure 2	Claim Map	2
Figure 3	Regional Mineral Occurrence Map	3
Figure 4	Regional Geology	8
Figure 5	Property Area Geology	11
Figure 6	Property Geology and Rock Sample Location Map	pocket
Figure 7	Au Soil Map	pocket
Figure 8	Ag Soil Map	pocket
Figure 9	As Soil Map	pocket
Figure 10	Zn Soil Map	pocket

APPENDICES

.

Appendix	I	Bibliography
Appendix	II	Cost Statement
Appendix	III	Rock Sample Description Forms
Appendix	IV	Analytical Procedures
Appendix	v	Assay Certificates
Appendix	VI	Statement of Qualifications
Appendix	VII	Engineer's Certificate

1.0 INTRODUCTION

During August to September, 1991 at the request of Thumper Resources Ltd., Pamicon Developments Ltd. carried out a small field exploration program on the Gab 6 mineral claim (20 units). Activity included geological mapping, prospecting and soil geochemistry sampling.

The Gab 6 claim is situated 3.5 kilometres east of Gulf International Minerals' Northwest Zone Au-Ag skarn project. That company has directed in excess of \$2,000,000 toward evaluating their property between 1987 and 1990. Also in the area, recent excitement has been centred on Thios Resources Inc./Eurus Resource Corp.'s polymetallic Black Dog massive sulphide prospect located 27 km to the southwest just west of the Snip and Johnny Mountain gold mines.

Recent government geological re-interpretation of stratigraphy in the Gab 6 claim area are now inferring the age of many of the rocks to be Jurassic as opposed to Paleozoic as initially believed. This thinking now places stratigraphy here as possibly correlative to that which hosts the Eskay Creek massive sulphide deposit 35 km to the southeast.

2.0 LIST OF CLAIMS

Records of the British Columbia Ministry of Energy, Mines and Petroleum Resources indicate that the following claim (Figure 2) is owned by Thumper Resources Corp.

Claim	Record	No. of		
Name	Number	<u>Units</u>	Record Date	Expiry Date
Gab 6	3831	20	December 22, 1986	December 22, 1992

The legal corner post of the Gab 6 claim was inspected and appears to be as recorded.



3.0 LOCATION, ACCESS AND GEOGRAPHY

The Gab 6 claim is located approximately 100 kilometres east of Wrangell, Alaska, and 115 kilometres northwest of Stewart, British Columbia, on the eastern edge of the Coast Range Mountains (Figure 1). Newmont Lake is situated 1 km west of the claim boundary and the Iskut River 15 kilometres to the south of the Gab 6 claim.

Coordinates of the claims area are 56°51' north latitude and 130°52' west longitude, and the property falls under the jurisdiction of the Liard Mining Division.

Access to the Gab 6 claim would be via fixed wing aircraft from Wrangell, Alaska or Smithers, British Columbia to either the Forrest Kerr gravel airstrip 10 kilometres northeast of the Gab 6 claim or the Bronson Creek gravel airstrip located 22 kilometres southwest from the claim. From these gravel airstrips, helicopter support is needed to reach the Gab 6 mineral claim. In addition, the Bob Quinn gravel airstrip is located 40 kilometres to the northeast on Highway 37 at Kilometre 139. Access to the property by helicopter or fixed wing can also be accomplished from this airstrip.

Geographically, the area is typical of mountainous and glaciated terrain with the elevations ranging from 700 metres above sea level in the river valley bottoms to in excess of 1500 metres at the ridge tops. Major drainages are U-shaped, whereas smaller side creeks tend to be steeply cut due to the intense erosional environment. Active glaciation is prevalent above the 1200 metre contour, with the tree line existing at 1000 metres. The upper reaches of the area are covered with alpine vegetation. The lower slopes are predominantly timbered with a variety of conifers with an undergrowth of devil's club. More open areas and steeper slopes contain dense slide alder growth. Both summer and winter temperatures would be considered generally moderate and in excess of 200 centimetres of precipitation may be expected during any given year.



4.0 AREA HISTORY

Figure 3 of this report presents a regional scale map of northwestern B.C. from the town of Stewart in the south to near Telegraph Creek in the north, a distance of 225 kilometres. Within this area, a semi-arcuate band of Hazelton Group equivalent volcanic and sedimentary rocks (Unuk River Formation, Betty Creek Formation, Salmon River Formation) with their metamorphic equivalents trend northwest and contain most of the known mineral occurrences. This group is bounded by the Coast Range intrusive complex to the west and by the much younger sediments of the Bowser Basin to the east.

This area of approximately 10,000 square kilometres has historically been referred to as the Stikine Arch. Mining activity within it goes back to the turn of the century. Due to the large size of the region it has been referred to in more specific areas which range from the Stewart area to Sulphurets, Iskut and Galore Creek areas. Recent discoveries appear to be filling in areas between these known mineralized camps. It is probable that the entire area can be considered as one large mineralized province with attendant subareas.

The history of the area can be divided into two time periods: circa 1900 to the mid-1970s and the more recent activities of the late 1970s, 1980s and early 1990s.

1900 - 1975

The original discovery of mineralization in the area can be attributed to miners either en route to or returning from the Klondike gold fields at the turn of the century. Rivers flowing through the Alaska Panhandle served as access corridors and mineralization was noted along the Iskut and Unuk Rivers and at the head of the Portland Canal. Highlights of this period were:

* discovery of copper, gold, silver mineralization at Bronson Creek in the Iskut

- * location of similar mineralization along the Unuk and at Sulphurets Creek
- * discovery of the Silbak-Premier gold-silver mine near Stewart plus a number of other rich silver occurrences along the Portland Canal
- * the location by Tom MacKay of the original mineralization at Eskay Creek near the headwater of the Unuk River

Development and production at this time was largely limited to the area around Stewart where a number of mines produced high grade silver. The most significant producer was the Silbak Premier some 12 km north of Stewart which from 1920 until 1936 produced some 2,550,000 tons grading 16.8 g/tonne gold and 409.5 g/tonne silver.

After World War II the area was explored for base metals, notably copper. This era led to the discovery of the Granduc, Galore Creek and Schaft Creek copper deposits and the E & L copper-nickel deposit. Published reserves of these are listed below and shown on Figure 3.

	<u>Tons</u>	<u>Cu</u> (%)	$\frac{\underline{Au}}{(g/t)}$	$\frac{\underline{Ag}}{(g/t)}$	<u>Mo</u> (%)	<u>Ni</u> (%)
Granduc	10,890,000	1.79				
Galore Creek	125,000,000	1.06	0.397	7.94		
Schaft Creek	910,000,000	0.30	0.113	0,992	0.02	
E&L	3,200,000	0.60				0.80

Of these Granduc was taken to production by Newmont Mining but a combination of low copper prices and high operating cost resulted in suspension of activity.

1975 - Present

.

The more recent activity in the area dates to the rise of precious metal prices in the 1970s. Significant early events at this time were:

- * acquisition by Skyline Explorations of their property on Mt. Johnny near Bronson Creek in the Iskut in 1980
- * continued work by Esso Minerals on Granduc Mining's properties on Sulphurets Creek in the Unuk River area
- * re-organization of the Silbak-Premier property and participation by Westmin Resources Ltd.

Work on these properties led to the following reserves being published for the properties listed below as well as stimulating exploration activity in the area. This activity led to the definition drilling of the Snip deposit by Cominco/Prime, the reserves of which are also shown.

Company	<u>Deposit</u>	Area	<u>Short Tons</u>	<u>Au</u> (oz/t)	<u>Ag</u> (oz/t)	<u>Ref.</u>	
Cominco/Prime	Snip	Iskut	1,032,000	0.875		Note 1	
Newhawk/Lacana	West Zone Sulphurets Lake Zone	Sulphurets Sulphurets	550,400 20,000,000	0.420 0.08	18.00	Note 2 Note 3	
Catear Resources	Gold Wedge	Sulphurets	295,000	0.835	2.44	Note 4	
Westmin Silbak	Silbak	Stewart	5,770,000	2.06 g/t	86.3 g/t		
Note 1: News Release, Vancouver Stockwatch, November 7, 1988 Note 2: News Release, Northern Miner, February 19, 1990 Note 3: News Release, Vancouver Stockwatch, August 24, 1989 Note 4: Pers. Comm., Catear Resources							

Between August, 1988 and July, 1990 Skyline Gold Corp. produced 210,000 tons grading 0.45 oz/ton Au (pers. comm., D. Yeager) from its Reg property.

These successes have generated extensive exploration activity in the area which has led to the discovery of a large number of mineral occurrences which are in a preliminary stage of evaluation. The most notable of these to date is on Tom MacKay's old Eskay Creek showings. The 1988/89/90 work on this project of Calpine/Stikine Resources indicates a major gold-silver-base metal mineral deposit of possible volcanogenic massive sulphide and epithermal affinity with a minimum strike length of 1800 metres. Some notable recent results on the project are:

DDH #CA 89-93 91.8 feet 0.453 oz/ton Au and 16.9 oz/ton Ag DDH #CA 89-109 682.2 feet 0.875 oz/ton Au and 0.97 oz/ton Ag including 62.3 feet 7.765 oz/ton Au and 1.35 oz/ton Ag

These intersections are considered to be close to the true width of the mineralization. A great many other excellent intersections have been published by the companies and exploration is continuing with drilling and underground bulk sampling tests. Reserves based on this drilling indicate probable reserves of 4,364,000 tons grading 0.77 oz/ton Au and 29.12 oz/ton Ag (news release, September 14, 1990).

During the 1990 season American Fiber Corp./Consolidated Silver Butte intersected encouraging results in drilling on their adjoining claims south of Eskay Creek. Hole 90-30 returned 46.9 feet of 0.421 oz/ton Au and 30.91 oz/ton Ag (pers. comm. J. Bond, American Fiber).

Drilling on Gulf International Minerals' Northwest Zone near Newmont Lake has been ongoing between 1987 and 1990. A few of their more significant intersections are provided below (annual reports and news releases).

Drill Hole	Interval	Length	Copper	Silver	Gold
	(feet)	(feet)	(%)	(oz/ton)	(oz/ton)
87-25	343.0-373.0	30.0	0.23	0.11	0.404
	409.3-412.0	2.7	0,55	0.35	0.250
	470.2-473.8	3.6	0.42	0.19	1.520
87-29	167.0-170.0	3.0	0.001	0.01	0.140
	205.0-241.5	36.5	0.97	1.16	1.605
88-28	213.9-229.0	15.1	0.41	0.29	0.810
	260.5-276.6	16.1	0.24	0.29	0.645
	300.2-301.5	1.3	0.15	0.17	0.320
	330.1-338.9	8.9	1.99	0.31	0.340
	353.0-363.2	10.2	1.02	0.22	0.268

In September 1989 Bond International Gold Inc. announced initial drill results from their Red Mountain project. This project is located 20 kilometres east of Stewart. A 66 metre intersection on the Marc Zone reportedly graded 9.88 gm/tonne gold and 49.20 gm/tonne silver. On the Willoughby Gossan Zone a 20.5 metre intersection is reported as 24.98 gm/tonne gold and 184.2 gm/tonne silver.

A great many other companies active in the areas have released assays from preliminary trenching and/or drilling. Many of these show excellent values in gold, silver and base metals and it is anticipated that additional properties with mineral reserves of possible economic significance will emerge. Of recent interest in the area is the discovery in 1990 of a Kuroko-type polymetallic volcanogenic massive sulphide occurrence on Eurus Resource Corp./Thios Resources Inc.'s Rock & Roll project. Trench samples range up to 0.317 oz/ton Au, 100 oz/ton Ag, 8.15% Pb, 4.24% Zn and 0.65% Cu over 4.6 feet while in drilling a 31.7 foot intersection graded 0.80 oz/ton Au, 25.7 oz/ton Ag, 2.07% Pb, 5.35% Zn, 0.58% Cu. The zone to date has been drill tested along 600 metres of strike length.

The locations of a number of these occurrences are indicated in the accompanying figure. At this time these represent only a fraction of the reported results in this rapidly developing area.

5.0 REGIONAL GEOLOGY

The geology of the Iskut-Galore-Eskay-Sulphurets area has undergone considerable study in the past few years by industry, federal and provincial geologists (Figure 4). Much of this work stemmed from Grove's mapping of the Stewart Complex (Grove, 1969, 1970, 1973, 1982, 1987). Earliest geological mapping of the area was carried out by Kerr (1948) during the 1920s and 1930s although Operation Stikine undertaken by the Geological Survey of Canada in 1957 produced the first publications. R.G. Anderson of the Geological Survey of Canada is presently mapping the area covered within NTS 104B.

– Pamicon Developments Ltd. –

Grove defined a northwest trending assemblage of Upper Triassic and Jurassic volcanics and sedimentary rocks extending from Alice Arm in the south to the Iskut River in the north as the Stewart Complex. Paleozoic limestone and volcanics underlie the complex while Mesozoic to Tertiary aged intrusives cut the units. Tertiary felsic plutons forming the Coast Plutonic Complex bound the area to the west while clastic sediments of the Spatsizi and Bowser Lake Groups overlap on the east.

Age dating of mineralization within the various mining districts suggests a close cospatial and coeval relationship with late Triassic to early Jurassic volcanics and intrusives. This has directed exploration efforts toward these members.

A stratigraphic column of the area's lithologies is presented on the following page.

PALEOZOIC

Stikine Assemblage Volcanic and Sedimentary Rocks

Paleozoic Stikine assemblage rocks commonly occur as uplifted blocks associated with major intrusive bodies as exposed along the southwest flanks of Johnny Mountain and Zappa Mountain.

At the base of the Stikine assemblage stratigraphic column, at least four distinctive limestone members have been differentiated interlayered with mafic volcaniclastics, felsic crystal tuffs, pebble conglomerate and siliceous shale.

Mississippian rocks consist of thick-bedded limestone members interbedded with chert, pillowed basalt and epiclastic rocks.

Stratigraphy of the Iskut River Area (after descriptions by R.G. Anderson and J.M. Logan)

.

ſ

÷

.

Stratigraphy	·]	Lithology	Comments
BOWSER GROUP			i iii <u>ainean</u> , a' e , ' 'i
M. Jurassic	conglomerate, s: sandstone, shale	iltstone, e to upconformable	Successor basin
SPATSIZI GRO	UP		
L. Jurassic	shale, tuff, lin 	mestone e	
HAZELTON GRO	UP '		
E. Jurassic	coeval alkalic/o	calc-alkalic	contractional event? Island Arc rocks
	gradational 1	to unconformable	
STUHINI GROU	P		
L. Triassic	the east, bimoda	al in the west	area
· ·	polymictic cong andesitic volcar and hornblende)	lomerate basaltic to nics (plagioclase	no Triassic clasts; limestone clasts common
M. Triassic	sedimentary rock	ks	
		eC01	ntractional event
Permian	thin bedded corr limestone (over fossiliferous; 1 and volcaniclas	alline to crystalline 1000 m thick), intermediate flows tics	volcanic units resemble Hazelton Group rocks
E. Permian	rusty argillite	_	
	'siliceous' tur lapilli tuff	e bidite, felsic	extensional event
Missis-	mafic meta- upper coralline		thick bedded
sippian	metasediments	conglomerate lower limestone with tuff layers	limestone commonly bioclastic, coarse crinoids, corals
E. Devonian	limestone; inter volcanics	rmediate to felsic	contractional events; rocks highly deformed

Plutonic Rocks - Coast Plutonic Complex

L. Tertiary	granodiorite, diorite, basalt
E. Tertiary	quartz diorite, granodiorite, quartz monzonite, feldspar porphyry, granite
M. Jurassic	quartz monzonite, feldspar porphyry, syenite
L. Jurassic	diorite, syenodiorite, granite
L. Triassic	diorite, quartz diorite, granodiorite
? Not determined	quartz diorite, ?
	Pamicon Developmen

Lower Permian units comprise thin- to thick-bedded corraline limestone interbedded with volcanic mafic to felsic volcanic flows, tuffs and volcaniclastics.

MESOZOIC

Stuhini Group Volcani and Sedimentary Rocks

Upper Triassic Stuhini Group volcanic and sedimentary rocks are characterized by a distinct facies change from bimodal mafic to felsic flows and tuffs interbedded with thick sections of limestone in the northwest to predominantly mafic volcanics with minor shale members in the southeast.

Hazelton Group Volcanic and Sedimentary Rocks

Lower Jurrasic Hazelton Group volcanic and sedimentary rocks predominantly occur in the southeast, northwest corners and central portions of the Galore-Iskut-Sulphurets area. Hazelton Group stratigraphy consists of the lowermost Unuk River Formation (Grove, 1986) comprised of mafic to intermediate volcanics with interbedded shale, argillite and greywacke sediments capped by feldspar porphyry flow; the Betty Creek Formation (Grove, 1986) overlying the Unuk River Formation consists of maroon and green volcanic conglomerate and breccia often containing diagnostic jasperoidal veins, with the youngest uppermost member of the Hazelton Group consisting of dacite to rhyolite, spherulitic rhyolite welded tuff and tuff breccia with basal sediments and upper pillow basalts correlative with Grove's (1986) Salmon River Formation and Alldrick's (1987) Mount Dilworth Formation.

Lower Jurassic volcanics of the area are commonly correlated with the Telkwa Formation of the Hazelton Group. A close spatial and coeval relationship has long been recognized (Alldrick, 1986, 1987 and others) between Lower Jurassic volcanism and early Jurassic intrusive activity and its metallogenic importance in precious metal mineralization (Premier porphyry). Because of the relationship, lower members of the Hazelton Group are considered the most favourable targets for exploration.

Spatsizi Group Sedimentary Rocks

Spatsizi Group shales, tuffs and limestone of upper Lower and lower Middle Jurassic age overlie Hazelton Group rocks in the eastern part of the map area. Buff, sandy bivalve and belemnite fossil bearing limestone units decrease in abundance in the north parts of the area at the expense of shale. Here, black radiolarian-bearing siliceous shale alternately interbeds with white tuffs giving the units an informal name of 'pyjama beds'. This pyjama bed sequence serves as an important marker for identifying the favourable underlying Hazelton Group.

Bowser Group Sedimentary Rocks

Bowser Lake Group Middle and Upper Jurassic clastic sediments cover most of the northeast quadrant of the map area. Interbedded shale and greywacke units predominate in the south while thick-bedded shales dominate toward the north. Near the highlands toward the northern reaches of the Bowser Basin, basal chert-rich conglomerates identify the Bowser Group as an overlap assemblage.

CENOZOIC VOLCANIC ROCKS

Recent mafic flows and ash of the Hoodoo Formation, Iskut Formation and Lava Fork Formation cap specific areas within the region. The Coast Plutonic Complex, forming the western boundary of the Stewart Complex, is generally characterized by felsic Tertiary plutons. Late Triassic Stuhini Group and Early Jurassic Hazelton Group plutonic styles suggest coeval and cospatial relationships with surrounding volcanics via distinctive porphyritic dykes such as the Premier Porphyry. Tertiary Coast Complex plutons lack these dykes and volcanic equivalents.

6.0 PROPERTY GEOLOGY

A general understanding of the geology in the claims area is taken from provincial government geological mapping carried out in 1989 (Open File 1990-2 by J.M. Logan, V.M. Koyanagi, J.R. Drobe) (Figure 5). More recent work by the BCMEMPR consisting chiefly of fossil age dating has indicated that a structural package marked by the McLymont Fault on the west and a similarly prominent northeast trending structural lineament 3 km to the east defines what is now termed the McLymont Graben. This graben is portrayed as a broad synform from which at its lowest topographical elevation south of Newmont Lake has yielded latest Upper Triassic aged conodonts.

Northward, on the north-northeast shores of Newmont Lake, a thick succession of crystal tuffs, volcanic sandstone, dark grey to black algal limestone and andesite breccia flows occurs from which more than ten attempts were made at various locations to retrieve conodonts or radiolarian fossils for age dating purposes. No noticeable fossils were present suggesting this package of rocks signifies an age of early Jurassic (pers. comm. J.M. Logan, BCMEMPR) and consequently correlative to rocks of the Betty Creek Formation seen elsewhere in the Iskut River Camp to the east.

Also found higher up section and to the north are rocks of felsic volcanic composition and again are being contemplated as correlative to the Mount Dillworth Formation which is spatially associated with the world class

LEGEND	•
OUATERNARY ·	
Ry AECONY VOLCANCS	
Get TIL ALLMEN	
LAYERED ROCKS	
MIDDLE TO UPPER JURASSIC BOWSER LAKE GROUP	BEDUISU AND AL DEP
JBp PLANAR BEDOED SHALE AND LOCALLY CROSSBEDDED SANDSTONE TURBOITE COUPLETS	
JBog CHENT PEAKE TO GAVALLE CONSIGNEMUTE	PHILIDS AND WITH UTIND WITH GRAATIC ANGLINE AND SUCCOME HITLINE AND THE LEAST OF DAYL MAY AND LEAST ONE OWER AND WATCH TO LEAST AND THE LEAST OF DAYL MAY AND LEAST ONE OWER AND WATCH TO LEAST AND COULDED AND CHART TURNED OCCUR MAIN IN THE STRATIONANT.
JURASSIC	PE LANSTONE ACCHISTALLEED, THE AEDOED TO MORE COMMONLY MASSINE, INVITE TO
Ju UNDADED SEDIMENTS AND VOLCANES	PITTY MAYO TO FELSO METANOLOUNCE ANY LARSTONE LINESS WARKET FOLISTED TO
JW AND CHARLE AND CHARLE FRACTINED DANK GREEN AND GREY SLCEDUS SK TSTOMES AND FINITIC GREAT, CARDINGEOUS TRAACEOUS WICHS WITH HITLINEODED	LOWER DEVONIAN
CONDUMENTE CONTINUES CLASTS OF CHERT, BLACK SLITTCHE, AND WITE/BEDINTE TO FELSC VOLCANES (HING)	DC OFFOMED COMMENCEMENTS INSTANTONED PERMIT COMMENNER
· MIDDLE(7) JURASSIC	
TI TAYA DENSE MEDIAN GREY TO GREEN ALLOW BASH, I LOCALT LANGOLLODAL, PLAGOCLASE MING, PLLOW BARCOLA ALWS JAID ALW BARCOLAS, MILLOCASTITE	
THE THE TREDED, ALTERNATING BLACK AND INTE SLOEDUS TUTS AND SEDMENTS	
LOWER(7) JURASSIC	
Lip PESSEE THEN BEDDED, SEISTICHE MID SUBSTICHE WITH CARBONICEOUS WOOD PROGRATING AND COMPARE CONTAINES OUTLANNO BITEMEDUSE VOLCANC, SEDMENTAR AND LINESTONE CARSIS.	IND CONCELLASE CHARTE POWINTH, OCCURS AS SMALL PLIAS AND DIRES INTRUDING NORTH TRANSPORT FAULTS, FIRTH AND DIRES TO TELLOW AND RED COSSANS.
LR BROWNEN GARY LANLI AND CRISTAL TUP? INHOLITE CRISTAL TUP? AND LESSER FLOWS	
UPPER TRIASSIC STURING GROUP ·	48 BOTTE GRANTE, PARK CONSET TO INFORM GRANTE, FOURDAMELAR TO CONSTITUTION ADMINISTIC LISS COMMENTS IN PROVIDE THE MARK CONSTITUTION, DUMRIT DUCEIDS 3H FERCEN, CUMRIT AND PRIVES 150 PAR CLIFT, AND SANDALL'I RELATED TO FALLS STRECTORES
UTS UNDED VOLCHINGS AND SECUMENTS	Jam HOWINE DIDE CLARTZ MONOONTE TO MONOUTS-COURSE TO MEDIAN GRANED.
UTSVI MOON AND GREEN PLACOCLASE AND LESSER AUGTE-WRITE LAPLU TO BLOCK TUFFS	CLOTS, BOTTE WHERE HESSENT IS THE GRAMED AND LESS THAN S PERCENT.
UTSV MMOON AND GAREN PORMYRETIC VOLCANIC FLOW BARCONS, PLADOCLASE-PHYRIC (*75%), ANGRE-PHYRIC (*73%)	Jd HOWNELENDE DONTE HOWNELENDE CULMITZ DOMTE; HOWNELENDE IS CHLONTIC AND COMPASES MORE THAN NO PERCENT OF THE NOCK.
עדנו מאניסאנא אישיות דעיד -	MIDDLE(7) JURASSIC
UTSW TURPACEOUS WACK, ARGLITE, LINESTONF, CARBONACEOUS AND CALCURTOUS SLISTONE WITSREGOOD WITH ING GAMMED SANDSTONE AND INFOR CONSUMERATE- MANDON VOCLANCE CONSUMERATE WITH LINESTONE CLASSING DISCOUL	Jeli DUMIT TO GAMMO COURSE GRAMED, OCCURS AS STOCS AND SLLS, PLAGOCLASE FRUTTA MERICOCOND TO SUMPTONAL ACCULAR CLOTS MOCH MARIA DOSTINGTINE FELT MERICOCOND THE SUMPTON ACCULAR CLOTS MOCH MARIA DOSTINGTINE D THE MERICOCOND THE ACCULATE. THESE SUMPCINES ON MAIL MERICASINE FEDDRE
PALEOZOKC STIKINE ASSEMBLAGE	EARLY JURASSIC
Pu - UNDMOED METAVOLCANICS AND METASEDIKEVTS	e.im NORMAL POLICY AND ASK PORYMETE ANA DATE: OCCURS AS DYIES, SALS AND
PERIALAN	ELHEORIA, PLAGOCIASE (MICH DATA DATA DATA DATA DATA DATA DATA DAT
Py UROMOED PENIBAN YOLCANICS AND SEDMENTS	e.jg HOMMEDHOE BOTTE POTASSUM FELDSPAR MEGACRISTIC GAMMER
PVI UMILIAND PLADOCLASS CRISTAL TUPP, FELSIC WELDED ASH TUPT, THINK & BEDOED	
SUCEOUS LIMESTONE LINES: ANOUNE ROME IN THE ROME AND SUCEONE SUBSTONE SETSTONE MO MADON SWILDING INNER CONGLOMERATES (PH)	ed HOWNELING CLUAR DOWNE HEDULIN GAUNED, LOCALLY FOLIATED AND ALTERED, CONTAINS MARGUAR MARC INCLUSIONS (UP TO 100 CUNTIMETRES) OF AMAYMBOLITES.
PC2 BUT, ROUTE HIS COMMENTED, DAR GALT TO BLACK LOCALLY FETD, WEATHERS BUT, ROUTE HICH BEDS AND CLIPHATE STACKED CONCAVE ALGUL STRUCTURES COMMON	
Pyb HOMMELENCE PLACOCLASE FORMATTIC MOESTE BROOK ROMS-LOCALLY AMODALOOM, COMMAN IN DIR PROCEEDING THEODAY, MINTE PLACOCLASE MO 15 AMODALOOM, COMMAN IN DIR PROCEEDING THEODAY, AND THE PLACOCLASE MO 15	DTKES # AMINIC MODSTE AND BASALT: PH MARC MARCCLASE MINIC & LAWROMINE # MICUITE/AMINE
Prog	
SECTIONS CONTAIN BUCK TO THE DIREY BUF ADVICUS SUCE AS IF TO 20 CENTRALTIES THEORY SULFAR TO 2001 ST ADVICES SUCE AS IF TO 20 CENTRALTIES THEORY SULFAR TO 2001 ST ADVICES FOR ASTRONOMY ON ANTISIDAY, OWNODES AND IMAGES ADVICED/2013 AND LOCALLY ADVICES IN ADVICES ANTISIDAY, OWNODES AND	
Pog TROX BEDGED, BOLLDER TO MEALE DONGLOMERATE, CLASTS ANE AUDITE INVINC, PLAGOOLASE PHINC, AND SITE, BUSHLE, NO LIMISTOR CLASTS.	MAP SYMBOLS
Mississippian - Pennsylvanian	· · ·
- Mas SLITSTONE SAMDSTONE TURBOTES AND LESSER CHERTS	
Me THOMALDOLD CAMODAL CALCARDATE WITH INTERBEDOLD SLCZCUS SLTSTONE	Geological contact (defined, approximate, assumed)
	Bedding (horizontal, inclined guarding and and a state of the state of
MYL MAYC TO MTEMMEDIATE SCOMACEOUS (MYL) TUTE SLICTOUS DUST TUTES AND DICLASTICE AMAY, MTEMIDIATE TO PELSC ASI ADM AND WELDED TUFES AND	Foliation
My MINUTE, MINODACTE, MAK AND GAMMER PLOW BANDED BACCUS MATING TO MASSIVE SUBVICIANE BOOKS, RECAMPORTMENT OF DOMAIN AND CHART	Fault (observed, inferred)
	Thrust or high angle reverse tauk (defined, assumed)
THE CONTRACT CONTRACT OF THE CONTRACT. OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT. OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT. OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT. OF THE CONTRACT OF THE CONTRACT OF T	Articane (direction of plunge indicated)
EASTERN ASSEMBLACE PERMIAN	Minor fold axis
PERMIAN	Minor fold axis
PERMIAN PTC DEPONNED CHEONICE TURIS AND METAVOLOMICS, INTERMEDICE TURIACEOUS AND SELECTORS SELECTORS AND METAVOLOMICS THIN SECTOR SECTORSTALLED LIMESTORES. PC LIMESTORE RECEASED AND METAVOLOMICS TO AND	Minor fold axis ** Joint ** Dyke **
PERMIAN PERMIAN PG PG CALCASE PC CALCASE PC PC CALCASE PC PC CALCASE PC PC CALCASE PC PC CALCASE PC PC CALCASE PC PC PC PC PC PC PC PC PC P	Minor fold axis ** Joint ** Dyke ** Vein **

Г

,

– Pamicon Developments Ltd. -

polymetallic Eskay Creek volcanogenic massive sulphide deposit 35 km to the southeast.

Along the eastern side and extending through the south-central part of the claim, fault bounded blocks of Paleozoic massive grey crinoidal limestone occur.

To the southeast, early Jurassic monzonite intrusive forms a large mass.

7.0 MINERALIZATION AND GEOCHEMISTRY

Soil sampling with a matter from B-i horizon, in Kraft bags. Prior to 1990 known mineralization on the Gab 6 mineral claim consisted of limestone hosted narrow barite fractures to shears hosting varying amounts of galena, sphalerite and tetrahedrite. Several occurrences of this style of mineralization were known along the limestone trend on the property and continued for several kilometres to the north where significant occurrences occur on Hixon Gold Resources Ltd.'s claims and Kestrel Resources Ltd.'s property. Assay values from these properties range up to 150 oz/ton Ag and 10 to 15%Pb-Zn while to date on Thumper's ground assays have ranged up to 9.58 oz/ton Ag, 3.0% Pb and >10% Zn. Low values in gold are reported from all showings along this structure.

During the 1990 season, sampling was again briefly done in the areas of known mineralization as well as continued elsewhere on the property (Figure 6). No new mineral occurrences of significance were discovered while assays of significance from the barite fracture/shears are summarized below:

Sample <u>Number</u>	Ag (oz/ton)	Pb (%)	Zn (%)	Remarks
43352			1.38	select grab
43353	3.37	16.2	1.17	select grab
43354			3.68	select grab
43402		3.56		select grab

Sample <u>Number</u>	Ag (oz/ton)	Pb _(%)	Zn (%)	Remarks
43403		3.46		select grab
43406	>1.00	5.18	3.96	select grab
43407	>2.00	0.91	5.27	select grab
43416	7.21		4.54	select grab

8.0 DISCUSSION AND CONCLUSIONS

During 1990 continued exploration and evaluation of Thumper Resources Corp.'s Gab 6 mineral claim took place in the Iskut River Gold Camp of northwest British Columbia. Over the course of the past few years several significant prospects have been advanced to major economic ore deposits including Eskay Creek, Snip and Johnny Mountain. Most recently, continued definition on the Black Dog massive sulphide prospect appears to indicate this too will be a major discovery. Elsewhere, promising projects in the region receiving ongoing emphasis include those held by Gulf International Minerals (Northwest Zone and Inel), Placer Dome Inc. (Kerr deposit), Noranda/High Frontier Resources/Kennecott (Gozz prospect), and the American Fibre/Silver Butte Resources Ltd. (SIB prospect).

Recent re-evaluation and interpretation of stratigraphy in the area of the Gab 6 claim has suggested rocks are possibly of similar age or slightly younger than those which host the world class Eskay Creek volcanogenic massive sulphide (VMS) deposit to the southeast of the property. As this type of deposit is historically usually associated with specific stratigraphic sequences and limited time frames, this should become a major focus of exploration efforts on the Gab 6 property.

Possible evidence in the claims area indicating a VMS environment include a submarine environment, broad As-Zn soil anomalies just west of the Gab 6 claim boundary, the abundance of barite (<u>+</u> base and precious metals) and bimodal volcanism (andesite and rhyolite) to the north of the claims.

A program for the 1991 field season should consist of detailed mapping, soil geochemistry, grid establishment and geophysical surveying. Contingent upon the success of this phase, a diamond drill testing program may be warranted.

Respectfully submitted,

S.L Todoruk, Geologist

C.K. Ikona, P.Eng.

APPENDIX I

ſ

ř.

·

-

BIBLIOGRAPHY

BIBLIOGRAPHY

Alldrick, D.J., J.K. Mortensen, and R.L. Armstrong (1986): Uranium-Lead Age Determinations in the Stewart Area; <u>in</u> Geological Fieldwork, 1985, British Columbia Ministry of Energy, Mines and Petroleum Resources, Paper 1986-1, p. 217-218.

- Alldrick, D.J. (1987): Geology and Mineral Deposits of the Salmon River Valley, Stewart Area, NTS 104A and 104B; British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Open File Map 1987-22.
- Alldrick, D.J., J.M. Britton, M.E. Maclean, K.D. Hancock, B.A. Fletcher and S.N. Hiebert (1990): Geology and Mineral Deposits of the Snippaker Area (NTS 104B/6E, 7W, 10W, 11E), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Open File 1990-16.
- Anderson, R.G. (1989): A Stratigraphic, Plutonic, and Structural Framework for the Iskut River Map Area, Northwestern British Columbia; <u>in</u> Current Research, Part E, Geological Survey of Canada, Paper 89-1E, p. 145-154.
- Britton, J.M., I.C.L. Webster and D.J. Alldrick (1989): Unuk Map Area (104B/7E, 8W, 9W, 10E), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 198, Paper 1989-1, pages 241-250.

Calpine Resources Inc.: News Release, Vancouver Stockwatch, December 13, 1988.

Costin, C.P. (1973): Assessment Report 4150, Dirk Claims, Newmont.

Clendenan, A.D. and P. Holbeck (1982): Report on Geology and Geochemistry of the Hoodoo Claim Group, Kerr Addison Mines Ltd., BCDM Geological Branch Assessment Report No. 11,331. de Carle, R.J. (1988): Report on a Combined Helicopter-Borne Magnetic, Electromagnetic and VLF Survey, Iskut River Area, Liard Mining Division, British Columbia.

Delaware Resources Corp.: Progress Report, Snip Prospect, November 19, 1987.

- Delaware Resources Corp.: News Release, Vancouver Stockwatch, November 11, 1988.
- Delaware Resources Corp.: News Release, Vancouver Stockwatch, January 16, 1989.
- Dewonck, Bernard (1990): Summary Report on Avondale Resources Inc. Forrest Project.

Equity Preservation Corp. (1988): Stewart-Sulphurets-Iskut Map Handbook.

- Eurus Resources Corp. and Thios Resources Inc.: News release dated February 18, 1991.
- Franklin, J.M., J.W. Lydon and D.F. Sangster (1981): Volcanic-Associated Massive Sulphide Deposits, Economic Geology, 75th Anniversary Volume, pp 485-627.
- Fraser, R.J. (1984): Report on Geology, Geophysics, Rock Trenching and Sampling Hoodoo Claim Group, Kerr Addison Mines Ltd., BCDM Geological Branch Assessment Report No. 12,614.

Gulf International Minerals Ltd.: Annual Report, 1987.

Gulf International Minerals Ltd.: Annual Report, February 1988.

Gulf International Minerals Ltd.: Annual Report, February 1991.

- Grove, E.W. (1972): Geology and Mineral Deposits of the Stewart Area; B.C. Department of Mines and Petroleum Resources, Bulletin 58.
- Grove, E.W. (1973): Detailed Geological Studies in the Stewart Complex, Northwestern British Columbia, Ph.D. Thesis, McGill University.
- Grove, E.W. (1982): Unuk River, Salmon River, Anyox Map Areas; Ministry of Energy, Mines and Petroleum Resources.
- Grove, E.W. (1985): Geological Report and Work Proposal on the Skyline Explorations Ltd. Inel Property.
- Grove, E.W. (1986): Geological Report, Exploration and Development Proposal on the Skyline Explorations Ltd. Reg Property.
- Grove, E.W. (1987): Geology and Mineral Deposits of the Unuk River, Salmon River, and Anyox Map Areas; B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 63.
- Holbeck, P. (1983): Report on the Geology and Geochemistry of the Hoodoo West Claim Group, Kerr Addison Mines Ltd., BCDM Geological Branch Assessment Report No. 12,220.
- Kerr, F.A. (1948): Lower Stikine and Western Iskut River Areas, British Columbia, GSC, Memoir 246, 94 pages.
- Kiesman, W. and C.K. Ikona (1989): Geological Report on the Gab 7, 8 & 10 Mineral Claims.
- Kowalchuk, J. (1982): Assessment Report 10,418, Warrior Claims, Dupont Exploration.

Lefebure, D.V. and M.H. Gunning (1987): Exploration in British Columbia 1987, in press, B.C. Geological Survey Branch publication.

- Logan, J.M., V.M. Koyanagi and J.R. Drobe (1990): Geology of the Forrest Kerr Creek Area, Northwestern British Columbia (104B/15); British Columbia Geological Survey, Geological Fieldwork 1989, Paper 1990-1, p. 127-139.
- Logan, J.M., V.M. Koyanagi and J.R. Drobe (1990): Geology and Mineral Occurrences of the Forrest Kerr-Iskut River Area, Northwestern B.C., British Columbia Geological Survey Open File 1990-2.
- Ohmoto, H. and B.J. Skinner, ed. (1983): The Kuroko and Related Volcanogenic Massive Sulphide Deposits, Economic Geology Monograph 5.

Skyline Explorations Ltd.: Annual Report, 1987.

Skyline Explorations Ltd.: Annual Report, 1988.

- Souther, J.G., D.A. Brew and A.V. Okulitch (1979): Geology of the Iskut River, GSC Map 1418A.
- Todoruk, S.L. and C.K. Ikona (1987): 1987 Summary Report on the Sky 4 & 5 and Spray 1 & 2 Claims.
- Todoruk, S.L. and C.K. Ikona (1988): Geological Report on the Forrest 1-15 Mineral Claims.
- Todoruk, S.L. and C.K. Ikona (1989): Geological Report on the Kerr 1-6 Mineral Claims.
- Todoruk, S.L. and C.K. Ikona (1989): Geological Report on the Gab 9 Mineral Claim.

Todoruk, S.L. and C.K. Ikona (1989): Geological Report on the Gab 11 & 12, Mon 1 & 2, Wei & Zel, Stu 8 & 9 Mineral Claims.

- Todoruk, S.L. and C.K. Ikona (1989): Geological Report on the Stu 4 & 5 and NWG 6 & 7 Mineral Claims.
- Todoruk, S.L., C.K. Ikona and M.A. Stammers (1990): Summary of 1989 Exploration, Forrest 1-15 Mineral Claims.
- Webster, I.C.L. and W.J. McMillan (1990): Structural Interpretation of Radar Imaging in Sulphurets-Unuk-Iskut River Area (NTS 104B), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Open File 1990-7.

Western Canadian Mining Corp.: News release dated November 12, 1987.

APPENDIX II

1

.

COST STATEMENT

.

COST STATEMENT THUMPER RESOURCES CORP. GAB 6 MINERAL CLAIM LIARD MINING DIVISION JULY 1, 1990 TO OCTOBER 31, 1990

WAGES

Γ

Geolo	gists	
R.	Darney (Senior Geologist)	
	- 3 days @ \$400.00	\$1,200.00
R.	Gerhardt (Field Geologist)	
	- 4 days @ \$325.00	1,300.00
К.	Curtis (Field Geologist)	
	- 1 day @ \$325.00	325.00
Manag	er/Coordinator	
К.	Milledge - 1 day @ \$250.00	250.00
Prosp	ectors	
N.	Debock - 1 day @ \$300.00	300.00
J.	Anderson - 3 days @ \$300.00	900.00
W.	Wiggins - 2 days @ \$250.00	500.00
J.	Gordon - 1 day @ \$225.00	225.00
Ρ.	Hoffman - 1 day @ \$225.00	225.00
T.	Montgomery - 1 day @ \$225.00	225.00
Sample	ers	
В.	Charlton - 2.5 days @ \$225.00	562.50
J.	Elmore - 1 day @ \$225.00	225.00
с.	O'Brien - 1 day @ \$225.00	225.00
D.	Flinn - 1 day @ \$225.00	225.00
В.	Lightle - 1 day @ \$250.00	225.00
Total	Wages	

\$ 6,912.50

Project Supervision

.

885.65

CAMP AND EQUIPMENT EXPENSES

ſ

.

Room and Board			
Pamicon Crew	24.5 days		
Helicopter Crew	<u>1.0 day</u>		
	25.5 days @ \$125.00	\$ 3,187.50	
Field Equipment and Supp	lies	612.50	3,800.00
GENERAL EXPENSES			
Travel, Accommodation an	d Airfare	\$ 490,00	
Space Tel Communications		225,00	
Fixed Wing		122.40	
Helicopter		3,052.26	
Assays		2,678.00	
Freight		138.72	
Map Reproductions		150.06	
Report		2,000.00	
			8,856.44

TOTAL THIS PROGRAM

<u>\$ 20,454.59</u>

APPENDIX III

.

-

ø

ROCK SAMPLE DESCRIPTION FORMS

PAMICON **DEVELOPMENTS LIMITED**

Geochemical Data Sheet - ROCK SAMPLING

N. DeBock Ang 2 1990 Sampler _ Date

New Year

1

Project ___ humper Property_

NTS
Location Ref
Air Photo No

1

1

SAMPLE			Sample			DESCRIPTIO	N		[ASS	AYS		
NO.	LOCATION	TYPE	Width	True Width	Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	Au	Ag	Pb	24	3	
H 3.551	4400	Grab	2m	\geq	Tuff	Fe	Pyr		nd	<0.1	८१	27	36	
352	4406	· •	3000	>	Barit	Fe	Zh Pblu	barite shears with galera, sphalentle,	nd	9.0	2820	15431	518	
353	4250	N	"		Berite	4	1	t fetrshedrite	nd	2500	>2000	8251	207	
354		N	-	\square	Barite	4	*	11	nd	280	¥885	220000 3-60%	716	
						·								
Au	5/90						ter	· · · · · · · · · · · · · · · · · · ·						
43355	elev. 3770	select qub	2		Volcanics	QU		re-single of 32631	670	4.4	91	41		
43356		select grab			-		·	re-sample of 32630	30	F0.1	55	85		
													·	
								"" " " " " " " " " " " " " " " " " " "						
					·····									
							******	· - ** ••• • • • • • • • • • • • • • • •						
					· · · · · · · · · · · · · · · · · · ·		•							
		· · ·			د میرد در فیدی در مانید در م			a phalanan ann ann an an an an an an an an an	<i>:</i>					
						······	a a share to grap going to the total of the game of the second second second second second second second second							
L	I				L	1				به مسرور ا		إيسما		

•

ampler	Jeil Deboc	willy, Tod	1, Paul,	Project	Thursder			N7	۲ S	sa ya ji			
ate _	August	3,1990		Property	Ca5 (e	Local Air Pt	noto N	ler No				
•	۱ ــــــــــ	- 											· .
SAMPLE	LOCATION	SAMPLE	Sample Width True		DESCRIPTIO	N				ASS	SAYS		
NO.		TYPE	Width	Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	nu mu	Ag	<u>م</u>	Po 	2~	As
15401	135 m (100.	905	1001	volconics	Olicita	STAIN		nd	0.2	ແກ	689	1004	
13402	I SUL EIEV.	gros		limestere	barite	goleuz Mil.		nd	19:6	189	3.567	, 7425	
43403		grib		linesture	SLEDr	golers		30	9.6	66	3.46	1079	
13404		**		linestone	sheer	921012		10	>50.0	6283	8523	2.05	
43405		11			burite Shear	5121 ? + 921012		30	1.9	192	1365	566	
43406		u		limestore	bariteer	hemotite		26	48.0	1167	5-18	396%	
13407		Li .		linestore	barile Skear	gol + mal + hematite		10	>50.0	3094	.91	527	
13408		k			baritear	SIL)		30	15.2	210	801	1.46	
3409		(1						10	1.0	47	153	741	
					-								
				, ,		· · ·					<u> </u>		
						1		+					
											.		
								-					
					· · · · · · · · · · · · · · · · · · ·								
			\checkmark		· · · · · · · · · · · · · · · · · · ·								
			$ \sim$	[·					
<u></u>			\leftarrow					· · ·		 	-		ļ

PRINTED IN CANADA

PAMIN IN DEVELOPMENTS LIMITED

90

.

Sampler John Anderson

Date _____Sept 8

Geochemical Data iet - ROCK SAMPLING

0.67

THumper

Project

Property___

NTS ن رهانه به و د Location Ref Alr Photo No ___

	SAMPLE LOCATION SAMPLE TYPE		Sample	DESCRIPTION				ASSAYS						
SAMPLE NO.		Width True Width	Rock Type	Alteration	Mineralization	ADDITIONAL OBSERVATIONS	AD	Ag	RIA	pr-	2~			
43410	1280 meter	Grab	10cm	Q+z		21%	ovrite	100	8.6	439	58	1251		
Scpt 9/90											ang san Ng sa			
43411	1250 meter	Grab	15 cm	Qtz		2%	ovrite	so	0.6	45	20	33		
43412	1260	Grab	15cm	Q+z		5%	1.1 state of the second s	20	0.4	51	37	19		
43413	1280	Grab	20cm	Qtz		29	η - η	10	0.2	16	16	11		
43414	1280	Grab	10 cm	Qtz		2%	<u>11</u>	310	1.6	15	IS	6		
43415	12.80	Grab	15cm	Qtz		2%	$=$ $\frac{1}{H}$, where $\frac{1}{2}$ is the set of the set	20	4.0	24	6	13		
										27 - 18 - 14 - 1			1.1	
43416		Grab		Britytz	himomile	. Tetrahedrik		rd.	>50.0	2667	259	7 20000		
					• · · · · · · · · · · · · · · · · · · ·									
	,													
· · ·										1,2,44				
		-												
		·									· · ·			
· · · ·		•		1	· · ·				1 .					
	-		\sim	1				- A				1.1		
			\uparrow			· ·								

PRINTED IN CANADA
APPENDIX IV

Γ

Γ.,

ANALYTICAL PROCEDURES

VGC

NO. 728 P002/003



MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

March 19, 1991

TO: MY. Al Montgomery PAMICON DEVELOPMENTS LTD. 711 - 675 W. Hastings St. Vancouver, BC V6B 1N4

- FROM: VANGEOCHEM LAB LIMITED 1630 Fandora Street Vancouver, BC V5L 1L6
- SUBJECT: Analytical procedure used to determine gold by fire assay method and detect by atomic absorption spectrophotometry in geological samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Extraction

- (a) 20.0 to 30.0 grams of the pulp samples were used. Samples were weighed out using a top-loading balance and deposited into individual fusion pots.
- (b) A flux of litharge, soda ash, silica, borax, and, either flour or potassium nitrite is added. The samples are then fused at 1900 degrees Farenhiet to form a lead "button".



MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

-2-

- (c) The gold is extracted by cupellation and parted with diluted nitric acid.
- (d) The gold beads are retained for subsequent measurement.
- 3. Method of Detection
 - (a) The gold beads are dissolved by boiling with concentrated agua regia solution in hot water bath.
 - (b) The detection of gold was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values, in parts per billion, were calculated by comparing them with a set of known gold standards.
- 4. Analysts

63/13/31

リタマフス

The analyses were supervised or determined by Mr. Raymond Chan or Mr. Conway Chun and his laboratory staff.

Vangeochem LAB LIMITED

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

February 22, 1991

TO: Mr. Steve Todoruk PAMICON DEVELOPMENTS LTD. 711 - 675 W. Hastings Street Vancouver, BC V6B 1N4

- FROM: VANGEOCHEM LAB LIMITED 1650 Pandora Street Vancouver, BC V5L 1L6
- SUBJECT: Analytical procedure used to determine Cu, Pb and Zn assay samples.
- 1. <u>Method of Sample Preparation</u>
 - (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
 - (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
 - (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in the new bags for subsequent analyses.

2. Method of Digestion

- (a) 0.200 gram portions of the minus 100 mesh samples were used. Samples were weighed out by using an analytical balance.
- (b) Samples were digested in multi acids in volumetric flasks.



MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

-2-

3. Method of Analyses

Cu, Pb and Zn concentrations were determined using a Techtron Atomic Absorption Spectrophotometer Model AA5 with their respective hollow cathode lamps. The digested samples were directly aspirated into an air and acetylene mixture flame. The results, in parts per million, were calculated by comparing them to a set of standards used to calibrate the atomic absorption units.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and their laboratory staff.

λĹ

Raymond Chan VANGEOCHEM LAB LIMITED

CO VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

February 22, 1991

TO:

- Mr. Steve Todoruk PAMICON DEVELOPMENTS LTD. 711 - 675 W. Hastings Street Vancouver, BC V6B 1N4
- FROM: VANGEOCHEM LAB LIMITED 1650 Pandora Street Vancouver, BC V5L 1L6
- SUBJECT: Analytical procedure used to determine silver by fire assay method in geological samples.

1. <u>Method of Sample Preparation</u>

- (a) Geochemical soil, silt or rock samples were eceived at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in 8" x 12" plastic bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized into 100-mesh or finer by using a disc mill. The pulverized samples were then put in the new bags for subsequent analyses.

2. Method of Digestion

- (a) 20.0 30.0 grams of the pulp samples were used. Samples were weighed out by using a top-loading balance into a fusion pot.
- (b) A flux of litharge, soda ash, silica, borax, either flour or potassium nitrite was added. The samples were thoroughly mixed and then fused at 1900 degrees Fahrenheit to form a lead button.
- (c) The silver was extracted by cupellation, weighed and parted with diluted nitric acid.

C VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

-2-

3. Method of Calculation

The silver was calculated by the weigh loss of the bead and then parts per million (ppm) was calculated.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and the laboratory staff.

Raymond Chan VANGEOCHEM LAB LIMITED

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

- November 21, 1990
- TO: Mr. Steve Todoruk PAMICON DEVELOPMENTS LTD. 711 - 675 W. Hastings St. Vancouver, BC V6B 1N4
 - FROM: VANGEOCHEM LAB LIMITED 1630 Pandora Street Vancouver, BC V5L 1L6
 - SUBJECT: Analytical procedure used to determine Aqua Regia soluble gold in geochemical samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Digestion

- (a) 5.00 to 10.00 grams of the minus 80-mesh portion of the samples were used. Samples were weighed out using an electronic micro-balance and deposited into beakers.
- (b) Using a 20 ml solution of Aqua Regia (3:1 solution of HCl to HNO3), each sample was vigorously digested over a hot plate.
- (c) The digested samples were filtered and the washed pulps were discarded. The filtrate was then reduced in volume to about 5 ml.

VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

(d) Au complex ions were then extracted into a di-isobutyl ketone and thiourea medium (Anion exchange liquids "Aliquot 336").

-2-

(e) Separatory funnels were used to separate the organic layer.

3. Method of Detection

The detection of Au was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out onto a strip chart recorder. A hydrogen lamp was used to correct any background interferences. The gold values, in parts per billion, were calculated by comparing them with a set of gold standards.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Raymond Chan VANGEOCHEM LAB LIMITED GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

November 21, 1990

TO: Mr. Steve Todoruk PAMICON DEVELOPMENTS LTD. 711 - 675 W. Hastings St. Vancouver, BC V6B 1N4

- FROM: VANGEOCHEM LAB LIMITED 1630 Pandora Street Vancouver, BC V5L 1L6
- SUBJECT: Analytical procedure used to determine hot acid soluble for 25 element scan by Inductively Coupled Plasma Spectrophotometry in geochemical silt and soil samples.

1. <u>Method of Sample Preparation</u>

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" X 6", Kraft paper bags. Rock samples would be received in poly ore bags.
- (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
- (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2 <u>Method of Digestion</u>

- (a) 0.50 gram portions of the minus 80-mesh samples were used. Samples were weighed out using an electronic balance.
- (b) Samples were digested with a 5 ml solution of HCl:HNO3:H2O in the ratio of 3:1:2 in a 95 degree Celsius water bath for 90 minutes.
- (c) The digested samples are then removed from the bath and bulked up to 10 ml total volume with demineralized water and thoroughly mixed.

SC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

-2-

3. Method of Analyses

The ICP analyses elements were determined by using a Jarrell-Ash ICAP model 9000 directly reading the spectrophotometric emissions. All major matrix and trace elements are interelement corrected. All data are subsequently stored onto disketts.

4. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Raymond Chan VANGEOCHEM LAB LIMITED

APPENDIX V

ſ

•

ASSAY CERTIFICATES

VANGEOCHEM LAB LIMITED

MAIN OFFICE -1988 TRIUMPH ST.--VANCOUVER, B.C. V5L 1K5-• (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC : V6B 1N4

DATE: AUG 24 1990

REPORT#: 900231 GA JOB#: 900231

PROJECT#: THUMPER SAMPLES ARRIVED: AUG 13 1990 REPORT COMPLETED: AUG 24 1990 ANALYSED FOR: Au (FA/AAS) ICP INVOICE#: 900231 NA TOTAL SAMPLES: 9 SAMPLE TYPE: 9 ROCK REJECTS: SAVED

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.



PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

Regulta SIGNED:

VANGEOCHEM LAB LIMITED

MAIN OFFICE - 1988 TRIUMPH-ST.-- VANCOUVER, B.G. V5L 1K5-• (604) 251-5656 • FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

REPORT NUMBER: 900231 GA	JOB NUMBER: 900231	PANICON DEVELOPHENTS LTD.	PAGE 1 OF 1
SAMPLE I) a		
	ppb		
43355	670		
43356	30		
43403	30		
43404	10		
43405	30		
43406	20		
43407	10		
43408	30		
43409	10		

•

VANGEOCHEM LAP LIMITED

1

1

1

ANALYST: Rough

1630 Pandora Street, Vancouver, B.u. V5L 1L6 Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HND, to H₂D at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Ng, Mn, Na, P, Sn, Sr and W.

																						/			
REPORT #: 900231 PA	PANICON DE	VELOPMENT	IS LTD.			PROJE	CT: THUM	PER		DATI	E IN: AUG	i 13 1990) DA	TE OUT: S	SEPT 06	1990	ATTENTION	i: MR. S	TEVE TOD	DRUK		PAG	E 1 OF	1	
Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	fe	ĸ	Mg	Mn	Ko	Na	Ni	P	Pb	Sb	Sn	Sr	U	H	Zn
	ppe	ĩ	op a	pp s	ppa	ĩ	ppe	ppe	ppe	ppa	X.	X	ž	ppe	pp m	7	ope	7	ope.	ppe	ppe	ppe	p p a	ppe	ppa
43355	4.4	1.70	5	62	(3	0.19	1.9	40	115	41	5.43	0.24	0.82	823	31	(0.01	34	0.03	91	28	8	3	<5	<3	49
43356	(0.1	0.19	(3	407	(3	0.06	0.7	14	14	18	1.60	<0.01	0.08	1983	27	<0.01	(1	<0.01	55	9	16	818	(5	<3	15
43403	9.6	0.01	<3	84	<3	1.62	11.5	(1	104	66	0.45	(0.01	0.89	502	10	(0.01	(1	(0.01	>20000	16	{2	253	۲5	{3	1079
43404	>50.0	(0.01	699	73	<3	>10.00	159.9	1	59	6283	0.36	(0.01	0.87	619	44	(0.01	13	(0.01	8523	>2000	(2	482	<5	<3	>20000
43405	1.4	1.89	<3	>1000	(3	7.79	9.5	18	10	192	5.90	<0.01	2.67	2192	25	(0.01	22	0.09	365	78	3	171	<5	<3	566
43406	48.0	0.05	35	94	{3	1.74	57.9	(1	72	1167	0.72	(0.01	0.10	183	71	(0.01	(1	0.02	>20000	545	32	537	<5	(3	>20000
43407	>50.0	(0.01	234	98	(3	8.15	300.6	(1	104	3094	0.58	(0.01	1.23	674	100	(0.01	(1	0.05	10017	1301	7	733	<5	(3	>20000
43408	15.2	(0.01	104	134	(3	0.46	121.8	(1	35	210	0.25	(0.01	(0.01	46	30	(0.01	2	0.02	801	173	5	1098	(5	(3	17175
43409	1.0	0.28	20	927	(3	>10.00	5.2	32	60	47	4,75	<0.01	5,41	1340	14	<0.01	26	0.08	153	(2	14	365	<5	(3	741
Ninimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.0 1	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10,00	10,00	20000	1000	10.00	20000	10,00	20000	2000	1000	10000	100	1000	20000
< - Less Than Minimum	> - Greater T	han Maxi	648	is - Insu	ufficien	nt Sample	ns ns	- No Sanj	ole	ANOMALOU	s result:	5 - Furtl	ner Anal	yses By i	Alternat	e Kethod	ls Suggesi	ted.							

SEP IO 1990

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 ~ 675 W. Hastings St. : Vancouver, BC : V6B 1N4

VANGEOCHEM LAB LIMITED

DATE: SEPT 07 1990

REPORT#: 900231 AA JOB#: 900231

INVOICE#: 900231 NB TOTAL SAMPLES: 5 REJECTS/PULPS: 90 DAYS/1 YR SAMPLE TYPE: 5 ROCK

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

PROJECT#: THUMPER

SAMPLES ARRIVED: AUG 13 1990

REPORT COMPLETED: SEPT 07 1990

ANALYSED FOR: Pb Zn



PREPARED FOR: PAMICON DEVELOPMENTS LTD.

ANALYSED BY: Raymond Chan

SIGNED:

Kym h

Registered Provincial Assayer

VANGEOCHEM LAB LIMITED

ì

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

I

REPORT NUMBER: 900231 AA	JOB NUMBER: 900231	PARICON DEVELOPMENTS LTD.	PAGE 1 OF 1
SAMPLE #	Pb %	Zn %	
43403	3.46		
43404		2.05	
43406	5.18	3.96	
43407	.91	5.27	
43408		1.46	

DETECTION LIMIT	.01	.01	< = less than
1 Troy oz/short ton = 34.28 ppm	1 ppm = 0.0001%	ppm = parts per million	
signed:	Rayn	1 hr	

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC : V6B 1N4

VANGEOCHEM LAB LIMITED

JOB#: 900256

REPORT#: 900256 GA

DATE: AUG 24 1990

PROJECT#:	THUMPER	
SAMPLES ARRIVED:	AUG 17 1990	
REPORT COMPLETED:	AUG 24 1990	
ANALYSED FOR:	Au (FA/AAS)	ICP

INVOICE#: 900256 NA TOTAL SAMPLES: 6 SAMPLE TYPE: 6 ROCK REJECTS: SAVED

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

DEP 10 1990

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

Rymit h SIGNED:

VANGEOCHEM LAB LIMITED

nð

MAIN OFFICE -1988 TRIUMPH 6T. -VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

 REPORT NUMBER: 900256 GA	JOB NUNBER: 900256	PANICON DEVELOPMENTS LTD.	PAGE	1	OP	1
SAMPLE I	À u					
	ppb					
43351	nd					
43352	nđ					
43353	ba					
43354	nd					
43401	nd					

43402

•

DBTECTION LIMIT 5 nd = none detected -- = not analysed is = insufficient sample

IIr AN AB OC EM

1630 Pandora Street, Vancouver, 1 /50 Ph:(604)251-5656 Fax:(604)254-5717 /5L 1L6

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNOp to HzO at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Ng, Kn, Na, P, Sn, Sr and W.

					141	5 18800	is parts	al tor MI	, BA, L	ավեր հենք է։	e, K, O	35 NA 3 NA	, r, pa	ar ang	K.				ANAL	rst:		ym	1h			
REPORT #: 900256 PA	PANICON DEV	ELOPHENT	S LTD.			PROJE	CT: THUM	PER		DATE	IN: AU	G 17 1990	DA.	TE OUT: S	iept 07 :	990 /	ATTENTION	1: MR, S	TEVE TODO	RUK		PAG	E 1 OF	i		
Sample Name	Ag	A1	As	Ba	Bi	Ca	Cď	Co	Cr	Cu	fe	ĸ	Ħg	สด	No	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn	
	ppe	1	ppe	ppe	ppe		004	ppe	ppa	ppe	1	I.	1	ppe	ppm	L	ppe	1	ppa	ppm	ppa	ppe	ppa	ppe	ppe	
43351	<0.1	1.00	(3	66	90	Q.56	0.5	21	213	36	1.69	0.27	1.14	398	17	<0.01	45	0.04	29	<2	13	22	<5	(3	27	
43352	9.0	0.03	87	585	<3	4.31	111.1	10	136	518	0.44	KO.O 1	0.40	350	25	<0.0L	13	0.04	2820	186	5	192	₹5	<3	15431	
43353	>50.0	<0.01	<3	26	(3	3.63	156.3	B	33	207	0.51	<0.01	2.1B	767	41	<0.01	3	(0.01	>20000	272	13	800	<5	<3	18253	
43354	28.0	<0.0L	732	30	<3	1.86	340.4	8	141	716	2.41	(0.01	0.04	171	71	(0.01	7	(0.01	4895	343	9	917	(5	(3	>20000	
43401	0.2	2.82	<3	>1000	209	3.12	8.4	40	49	117	5.19	<0.01	1.22	997	20	<0.01	16	0.09	689	<2	16	141	<5	<3	1004	
43402	19.6	0.02	(3	83	(3	0.81	49.B	9	110	189	0.38	{0.01	0.40	238	35	<0.01	(1	0.02	>20000	113	8	575	۲5	<3	7425	
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.0i	i	1	0.01	1	0.01	2	2	2	1	5	3	1	
Naxious Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10,00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000	
< - Less Than Hiniaum	> - Greater Ti	han Maxim	10	is - Insu	fficient	Sample	ns -	- No Sampl	e	ANDHALOUS	RESULT	5 – Furth	er Anal	yses By A	lternat	e Nethod	s Sugges	ted.								

C

C

 \mathbf{C}

C

C

С

C

С

 $(\cap$

С

C

С

С

€.

 (\cdot)

()

 \odot

O

O

MAIN OFFICE 1988 TRIUMPH 6T. VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD.IADDRESS: 711 - 675 W. Hastings St.:: Vancouver, BCREPO: V6B 1N4J

DATE: SEPT 12 1990

REPORT#: 900256 AA JOB#: 900256

INVOICE#: 900256 NB TOTAL SAMPLES: 4 REJECTS/PULPS: 90 DAYS/1 YR SAMPLE TYPE: 4 ROCK

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

PROJECT#: THUMPER

SAMPLES ARRIVED: AUG 17 1990

REPORT COMPLETED: SEPT 12 1990

ANALYSED FOR: Pb Zn Ag

VANGEOCHEM LAB LIMITED

RUK

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: Raymond Chan

SIGNED: Ryalh

Registered Provincial Assayer

VANGEOCHEM LAB LIMITED

....

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

I

REPORT NUMBER: 900256 AA	JOB NUNBER: 900256	ран	ICON DEVELOPHI	s ut s ltd.	PAGE	1	0P	1
SAMPLE #		8 8	Zn %	Ag oz/st				
43352			1.38					
43353	16.	.20	1.17	3.37				
43354			3.68					
43402	3.	.56						

DETECTION LIMIT	.01	.01	.01	< = less than
1 Troy oz/short ton = 34.28 ppm	1 ppm = 0.0001%	ppm = parts y	per million	
signed:	hopen	6		

1630 PANDORA S	TREET
VANCOUVER, BC	V5L 1L6
(604) 251-5656	

MAIN OFFICE 1988 TRIUMPH ST. VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT ______

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC : V6B 1N4

VANGEOCHEM LAB LIMITED

DATE: SEPT 26 1990

REPORT#: 900507 GA JOB#: 900507

ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 900507 NA TOTAL SAMPLES: 7 SAMPLE TYPE: 7 ROCK **REJECTS: SAVED**

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

Kynl G SIGNED:

GENERAL REMARK: RESULTS FAXED TO MR. DONALD PENNER & BRONSON CAMP.

PROJECT#: THUMPER SAMPLES ARRIVED: SEPT 17 1990 REPORT COMPLETED: SEPT 26 1990

SC VANGEOCHEM LAB LIMITED

MAIN OFFICE -1988 TRIUMPH ST.--VANCOUVER, B.G. V5L-1K5-• (604) 251-5656 • FAX (604) 254-5717

DEVELOPNEETS LTD.

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

PAGE 1 OF 1

ł

REPORT NUMBER: 900507 GA	JOB NUKBER: 900507	PANICOR
SAMPLE #	80	
	ppb	
43410	100	
43411	50	
43412	20	
43413	10	
43414	310	
43415	20	
43416	nd	

.

VA. JEL _____ ____ = 1630 Pandora Street, Vancouver, B.C. VSL 1L6 Ph:(604)251-5656 Faxt(604)254-5717

HΕ.

1

1 T.

1

ANALYST: And

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNDs to HzO at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

REPORT #: 900507 PA	PANICON DE	VELOPHENT	IS LTD.			PROJE	CT: THUM	PER		DATI	E IN: SEI	PT 17 19	90 DA1	E OUT: C	OCT 17 19	190 1	ATTENTIO	N; MR. S	TEVE TODO	RUK		PAG	E 1 OF	1	
Sample Name	Ag	Al T	As	Ba	Bi	Ca T	Cd	Co	Cr	Cu	Fe 7	K	Kg Z	Na Coe	No	Na Z	Ni	P I	Pb	Sb	Sa no s	St	1) 028	¥ 926	Zn
43410	8.6	0.10	10	26	(3	0.33	22.4	3	146	439	2.66	0.06	0.02	316	22	0.08		<0.01	58	(2	4	13	- (5	(3	1251
43411	0.6	0.05	<3	32	(3	0.02	1.6	3	107	45	5.34	0.06	0.02	92	29	0.03	(i	<0.01	20	(2	5	2	<5	(3	33
43412	0,4	0.16	<3	28	<3	0.04	1.0	10	144	51	6.29	0.08	0.07	84	15	0.03	<i< td=""><td>(0.01</td><td>37</td><td><2</td><td>6</td><td>5</td><td><5</td><td><3</td><td>19</td></i<>	(0.01	37	<2	6	5	<5	<3	19
43413	0.2	0.09	<3	45	<3	0.02	0.2	4	134	16	4.22	0.05	0.03	130	4	0.02	<1	(0.01	16	<2	4	2	<5	<3	11
43414	1.6	0.05	<3	32	(3	<0.01	0.2	2	224	15	3.38	0.04	<0.01	60	17	0,02	(1	<0.01	15	<2	3	2	۲۶	<3	6
43415	4.0	0.20	(3	11	(3	(0.01	<0.1	4	147	24	2.37	0.02	0.11	233	2	0.02	(1	(0.01	6	<2	3	ť	(5	(3	13
43415	>50.0	0.04	253	20	(3	4.34	287.6	5	42	2667	2.24	0.23	1.72	2404	a	2.29	<1	0.01	259	1654	3	508	<5	(3	>20000
Niniaua Detection	0.1	0.01	3	1	3	0.01	0.1	i	1	i	0.01	0.01	0.01	1	ı	0.01	1	0.01	2	2	2	t	5	3	1
Maximum Detection < - Less Than Minimum	50.0 > - Greater T	10,00 Than Naxio	2000 BUR	1000 is - Insu	1000 fficien	10.00 t Sample	1000.0 ns	20000 - No Sam	1000 ple	20000 Angkalou	10.00 S RESULT	10.00 S - Furt	10.00 her Anal	20000 yses 8y i	1000 Alternati	10.00 e Method	20000 s Sugges	10.00 ted.	20000	2000	1000	10000	100	1000	20000

00 NUU!

VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT:	PAMICON DEVELOPMENTS LTD.	DATE:	OCT 12	1990
ADDRESS:	711 - 675 W. Hastings St.			
:	Vancouver, BC	REPORT#:	900507	AA
:	V6B 1N4	JOB#:	900507	

INVOICE#: 900507 NA SAMPLES ARRIVED: SEPT 17 1990 TOTAL SAMPLES: 1 REPORT COMPLETED: OCT 12 1990 REJECTS/PULPS: 90 DAYS/1 YR SAMPLE TYPE: 1 ROCK

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

PROJECT#: THUMPER

ANALYSED FOR: Ag

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: Raymond Chan

SIGNED:

Kay and U

Registered Provincial Assayer

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

REPORT NUMBER: 900507 AA	JOB NUNBER: 900507	PANICON DEVELOPMENTS LTD.	PAGE 1 OF 1
SAMPLE #	Ag oz/st		
43416	7.21		

DETECTION LIMIT 1 Troy oz/short ton = 34.28 ppm .01 1 ppm = 0.0001%

ppm = parts per million <

< = less than</pre>

signed: Kouth

VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD.DATE: OCT 19 1990ADDRESS: 711 - 675 W. Hastings St..: Vancouver, BC.: V6B 1N4.DATE: OCT 19 1990

PROJECT#: THUMPER SAMPLES ARRIVED: SEPT 17 1990 REPORT COMPLETED: OCT 19 1990 ANALYSED FOR: Zn INVOICE#: 900507 NB TOTAL SAMPLES: 1 REJECTS/PULPS: 90 DAYS/1 YR SAMPLE TYPE: 1 ROCK PULP

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: Raymond Chan

SIGNED:

Registered Provincial Assayer

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

REPORT NUMBER: 900507 AB	JOB NUNBER: 900507	PANICON DEVELOPMENTS LTD.	PAGE 1 OF 1
SAMPLE #		Zn %	

43416

4.54

DETECTION LIMIT 1 Troy oz/short ton = 34.28 ppm .01 1 ppm = 0.0001%

ppm = parts per million

< = less than</pre>

signed: 14

MAIN OFFICE -1988 TRIUMPH 6T.-VANCOUVER, B.C. V5L 1K5-• (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC : V6B 1N4

VANGEOCHEM LAB LIMITED

PROJECT#: THUMPER SAMPLES ARRIVED: AUG 10 1990 REPORT COMPLETED: SEPT 07 1990 ANALYSED FOR: AU ICP INVOICE#: 900216 NA TOTAL SAMPLES: 46 SAMPLE TYPE: 46 SOIL REJECTS: DISCARDED

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

SEP -, 1990

DATE: SEPT 07 1990

REPORT#: 900216 GA

JOB#: 900216

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

Royah SIGNED:

MAIN OFFICE -1988-TRIUMPH ST. -VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

REPORT	NUMBER: 900216 GA	JOB RUNBBA: 9	00216	PANICON DEVELOPI	ERTS LTD.	PIGE	1	OF	2
SAMPLE	ŧ	Au							
		ppb							
L1220	890S	25							
L1220	9258	35							
L1220	\$50 5	10							
L1220	0758	15							
L1220	1005	35							
L1220	1258	25							
L1228	1508	15							
1.1220	1758	5							
1.1220	2005	nd							
L1278	775c	10							
	4 4 4 4	20							
L1220	2505	15							
11770	1700 775e	1.7 11 Å							
11240	2130	40 							
11244	39049 3920	10							
L122V	3/38	- 1 Ta							
61444	1249	nq							
	195 e	- 3							
PT54A	5755	D4							
61220	4005	DA							
L1220	1255 4505	15							
61220	4758 1999	5							
L1220	500S	nd							
L1220	5258	10							
L1220	5588	5							
61220	5758	20							
L1220	6008	nđ							
L1220	6258	20							
L1220	6508	15							
61220	6755	5							
L1220	7005	10							
L1220	7258	nd							
L1220	7505	nd							
L1220	7758	5							
L1220	8005	5							
L1220	8258	15							
1.1220	850S	nd							
11220	8755	5							
	··· ·	-							
L122A	9005	10							
61220	9255	25							
1.1220	9508	5							
1.1220	4758	25							
	* • • • •	••							
DETECTI	ON LINIT	5							
nd = no	ne detected =	not analysed	is = insu	ficient sample					
				<u></u>					

Γ

VANGEOCHEM LAB LIMITED

MAIN OFFICE 1988 TRIUMPH-ST. VANGOUVER, B.C. V5L-1K5-(604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

PAGE 2 OF 2

JOB NUMBER: 900216 **REPORT NUMBER: 900216 GA** PANICON DEVELOPHENTS LTD. SAMPLE # 1u ppb L1220 1000S að 25 L1220 1025S 5 L1220 10508 5 L1220 10755 L1220 11005 10 5 L1220 11258

5

VGC VANGEOCHEM LAB LIMITED

۰.

L1220 1150S

.

DBYBCTION LINIT 5 nd = none detected -- = not analysed is = insufficient sample

)

APPRILL AN CAMAGA

1630 Pandora Street, Vancouver, V5L 1L6 Ph:(604)251-5656 Fax:(604)2... 3717

ICAP GEOCHEMICAL ANALYSIS

յգմՈ

ANALYST:

ŗ۲

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO₃ to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with dater. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

REPORT #: 900216 PA	PANICON DE	VELOPMENT	IS LTD.	PROJECT: THUMPER					DATE IN: AUG 10 1990 DATE OUT: SEPT 03 1990					ATTENTION	: MR. S	TEVE TODO	RUK	PAGE 1 OF 2							
Sample Name	Ag	A1	As	Ba	Bi	Ca	Cď	Co	Cr	Cu	fe	ĸ	Ħg	កែ	Mo	Na	Ni	P	Pb	Sb	Sn	5r	U	W	Žn
11220 0005	μυπ 201	6 27	49 70	174	44 /1	- · · ·	bha	bh∎	ntd D	pp	4 07		4	ppe	ope	1	ppe	1	ppe	ppe	ppe	ppe	pp	ppe	ppe
11220 0255	101	5 54	10	1/4	13	0.10	3.2	11	20	20	9,8/	V. 14	0.15	2124	13	(0.01	28	0.16	42	(2	25	6	(5	<3	341
	// 1	1.J* 00.0	(3)	107	(3)	0.07	2.9	10	20	21	6.13	0.13	0.11	23/1	10	<0.01	25	0.10	45	(2	21	4	(5	(3	164
	10.1	3.00	())	10/	13	V. 12	3.2	13	18	15	2.75	0.08	V, Z5	1/89	12	(0.01	33	0.10	39	(2	11	8	<5	<3	114
L1220 0/35	15.5	1,93	1033	2/4	(3	0.09	14.9	36	8	240	4.13	0.10	0.13	>20000	14	(0.01	14	0.05	235	10	13	6	` {5	<3	856
L1220 1005	0.4	4.94	(3	93	<3	0.29	2.8	14	12	29	4.76	0.14	0.26	3945	12	<0.01	13	0.09	60	. <2	22	17	<5	<3	176
L1220 1255	6.1	1.79	485	258	(3	0.35	2.4	- 26	7	25	2.36	0.08	0.54	3221	8	<0.01	7	0.09	109	<2	11	4 i	(5	<3	299
11220 1505	(0.1	2.24	(3	349	<3	0.25	1.5	16	11	13	3.22	0.09	1.02	730	8	<0.01	9	0.04	45	2	12	28	(5	<3	54
L1220 1755	<0.1	2.04	(3	166	<3	0.36	2.8	15	8	16	2.43	0.10	0.85	1262	7	<0.01	8	0.05	45	7	9	14	7	(3	48
L1220 2005	<0.1	3.04	138	75	<3	0.10	3.5	19	14	23	3.55	0.11	0,42	3146	12	<0.01	9	0.16	61	6	14	8	(5	<3	103
L1220 2259	<0.1	3.79	<3	46	<3	0.04	1.6	10	13	18	2.82	0.05	0.23	469	11	<0.01	5	0.11	40	<2	19	4	<5	<3	103
L1220 2505	(0.1	3.77	<3	129	<3	0.05	2.4	9	10	11	2.76	0.08	0.47	368	10	<0.01	7	0.07	29	<2	17	8	<5	<3	100
L1220 275S	(0.1	2,68	278	277	10	0.25	1.6	16	10	26	2.97	0.11	0.16	7296	10	<0.01	10	0.22	43	(2	13	20	(5	(3	94
L1220 3005	<0.1	4.31	<3	62	<3	0.08	2.4	15	15	33	4.15	0.10	0.38	1426	11	(0.01	11	0.14	47	(2	17	10	(5	(3	93
L1220 325S	(0.1	3.72	<3	77	37	0.07	3.2	14	14	32	3.86	0.13	0.38	1617	11	(0.01	. ii	0.13	69	(2	16	8	(5	(3	166
L1220 350S	<0.1	6.32	<3	264	<3	0.05	3.5	12	10	19	5.08	0,18	0.13	2312	15	(0.01	6	0.05	49	<2	24	2	(5	(3	277
L1220 375S	<0.1	3.57	<3	96	<3	0.02	2.8	9	12	10	2.90	0.07	0.32	340	10	(0.01	(1	0.11	39	<2	19	4	(5	(3	91
L1220 4005	<0.1	2.75	(3	51	<3	0.03	1.3	9	12	14	2.85	0.07	0.28	807	11	(0.01	1	0.10	45	0	14	5	(5	(3	108
L1220 4255	<0.1	3.25	(3	129	(3	0.02	2.0	13	9	12	3.69	0.09	0.56	1381	9	(0.01	;	0.15	41	(7	13	Š	(5	(3	55
L1220 4755 950	- (0.1	2.71	(3	64	(3	(0.01	1.6	13	9	11	3.20	0.10	0.45	1037	7	10 01	, i	0.05	44	2	11	1	/5	12	71
L1220 500S	(0.1	1.92	(3	90	<3	0.02	1.3	13	10	12	3,16	0.08	0.31	3601	7	<0.01	<i t<="" td=""><td>0.20</td><td>60</td><td>n</td><td>15</td><td>3</td><td><5</td><td><3</td><td>73</td></i>	0.20	60	n	15	3	<5	<3	73
L1220 5255	<0.1	3.10	∢ 3	79	(3	0.01	0.6	10	11	12	2.43	0.07	0.38	227	8	<0.01	(1	0.12	42	<2	14	2	<5	<3	64
L1220 550S	<0.1	2.52	(3	194	(3	0.29	1.2	14	9	41	3.21	0.13	0.56	1755	R	K0.01	4	0.20	49	(2	12	8	(5	(3	111
L1220 5755	(0.1	3.43	(3	330	(3	0.05	3.0	18	11	42	3.74	0.12	0.81	2033	10	(0.01	ä	0.20	58	4	14	5	(5	3	126
L1220 6005	<0.1	4.51	(3	69	21	0.04	1.7	15	15	22	3.69	0.10	0.54	1217	11	(0.01	ä	0.19	49	Ó	22	Ā	6	(3	111
L1220 6255	<0.1	3.21	(3	110	<3	0.13	1.3	13	13	25	3.98	0.11	0.50	941	8	<0.01	ä	0.15	48	(2	17	i	(5	(3	153
L1220 6505	(0.1	5.57	<3	174	(3	0.03	2.1	10	10	24	4.57	0.12	0.21	2325	11	(0.01	(1	0.13	47	(2	21	2	(5	(3	269
L1220 675S	<0.1	9.12	<3	37	(3	0.02	1.9	8	10	16	5.65	0.15	0.08	853	12	<0.01	<1	0.06	39	<2	28	<1	<5	<3	137
L1220 7005	<0.1	3.86	<3	51	<3	0.04	1.5	14	13	28	3.73	0.11	0.35	994	9	(0.01	{1	0.10	59	(2	19	3	(5	(3	200
L1220 7255	(0.1	4.61	<3	58	<3	0.05	2.2	13	16	22	4.80	0.12	0.45	1155	9	(0.01	(1	0.05	57	(2	21	5	(5	<3	156
L1220 7505	(0.1	5.80	<3	80	30	0.02	2.0	8	9	18	4.83	0.12	0.12	1085	12	<0.01	(I	0.03	37	<2	23	1	{ 5	(3	282
L1220 775S	<0.1	3.20	<3	158	<3	0.09	3.5	17	238	33	4.22	0.11	0.55	2005	236	<0.01	1081	0.0B	58	2	16	8	(5	(3	229
L1220 800S	(0.1	3.25	<3	50	<3	<0.01	2.4	14	15	29	4.08	0.11	0,45	1402	13	(0.01	(1	0.05	61	10	16	3	5	(3	136
L1220 B25S	<0.1	6.01	<3	32	36	0.01	0.2	9	10	17	4.84	0.14	0.12	1176	14	(0.01	(i	0.04	60	3	25	(1	<5	(3	201
L1220 850S	(0.1	5.00	<3	77	<3	0.03	0.1	9	11	20	4.51	0.11	0.21	1084	11	(0.01	(i	0.05	49	<2	24	2	(5	<3	195
L1220 B75S	(0.1	5.04	<3	89	<3	0.02	(0.1	8	12	16	4.33	0.10	0.25	645	9	(0.01	(1	0.07	40	<2	21	1	<5	<3	127
L1220 900S	(0.1	4.37	<3	274	35	0.21	(0.1	9	9	9	3.21	0.11	0.37	629	6	(0.01	(1	0.11	39	<2	18	15	<5	(3	85
L1220 9255	(0.1	5.77	108	64	13	0.04	(0.1	Â	15	30	4. 4A	0.13	0.29	279	R	(0.01	- A	0.09	43	0	21	1	65	(3	137
L1220 9505	(0.1	2.38	(3	28	9	0.01	0.2	Ā	12	13	2.06	0.08	0.19	222	5	(0.01	ä	0.08	45	ò	18	2	<u>رج</u>	(3	63
L1220 9755	(0.1	4.79	(3	32	(3	(0.01	<0,1	5	B	14	4.77	0.10	0.08	1413	10	<0.01		0.02	33	(2	23	<1	(5	<3	154
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	· 1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000
C - Less Than Hinimum) - Greater T	han Haxir	ua i	s - Insu	ufficient	: Sample	11S -	- No Sampi	le	ANOHALOUS	RESULTS	i - Furth	er Anal	yses By A	lternati	e Netho	ls Suggest	ed.							

ILA - I L- JI T- J VALUEELEHELL ___ <u>_____</u> __**`__** __ __ __

1630 Pandora Street, Vancouve . V5L JL6 Ph:(604)251-5656 Fax:(604,...+5717

1

.

PURER OF CARADA

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with S ml of 3:1:2 HCl to HNO₅ to H₂D at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

					Thi	is leach	is parti	al for A	1, Ba,	Ca, Cr, I	Fe, K, Mg	, Mn, N	a, P, Sn	, Sr and	Ν.				ANAL	YST:	Ra	m	<u>h_</u>	
REPORT #: 900216 PA	PANICON DEV	/ELOPNENT	S LTD.			PROJE	CT: THUMP	ER		DATE	E IN: AUG	10 199	D DA	TE OUT: S	EPT 03	1990	ATTENTIO	N: MR. SI	EVE TODO	RUK	•	PA6(E 2 OF	2
Sample Name	Ag pp=	Al X	As pp e	Ba pp n	Bi ppa	Ca I	Cd pp a	Co ppm	Cr ppe	Cu ppe	Fe	K Z	Mg X	Ko ppe	No pp n	Na X	Ni pp a	P X	Pb po∎	Sb ppm	Sa Dae	Sr ope	U opm	W pp i
L1220 1000S	<0.1	3.07	(3	45	(3	0.66	2.1	28	10	81	4.49	0.15	1.35	1973		(0.01	19	0.09	33	∵(2	23	23	<5	(3
L1220 1025S	(0.1	5.11	<3	79	<3	0.27	2.6	19	16	107	4.23	0.11	1.05	2294	7	(0.01	21	0.10	21	(2	23	25	(5	(3
L1220 10505	(0.1	2.26	<3	34	(3	0.09	1.8	11	12	28	3.67	0.07	0.34	505	9	(0.01	6	0.11	34	<2	10	8	<5	<3
L1220 10755	(0.1	3.17	<3	22	(3	0.26	2.3	15	17	49	3.28	0.09	0.45	403	9	(0.01	9	0.08	31	<2	21	9	(5	<3
L1220 11005	<0.1	3.20	<3	56	(3	0.50	2.3	21	12	33	3.69	0.12	0.79	2576	9	<0.01	10	0.15	24	<2	24	30	<5	<3 .
L1220 1125S	<0.1	3.69	<3	40	<3	0.16	3.4	22	13	113	4.52	0.10	1.08	2706	8	<0.01	4	0.11	26	<2	26	7	<5	<3
L1220 11505	(0.1	1.91	(3	84	<3	0.56	3.7	28	14	30	4.96	0.14	1.12	1318	5	<0.01	5	0.07	33	<2	22	12	<5	<3
Minimum Detection Maximum Detection < ~ Less Than Minimum	0.i 50.0 > - Greater Th	0.01 10.00 han Maxis	3 2000 ILL	i 1000 is - Insu	3 1000 Ifficient	0.01 10.00 Sample	0.1 1000.0 ns -	1 20000 No Samp	1 1000 le	i 20000 Anokalou:	0.01 10.00 S RESULTS	0.01 10.09 - Furti	0.01 10.00 her Anal	1 20000 yses By /	1 1000 Iternat	0.01 10.00 e Nethod	1 20000 s Sugges	0.01 10.00 ted.	2 20000	2 2000	2 1000	1 10000	5 100	3 1000

.

.

Zn pp= 100

116

73

76

117

126

84

1 20000

MAIN OFFICE

1988-TRIUMPH-ST.

-VANCOUVER, B.C. VEL-1K5

• (604) 251-5656

FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC : V6B 1N4

VANGEOCHEM LAB LIMITED

PROJECT#: THUMPER SAMPLES ARRIVED: SEPT 06 1990 REPORT COMPLETED: SEPT 12 1990 ANALYSED FOR: AU ICP JOB#: 900401

REPORT#: 900401 GA

DATE: SEPT 12 1990

INVOICE#: 900401 NA TOTAL SAMPLES: 11 SAMPLE TYPE: 11 SOIL REJECTS: DISCARDED

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.



PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

Kg-16 SIGNED:

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1988-TRIUMPH ST. VANGOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

REPORT	NUMBER:	900401 GA	JOB	NUMBER:	900401	PANICON	DEVELOPMENTS	LTD.	PICE	1	0 P	1
SAMPLE	1		Au									
			ppb									
L0+758	000N		10									
L0+758	025N		10									
LQ+75B	050N		20									
L0+758	075 m		15									
L0+75B	100N		20									
L0+75B	125M		10									
L0+758	150N		25									
L0+75B	1758		10									
L0+758	200N		25									
L0+75B	225N		25									
L0+75B	250N		10									

is = insufficient sample
VANGEOCHEM LAF LIMITED

1630 Pandora Street, Vancouver, ...C. V5L 1L6 Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_m to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: Mymb

REPORT 8: 900401 PA	PANICON DEV	VELOPHEN	TS LTD.			PROJE	CT: THUM	PER		DATI	E IN: SE	PT 06 19	AC 06	TE OUT: S	SEPT 24	1990	ATTENTIO	II MR. SI	ieve todo	RUK		PA6	E 1 OF	1	
Sample Name	Ag	Al	As	Ba	Bi	Ĉa	Cd	Co	Cr	Cu	Fe	ĸ	Ng	Kn	Ko	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppe	Z	ppe	<u>ppe</u>	ppe	1	ppe	ppe	ppe	ppa	7	z	τ,	ppa	Ppe	z	ppe	1	004	ppa	<u>opa</u>	ope	ppa	00a	ppa
LO+75E 000N	1.0	3.66	<3	92	<3	0.12	2.3	11	17	24	4,11	0.02	0.28	872	14	<0.01	11	0.08	19	(2	10	8	(5	11	- 174
L0+75E 025N	<0.1	2.67	<3	244	(3	0.10	1.4	8	12	10	3.06	(0.01	0.47	857	10	(0.01	4	0.12	<2	<2	6	5	(5	8	90
L0+75E 050N	(0.1	6.07	<3	46	<3	0.04	1.2	7	14	11	4,99	0.02	0.08	1048	20	(0.01	2	0.04	<2	<2	11	1	<5	19	162
L0+75E 075H	(0.1	4.55	<3	327	<3	0.08	1.7	7	16	13	4.48	0.01	0.10	822	15	(0.01	(1	0.07	16	<2	11	8	(5	14	139
L0+75E 100%	0.2	1.99	: <3	40	6	0.02	1.7	5	11	11	3.09	<0.01	0.16	301	9	<0.01	<1	0.08	10	<2	9	4	(5	6	66
LO+75E 125M	<0.1	3.32	<3	102	<3	0.05	1.6	9	12	20	3.77	0.01	0.33	1493	11	(0.01	<1	0.13	12	<2	8	8	<5	11	147
L0+75E 150K	<0.1	3.22	(3	176	{3	0.04	2.3	10	11	22	4,96	0.02	0.38	2214	12	<0.01	4	0.09	11	<2	8	4	(5	10	260
L0+75E 175N	0.1	4.20	(3	77	<3	0.02	1.4	8	14	22	3.77	0.01	0.24	874	13	(0.01	0	0.11	3	<2	9	3	(5	13	215
L0+75E 200N	(0.1	2.33	32	296	6	0.18	1.1	6	11	16	2.77	0.01	0.23	1450	9	0.81	<1	0.14	<2	<2	6	40	<5	7	113
L0+75E 225N	(0.1	2.59	66	80	10	<0.01	2.1	15	7	22	3.12	0.01	0.68	4730	9	(0.01	<1	0,13	<2	<2	6	3	5	9	77
L0+75E 250N	<0.1	3.95	<3	274	<3	0.02	3.0	7	ii	14	4.96	0.02	0.15	2796	15	<0.01	(1	0.06	21	<2	10	2	<5	12	231
Ninimum Detection	0.1	0.01	3	1	3	0.01	0.1	i	1	t	0.01	0.01	0.01	i	ι	0.01	1	0.01	2	2	2	1	5	3	1
Haxioum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000
< - Less Than Minioun	> - Greater T	han Maxi		is - Insu	ufficien	t Sample	e ns	- No Sam	ple	ANCHALOU	s result	'S - Fart	her Anal	yses By i	Alternat	e Nethod	s Sugges	ted.							

PAPAMA AU CAMADA

)

)

)

ា

)

)

٦

1630 PANDORA STREET VANCOUVER, BC V5L 1L6 (604) 251-5656

MAIN OFFICE -1988 TRIUMPH ST. VANCOUVER, B.G. V5L 1K5-• (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC : V6B 1N4

VANGEOCHEM LAB LIMITED

DATE: SEPT 21 1990

REPORT#: 900508 GA JOB#: 900508

INVOICE#: 900508 NA TOTAL SAMPLES: 56 SAMPLE TYPE: 56 SOIL **REJECTS: DISCARDED**

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.

PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

Pay 16 SIGNED:

GENERAL REMARK: RESULTS FAXED TO MR. DONALD PENNER & BRONSON CAMP.

PROJECT#: THUMPER SAMPLES ARRIVED: SEPT 17 1990 REPORT COMPLETED: SEPT 21 1990 ANALYSED FOR: Au ICP

1630 PANDORA STREET VANCOUVER, BC V5L 1L6 (604) 251-5656

FAX (604) 254-5717

VANGEOCHEM LAB LIMITED MAIN OFFICE 1980 TRIUMPH ST. VANCOUVER, B.C. VGL 1KE-• (604) 251-5656 • (604) 251-5656

BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

I

SAMPLE	ŧ		Y	Q			
n/r 64	100		PP	D 5			
D/G VI D/G VI	503)EC			4			
0/5 0/0 0/1 0/	533 180		። ነ	1 A			
5/1. 0)03		4	U 1			
8/L V/	155		л 1	r			
B/F 10	JVS		1	2			
B/L 12	55		n	d			
B/L 19	60 S			5			
B/L 17	58		1	0			
B/L 20)0S		1	0			
B/L 27	25S		2	5			
B/L 25	0s		n	đ			
B/L 21	55		n	8			
B/L 30	OS			5			
B/L 32	55		n	1			
B/L 3	OS		-	5			
n/r. 33	50		n	4			
B/I. 41	30 10 c		מ	4			
0/0 10 0/1 10	50		1	L N			
0/0 14 0/7 40			1	0			
B/L 47	55		1	0			
- 1							
B/L 50	IQS		1	9			
B/L 52	55		D.	1			
B/L 55	QS			5			
B/L 51	55		D.	1	•		
B/L 60	IOS			5			
B/L 62	55		n	3			
B/L 65	OS		1	5			
B/L 67	55			5			
B/L 70	IOS .		a	d			
B/L 75	i0s			5			
B/L 71	58		n	đ			
B/L 80	0S		ň	đ			
B/L 87	55		- 1	0			
B/T. 85	05		-	5			
B/L 87	55			5			
R/T. 01	ns.		1	ĥ			
R/F. 01	55		1 م	4			
זכ עין פ 10 ז/ פ			1	5			
B/G 91	58		1	5			
	AN			-			
ロビアドビデー	UN LINI	Γ		7			

1630 PANDORA STREET VANCOUVER, BC V5L 1L6 (604) 251-5656

VANGEOCHEM LAB LIMITED

MAIN OFFICE -1988 TRIUMPH 6T. -VANCOUVER, B.C. V5L 1K5 • (604) 251-5656 • FAX (604) 254-5717 BRANCH OFFICES PASADENA, NFLD. BATHURST, N.B. MISSISSAUGA, ONT. RENO, NEVADA, U.S.A.

2

REPORT NUMBER: 900508 GA	JOB NUMBER: 900508	PANICON DEVELOPMENTS LTD.	PAGE 2 OF
SAMPLE #	Åu		
	ppb		
B/L 1000S	15		
B/L 1025S	nd		
B/L 1050S	20		
B/L 10755	20		
B/L 1100S	រាជំ		
B/L 1125S	10		
B/L 1150S	nd		
B/L 1175S	10		
B/L 1200S	5		
B/L 1225S	nd		
B/L 1250S	5		
B/L 1275S	10		
B/L 1300S	15		
B/L 1325S	nd		
B/L 13505	15		
B/L 13755	5		
B/L 1400S	10		

DETECTION LIMIT 5 nd = none detected -- = not analysed is = insufficient sample

VOLLECTREN LAS LISSTER

i630 Pandora Street, Vancouver, s.C. V5L 1L6 Ph1(604)251-5656 Fax1(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO₃ to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with vater. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Kn, Na, P, Sn, Sr and W.

.

REPORT #: 900508 PA	PANICON DE	VELOPMENT	IS LTD.			PROJEC	T: THUMP	ER		DATE	IN: SEP	T 17 199	O DA	TE OUT: O	OCT 17 19	90	ATTENTION	: MR. ST	EVE TOOO	RUK		PAGE	1 OF	2	
Sample Name	Ag ppa	A1 7	As ppm	Ba ppa	Bi pp#	Ca X	Cd ppm	Co ppe	Cr ppn	Cu pp n	fe I	K X	Ng Z	Kn pp n	Ko ppa	Ka Z	Ni pga	P X	Pb ppe	Sb ppe	Sn ppe	Sr ppe	U ppe	W ppm	Zn ppe
B/L 000S	0.4	5.79	<3	39	<3	0.06	1.0	5	31	14	4.56	0.08	0.07	392	32	0.06	27	0.03	(2	<2	23	2	(5	(3	80
8/L 0255	2.1	2.56	447	84	(3	0.20	0.7	16	23	37	5.00	0.09	0.49	2188	15	0.05	12	0.11	77	<2	12	14	(5	(3	147
B/L 050S	0.2	4.24	<3	38	(3	0.08	2.2	8	27	18	5.23	0.11	0.23	579	24	0.08	6	0.04	3	<2	21	5	<5	(3	124
R/I 0755	0.1	3.45	(3	70	(3	0.16	2.0	ที่	26	23	3.34	0.08	0.34	401	19	0.07		0.08	7	(7	16	16	(5	(3	112
B/L 1005	0.1	5.04	(3	86	<3	0.14	1.7	7	25	41	5.02	0.12	0.13	1072	27	0.15	12	0.04	30	<2	21	3	(5	<3	935
B/L 1255	0.2	5.54	(3	82	<3	0.09	1.9	8	30	21	4,45	0.10	0.15	709	28	0.09	4	0.06	<2	<2	23	8	<5	<3	136
B/L 150S	<0.1	2.37	<3	22	(3	0.06	2.2	7	19	14	4.86	0.08	0.18	315	16	0.06	9	0.06	17	<2	17	5	<5	<3	84
8/L 175S	(0.1	9,69	<3	44	(3	0.06	0.6	7	32	15	5.38	0.13	0.07	1118	42	0.10	3	0.05	<2	<2	32	2	(5	<3	132
B/L 2005	(0.1	2.74	(3	30	(3	0.06	1.2	8	20	13	4.17	0.07	0.10	223	18	0.08	7	0.04	16	<2	19	4	(5	<3	84
B/L 2255	<0.1	5.66	(3	70	(3	0.12	0.9	9	28	25	3.21	0.06	0.40	736	23	0.04	10	0.05	<2	<2	21	13	۲5	<3	76
B/L 250S	<0.1	2.76	<3	198	<3	0.15	1.2	11	20	28	3,59	0.09	0.42	2021	13	0.07	16	0.06	11	<2	14	11	(5	<3	118
B/L 2755	<0.1	5.40	<3	81	(3	0.07	1.4	8	26	15	4.15	0.09	0.12	960	27	0.09	3	0.06	<2	<2	23	4	<5	<3	149
B/L 3005	0.1	2.84	<3	110	(3	0.12	0.B	10	20	18	3.20	0.08	0.31	561	13	0.06	12	0.05	6	<2	12	16	<5	<3	83
8/L 3255	(0.1	2.99	(3	44	<3	0.11	1.5	10	22	19	-4,44	0.08	0.39	600	17	0.05	12	0.04	5	(2	14	10	<5	<3	75
B/L 3505	0.2	3.33	(3	18	<3	0.06	2.3	7	22	21	7.59	0.12	0.06	366	23	0.07	7	0.05	26	<2	22	2	<5	(3	65
8/L 3755	0.2	4.75	<3	37	(3	0.07	2.5	10	25	16	4.85	0.10	0.15	1172	25	0.09	11	0.07	2	<2	22	4	<5	(3	162
B/L 400S	0.1	0.96	(3	53	<3	0.02	1.0	4	8	8	1.14	0.01	0.05	70	7	0.02	5	0.01	11	<2	7	6	<5	<3	35
8/L 425S	0.2	0.89	(3	54	(3	0.05	1.1	3	6	5	0.97	0.02	0.07	65	5	0.02	8	0.03	16	<2	6	8	<5	<3	29
B/L 450S	0.5	2.71	<3	54	(3	0.07	0.9	5	18	11	3,21	0.05	0.18	229	17	0.03	11	0.06	3	<2	13	6	<5	<3	57
0/L 475S	0.1	2.53	<3	25	<3	0.04	1.8	6	18	12	4,54	0.07	0,10	377	19	0.06	8	0.06	16	<2	17	3	< 5	(3	74
B/L 500S	0.3	2.49	<3	j12	<3	0.10	1.6	8	19	16	4, 92	0.08	0,15	424	18	0.06	17	0,06	17	<2	16	11	<5	<3	93
B/L 5255	0.1	2.42	213	116	<3	0.08	1.4	10	17	22	3.43	0.06	Q.29	3161	17	0.05	13	0.18	12	<2	13	9	<5	<3	175
B/L 550\$	0.1	3.83	36	37	<3	0.06	1.3	1	20	14	3.91	0.08	0.15	1585	23	0.07	15	0.06	26	<2	17	4	- <5	(3	171
B/L 5755	<0.1	i.35	258	56	<3	0.05	1.1	13	18	19	4.66	0.07	0,13	10379	25	0.05	12	0.06	82	<2	12	4	- <5	<3	191
B/L 600S	<0.1	2.61	951	155	<3	0.17	<0.1	11	15	24	3,93	0.09	0.23	6129	36	0.07	16	0.08	12	<2	13	16	(5	<3	211
8/L 625S	0.3	3.88	(3	31	(3	0.04	2.1	5	23	11	5,40	0.09	0.0 5	356	25	0.07	13	0.05	12	<2	22	3	(5	(3	71
B/L 6505	0.4	6.10	<3	64	(3	0.05	1.3	7	23	13	5.12	0.11	0.10	1460	31	0.10	13	0.05	<2	(2	25	2	<5	(3	196
B/L 6755	0.2	2.07	1090	622	(3	0.77	(0.1	9	12	25	4.20	0.17	0.11	>20000	32	0.07	20	0.18	51	<2	12	- 44	6	(3	467
B/L 7005	- 0.2	5.51	<3	32	<3	0.05	1.6	5	23	12	4.29	0.08	0.07	748	27	0.07	16	0.05	<2	<2	23	2	<5	<3	96
B/L 750S	0.4	2.83	<3	32	<3	0.04	2.2	8	21	13	6.23	0.09	0.10	257	19	0.07	15	0.04	19	<2	20	4	<5	<3	70
B/L 7755	0.5	2.44	<3	22	<3	0.04	2.6	B	20	13	6.68	0.10	0.07	324	22	0.08	12	0.03	35	(2	20	3	<5	(3	93
B/L 8005	0.3	3.72	447	60	(3	0.07	0.8	10	25	25	5,17	0.12	0.28	3544	22	0.09	23	0.11	19	(2	19	5	<5	(3	265
B/L 8255	0.3	2.26	<3	54	<3	0.16	2.3	14	20	26	3, 94	0.09	Q.49	1133	11	0.05	27	0.06	15	(2	- 11	- 14	(5	(3	137
B/L 850S	0.5	3.87	<3	36	(3	0.06	1.5	9	23	23	4,80	0.10	0.22	1184	22	0.08	21	0.08	12	<2	19	5	<5	<3	145
B/L 875S	1.1	4.02	<3	22	<3	0.03	2.5	6	25	10	4.53	0.07	0,07	255	22	0.06	16	0.05	8	<2	23	3	(5	<3	63
B/L 900S	0.4	5.33	(3	13	(3	0.06	2.7	7	28	18	7.19	0.14	0.10	453	29	0.11	16	0.09	7	<2	25	2	<5	<3	104
B/L 9255	1.3	2.62	55	S 5	(3	0.05	2.9	9	21	16	4.67	0.07	0.15	1411	21	0.05	16	0.13	10	<2	16	5	<5	<3	118
8/L 950S	0.7	2.26	150	26	<3	0.05	1.3	10	24	19	5.26	0.09	0.20	1007	27	0.07	20	0.07	28	<2	17	5	₹5	(3	68
B/L 9755	0.4	5.23	<3	29	<3	0.03	1.7	8	29	15	4,28	0.09	0.09	1156	32	0.07	38	0.05	<2	<2	23	2	<5	<3	119
Minisum Detection Maximum Detection	0.1 50.0	0.01	3 2000	1 1000	3 1000	0.01	0.1 1000.0	1 20000	1 1000	1 20000	0.01	0.01	0.01 10.00	1 20000	i 1000	0.01 10.00	1 20000	0.01 10.00	2 20000	2 2000	2 1000	1 10000	5 100	3 1000	1 20000
s - Less Inan Rinleue	7 - areater l	inan Rexi	eá E	15 - 185	urneten	e prebje	115	- но завр	16	ANUTALUU	S KCSUL1	a - rurth	ier Anai	yses by i	NICELUAC(2 12100	is anddeer	20+							

VANGEOCHEM LAT LIMITED

ł

1630 Pandora Street, Vancouver, B.C. V5L 1L6 Phi (604) 251-5656 Faxi (604) 254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO, to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and N.

																			· 11 · 11 · 112					
REPORT #: 900508 PA	PANICON DEL	IELOPMENT	S LTD.			PROJE	CT: THUM	PER		DATE	IN: SEF	PT 17 19	90 DA	TE OUT: (DCT 17 19	90	ATTENTIO	I: KR. SI	ieve toro	ruk		PAG	E 2.0F	2
Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K.	Ħg	Kn	No	Na	Ni	P	Pb	Sb	Sa	Sr	IJ	W
	pp e	1	ppa	ppe	ppe	X.	ope	<u>ope</u>	ppe	¢ 9e	z	Z	1	pps	ppa	1	pps	1	ppe	Ppe	ppm	ppe	ppe	ppm
B/L 1000S	(0.1	2,90	125	84	(3	0.08	0.8	12	46	25	3.83	0.08	0.40	6953	48	0.06	146	0.07	14	<2	12	5	<5	<3
B/L 1025S	<0.1	3.75	<3	18	<3	0.05	0.2	8	25	16	4.80	0.09	0,12	1332	22	0.08	5	0.05	4	<2	19	3	<5	<3
B/L 10505	<0.i	4.90	<3	15	(3	0.05	0.5	7	25.	18	5.58	0.11	0.08	676	28	0.09	1	0.05	(2	(2	23	2	<5	<3
B/L 10755	<0.1	6.47	222	47	<3	0.05	(0.1	8	26	16	4,90	0.13	0.10	1568	29	0.09	2	0.07	<2	<2	23	2	(5	<3
B/L 11005	(0.1	2.09	875	84	(3	0.04	(0.1	14	9	25	3.48	0.07	0.62	1193	11	0.06	4	0.03	5	<2	7	3	۲5	<3
B/L 11255	<0.1	6.15	(3	33	<3	0.04	1.0	5	27	15	4.74	0.10	0.09	1122	30	0.08	3	0.05	<2	<2	24	2	۲5	<3
B/L 1150S	0.1	4.75	(3	35	<3	0.05	<0.1	8	22	17	5.37	0.11	0.12	1231	26	0.11	8	0.06	(2	<2	20	3	(5	<3
B/L 11755	<0.1	5,32	<3	70	<3	0.03	<0.1	5	23	19	4.81	0.09	0,07	885	27	0.07	3	0.04	(2	<2	22	3	<5	(3
B/L 12005	(0.1	4.24	<3	25	(3	0.03	1.1	9	22	20	4,90	0.10	0.21	330	27	0.08	3	0.06	5	<2	19	4	<5	(3
B/L 12255	(0.1	2.95	64	80	<3	0.04	(0.1	18	13	25	3.28	0.07	0.95	718	14	0.06	8	0.06	(2	{2	12	7	<5	<3
B/L 12505	<0.1	6.34	<3	18	(3	0.02	0.7	6	28	16	6.46	0.12	0.06	422	31	0.09	1	0.03	<2	<2	26	a	<5	<3
B/L 12755	(0.1	2.81	(3	134	(3	0.05	0.3	12	13	22	3.96	0.08	0.48	1715	14	0.05	9	0.08	6	<2	12	5	(5	{3
8/L 1300S	(0.1	3.16	(3	90	(3	(0.01	(0.1	9	10	22	3.43	0.06	0.54	1050	10	0.04	9	0.06	(2	(2	10	3	<5	(3
B/L 1325S	(0.1	2.64	(3	119	(3	0.04	(0.1	19	13	33	4.02	0.08	0.40	2044	14	0.07	7	0.11	16	(2	12	6	(5	(3
B/L 13505	(0.1	5.01	(3	28	(3	0.04	(0.1	8	24	21	4.62	0.10	0.15	432	27	0.09	6	0.07	3	<2	23	5	<5	<3
B/L 1375S	(0. 1	4.68	(3	14	<3	0.01	0.5	7	24	17	6.07	0.11	0,08	1069	27	0.09	9	0.04	7	(2	22	1	<5	(3
B/L 14005	0.1	1.94	39	183	(3	0.05	(0.1	17	9	31	4.25	0.08	0.42	2051	10	0.06	1	0.08	17	(2	7	5	<5	(3
Ninioun Detection	0.1	0.01	3	1	3	0.01	0.1	i	ſ	í	0.01	0.01	10.0	r	,	0.01	1	0.01	,	2	2	1	5	3
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000
C - Less Than Minisus	> - Greater T	han Haxie	ille	is - ins	ufficien	t Sample		- No Samp	le	ANOHALDU	S RESULT	5 - Furt	her Anal	yses By	Alternati	e Nethod	s Sugges	ted.			,			

2n ppa

Kuth

ANAL VET.

VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

GEOCHEMICAL ANALYTICAL REPORT ______

CLIENT: PAMICON DEVELOPMENTS LTD. ADDRESS: 711 - 675 W. Hastings St. : Vancouver, BC **REPORT#: 900539 GA** : V6B 1N4

PROJECT#: THUMPER SAMPLES ARRIVED: SEPT 20 1990 REPORT COMPLETED: OCT 01 1990 ANALYSED FOR: Au ICP

JOB#: 900539

DATE: OCT 01 1990

INVOICE#: 900539 NA TOTAL SAMPLES: 56 SAMPLE TYPE: 56 SOIL **REJECTS: DISCARDED**

SAMPLES FROM: BRONSON CAMP COPY SENT TO: PAMICON DEVELOPMENTS LTD.



PREPARED FOR: MR. STEVE TODORUK

ANALYSED BY: VGC Staff

My 1L SIGNED:

GENERAL REMARK: RESULTS FAXED TO MR. DONALD PENNER & BRONSON CAMP.

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

PAGE 1 OF 2

RBPORT NUNBER: 9	00539 GA JOB	NUNBER: 900539	PANICON DEV	ELOPHETTS LTD.
SAMPLE #	¥0			
`	ppb			
LO+75B 275N	15			
LO+75B 300N	nd			
LO+758 325N	10			
LO+75E 350N	15			
LO+758 375N	25			
L0+758 400N	nd			
LO+75B 425N	10			
L0+75B 450N	15			
L0+758 475N	5			
L0+75B 500N	15			
L0+75B 525N	10			
LO+75B 550N	15			
LO+75E 575N	15			
L0+75B 600N	10			
L0+75B 625N	5			
L0+75E 650N	5			
LO+75B 675N	. 5			
LO+75E 700N	nđ			
LO+75B 725N	ba			
L0+758 750N	20			
L0+758 775N	5			
L0+75E 800N	ba			
LO+75B 825N	5			
L0+75E 850N	nd			
L0+758 875N	5 ر			
<u> </u>)N			
LU+75K 925B	RO			
LUTION JOUN	DO.			
LU+/58 9/58	BO 16			
LUTION LUUUN	C1 6-			
C04138 10738	na			
LO+75B 1050N	nd			
LO+75B 1075N	ba			
LO+758 1100N	ba			
L0+75B 1125W	20			
L0+75E 1150N	5			
L0+75B 1175H	5			
LO+75E 1200N	ba			
L0+75B 1225N	20			
LO+75B 1250N	5			
DETECTION LINIT	5			
nd = none detect	ed = not a	inalysed is	= insufficient sam	ple

...**.**

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

.

RBPORT	NUMBER :	900539	GA	JOB	NUNBER:	900539	PANIC
SAMPLE	ŧ			Au			
				ppb			
L0+75B	12758			nd			
. LO+75B	1300N			nd			
LO+7SE	1325N			nð			
L2+00B	0005			nd			
L2+00B	0255			5			
L2+00B	0508			15			
L2+00B	075s			nd			
L2+00B	100s			20			
L2+00B	1258			5			
L2+00B	150s			20			
L2+00B	1758			10			
L2+00B	2005			nd			
L2+00E	2258			10			
L2+00E	250S			5			
L2+00E	2755			nd			
L2+00E	3008			nđ			
L2+00B	3258			ba			

PAGE 2 OF 2

1/1

ANALYST:

÷

1

1630 Pandora Street, Vancouver, J.C. V5L 1L6 Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .S gram sample is digested with 5 ml of 3:1:2 HCl to HNO₅ to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

REPORT #: 900539 PA	PANICON DE	VELOPHENT	IS LTD.			PROJEC	T: THUM	PER		DATE	IN: SEP	T 20 199	O DAT	TE OUT: O	ICT 19 19	190	ATTENTION:	MR. ST	EVE TODOR	UK	- 41	A PAGE	1 OF	2	-
Sample Name	Ag	Al T	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	fe	K	Kg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn .	/ Sr	U	W	In
1 0+75F 275N	µγ 0 2	2 79	/2	72	44 2	0.05	1.0	e du	14	μμ≇ 12	4 99	A 07	A 20	ици Сбета	pp. 14	A 05	ppm	A A7	ppa /2	pp n	ppa 42	ççe 🛛	ppu /S	ppa /o	ppa so
104755 2000	0.5	2 02	651	276	/2	0.00	70.1	,,	14	10	7.20	0.07	0.30	1943	14	0.03	,	0.07	< <u>2</u>	12	13	8	(3	(3	32
10+75C 225N	0.5	2.02	22	3/0	/2	0.05	70.1	11	14	13	2.10	0.10	V. 42	1999	10	9.06	,	0.10	13	(2		183	()	(3	118
1 AL75C 35AN	v	2122	37	74	13	0.00	\U.1	11	11	27	3.42	V. VJ	1.02	3133		0.04	С	0.1/	(2	~~~~	.,	1	()	(3	49
LUTTOE BJUN	V.4 A A	2.03	37	201	(3	V. 22	0.0	11		20	3.37	0.03	1.07	648	12	0.05	12	0.05	(2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	11	42	(3	(3	111
L07/0E 3/0M	V. Z	2.80	13	269	13	V. 3V	1.7	20	15	25	·b. 42	0.12	0.90	15/6	9	0.09	8	0.0/	9	(2	16	23	{ 5	(3	112
L0+75E 400N	0.2	2.84	<3	88	(3	0.10	0.7	11	12	14	3.56	0.08	0.65	246	10	0.06	10	0.05	<2	(2	10	10	(5	<3	88
LU+/3E 423W	(0.1	3.36	G	92	(3	0.14	0.7	13	13	24	2.86	0.08	1,33	265	15	0.06	12	0.06	(2	(2	15	12	<5	(3	123
L0+75E 450N	(0.1	3.55	45	56	<3	0.05	1.0	23	- 14	31	4.12	0.08	2.28	2999	19	0.05	10	0.09	15	<2	- 14	6	(5	(3	123
L0+75E 475N	(0.1	2.70	44	50	<3	0.88	{0.1	4	10	16	3.09	0.13	0,34	732	9	0.04	5	0.05	<2	<2	12	24	<5	<3	94
L0+75E 500N	<0.1	2,49	<3	13	{3	0.04	0.6	6	15	18	6.64	0.10	0.12	696	16	0.10	8	0.02	28	(2	22	2	(5	{3	121
L0+75E 525N	<0.1	3.52	<3	78	<3	0.09	0.7	9	14	39	4.94	0.10	0.31	1854	12	0.10	10	0.04	<2	<2	14	9	(5	<3	194
L0+75E 550N	0.2	3.59	<3	32	(3	0.05	(0.1	6	19	25	4.02	0.07	0.20	266	13	0.07	8	0.14	3	<2	20	6	<5	<3	114
L0+/SE 5/SM	9.1	4.35	(3	16	(3	0.03	Q.1	4	16	16	5.01	0.10	0.06	639	19	0.09	6	0.05	11	<2	26	2	<5	<3	78
L0+75E 600W	<0.1	4.79	(3	40	(3	0.05	(0.1	9	16	19	4.99	0.09	0.26	2265	16	0.09	8	0.07	<2	(2	20	4	<5	<3	178
L0+75E 625N	{0.1	4.92	<3	58	{3	0.06	<0.1	6	15	20	3.83	0.07	0.19	903	14	0.07	7	0.07	<2	<2	20	6	<5	<3	106
1 0+75E 650N	(0.1	4.65	(3	45	(3	0.06	0.3	8	18	24	4.59	0.09	0 22	589	16	0.09	10	6.08	(7	0	21	7	(5	(3	132
10+75E 675N	0.2	7.00	3	26	(3	0.03	(0.1	ů.	15	17	5.45	0 10	0.09	743	23	B 10	۲. ۲	0.04	(7	(7	26	2	(5	(3	139
L0+75E 700N	(0,1	4.50	(3	26	(3)	0.03	0.6	Å	14	18	4. B1	0.07	0.20	1700	17	0.09	q	0.08	0	ö	23	3	(5	(3	98
L0+75E 725N	(0.1	2.06	1374	170	(3	0.24	(0.1	10	11	15	5 61	6 69	0 10	14159	24	0.07	7	0.07	59	12	11	۰.	/5	(3	596
L0+75E 750N	(0.1	5.23	806	141	(3	0.02	(0.1	18	13	19	4.16	0.07	0.23	4261	45	0.06	8	0.04	18	(2	12	4	(5	(3	218
L0+75E 775N	. 0.2	2,99	(3	37	(3	0.03	{0,1	3	13	15	4.92	0.06	0,16	252	14	0.05	10	0.07	14	(2	20	5	(5	<3	71
L0+75E 800K	0.2	4.13	G	98	(3	0.05	(0.1	4	11	12	3.42	0.06	0.13	597	13	0.07	6	0.04	0	(2	19	4	(5	(3	79
L0+75E 825M	0.1	2.14	22	315	(3	0.23	(0.1	9	6	14	2.83	0.06	0.47	1466	7	0.04	11	0.06	(2	<2	6	11	<5	(3	76
L0+75E 850N	0.3	4,99	(3	47	(3	0.03	(0.1	8	14	25	3.93	0.07	0.20	1246	16	0.08	10	0.07	(2	(2	20	4	<5	(3	158
L0+75E 875W	0.2	3.45	<3	69	<3	0.03	(0.1	8	11	17	2.83	0.05	0.30	1260	12	0.05	5	0.10	<2	<2	16	6	(5	<3	89
1.0+75E 9258	0.6	4.30	(3	30	(3	0 02	A R	7	19	26	8 36	0 12	0.14	212	22	0 10	6	0.03	21	0	31	3	(5	(3	63
1 04755 9508	0.5	5 40	/2	22	/2	0 01	78.1	ż	15	20	6.50	A 1A	A 11	275	22	A 10	2	A A2	12	12	27	2	(5	(3	111
10+755 9758	0.3	0.76	4	56	(3	(0.01	(0.1	t	13	15	0.57	70 01	0.05	3/3	1	20.01	. 6	0.03	16	17	27 R	4	(5	(3	24
L0+75E 1000W	0.2	3.35	(1	28	(3	A 61	0.2	2	14	14	6 50	0.01	0.07	292	17	0.09	2	0.04	24	12	27	2	(5	(3	70
L0+75E 1025N	0.2	3.62	(3	70	(3	0.05	(0.1	9	14	27	3,06	0.05	0.33	575	11	0.07	11	0.08	<2	<2	18	8	(5	(3	104
																	_								
L0+/5E 1050W	0,1	3.53	(3	13	(3	(0.0)	(0.1	3	15	15	7.16	0.09	0.07	197	17	0.10	5	0.04	13	(2	26	a	(5	(3	60
L0+/SE 10/SK	(0.1	3.26	(3	56	(3	0.08	<0.1	9	15	28	3.04	0.05	0.36	306	10	0.06	9	0.09	(2	<2	21	12	(5	(3	63
L0+75E 1100M	(0,1	1.9/	(3	30	(3	0.05	0.6	8	13	24	6.82	0.09	0.27	540	12	0.07	14	0.04	23	< <u>C2</u>	21	B	0	3	80
L0+75E 1125N	(0.1	3.10	(3	49	(3	0.10	(0.1	lo	16	28	2.75	0.06	0.39	336	9	Q.Q5	13	0.09	< <u>2</u>	(2	18	12	G	(3	69
L0+75E 1150N	(0.]	2.60	<3	15	(3	<0.01	(0.1	3	14	15	3.44	0.04	0.05	47	10	0.05	5	0.04	8	<2	27	3	(5	<3	33
L0+75E 1175N	<0.1	2.49	(3	68	(3	0.10	(0.1	11	10	33	3.36	0.05	0.46	989	9	0.06	12	0.07	8	(2	13	13	<5	(3	108
L0+75E 1200N	(0.1	2.81	(3	62	(3	0.20	(0.1	13	11	31	3.54	0.08	0.56	657	9	0.07	13	0.07	19	<2	16	21	<5	<3	89
L0+75E 1225N	<0.1	2.32	(3	84	(3	0.1B	0.9	16	9	45	4.10	0.08	0.59	1641	8	0.06	12	0.07	10	<2	12	20	<5	(3	119
L0+75E 1250N	<0.1	2.62	(3	57	<3	0.11	(0.1	9	11	29	2.71	0.05	0.46	302	8	0.05	15	0.07	<2	<2	13	15	<5	<3	90
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	l	1	0.01	1	0.01	2	2	2	1	5	3	1
Naximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	19900	100	1900	20000
< - Less Than Miniaum	> - Greater 1	ihan Naxis	5US	is - Ins	officien	t Sample	ns	- No Samp	le	ANONALOUS	i results	5 - Furth	ier Anal	yses By i	Alternati	e Helho	ds Suggesti	ed.							

PTERFECTION CANADA

VANGEOCHEM LA LIMUTEL

ţ

J

1

1630 Pandora Street, Vancouver, B.C. V5L 1L6 Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNDg to HgO at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: Mynth

REPORT #: 900539 PA	PANICON DEV	ELOPHENT	S LTD.			PROJE	CT: THUM	PER		DATE	(N: SEP	T 20 199	0 0 41	TE OUT: O	CT 22 19	190 1	ATTENTION	ie MR. St	EVE TODO	ruk		PA68	2 OF	2	
Sample Name	Ag	A)	As	Đa	Bi	Ca	Cđ	Co	Cr	Cu	Fe	K	Kg	Mn	Mə	Na	Ni	P	Pb	Sb	รก	Sr	U	W	2n
	pg a	z	<u>ppe</u>	ppe	ppm	ĩ	ppe	ppe	000	ppe	7.	ĩ	ĩ	ppe	0De	X	<u>ppe</u>	ĩ	99 6	ppe	9 95	99 6	ope	ppa	ppe
L0+75E 1275N	0.4	3.54	(3	70	(3	0.21	(0.1	11	14	24	3.89	0.10	0,34	918	12	0.07	8	0.05	<2	<2	20	20	<5	(3	130
10+75E 1300N	0.3	3.62	(3	27	<3	0.07	(0.1	7	15	15	4.44	0.08	0.15	334	14	0.07	(1	0.05	(2	<2	37	5	<5	<3	74
L0+75E 1325N	0.3	6.70	(3	105	(3	2.07	(0.1	10	12	38	3.30	0.23	0.52	847	9	0.07	(1	0.07	<2	<2	3	228	<5	<3	103
L2+00E 000S	0.7	2.11	3	27	(3	0.09	(0.1	5	8	12	1.67	0.02	0.19	139	9	0.04	(1	0.08	(2	(2	45	13	{5	(3	47
12+005 0255	0.7	2 77	(3	R1	(3	0 12	(0.1	12	13	27	4 03	0.09	0.41	1258	ģ	0.07	ä	0.10	0	$\tilde{\alpha}$	9	13	(5	(3	114
E2:00E 0200	, V.L	5.17				V.12		**		• '	1.00	V. VJ		1104	,		••	****			•				
124005 0509	0.1	2 51	12	99	(2	ń 7ń	70.1	29	13	25	4 89	0.17	1 47	2003	8	0.07	(1	0.06	(2	(2	49	34	(5	(3	112
12+000 0303	0.2	2 79	(3	67	(3	0.14	(0.1	11	14	22	2 82	0.06	0.37	2000	Ř	0.06		0.05	12	ö	43	16	(5	(3	99
	v.2	3,23	/3	110	/2	A 60	/6.1	10	11	20	2 04	0.00	0.37	1600		0.00	/1	0.05	12	12	9	10	(5	(3	128
12400E 1003	V.3	3.00	(3	100	13	0.00	VII 70.1	10	10	20	0,04	0.00	0.40	000	5	0.05	21	0.00	/2	12	10	20	/5	(2	98
L2400E 1205	0,1	2.83	(3	105	13	V. 15	(0.1	11	10	23	3.22	0.05	0.47	835	0 c	0.00	1	0.07	12	/2	12	14	/5	/2	70
L2+00E 1505	0.1	2.32	(3	33	(3	0.11	(0.1	12	10	20	3.40	0.05	V.9/	1004	J	0.03	(1	0.04	12	12	12	14	13		
10.005 1750			/5		(2			10	10		A AA	0 0E	4 97	945	7	A A7		0.00	12	12	24	14	/5	12	71
L2+00E 1735	0.2	3,13	(3	57	(3	0.05	(0.1	10	10	23	3.08	0.05	0.37	300		0.05		0.00	12	12	21	0	/5	20	70
L2+00E 2005	0.3	4.02	(3	50	3	(0.01	(0.1	8	10	23	3.24	0.05	0.26	287	Ä	0.05	<u> (</u>	0.07	(2	12	10	10	13	/3	00
L2+00E 2255	0.2	2.57	(3	92	<3	0.10	(0.1	13	11	30	3.04	0.06	0.51	529	5	0.05		0.07	(2	12	13	15	(3	(3)	70
L2+00E 250S	0.1	2.91	<3	454	(3	0.24	(0.1	19	11	29	3.00	0.08	0.88	789	5	0.06	(1	0.08	<2	(2	3/	34	(3	(3	60 60
L2+00E 275S	0.3	3.05	<3	43	<3	<0.01	<0.1	7	7	16	1.92	0.02	0.25	208	6	0.04	(1	0.07	<2	(2	43	6	< 3	3	20
1 24005 2005		3 71	12	64	13	74 41	10.1	•	0	21	م ر د	0.07	0.25	625	10	A 11	4	0.05	12	0	23	5	(5	G	178
121405 2250	0.2	3.71	(3)	07 21	10	10.01	(0.1	7	0	11	3.70	0.07	0.20	262	10	0.00		0.00	12		52	, i	(5		53
L2700E 3235	0.2	2.49	(3	21	(3	(0.01	(0.1	,	4	11	J. JI	0.03	0.03	363	,	V.VD	~ ~ ~	V.V4	12	12	23	~ ~ ~		(5	55
Ninimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10,00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000
< - Less Than Minimum	> - Greater T	han Maxie	14	is - Insu	fficien	t Sample	ns	- No Samp	le i	ANOMALOU	S RESULTS	5 - Furt	ner Anal	yses By /	Alternat	e Kethod	s Sugges	ted.							

01 I.S

.....

APPENDIX VI

.

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, STEVE L. TODORUK, of 5700 Surf Circle, Sechelt, in the Province of British Columbia, DO HEREBY CERTIFY:

- 1. THAT I am a Geologist in the employment of Pamicon Developments Limited, with offices at Suite 711, 675 West Hastings Street, Vancouver, British Columbia.
- 2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology.
- 3. THAT my primary employment since 1979 has been in the field of mineral exploration.
- 4. THAT my experience has encompassed a wide range of geologic environments and has allowed considerable familiarization with prospecting, geophysical, geochemical and exploration drilling techniques.
- 5. THAT this report is based on data generated by myself, under the direction of Charles K. Ikona, Professional Engineer.
- 6. THAT I have no interest in the property reported on herein or in the securities of Thumper Resources Corp. nor do I expect to receive such interest.
- 7. THAT I consent to the use by Thumper Resources Corp. of this report in a Prospectus or Statement of Material Facts or any other such document as may be required by the Vancouver Stock Exchange or the Office of the Superintendent of Brokers.

DATED at Vancouver, B.C., this 20th day of Murch , 1991.

Steve L. Todoruk, Geologist

- Pamicon Developments Ltd. -

APPENDIX VII

ENGINEER'S CERTIFICATE

. - .

ENGINEER'S CERTIFICATE

I, CHARLES K. IKONA, of 5 Cowley Court, Port Moody, in the Province of British Columbia, DO HEREBY CERTIFY:

- THAT I am a Consulting Mining Engineer with offices at Suite 711, 675 West Hastings Street, Vancouver, British Columbia.
- 2. THAT I am a graduate of the University of British Columbia with a degree in Mining Engineering.
- 3. THAT I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- THAT this report is based on work conducted under my direction in 1990 and on extensive knowledge of the immediate area.
- 5. THAT I have no direct or indirect interest in the property described herein or the securities of the Company nor do I expect to receive any such interest.
- 6. THAT I consent to the use by Thumper Resources Corp. of this report in a Prospectus or Statement of Material Facts or any other such document as may be required by the Vancouver Stock Exchange or the Office of the Superintendent of Brokers.

DATED at Vancouver, B.C., this 20 that day of march	, 1991.
POSSION OVINC	
MAN CHARLES MANNES	
Charles K Ikona P Eng	
Undrites K. IKuna, F.Eng.	

.

- Pamicon Developments Ltd. ---









